S. HRG. 105–429

DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1998

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

UNITED STATES SENATE

ONE HUNDRED FIFTH CONGRESS

FIRST SESSION

ON

H.R. 2169/S. 1048

AN ACT MAKING APPROPRIATIONS FOR THE DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 1998, AND FOR OTHER PURPOSES

Department of Transportation
General Accounting Office
National Railroad Passenger Corporation (Amtrak)
National Transportation Safety Board
Nondepartmental witnesses
Office of Management and Budget
Railroad Retirement Board
Surface Transportation Board

Printed for the use of the Committee on Appropriations

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DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1998

THURSDAY, MARCH 6, 1997

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:02 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Richard C. Shelby (chairman) presiding.

Present: Senators Shelby, Domenici, Specter, Bond, Bennett, Faircloth, Stevens, Lautenberg, Byrd, Mikulski, and Murray.

DEPARTMENT OF TRANSPORTATION

STATEMENT OF HON. RODNEY SLATER, SECRETARY

ACCOMPANIED BY LOUISE FRANKEL STOLL, ASSISTANT SECRETARY FOR BUDGET AND PROGRAMS/CHIEF FINANCIAL OFFICER

OPENING REMARKS

Senator SHELBY. The subcommittee will come to order.

Mr. Secretary, we appreciate your joining us today.

Secretary SLATER. Thank you, sir.

Senator SHELBY. We will get into some of the specifics of the President's budget request in a few minutes, Mr. Secretary, but I am going to be looking to you to help me better understand the criteria by which the administration evaluates the cost effectiveness of some of your programs.

In the current budget environment, it is critical that we do all we can to make sure that we focus our limited Federal resources on projects that create jobs, create opportunities, create economic activity, and improve mobility in this country. As we put this year's bill together, I have asked the staff to focus on some of the large-dollar highway, transit, and aviation projects to make sure that we are being wise stewards of our limited transportation dollars.

In turn, I am committed to doing what I can to bring more private money to building transportation infrastructure by utilizing innovative financing and establishing a business-friendly environment. I will also try to identify any money we are currently spending on potentially unnecessary transportation studies into spending on real projects that bring value to real people.

Increasingly, this subcommittee performs a balancing act, juggling resources among a host of worthwhile priorities competing for the same Federal dollar. There are no easy choices. Pressure to

fund new initiatives and to maintain and expand current discretionary programs continues, while there are fewer options and less consensus on where offsetting cuts should be taken.

In turn, I am dedicated to continuing the search for more efficient, less costly ways to deliver essential transportation services, to consolidate and to reform programs to increase flexibility over the use of limited Federal dollars, to question the merit of Federal expenditures, and to shift funds from lower to higher priority activities. However, I believe, Mr. Secretary, we must recognize that if the total amount available for transportation appropriations is frozen, we must weigh the future consequences of continuing to defer needed capital investments.

I probably bring a little different perspective to this subcommittee than some of the past two chairmen, who are friends of mine. Like every State in the Union, my home State of Alabama has substantial transportation needs, but our needs are primarily to improve and expand our highway system. I am very sensitive to the varied transportation needs of the States represented by other members of the subcommittee, the Appropriations Committee, and the Senate, and I commit to them and to you, Mr. Secretary, that I will do everything possible to help them find the tools and the flexibility to address their individual State's transportation needs. I strongly believe that all solutions involve a reexamination of the Federal commitment to investing in transportation infrastructure and a renewed commitment to ensuring that all States and regions receive adequate consideration of their transportation needs.

Finally, Mr. Secretary, I want to reiterate my commitment to preserving and promoting transportation safety. I want to work with you to create a better understanding of how safety cuts across modal lines. While we need to strive for continued improvements in transportation safety, we must be mindful that the cost of safety improvements in one mode of transportation may influence transportation choices by the traveling public.

I look forward to our discussion today and to working with you on the many challenges facing our transportation system.

Senator Lautenberg.

STATEMENT OF SENATOR LAUTENBERG

Senator LAUTENBERG. Thanks very much, Mr. Chairman. Let me first congratulate you on being named chairman of the Transportation Subcommittee. I can speak with authority it is a very good job. You will find it fulfilling. You can make a difference, and I am glad that we both have significant transportation interests and hopefully we will be able to satisfy our mutual interests with the appropriate amounts of funding and interest on our part.

Never in the 14 years that I have been in the Senate—and I have served on this subcommittee for a long time. I am thankful to Senator Byrd, our distinguished ranking member and past chairman, for encouraging my appointment to the Subcommittee on Transportation.

Never, though, have we had so many historic decisions related to transportation in the same year that we were charting the course and will continue to chart the course of our national transportation policy.

In the coming year, we are going to be debating proposals to convert the entire Federal aviation system to a user-based fee. It will, however, not be enough to simply enact financial reform for the FAA. We will need to monitor its progress to ensure that taxpayers and the flying public actually enjoy the benefits of true reform.

While we have already granted the FAA far-reaching personnel reform, we continue to see unacceptable delays in getting an adequate number of fully trained staff into some of the busiest air traffic control facilities in the country.

While we have granted the FAA far-reaching procurement reforms, we still see difficulties and delays in getting state-of-the-art traffic control equipment deployed to the field. Just 1 week ago this day, we saw an equipment failure at Newark Airport, one of the busiest airports in the world, which caused the radar screens in the air traffic control tower to go blank. Thankfully, all systems were fully operational within 9 minutes and no passengers were put at risk and there were hardly any departure or landing delays.

But I, like all Senators, find such incidents to be intolerable. We cannot and should not wait 1 day more than is necessary to replace aging equipment with modern and fully reliable systems. We have added hundreds of millions of dollars to the FAA's budget to address critical deficiencies in the areas of safety and security. Yet, we continue to see holes in the safety net that require immediate attention.

This subcommittee can easily spend all of its energies this year on ensuring that our aviation system remains the safest in the world, but we are simultaneously charged with focusing on the reauthorization of the Intermodal Surface Transportation Efficiency Act—ISTEA as it used to be called in the old days—and I understand we might even have a new name.

As we approach reauthorization of ISTEA, we will continue to advance the balance of the agenda, balance of flexibility that was the centerpiece of that landmark legislation. Or will we retrench to our previous one-dimensional policy that would exacerbate rather than mitigate congestion?

Will we face the fact that Amtrak is a critical part of our national transportation network, or will we deprive the railroad of the kind of capital that is necessary to improve its performance to the level of a high-speed railroad that this country so rightly deserves?

And what about the safety agenda? After years of steady improvement, we are now seeing a tragic increase in fatalities that are associated with drunk driving. As a result of Congress' ill-advised repeal of the national maximum speed limit, we are now seeing increased carnage on our highways, especially increasing fatalities resulting from high-speed crashes. Will we use ISTEA II to insist on improvements in the safety of our highways and railroads, or will we continue to simply deregulate, abdicating our Federal leadership on safety?

If these challenges were not enough, the President's budget asks us to address still other challenges: improving the ability to move welfare recipients to work and increasing the Coast Guard efforts to keep drugs off our shores. And the President's budget asks us to address all these challenges within a very tight funding enve-

lope, a budget that is consistent with the goal of balancing the budget but leaves no room for redundancy or waste.

While we may wish that we had the opportunity to address each of these challenges 1 year at a time, we are required to address them all and address them now. There will be no hiatus for the new chairman of the subcommittee, just as there will be no hiatus for our new Secretary of Transportation.

Now, fortunately, we have in Secretary Slater a proven executive with years of experience at DOT. This, Mr. Secretary, is your first appearance before the subcommittee in your capacity as Secretary, but hardly your first appearance before those of us at the table.

The ease with which Mr. Slater was confirmed by the Senate serves as testimony to his performance as our Federal Highway Administrator, as well as the confidence that we place in him in his new role. And I want to welcome you this morning, Mr. Secretary. I look forward to your presentation of the administration's budget.

And I thank you, Mr. Chairman.

Senator SHELBY. Senator Bennett.

STATEMENT OF SENATOR BENNETT

Senator BENNETT. Thank you, Mr. Chairman.

Mr. Secretary, first let me apologize to you for having been out of town during the final vote on your confirmation and make the record clear that had I been able to be there, I would have cast a very enthusiastic aye in favor of your confirmation. I am delighted with the President's decision that you are the man for this position.

If I may be allowed a personal reaction to your testimony, which I have glanced through, I am delighted that you are quoting my old boss, John Volpe. I entered the Nixon administration in 1969 as the chief lobbyist for the Department of Transportation. We do not call them that. We call them congressional relations and congressional affairs and that kind of thing, but I have always liked to call a spade a spade. I was in charge of the lobbying effort of a very new, fragmented cabinet level department that was less than 2 years old.

If I may say so, I have my fingerprints very, very lightly, to be sure, but I was involved in convincing the Congress to pass the Airport Airways Act creating the airport airways trust fund, the Urban Mass Transit Act laying down the legislative structure for that administration and, Senator Lautenberg, Amtrak.

One of the last things I did before I left the administration to go to private practice was convince Mike Mansfield that if we did indeed run a train to Yellowstone Park through Montana, he would allow that bill to pass out of the Senate and become law. Some of the folks at Amtrak were not understanding how important it was that we got Mike Mansfield's support. They said, he is just another Senator. I was able to add my expertise, which was not very expert, to say that if you do not have Mike Mansfield with you, you are probably not going to get this piece of legislation.

They showed the same obtuseness toward Harley Staggers in West Virginia. They did not understand why the chairman of the House committee had to have a train running to the universities

in West Virginia in order to make sure that the whole system would pass congressional muster.

But I have a great affection for your Department, having served there and learned many things there, and welcome you to this position. If there is any position that I would personally lust after in an administration, it might be yours. I make it very clear I am not available, however, because I like the one I have a lot better. [Laughter.]

References have been made by the other Senators to their own States, and that is appropriate and fairly standard in these circumstances. I will not go on at length but simply point out that, which I am sure you already know and I know the people in the Department already know, in addition to all of the standard kinds of transportation challenges faced by the State of Utah, we are acting as host for the Olympic games in the year 2002. That puts an absolute deadline that cannot be stretched on our finishing some of our projects and it will not look good—which is a very mild understatement—to have the television cameras of the world focus on Utah in the winter of 2002 and have us say, well, the highway that would connect you to the venues where all of these events are going to take place was to be finished 6 months ago, but we have had a few delays and you will be able to get there by summer. Do not worry about it. The Olympic games do not give us the luxury of waiting on that, and I know you understand that and your people in your Department understand that.

I look forward to working with you in ways to see that Utah meets its deadlines. I am not asking for anything that is untoward. I am not saying that Utah should get any favoritism above and beyond other States just because of the Olympics, but I think all of us as a nation recognize that we have an obligation, having made a commitment that something will be done by *x* date, in this case to make sure that date is met. Or, to take out of context another phrase, the whole world will be watching, and I am sure none of us want that to happen.

So, I welcome you to the committee and to your assignment. My congratulations to you in your assignment. I look forward to the balance of your testimony.

Senator SHELBY. Senator Byrd.

STATEMENT OF SENATOR BYRD

Senator BYRD. Thank you, Mr. Chairman. First I congratulate you on the occasion of your first hearing as chairman of the Transportation Subcommittee. I am pleased to have a chairman of the subcommittee who is sympathetic for the need for highways in this country and who in this particular instance has some unfinished Appalachian corridors in his State.

I also look forward to continuing to work with our very capable former chairman, now the ranking member of the subcommittee, Mr. Lautenberg, on the many responsibilities that we face in this extremely important, in some ways, most important subcommittee. I say this because this subcommittee provides funding for the Nation's transportation infrastructure, its 953,000 miles of Federal-aid highways and its 296,000 bridges, together with the Nation's mass transit systems, Amtrak, and all the Nation's airports.

In addition, the subcommittee must address critical safety issues in all of these transportation modes, whether the issue is airbags, air traffic control, rail highway crossings, oilspills, or curtailing drunk driving.

I join the subcommittee in welcoming Secretary Slater. I congratulate you, Mr. Slater, on having been promoted to the position of Secretary of Transportation after serving the Nation very ably as the Federal Highway Administrator. I have had several occasions over the past 4 years to work closely with our new Secretary. He was a very forthcoming and capable Administrator, and I look forward to continuing my close cooperative relationship with him in this new capacity.

Mr. Chairman, never are we reminded more quickly of the importance of our highways than at times of disaster. Secretary Slater has just returned from Arkansas where he witnessed firsthand the devastation from the tornadoes that cut a deadly path across his home State.

My State is also suffering at the present time, for the umpteenth time, suffering from the effects of yet another spate of floods that have taken the property and not the spirit of so many families. I know that the members of this subcommittee join me in saying to the Secretary that we intend to move as rapidly as possible on any funding requests that the President puts forward to address the needs arising from this recent rash of disasters, the floods and heavy snows in the West and Midwest, the tornadoes and floods in the South, as well as the floods affecting the States of Ohio, West Virginia, Kentucky, and other States.

As Secretary Slater knows, I have grave concerns regarding our decades-long disinvestment in our Nation's infrastructure. Our national investment in our infrastructure as a percentage of our gross domestic product has been cut almost in half since 1980, from roughly 1.2 percent to 0.6 percent. This trend has taken a severe toll on the viability and the safety of our National Highway System.

In his last full year as highway Administrator, Mr. Slater published a comprehensive report on the conditions of our National Highway System, showing that we are developing a larger and larger backlog in the funding necessary to maintain even an adequate system of highways and bridges.

Unfortunately, we are faced with a budget request from the administration that calls on this subcommittee to effectively freeze the annual obligation limitation on the Federal Highway Program at its current level for each of the next 6 years. Secretary Slater's statement makes some mention of a few encouraging signs that indicate that we may be witnessing a turning point in the continuing deterioration of our National Highway System, but there is no question that if we freeze highway spending at the current level, this perceived stabilization in our highway system's performance will be short-lived indeed.

The current level of spending certainly will not allow us to address the millions of hours and billions of dollars that our economy loses every year due to constrained capacity and traffic congestion not only in the Nation's major metropolitan areas, but also in many rural and suburban areas as well.

Plus we must simultaneously remember that highway use is on the rise. The vehicle miles traveled by our citizens have grown more than 40 percent in just the last decade and this trend is expected to continue.

According to the Secretary's formal statement—and I quote him—"The Department is committed to a long-term infrastructure investment program and seeks the highest levels of investment within the balanced budget context."

Well, the Secretary knows that it is with great respect and fondness that I'm required to disagree with the notion that a freeze on highway funding is the best that we can do. We must do better, and I am hopeful that we in Congress can find a way to increase substantially the levels of funding for the programs covered in ISTEA over the next 6 years, while simultaneously finding a way to balance the budget over that same period.

While I cannot agree with the overall funding levels assumed for our highway programs in the administration's budget, I can and do agree with many of the priorities that the administration has highlighted in its ISTEA reauthorization proposal.

For this Senator, the brightest spot in the President's proposal is his $2.19 billion authorization of direct contract authority toward the completion of the Appalachian Development Highway System. A total of $200 million is requested in contract and obligational authority for this initiative in fiscal year 1998. That is only a portion of what is needed.

I have introduced a bill, S. 182, the Appalachian Development Highway System Completion Act. Senator Sessions has joined me in sponsoring this legislation. I know that the chairman of this subcommittee is very sympathetic with this legislation.

My bill will provide sufficient funding over the next 6 years to complete the 725 unfinished miles in the 13 Appalachian States, the people of which have been promised now for more than 30 years this highway system.

I discussed my proposal with a number of my colleagues who have direct responsibility over the ISTEA legislation, and I received favorable reactions from the Senators with whom I have spoken.

While the Interstate Highway System is now almost 100 percent complete, the Appalachian Highway System remains only 76 percent complete throughout the region and only 74 percent complete in the State of West Virginia, even though its completion was promised in law, as I say, some 32 years ago. And I was here at the time that we made that promise, as I was here at the time we made the promise concerning the Interstate Highway System during the administration of President Eisenhower.

Mr. Chairman, our region has waited long enough for the Federal Government to meet its responsibility to complete this essential part of our National Highway System. So, I again want to compliment Secretary Slater and the President for proposing an excellent first step toward that end.

In conclusion, let me again congratulate you, Mr. Slater, and assure you that this subcommittee stands ready to do its part in achieving what you described as your goal, namely, the highest lev-

els of investment to a long-term infrastructure investment program within the balanced budget context.

And as the last word of the New Testament of the Bible is amen, let me say that also in closing my statement. Amen.

Senator SHELBY. Senator Murray.

STATEMENT OF SENATOR MURRAY

Senator MURRAY. Well, thank you, Mr. Chairman. It is a delight to be on this committee, working with you as one of the newer members. Congratulations on your assignment and I look forward to working with you.

Secretary Slater, it is good to see you again on your side of the world. The Secretary and I have met several times now in the past several months, both of them in my home State, the first time when our State had severe flooding and disaster about 1½ months ago, and the Secretary came out and met with some of the people who were firsthand experiencing some of the dramatic impacts of what weather can do to them and their roads. I appreciated your being out there.

The second time was in a very tragic circumstance when we lost three young Coast Guardsmen who were trying to save a sailboat off the northernmost corner of my State and the Secretary was most kind in coming out with Commandant Kramek, traveling all the way across the country to be at that funeral service in a very remote community of La Push in the State of Washington. I want you to know that your words and your being there really meant a lot to those young Coast Guardsmen and the community and the Quillayute Indian Tribe who is such a tremendously important part of that community. We very much appreciated your being there.

That community is continuing to try and deal with that tragedy, the first Coast Guardsmen that we have lost in this country in a number of years, and I just wanted to tell you how much we appreciate your personal interest in them and in that community.

I am looking forward to your remarks in just a few minutes, but I just wanted to touch on a few issues that I am going to be following on this committee.

As you traveled to La Push, you had the opportunity to fly over the Olympic Peninsula in my State and saw what a beautiful natural area that is, tremendously large. It is a regional interest for cyclists who come there from all over the country now. They do not mix well with logging trucks, and we have had a number of accidents. So, we have been working with seven different communities out there on a voluntary basis to put together a bike trail, a 360-mile bike trail, around the Olympic Peninsula and hope we can work with you further to be flexible with some of our funds so that we can meet some of these safety issues on those logging roads.

Second, I just wanted to quickly mention the regional transit plan that was just passed by Puget Sound with a 50–50 match. They are very excited about this opportunity, particularly in Bellevue. We have a crowded I–405 that is becoming a real congestion problem. My constituents are concerned that as the Federal budget declines, that they will not be able to see this get off the drawing board, and they want some information back on whether these new

projects will be able to have Federal matching dollars as they push forward.

Finally, just let me mention the Airport Improvement Program. I noticed that it is being targeted a cut of nearly one-half of a billion dollars. Many of our airports are suffering. Infrastructure is old, needs replacing. Our traffic is greatly increasing. Particularly in rural areas, people depend on the AIP funds for survival and safety, and we want to hear from you how we are going to be able to absorb some of these cuts.

So, with that, Mr. Secretary, I welcome you and thank you for all your great work and I look forward to working with this committee.

Senator SHELBY. Senator Bond. I understand it's your birthday. Is this the day?

STATEMENT OF SENATOR BOND

Senator BOND. Yes, sir; thank you. I appreciate that. I am at that stage where one is delighted to be here to celebrate one. [Laughter.]

We do not worry about the number of years that have gathered.

Mr. Secretary, I welcome you.

And I also congratulate our new chairman and I certainly look forward to working with you, Mr. Chairman, and with our good friend, Rodney Slater, with whom we've worked on many, many important issues.

I can certainly sympathize with Senator Byrd and others who are having the problems of flooding. You well know how serious an impact the floods of this magnitude can have on the entire transportation system, and it is absolutely essential to have someone as responsive as you have been, Mr. Slater, in these efforts.

I also want to join with the Senator from Washington, expressing our thanks for the concern you showed for the Coast Guardsmen. One of those brave, young men who was lost was from southeast Missouri, and I know that the family and all of the friends in that area appreciated your concern.

But speaking of safety, I have to tell you, again to go along with what Senator Byrd said, that the lack of adequate funding for transportation, for highways in particular, was really brought home to me this past weekend. We had the funeral for one of my very good friends from Chillicothe, MO, who was killed in a head-on collision on a narrow, two-lane highway which is in the process but is not yet upgraded because it carries traffic for a four-lane.

The evening after his funeral, I attended an event in Festus, MO, where the mayor had just buried his wife, who also was killed in a head-on collision on a two-lane road that now has been upgraded to a priority for improvement.

The funds that we need for highways, roads, and bridges, all transportation needs, are overwhelming. Yesterday, with Senator Chafee, I introduced a measure to change the budget scoring so that the highway trust fund moneys, collected one year would be paid out the next year—the Highway Trust Fund Integrity Act. I think that the people of America who pay into that fund, when they gas up their cars, want to know that these funds are going

for transportation purposes, and I hope we can obtain support both from your side and from my fellow Members of the Senate for that.

I am not going to be able to stay for the full hearing. I have some other obligations, but there is one issue that I did want to call to your attention.

You have been most generous and helpful in dealing with our bridge problems. We have stood side by side in Hannibal, MO, at the Chouteau Bridge and at Cape Girardeau where there's a bridge named for my dear friend, the late Congressman Bill Emerson.

It was initially rumored that the administration's ISTEA bill would not include a bridge discretionary program. However, my good friend and Missouri colleague, the widow of Bill Emerson, JoAnn Emerson, brought this up in a House hearing last week. You mentioned that the Department was in the process of reconsidering that position but was unable to make any specific recommendations. I applaud your reconsideration and ask for your careful attention as you give thought to this vitally important program.

Something has to be done. I think the statistics showed that in 1995, the Department reported that 25 percent of the Nation's interstate bridges were classified as deficient or in poor condition, and 28 percent of 130,000 bridges on all other arterial systems were deficient. According to your Department, my State of Missouri has the dubious distinction of being sixth from the bottom in condition of bridges. We are sixth highest in total number of bridges, something to do with the Missouri and the Mississippi Rivers, I believe. Over 10,000 bridges in my State are in need of some kind of repair and replacement.

We certainly do not want to be talking about attending any more funerals if a bridge collapses. So, I would hope that you would be able to inform this committee and our House counterparts and also the authorizing committees what your position will be on the bridge discretionary program.

Thank you very much, Mr. Chairman.

Senator SHELBY. Senator Domenici. Oh, excuse me. I did not see. Senator Faircloth.

Senator FAIRCLOTH. Go ahead, Pete.

Senator DOMENICI. Oh, no.

Senator SHELBY. You were sitting back Senator Faircloth.

STATEMENT OF SENATOR FAIRCLOTH

Senator FAIRCLOTH. Thank you, Mr. Chairman.

Mr. Slater, delighted to see you here this morning.

I am new to the subcommittee but spent about 8 years as chairman of the North Carolina Highway Department. Just as an aside, Mr. Chairman, it is the largest in the Nation. We have close to 78,000 miles of highway. North Carolina has very few city streets and no county roads. They are all under one unified system, and it works extremely well.

I recently had some conversation with Secretary Slater, and he was most helpful in saving air service to two communities and I want to thank you.

Secretary SLATER. Thank you, sir.

Senator FAIRCLOTH. Mr. Chairman, one of the most contentious transportation issues in this Congress will be surface transpor-

tation and the reauthorization of the bill. I am glad that we have scheduled a hearing to do it.

This subcommittee is also going to have to address some very important issues this year. We face critical issues in subcommittee with aviation safety as well as highways. So, I am eager to start working on the program.

North Carolina has been rapidly growing, particularly in the Raleigh-Durham and Charlotte areas. Our State in the late 1940's built the most complex farm-to-market road system of any State in the Nation, literally tens of thousands of miles of it. Now, along those same roads, instead of farms, are microelectronics plants and high-technology industry. We simply are going to need much upgrading to maintain and to look after the traffic that is created.

But one thing that was unheard of, or would have been unheard of, even 10, 15 years ago in North Carolina—we are going to have to go in many of our highly congested areas to some sort of light rail transportation, and I look forward to working with you on that and look forward to the rest of the hearing.

Thank you, Mr. Chairman.

Senator SHELBY. Senator Domenici, now.

STATEMENT OF SENATOR DOMENICI

Senator DOMENICI. Well, Mr. Chairman, thank you.

I would ask your permission, before you close this record, to put in the record the 5-year budget requests of the President on transportation.

Senator SHELBY. Without objection, it is so ordered.

Senator DOMENICI. Frankly, it is nice to be here, all talking like things are rosy because we have this wonderful Secretary before us, but the truth of the matter is, the President's budget cuts transportation over the next 5 years. Actually I think it is pretty obvious that the administration does not believe that is what is going to happen.

But just so people know, it is kind of difficult to put budgets together when everybody wants to cut more and more out of the appropriated accounts and the President sends us a budget in an area that is least probable to get cut. When everybody is asking for more, the President asked for less. In the fifth year, there is less transportation funding than there is in the first year, according to what my staff tells me.

So, I just think we ought to make the point that it is not going to be easy. The chairman does not know what amount he is going to get to spend yet from the distinguished chairman and ranking member of the full committee when funding is allocated.

But I want you to know, members of the committee—and I have already said it publicly—while we do not direct the spending in the budget, I clearly am not going to produce a budget that has less transportation money over the next 5 years, but rather more. I am just struggling with how much more. My ranking member, Senator Lautenberg, while we do not see eye to eye on some budget issues—I am hopeful on this one we will see eye to eye and put more money in transportation rather than less.

I am absolutely convinced that people are talking about alternate modes of transportation and that is a great idea, but for many,

many, many parts of America, there is no alternative. It is a road or no transportation, a safe road or a dangerous road, and there is nothing in between. That need is growing, not diminishing.

Thank you very much.

Senator SHELBY. Senator Stevens.

STATEMENT OF SENATOR STEVENS

Senator STEVENS. Thank you, Mr. Chairman. I am delighted to have a chance to stop by. I see my colleague from West Virginia is here. Mr. Slater, I think we are both here to welcome you to one of the most difficult portions of the budgets that we oversee. I do not want to prolong this because I know my colleagues want to hear from you.

But I join with the chairman of the Budget Committee in indicating I think there is no alternative but to fund the moneys that are needed for highways and for the modernization and replacement of our bridges.

We do have a study, Mr. Slater, going on to determine the number of bridges that are really critical. I know your Department has already addressed that, but clearly we are going to have to have some reconsideration on how this money is allocated because of the safety considerations of many of these bridges. And one is right here in the District of Columbia.

Now, I do have some questions, Mr. Chairman, I would like to submit.

Mr. Slater, the question about the commuter rule is very critical to my State, and I do request that once you have addressed that, that we see if we cannot get together with you and with the head of the FAA because the application of this rule has already reduced the fleet of commuter airlines in my State, which I might say, Senator Faircloth, does not have 10,000 miles of roads despite the fact we are one-fifth the size of the United States. It has reduced the commuter fleet by one-half. We have one-half the transportation now for rural areas of Alaska that we had 2 years ago because of the application of this rule to a State for which it was not intended.

So, once you have read that question, I urge that you give us a chance to come visit with you and see if we cannot restore really the basic backbone of transportation in my State and that is the commuter airlines.

Mr. Chairman, I thank you very much. I look forward to working with you, and I am sure my colleague does, as we get the bill to the full committee.

Senator SHELBY. Secretary Slater.

Senator DOMENICI. Mr. Chairman.

Senator SHELBY. Senator Domenici.

Senator DOMENICI. Could I just give you three outlay numbers so I will not burden the record?

Senator SHELBY. Go ahead.

Senator DOMENICI. Highways from 1998 to 2002 are down $3.9 billion, a 3.8-percent reduction. FAA is down 3 percent, a $1.4 billion reduction, and transit is down 7 percent, a $1.5 billion reduction. So, I will not put anything in the record. Those are the summary numbers.

Senator SHELBY. Senator Domenici, we thank you for those numbers, though.

Secretary Slater, your entire written statement will be made part of the record, and if you will just briefly sum up the highlights of it, and this will give us some opportunities to question you. Thank you.

STATEMENT OF SECRETARY SLATER

Secretary SLATER. Thank you, Mr. Chairman and members of the committee. At the outset, I would like to thank you for the opportunity to testify in support of the fiscal year 1998 budget of the Department of Transportation as submitted by the administration.

DEPARTMENTAL PRIORITIES

Let me say at the outset, just in summary, in response to all of the concerns raised, with priorities, three in particular, during my tenure as Secretary—with safety as the No. 1 priority, dealing with transportation and its relationship to the economy, and also bringing a commonsense approach to our operations as servants of the American people—with you in partnership and in partnership with the private sector, I think we can address effectively many, many of the issues that you have raised.

It is noted that I have a longer statement that I would like to submit for the record, Mr. Chairman, outlining some of the specific particulars of the administration's commitment to invest $38.4 billion next year in our transportation infrastructure.

The President, in his State of the Union Address, noted that, "Over the last 4 years we have brought new economic growth by investing in our people, expanding our exports, cutting the deficit, and creating over 11 million jobs, a 4-year record. Now we must keep our economy the strongest in the world." And clearly, transportation is central to all of that.

Under President Clinton, we have tried to make good—and I believe we have made good—on the promise of ISTEA, landmark legislation that the Congress will be reauthorizing this year. With the Congress, we have increased transportation infrastructure investment to record levels. These investments have paid off in substantial improvements in the condition and the performance of our highways and mass transit systems.

The President's budget includes $38.4 billion for our Nation's transportation system and key national transportation priorities which invest in both our people and our economy. Foremost among these priorities is to make the Nation's transportation system even safer for the American people.

When George Washington saw the mountain terrain, separating the seaboard cities of the United States from the settlements along the Ohio River, he noted that we have to open a wide door to connect those markets.

Well, over the last few years, we have worked to continue to open that wide door with an effective intermodal transportation system, allowing new businesses, express packages, to move in just-in-time delivery practices and procedures where items move almost seamlessly through the system, whether on land, water, or air.

Thirty years ago, we started the Department of Transportation, committed to a vision. Today we work continuously to make that vision a reality, investing in people and investing in safety.

As you know, I believe transportation is about more than concrete, asphalt, and steel. This budget proposes many critical investments in the quality of life concerns of the American people.

SAFETY

First, as relates to safety, we propose in 1998 raising the direct safety spending for highways, aviation, rail, and maritime by $200 million to a total of $2.9 billion, a record 7.5 percent of our total budget. And all of you have mentioned safety as a top priority, whether on a two-lane highway or as it relates to aviation.

Also I would like to note that this administration has tried to work with the National Transportation Safety Board to respond speedily to all of its recommendations. One of the first meetings I held, even before being confirmed, was with Jim Hall, the Chair of the National Transportation Safety Board [NTSB]. Approximately 88 percent of the recommendations offered by the NTSB have been closed, and of the 758 open recommendations, over 86 percent have been classified by the NTSB as open with acceptable action underway. So, clearly safety is a priority.

STRATEGIC INVESTMENT

As relates to jobs, one of the key provisions that we will have in our proposal is to improve our transportation system for people whether they live in rural, urban, or suburban areas, and a critical part of that will be a new $100 million program to deal with questions concerning welfare-to-work initiatives.

Strategic transportation investment in infrastructure aids the economy. Beyond improving the quality of life, the transportation system of the 21st century must provide Americans with the ability to compete and win in a truly global marketplace. Working with the Congress over the past 4 years, we have increased Federal investment in highways, transit systems, and other infrastructure to an average $25.5 billion, more than 20 percent higher than the 4 preceding years.

These investments are producing results. The conditions of bridges—and that has been noted time and time again—as well as the pavements of our system, have improved significantly. We have financed nearly 26,000 buses and almost 600 railcars for State and local transit systems as well, and we are doing a lot along the Northeast corridor.

I believe, like you, that our transportation must be a part of our overall economic system but that it must be consistent with our commitment to balance the budget by the year 2002. So, as Senator Byrd has noted, our proposal is to get the highest level of funding possible within that context.

Let me close by making a couple of commitments and also comments regarding aviation operations. Just as the interstate system expanded our national economy in this century, I believe that aviation will expand our global economy in the 21st century. I assure you that I will use the leverage provided by all of the innovative decisions made over the last year or so to give the FAA improved

legislation as it relates to procurement reform and personnel reform. We will work hard to deal with the question of long-term economic investment.

COMMONSENSE GOVERNMENT

On the issue of commonsense Government, let me note that we, too, Mr. Chairman, will make an effort to work with you to bring private sector dollars to the financing of transportation infrastructure investment. We hope to do that through our State infrastructure bank initiative, as well as through the establishment of a $100 million new Federal credit program designed to deal with big-ticket items.

In closing, I would like to say that as we work to create the transportation system for the 21st century, we must also work to build a critical mass of professional wherewithal and skill to man and to provide the human resources to make that system work.

And I would like to ask the Congress to work with me in establishing a Garrett A. Morgan technology and transportation futures program designed to bring 1 million young people across our country into the transportation industry. Giving them access to the technological advancements of our transportation system of tomorrow will be just the kind of inspiration they need, I believe, to find this profession rewarding.

In closing, let me just say that I look forward to working with all of you to ensure that our best days as a Nation are yet ahead of us, and in doing so, we have to make sure that we have a quality transportation system to sustain and to buttress the economic activity that we know will come from our efforts to improve and stimulate our economy.

Thank you, Mr. Chairman.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Secretary. We have your complete statement and it will be made part of the record.

[The statement follows:]

PREPARED STATEMENT OF RODNEY E. SLATER

Mr. Chairman, Members of the Subcommittee. Thank you for the opportunity to testify in support of the fiscal year 1998 budget proposals for the Department of Transportation.

OVERVIEW

President Clinton said in his State of the Union address: "Over the last four years we have brought new economic growth by investing in our people, expanding our exports, cutting our deficits, creating over 11 million jobs, a four-year record. Now we must keep our economy the strongest in the world." Under President Clinton, we have made good on the promise of the Intermodal Surface Transportation Efficiency Act of 1991—ISTEA, the landmark legislation that Congress will be reauthorizing this year. Working with Congress, we have increased transportation infrastructure investment to record levels. These investments have paid off in substantial improvements to the condition and performance of our highways and mass transit systems.

Four weeks ago, President Clinton presented the details of the Administration's fiscal year 1998 budget. Included in that budget is proposed funding of $38.4 billion for our Nation's transportation system and key national transportation priorities, which both invest in our people and in our economy. First and foremost among these priorities is to maintain the safety of the nation's transportation system and

to make that system even safer for the American public, whether they travel by land, water or air.

Transportation is critical to economic growth and for providing our citizens with the mobility on which they have come to rely to sustain their quality of life.

This is as true today as it was at the beginning of our nation, when George Washington saw that the mountain barrier separating the seaboard cities of the new United States from the settlements along the Ohio River must be overcome or the settlements would be pulled into economic alliances with the British in Canada and the Spanish along the Mississippi River. The solution that was in the young nation's clearest interests was to: "open a wide door, and make a smooth way for the produce of that Country to pass to our Markets before the trade may get into another channel."

Today, just think of the wide doors that have been opened, the new businesses and innovations in the last twenty years that have arisen because of our effective intermodal transportation systems—express packages, just-in-time delivery—where items move almost seamlessly from land, whether by highway or rail, to water or air and then back to land. These innovations are not just transportation change—they support whole new ways of doing business.

Former Transportation Secretary John Volpe discussed the objectives of the Department almost thirty years ago and his remarks are quite remarkably pertinent today, as we near celebration of the 30th anniversary of the Department. "Our objectives range over improvements in the overall efficiency of transportation, ensuring that the unemployed have access to employment * * * that there be joint planning of transport corridors in the hearts of our cities, that we upgrade the safety of all modes, and most important for those who will come after us—that we safeguard our priceless heritage of natural wonders, historic sites and places of recreation."

Even though transportation improvements over the last 30 years have been astounding—for example, the ability of businesses to minimize inventories because of the reliability and efficiency of the nation's transportation system—the challenge that we face today sounds remarkably similar to John Volpe's assessment. Today we must improve our transportation system to meet the needs of the 21st century. We must continue to invest in improving the safety of our people. We must maintain critical infrastructure investment to meet the needs of our economy. And we must do that in a way that protects our environment, our neighborhoods and our national heritage.

INVESTING IN OUR PEOPLE

The Department's budget proposes many critical investments in the quality of life of the American people. I would like to highlight three of these.

(1) Improving the safety of the transportation system, to save even more lives so that the heartbreak that we see everyday due to transportation is reduced. As you may know, in the past few weeks the Department of Transportation experienced this heartbreak directly within its family—two Maritime Administration employees were killed when coming back to the office from lunch and three Coast Guardsmen's lives were lost as they were trying to save others in rough seas.

(2) Ensuring that those going from welfare to work are not stymied by lack of transportation. Transportation is one of the three major challenges faced by welfare recipients, along with day care and skills training.

(3) Interdicting illegal drugs, which continue to threaten the well-being, safety and security of all American citizens, including the children in our schools.

Safety

Our most important investment in the quality of life of the American people and our highest priority—as always—is improving our transportation system's safety and security.

Although it's already the safest in the world, much of what we do is aimed at making it safer, as travel continues to grow. That's why the President's fiscal year 1998 budget proposes to raise Department of Transportation direct safety spending by $200 million—to $2.9 billion, a record 7½ percent of our total budget.

A major focus in our safety effort will be highway crashes, which account for more than nine out of every ten transportation fatalities. About 41,500 travelers died in highway crashes last year, a slight reduction from 1995. That's notable because it turned around a three-year trend of increasing highway deaths. But, unless we also begin again to lower the fatality rate, the growth in travel created by our expanding economy will begin increasing the number of deaths once again.

To cut the fatality rate, we have to focus not only on safer cars and safer roads, but also on affecting the human factor. To do that, we need measures such as in-

creased education and law enforcement, and so we propose raising NHTSA's safety spending by 11 percent—to $333 million. That includes:

—$9 million for a new occupant protection grant program to promote safety belt use, the best way to protect travelers;

—a $9 million increase to support states in passing tough drunk driving laws;

—$8 million for a new research and education program to reduce air bag risks for children and small adults, while still preserving the benefits of air bags for all motorists; and,

—$2 million for a pre-license drug-testing pilot program, the first step in launching the President's new initiative to combat drug-impaired driving.

We're also increasing funding for important safety programs in aviation, rail and maritime safety.

—Aviation safety spending would increase 12 percent to $839 million, enabling the FAA to hire 273 safety inspectors and certification staffers. It also funds the work of the new National Certification Team, which inspects start-up airlines.

—Railroad safety spending would increase by 12 percent, to $57 million, with funds going to speed up new safety rules and to buy an automated track inspection vehicle.

—Finally, we're proposing to increase maritime safety funding to $797 million—including Coast Guard programs to improve vessel and recreational boating safety.

Access to Jobs

Transportation empowers our neighborhoods by providing access to jobs, to markets, to education and to health care for all Americans, whether they live in rural, urban or suburban areas. But this budget, in addition to working for all Americans, is directing resources to one group that needs special assistance: we are proposing the creation of a new $100 million program to provide access to jobs and training, administered by the Federal Transit Administration and cooperatively supported by the Federal Highway Administration. This new initiative will elevate the transportation contribution to welfare reform. We hope this program will act as a catalyst, uniting local governments, mass transportation providers, and social service providers in working toward a common goal of helping people who do not own cars improve their lives not only by finding a job, but by being able to get regularly to that job.

As President Clinton said in his State of the Union address: "Over the last four years we moved a record 2¼ million people off the welfare rolls. Then last year Congress enacted landmark legislation demanding that all able-bodied recipients assume the responsibilities of moving from welfare to work. Now each and every one of us has to fulfill our responsibility, indeed our moral obligation, to make sure that people who now must work can work." One part of the President's three-part plan to accomplish this goal is to provide training, transportation and child care to help people go to work.

Our proposed new $100 million program would offer welfare recipients the access to jobs, training, and support services that they need to make the transition to the working world. This program would promote flexible, innovative transportation alternatives—such as vanpools—that get people to where the jobs are. It also would promote family-friendly transportation, such as day care centers at bus and rail stations.

In addition, DOT's ISTEA reauthorization proposal contains several provisions designed to strengthen existing programs allowing states to utilize Federal-aid funds for training.

Drug Interdiction

And third, the work of the Coast Guard not only directly supports the safety and security of our people, but also is a direct investment in the future of our country through its role in interdicting illegal drugs before they get to America's streets and young people. We're proposing to increase the Coast Guard's drug law enforcement budget—by 15 percent—to $389 million. That includes $53 million in additional funding for surveillance technology, improved intelligence capabilities and increased operations as part of the President's effort to stop illegal drugs from entering our country.

INVESTING IN OUR ECONOMY

In the 21st century Americans will compete in a truly global marketplace. This marketplace will be fiercely competitive and our success as a nation will be determined on how safely, reliably and cost-effectively we can move people, goods and information. Transportation expenses now account for eleven percent of the United

States gross domestic product—a greater share of the economy than health care or defense—and will affect our country's global competitiveness in the future.

As he again made clear when he met with the nation's governors last month, President Clinton recognizes the contribution of sound infrastructure to increasing America's prosperity and its international competitiveness. That's why he's worked on increasing infrastructure spending even as he's reduced the budget deficit.

Infrastructure Investment

Working with this Subcommittee and the entire Congress, over the past four years (fiscal years 1994–97) we've increased Federal investment in highways, transit systems, and other infrastructure to an average of $25.5 billion, more than 20 percent higher than the previous four years. The Department is committed to a long-term infrastructure investment program and seeks the highest levels of investment within the balanced budget context.

Our investment is producing results, even with many of these projects still under construction. For example, the latest data on the National Highway System shows us that the condition of bridges and pavement has improved significantly. System performance—as measured by peak hour congestion, which had been deteriorating—has now stabilized.

This success extends to transit. In the last four years we've financed nearly 26,000 buses and almost 600 rail cars for state and local transit agencies. With 19 new full-funding grant agreements, we've also financed more than 100 miles of new transit lines, serving more than 100 stations. Meanwhile since 1993, Amtrak has either taken delivery of or placed orders for 236 new rail passenger cars, 191 new locomotives and 18 high speed train sets, making dramatic improvements in the age and condition of its fleet and enabling 150 mph service in the Northeast Corridor by the turn of the century.

The fiscal year 1998 proposal of $25.6 billion for infrastructure—actually above the average of the past four years—would sustain the investment that's produced these results. And I want to emphasize that—by proposing even higher ISTEA reauthorization levels—we're leaving room for additional investment in the future as economic conditions and our deficit reduction efforts warrant.

For next year's federal-aid highway program, we're proposing an $18.17 billion obligation limit, just a shade below this year's $18.19 billion.

We also propose a supplemental request for 1997 to increase the obligation limit by $318 million. This would be distributed to states that received lower-than-expected obligation authority this year because of the Treasury Department's correction of an accounting problem in crediting prior-year tax receipts to the Highway Trust Fund.

We're proposing $4.2 billion for transit capital this year, a $390 million increase. Transit operating assistance for communities with more than 200,000 people would no longer be available. But increased capital funding would be made available to them, and, as an added measure of support for them and for communities of all sizes, we're proposing to broaden the definition of "capital" to include preventive maintenance of capital investment. Smaller communities—which are the ones most dependent on federal aid—could use transit formula grants for either capital or operating expenses.

Our efforts in the coming months will be largely devoted to ensuring that an ISTEA reauthorization bill gets passed in a manner that does not result in increases in the budget deficit, but also provides states and localities with much needed flexibility and funding in a timely manner. I know that you share that same goal. For the past year, Congress and the Department have been engaged in reaching out to groups and individuals across the country to gather ideas for reauthorization of ISTEA. What has emerged is a consensus that ISTEA works. The goal upon which our ISTEA reauthorization proposal is based is to build on ISTEA, not abandon it.

Maritime

While not under this Committee's jurisdiction, I would also like to mention that the Department's maritime programs have at their center the strengthening of our national and economic security. They accomplish this through genuine partnership with other government agencies and absolute reliance on the private sector to accomplish two goals: making our maritime transportation system the most modern, competitive and efficient in the world and providing strategically critical sea-lift capacity to support our national security needs.

Aviation Operations

Just as the Interstate highway system expanded the potential of our national economy in this century, so aviation is tying us to an expanded global economy as we enter the 21st century. Aviation has not only brought Americans closer to each

other, it has brought us closer to the rest of the world. Our aviation system is vital to our domestic economy and to our nation's global economic competitiveness. I can assure you that I will use the leverage provided by access to the vast United States market to urge our aviation partners to adopt more open markets—and to ensure expanded access to their markets for United States carriers.

The FAA's air traffic control system enables the safe travel of 1½ million passengers every day, and its inspections ensure that aircraft, pilots, and aircraft operations meet the highest safety standards. We're requesting an 8.7 percent increase, a notable amount in an era of budget freezes, to the FAA's operating budget, up to a record $5.4 billion. In addition to more safety inspectors, that will let the FAA add 500 air traffic controllers and 173 security personnel to carry out the Gore Commission's recommendations. The personnel and procurement reform authority provided in our fiscal year 1996 Appropriations Act will enable FAA to hire the best people possible in the most effective way, as well as to accelerate modernization of critical equipment.

One area in which tough budget choices resulted in our proposing lower investment is airport grants, for which we're proposing $1 billion. We've chosen this course because large airports can obtain funding more easily than can other types of infrastructure; in fact, most already use other sources—such as aircraft landing fees, concession revenue, and passenger facility charges—for most of their capital financing. We plan to mitigate the impact on small airports—which are especially dependent on federal aid—by proposing that their formula grants continue at current levels.

Financing all of our aviation system's needs—airports, airway facilities, security, and FAA operations—is a critical priority for us. I want to commend the Congress for its prompt action in renewing expired aviation taxes and crediting receipts to the Trust Fund. We are grateful for this quick action, which will avoid a serious, short-term financing crisis.

We also want to work with Congress to establish a reliable, long-term funding base so that the FAA can provide the services our aviation system needs. As an interim measure until comprehensive financial reform is achieved, we're proposing $300 million in new user fees. We're looking forward to appointing the new National Civil Aviation Review Commission—which will analyze aviation budget requirements and ways to fund them—and help us to reach a consensus on what course to take.

PROACTIVE LEADERSHIP

As I said in my confirmation hearing, I will continue to bring common sense government to the Department of Transportation in order to provide the people we serve with a Department that works better and costs less. I will encourage more flexible, innovative funding to leverage federal dollars for infrastructure investment, technology use to improve the performance of our transportation system, and transportation policies that are sensitive to environmental concerns.

Innovative Financing

The fiscal year 1998 budget expands the efforts the Department has made in innovative financing by providing another $150 million in seed money for State Infrastructure Banks (SIB's) and $100 million for a new Federal Credit Program, both to be included in our proposal for ISTEA's reauthorization.

The Federal Credit Program will be similar to the SIB's in its support of innovative financing, but it will fill a different need—the support of projects which, by virtue of their size or their multistate benefits, are nationally significant but which might not fit into the programs of individual states. That will enable us to make loans and apply other financing arrangements for these vital investments, much as we did with California's Alameda Corridor project.

Technology

Technology is particularly essential to the health of our transportation system. Innovations in transportation technology contribute to America's global competitiveness and national security, enhance the capacity of our infrastructure, our environment and local communities, and perhaps most importantly, save lives and reduce the risk of accidents and injuries. That's why we propose to increase investment in technology research and development by nine percent, to $1 billion.

This total includes $250 million for Intelligent Transportation Systems, which apply advanced computer and communications technologies to travel. This will help improve information to drivers in order to increase transportation efficiency. About $150 million will fund ITS research and technology development, and $100 million is to encourage state and local governments to invest in electronic infrastructure

such as travel information programs and automated traffic signals to enhance infrastructure performance.

The budget also requests funding to complete all six prototypes and conduct testing of the Advanced Technology Transit Bus. This bus was developed using proven, advanced technologies from the aerospace industry and is a lightweight, low-floor, low-emission alternative to current buses.

Other efforts in the technology area are geared at helping the Department target its resources to address critical problems. For example, the FAA's technology budget includes funding for an aviation safety risk analysis program. This program is designed to improve FAA and industry measurement of and accountability for safety performance. The analytical techniques to be developed will focus on more effectively and efficiently using information contained in FAA and industry databases.

Protecting the Environment

Transportation, like all human activity, affects the environment, and we have an obligation to mitigate its impacts. That's why we're proposing a five percent increase in environmental funding—to $1.53 billion.

Much of this would be for the successful Congestion Mitigation and Air Quality Improvement Program, which state and local governments use to cut pollution through transit projects, traffic flow improvements and alternatives such as ridesharing. CMAQ funds would be authorized at $1.3 billion a year, up 30 percent from their level under ISTEA.

The Coast Guard's marine environmental protection program, which promotes and enforces an aggressive approach to pollution prevention, preparedness, and response, along with oil spill cleanup programs, would increase seven percent, to $326 million.

CONCLUSION

As the President has said, when times change, so government must change. And so, as I look to the next four years, I believe we in the Department of Transportation must set high goals and must be architects of change, but also build a new balance in our relations with state and local governments. We must ensure our success in the 21st century by recognizing the crossroads we are at today—recognizing the need not only to invest in our current infrastructure, but to take full advantage of technology and leave a more efficient, safer transportation system and environment than we have today. I hope that I can help us reach not just for the easy and the quick, but for the solutions that will make a difference in the long run, for the solutions that appear, but are not really, just beyond our reach.

As President Clinton said in Putting People First, "Just as interstate highway construction in the 1950's ushered in two decades of unparalleled growth, investing in the pathways of the future will put Americans back to work and spur economic growth." The Department's fiscal year 1998 budget proposes strategic investments in two important pathways: people and infrastructure. It also does its part to balance the federal budget by 2002. I stand ready to be your partner as you develop a DOT appropriations bill that is consistent with our national commitment to reach a balanced budget by 2002 and with our commitment to ensure that critical national transportation needs are met so that Americans can maintain their mobility and our economy can continue to prosper. I also stand ready to work with the Congress as it develops a long-term ISTEA reauthorization bill that address the issues of this fiscal year and the 21st century.

PROPOSED HIGHWAY OBLIGATION LEVELS

Senator SHELBY. Mr. Secretary, the administration's ISTEA proposal in the President's fiscal year 1998 budget, as Senator Domenici referred to, appeared to set a highway obligation limitation significantly below the contract authority level. Effectively, the obligation limitation envisioned in the 1998 budget request in the administration's ISTEA proposal has been frozen below the 1997 appropriated level. The administration proposes, as I understand, a higher contract authority level but without—but without—the accompanying obligation limitation.

That simply raises false expectations among my colleagues, the States, the transportation constituency, and the American public.

Why, Mr. Secretary, are you proposing higher contract authority numbers in the budget than your proposed obligation limitation?

Secretary SLATER. Mr. Chairman, what we are trying to do is to exercise a policy that really is evident in ISTEA where you have higher contract authority than obligation authority, but with the robust economy, we have actually been able to fund approximately 96 percent of the authorized levels in ISTEA. Under our current scenario, it provides for a contract authority that is at the highest level possible and an obligation authority at the highest level possible within the context of our overall budget goal of balancing the budget by the year 2002.

But with a multiyear program, it is our hope that as much as we have been able to do in ISTEA in its full-funding effort, we will be able to do the same as we look at the outyears of our proposal.

Currently the obligation limitation would limit us to about, I guess, 86 percent on the dollar of the moneys coming into the trust fund. But again, we had a similar situation with ISTEA. Over time, because we were able to provide record-level investment over the last 4 years, we were able to provide 96 percent of the funds coming into the trust fund during this period. We believe that the same will hold true as we look forward to a robust economy in the coming years.

TRANSIT NEW STARTS

Senator SHELBY. Mr. Secretary, the President's proposed 1998 budget would cut transit new starts by $126 million from the current enacted level of $760 million.

There are now 13 new starts with full funding grant agreements in the funding pipeline, and two more are awaiting FFGA's. These 15 projects will cost $3.7 billion to complete. There are about 100 other projects already in various preliminary stages, totaling about $10 to $20 billion to complete. The San Francisco BART subway extension to the San Francisco airport is awaiting approval of a new $750 million Federal full funding grant agreement, and Sacramento is awaiting one for about $100 million.

Some new start projects have encountered serious construction problems, notably in Los Angeles, where concerns have been raised about whether improved bus service is a cheaper and a better option.

Should, Mr. Secretary, the administration be entering into new funding grant agreements when the new starts program is already at least oversubscribed?

Secretary SLATER. Well, Senator, your point is well taken in that we have recently moved rather aggressively as it relates to new starts, really, 13 major new starts, but on average I think we had about 20 or so over the last 4 years, a considerable investment.

I think it responds to the challenges of the moment. I found it quite interesting that Senator Faircloth from North Carolina would make mention of the importance of light rail, a southern State, a State clearly dependent on highways, as he noted, with the largest system in the country, but because of the capacity needs of this age and the future, States are beginning to diversify their system much more, even in the South, a region that we both hail from.

It is the opinion of the administration that through the planning process, working with local and State officials, we will be able to bring about better transportation decisions so as to bring more transit projects on line, but to do so in a way that recognizes our limited dollars, our limited ability to play at the Federal level, but to also encourage and stimulate activity at both the local and State levels and even from the private sector. We are finding that these arrangements can be put together as we work as a team and bring commonsense approaches to these kinds of decisions.

Senator SHELBY. Mr. Secretary, is the administration interested in working with new starts project sponsors to help reduce the size of the Federal commitment to these expensive projects?

Secretary SLATER. I think we have to continue to work with our partners to do that.

Clearly, State and local governments are strong and actually majority participants in all transportation infrastructure investments. I think we have moved past the day when the Federal Government is the total pocketbook when it comes to these kinds of major investments. We also have to test the private markets, and many of you have spoken to that.

But that is not to say that we can shirk our responsibility as a Federal Government in providing much needed resources and in carrying our part of the load, and I do believe we are going to work through this process as we go forward as a nation into a new era.

Senator SHELBY. Thank you.

Senator Lautenberg.

SAFETY REGULATIONS

Senator LAUTENBERG. Thanks very much, Mr. Chairman.

Thank you, Mr. Slater, for an excellent presentation.

Mr. Slater, I was opposed to the passage of the National Highway System bill, and I asked the President to veto the bill. The bill, in my opinion, went just too far in undermining our Federal role in ensuring safety on our highways. The law repealed Federal mandates regarding speed limits, as well as use of seatbelts and motorcycle helmets.

Now, I hear that some interests want to use the reauthorization of ISTEA to force more rollbacks and deregulation in the safety area, including allowing longer and heavier trucks on our highways and eliminating mandates on the minimum drinking age.

Can you tell me what the administration's position is going to be regarding the effort to roll back the existing safety mandates in current law?

Secretary SLATER. Senator, I do not think that those kinds of rollbacks can be tolerated, frankly. As you know, the administration fought vigorously to make the case for a national speed limit law, for the helmet law, and the like. It was a battle that we lost.

We also made a strong case for the importance of the National Highway System. This is a system that is but 4 percent of all the roadways in the country, but it carries 45 percent of all the highway traffic, 75 percent of the truck traffic, 80 percent of the tourist traffic. It is on this system that we hope to make the kinds of improvements that will make less likely the kinds of accidents that we have heard about even this morning.

Because of that, because of the focus on intermodal connectors that will hopefully take us closer to the establishment of a national intermodal system where all of the modes of transportation play the roles that they play best, it was my suggestion, along with Secretary Peña, to the President that he sign the bill, knowing that many of our key supporters were on a different side.

We also then made a commitment to establish a strong and aggressive safety action plan that we are yet in the process of moving forward on implementing, and I assure you, Mr. Chairman, that as Secretary I will make safety not only my No. 1 priority in rhetoric, but it will be the North Star by which we will be guided and also a commitment by which we will be judged. I am committed to following through on this commitment.

DRIVING WHILE INTOXICATED

Senator LAUTENBERG. I am pleased to hear that, Mr. Secretary. We cannot expose our passengers on the highways to ever more danger and ignore what is taking place.

I was the author of the provision that sanctioned State highway funds for failing to adopt the 21-year-old drinking age bill.

Secretary SLATER. Yes.

Senator LAUTENBERG. I am pleased to say that as I look back on my work here, one of the things that pleased me most was the fact that it is estimated somewhere around 14,000 young people did not die on the highways because of our legislation. I think it is also assumed that if the law was enforced more rigorously, that we would have a substantially higher number that would have escaped death and injury on the highway.

The NHS bill included an initiative that Senator Byrd had to sanction State highway funds if they did not prosecute drivers under the age of 21 with any amount of alcohol in their system.

Have these sanction programs served their purpose?

Secretary SLATER. They have, Senator. Actually we have a commitment to the Congress to respond with a report dealing with what have been the effects of some of the other safety provisions, and at that time, we will have better data as relates to the success of this particular program.

But, again, I do think that it underscores the fact that there were safety components of the NHS bill that really made it worthy of the President's signature, and you have just noted the commendable effort on the part of Senator Byrd in that regard. And I might add that that was a provision that passed overwhelmingly in the Congress and also by numbers comparable to the numbers by which some of the other provisions were actually removed from our national policy.

So, I do believe that the Congress is ready and willing to ensure that we have laws on the books that make safety our No. 1 priority in transportation.

Senator LAUTENBERG. We are happy to hear your commitment and to test whether or not the Congress is determined to do what it can to prevent this carnage when it comes to determining blood alcohol levels for prosecuting drunk drivers. NHTSA has determined that drivers become significantly impaired at .08 BAC. They also found that the risk of being in a crash rises gradually as the

BAC level increases, but then rises very rapidly after a driver reaches or exceeds .08 blood alcohol content.

Do you think we ought to take a more aggressive stance to get the States to adopt .08 for prosecuting drunk drivers?

Secretary SLATER. Let me just say that that is clearly an issue to be considered.

What I would really like to note, though, is I do believe NHTSA is doing quality work. One area where we are focusing a great majority of our attention is in the seatbelt area. So, this, as well as other initiatives, can be considered as a part of an overall toolbox from which States, locales can select those programs, policies, and procedures that best relate to the transportation and safety challenges that they face at the State and local level.

AMTRAK FUNDING

Senator LAUTENBERG. Mr. Secretary, under your view of things, your ISTEA proposal assumes that Amtrak will be funded from the highway trust fund, but it is not at all clear that Amtrak will see any sizable increase in capital funding under your request. Will your ISTEA proposal provide Amtrak with sufficient capital dollars to eliminate the need for operating subsidies and be able to provide first-class service? Because that is what is going to determine the success of the railroad.

Secretary SLATER. I understand. Senator, I know that the issue of Amtrak is one that is very important to you and many Senators clearly in the Northeast corridor, but I have heard from a number of Members really across the country, Senator Lott in particular from Mississippi and others, who are in some of the more rural areas of the country, who also value the importance of Amtrak.

I can tell you that it is my personal desire that Amtrak has to be a part of the 21st-century transportation system. The challenge before us is to determine how to best fund it, how to best make it self-sustaining. The people within Amtrak, the leadership, Tom Downs and others, I think have made a very strong case in that regard, but we do have a long ways to go.

I would hope that when we unveil our proposal in the first instance, that Amtrak could be a part of it. I have to tell you that because we are trying to come to grips with how to best fund it, that may or may not be the case, but it would again then be my hope that before we move through the entire reauthorization process, that we would be able to come to some consensus, find some common ground as to how to make Amtrak more viable and self-sustaining.

Senator LAUTENBERG. It needs leadership, Mr. Secretary, and Amtrak, when presented as an asset in a State or a community, is very much sought after by people here, the Members. I am sure the distinguished Senator from Utah would like to see that Amtrak is there in 2002 carrying all those people, bringing all that money, getting——

Senator BENNETT. I think it has a better role to play in the Northeast corridor than it does in Utah, and I support it in the Northeast corridor.

Senator LAUTENBERG. Well, I am willing to share the admiration for Amtrak. [Laughter.]

Well, can you guarantee now in front of this subcommittee, Mr. Secretary, that Amtrak will not have to terminate more routes under the funding levels that are being proposed?

Secretary SLATER. What I would like to do, Senator, is to just make a firm, unequivocal commitment that the Department will work with the Congress, with the Amtrak team, both management and labor and its leadership, and State and local governments, to find common ground and to ensure that we do not lose any more service and actually that we build on the service that we currently have. My objective would be to see Amtrak as a viable part of a transportation system for the 21st century.

Senator LAUTENBERG. You will convey that to Majority Leader Lott, please?

Secretary SLATER. I will.

FAA FACILITY IN ATLANTIC CITY

Senator LAUTENBERG. Mr. Secretary, the Coopers & Lybrand accounting firm evaluation of the FAA's financial needs was released just this Friday, and as you know, this report included a recommendation that the FAA look into consolidating the Hughes Technical Center, which is in Atlantic City, NJ, into a facility in Oklahoma City, OK. They justify this recommendation largely based on the value of the land they say could be sold if FAA moved from its present location.

Well, it is mysterious to those of us who know the area, because it is an established fact that there is a reversionary clause that says this property that FAA is on must be sold to the Southern New Jersey Transportation Authority for only $55,000. The estimate on it is, I think, a couple of hundred million dollars. And there is no way that that is going to redound as a bonus to the Federal Government.

The Hughes Technical Center is also, unfortunately, a Super Fund site, and it is going to require some very expensive environmental remediation.

It functions, however, in its present form to continue the pursuit of explosive detection equipment, of ways to thwart terrorists, of ways to reduce the damage that comes from bomb explosions, hardened containers. They do some wonderful, wonderful work down there.

To uproot this infrastructure of intellectually trained people, I think, would be a travesty, and I hope that, based on the facts, that you will be able to assure us that the Atlantic City technical center will continue to operate to provide safety to the traveling public and to deal with our expanding need.

As we all know, aviation is scheduled for growth. Mr. Chairman, I think it could almost double in the next 20 years.

So, I would like to have your word, Mr. Secretary, that you will look very closely at that and make sure that we do not lose this asset.

Secretary SLATER. Yes; Mr. Chairman, what we are doing now is analyzing the study of which you speak. Our objective will be to pass it on to the National Civil Aviation Review Commission that will be established soon for full consideration and for the imple-

mentation of those parts of the study that we would find worthy of implementation.

I can tell you, speaking specifically about your concern, that the cost of land should be a factor, but not the sole determining factor, when it comes to this issue. Clearly the issues that you have raised here and that we will likely discuss as we go forward will be taken into account.

Senator LAUTENBERG. Thank you very much. Thank you, Mr. Chairman.

Senator SHELBY. We have been joined by Senator Mikulski. Do you have any opening statement?

Senator MIKULSKI. I will be happy to wait for my turn for questions, and I am very happy to welcome Secretary Slater to this committee.

Secretary SLATER. Thank you.

Senator SHELBY. Senator Bennett.

TRANSIT NEW STARTS FUNDING

Senator BENNETT. Thank you, Mr. Chairman. I realize I did not do my manners properly by congratulating you in my opening statement for your assumption of this chairmanship.

Senator SHELBY. Thank you.

Senator BENNETT. I am delighted to have you there and to join you as a new member of the committee.

I want to follow up on the chairman's comment about full funding grant agreements. I am not sure I heard quite what I wanted to hear in the answer, and it may be my faulty hearing.

But once you get a full-funding grant agreement in place and a new start underway, filling up the pipeline with other full funding grant agreements behind it that end up diluting what you are doing on existing projects can have the effect of slowing down what is there on the projects in progress, which ultimately drives up the costs.

I think the issue that the chairman raised about the BART extension in San Francisco and the extra hundred million in Sacramento is one that has to be looked at in terms of its impact on the FFGA's that are already in place.

Would you address that again for me? As I say, I may not have got it properly from your comment. How do you react to that?

Secretary SLATER. Sure. Senator, clearly as we deal with those two proposals, we will take into account those projects that are currently in the pipeline. Your point is well taken there. When we talk about our priority of bringing a commonsense approach to Government, I think that that would mandate that kind of analysis and review.

I can tell you that the way we have been able to handle these projects thus far is to continue to monitor the progress of the projects in the pipeline and, where in an instance a project is not moving as effectively, efficiently, as we would like, we make decisions about the resources. I can tell you that the Los Angeles Red Line is a project in point dealing with that particular issue.

So, I think that your point is well taken, and I assure you that that is the kind of thoughtful consideration that will go into the

way we address these new proposals that are yet before us and how they relate to the projects that are currently in the pipeline.

SPENDING OF TRUST FUNDS

Senator BENNETT. Thank you. I appreciate that clarification.

Reference was made earlier to spending the money that is in the trust fund. If I may again go back to my history, we naively thought in the Department of Transportation in the late 1960's when we created the airport airways trust fund, we were guaranteeing that FAA would have sufficient funds, independent of the ups and downs of budget cycles, to see to it that the airport airways system would be properly funded.

We did not recognize that Presidents, regardless of party—the Presidents of my party have been just as guilty of this as the Presidents of yours have been—could find ways to thwart the effect of creating a trust fund for both airport airways and highways. The money that is put in both those trust funds piles up on paper so that the funds have huge, wonderful surpluses, but in effect in the unified budget, the impact is to say we have lowered the deficit elsewhere because we are not appropriating those funds.

Talking about safety, I heard a report of someone who looked into the issues of hackers breaking into the computer systems of the Federal Government and whether or not they would be able to render serious mischief in the Federal Government and was told the one place where a hacker cannot create damage in the Federal Government system is in the FAA airport airways computer system because it is so obsolete, there is not a hacker anywhere in the world that is capable of penetrating it. That is not a really reassuring kind of safety circumstance.

I support the notion that the money that is in the highway trust fund should be spent on highways and not sequestered for a budget effect later on, and I support the notion that the money that is in the airport airways trust fund should be spent on bringing the airport airways computer system up to the point where hackers can at least understand it.

I would like your reaction to that. I know I am putting you and the chairman of the Budget Committee in something of a box with this, but I do go back to the days when the trust funds were created as trust funds and I have seen the budgeters of both parties get around that congressional intent and would like just a comment.

AVIATION TRUST FUND

Secretary SLATER. Well, first of all, let me commend you for raising really an important question, even though it is difficult to grapple with.

But let me also commend the Senate and the Congress as a whole for the prompt action taken on the reinstatement of the aviation excise tax, because our trust fund was almost in bankruptcy status, and I very much appreciate, and I know that the entire administration appreciates, the prompt action taken there.

Also let me say, as relates to the issue of equipment and the other needs of the aviation industry, because that is what is really underlying the question and the strength and power and force of

it—Senator Lautenberg mentioned earlier the fact that there was the equipment failure at an airport in his State, and that has happened probably all too often in districts and States around the country.

I think that the Congress, working with the administration, has acted to give us the most powerful tools we have ever had to deal effectively and forthrightly with these issues. I speak of it from the vantage point of my work as Federal Highway Administrator. I think coming into the office and having the ability to make ISTEA real, with all of the planning and flexibility and innovative potential there, was a treat for someone who really wanted to make a difference, as was noted earlier by Senator Lautenberg in reference to Chairman Shelby and the opportunity he has now serving as chairman.

I think today the aviation industry, FAA, has the same opportunity we had in highways with the enactment of ISTEA to really make a difference, to turn the curve, to deal with these issues of personnel reform, procurement reform, and then with the advent of the National Civil Aviation Review Commission and the work that it will do in dealing with the long-term funding needs to put aviation on a path, a flight path if you will, that will ensure that it will give us what we need in the first half of the 21st century when it must play the role that the Interstate System played in the last half of the 20th century, helping us to develop a national economy, the Interstate System, but the aviation industry helping us to compete effectively and forcefully and win on the international stage.

And all of these funding questions underlie that, and so I would like to, in offering my response, make the point that I do understand the issue. I think that you raise it—even though uncomfortable—you raise it as it should be raised, and we just have to work over the coming year to answer this very difficult question and to find common ground in doing so.

Senator, as one who would not see any Senator as just another Senator, I very much appreciate you for having raised this very, very important issue.

Senator BENNETT. Thank you. Thank you, Mr. Chairman.

Senator SHELBY. We have been joined by Senator Specter. Do you have any opening statement, Senator Specter?

STATEMENT OF SENATOR SPECTER

Senator SPECTER. Well, thank you very much, Mr. Chairman. I am delighted to join others in welcoming the new Secretary of Transportation. It is a job of enormous importance.

I am very much concerned about the funding for mass transit, for operating expenses. The impact of cuts is very, very hard on not only the big cities but in the rural areas. People do not understand that mass transit affects small counties in my State like Monroe County and Schuylkill County, and in the big cities it is indispensable in order to take people from the inner city to jobs in the suburbs. I think we have to do better on that subject.

On the ISTEA issue, I am hopeful that we will be able to find the money to take care of America's infrastructure. I know that in the House of Representatives, Chairman Shuster is taking the position that the highway trust fund ought to spend all the money on

highways. It has some very substantial opponents, as I understand it, Senator Domenici, among others.

But I think we need to get to the day where we will have the trust funds carry out the purpose for which they were intended. They really are trust funds.

When I was district attorney in Philadelphia, I indicted people who invaded trust funds because that is a fraudulent conversion, and the Federal Government, regrettably, can get away with it.

One other point that I would like to comment on, as we move forward to ISTEA, I think it was very important that we maintain adequate funding for mass transit. We have a very delicate situation with the supply of oil from the Mideast. This is something I saw in some detail working on the problems of terrorism in Saudi Arabia, the difficulties we have seen with Iran, and while we do not like to think about it or talk about it, we have to face up to the fact that the government in Saudi Arabia is on a thin thread and that if we had a problem with Saudi oil, we would be in very, very deep trouble, the entire Western World and Japan. So, we ought to be moving toward independence from Mideast oil.

I know Senator Byrd and I and others have worked years on the subject of clean coal. We have hydrocarbons in our country which would go a long way for independence from Mideast oil. That is a very bitter pill we might have to face, but we can do a little something about it on ISTEA if we look more to mass transit.

Thank you very much, Mr. Chairman.

Senator SHELBY. Senator Byrd.

Senator DOMENICI. Senator Byrd, would you yield one moment to me?

Senator BYRD. Certainly. I would be glad to.

Senator DOMENICI. Thank you. I cannot stay because of another engagement.

I have several questions, which I am going to submit for the record, Mr. Chairman.

Senator SHELBY. Submit them for the record.

Senator DOMENICI. I very much would appreciate as early an answer as you can give us.

Secretary SLATER. Yes, sir.

SPENDING OF TRUST FUNDS

Senator DOMENICI. Let me just make one quick observation about trust funds. What we are trying to do is make sure the Appropriations Committee maintains some power over how the trust fund moneys are spent, just to be honest with you. Frankly, just because you have an airport trust fund did not mean that the expenditure from that trust fund to build a new computer system was right. Had somebody been looking at it, they might have said we do not want to spend the money. It turned out to be a botched project.

So, I am trying to find a balance between a trust fund and making sure somebody has some real oversight and some ability to say that this year we are not going to spend all the money in the trust fund because the program is not right.

Now, I am sure, even in your capacity as district attorney, that the judge would understand that I am acting in good faith. So, I

would urge that you not seriously consider taking any action against the chairman of the Budget Committee. [Laughter.]

Senator SPECTER. Mr. Chairman, just one comment. I would confess error if there was any error to confess about implicating the distinguished chairman of the Budget Committee. I am not saying that you have to spend all the money in the trust fund. What I am saying is that the money in the trust fund ought to be spent for the purpose for which it is intended.

Thank you.

Senator SHELBY. Senator Byrd.

Senator DOMENICI. Thank you, Senator Byrd.

STATUS OF APPALACHIAN HIGHWAY SYSTEM

Senator BYRD. The Senator is welcome.

Mr. Secretary, as I indicated in my opening statement, I am very encouraged by the President's request for $2.19 billion in contract authority and obligational authority for the Appalachian Highway System. I think it is an excellent first step toward ensuring the system's completion.

Question.

Secretary SLATER. Yes, sir.

Senator BYRD. Even though you are not able to request the adequate funding in the next 6 years to complete the system, is the administration committed to its eventual completion as soon as possible?

Secretary SLATER. Senator, we are committed to that end.

Senator BYRD. Based on the funding stream that you have recommended for the next 6 years, when do you estimate that construction of the system will be completed?

Secretary SLATER. We anticipate that—well, first of all, we are doing an update of the estimate. I believe the last was done in 1992. At that time we anticipated that the cost to complete was probably in the neighborhood of about $7 billion or so. We were asked by the Appalachian Regional Commission to do an update. We hope to have that update completed by the middle of the year. I would say summer. I think we are looking at May. At that time we will have a better handle on what the challenge is. We anticipate that it will again be in the neighborhood of about $7 billion or so.

When you consider what we were able to offer as a result of this reauthorization proposal—that will become public fairly soon—of around $2.19 billion, it is anticipated that it will probably require that we go beyond the 6-year period of reauthorization. So, I would assume and hope that over the next decade or so, maybe a little longer, we can complete the funding of this very important program.

I do understand that many are a bit frustrated. This was an effort that started more than 30 years ago, and you do have the commitment of this administration to work with you in partnership to see that the work is done and is done as timely as possible.

Senator BYRD. I appreciate your answer, Mr. Secretary. I was a little bit concerned by the words that you used. Perhaps you did not choose them with design.

Secretary SLATER. Yes, sir.

Senator BYRD. But you said, within the next decade or so, possibly a little longer.

Secretary SLATER. Yes, sir.

Senator BYRD. I would hope that we would complete this system in 12 years, which would give ISTEA—two highway bills—certainly no longer than 3, which would be 18 years.

Secretary SLATER. I understand. I can tell you that as I was thinking about the next decade or so, I was thinking basically two evolutions of reauthorization.

Senator BYRD. Yes.

Secretary SLATER. But since those bills can sometimes be 6 years, 5 years, I just did not want to be too specific there, but we are going to do the best we can this time around.

Senator BYRD. Well, you cannot be too specific. I think we are on the same wavelength and I appreciate your understanding of our needs, those of us who represent the Appalachian States.

Secretary SLATER. Yes, sir.

Senator BYRD. Will the Appalachian highway funding that you are proposing in your ISTEA proposal also grant the necessary obligational authority so that the States do not have to choose between funding the Appalachian highways and addressing their other highway needs?

Secretary SLATER. That is correct, sir. There will be no impact on the obligation authority that is normally given to the States through the formula program.

ALCOHOL-IMPAIRED DRIVING

Senator BYRD. Mr. Secretary, I have been concerned for many years about the dangers of alcohol-impaired driving.

Let me say, incidentally, we have witnessed a great crusade in this country against smoking and it is being fairly successful, I think. I am not critical of that crusade, but what I cannot understand is why this Government of ours is not equally concerned about alcohol. Why do we not have a crusade against drinking, not just drinking while driving but against drinking, period?

Now, it may not be very politically correct—God help us if we ever succumb to that term—to mention drinking.

I see the smoker as maybe killing himself, but I see the driver who is drinking as killing other persons, innocent people, my wife, your wife, our children, our grandchildren, and so on, and likely not killing himself.

As I have noticed most of these collisions that involve drunken drivers, it seems to me that they get off with a few bruises in most instances, but it is the person who was not drinking who is killed.

I just hope that this administration will take up the crusade against this evil. Smoking does not break up homes. Smoking does not cause divorces. Smoking does not cause absenteeism from the job, from the work place, but it is Old John Barleycorn, that evil we call booze. We need to effectuate a crusade in that regard.

Now, that is neither here nor there as far as your questions and answers are concerned, but it leads me at least to this question.

Are the fiscal year 1998 requested amounts for these types of programs sufficient to deal effectively with the problems associated with drunk driving, particularly given the fact that in 1995 alcohol-

related fatalities rose for the first time in a decade to 17,274 deaths?

I am alluding to the request for the alcohol-impaired driving incentive grants for which NHTSA has requested $34 million, an increase of $8.5 million from fiscal year 1997.

I am also referring to the impaired driving research or section 403. NHTSA is asking for $1.6 million, the same amount as fiscal year 1997.

For the State and community formula grant program, NHTSA has requested $140.2 million, $34.1 million of which is approximately spent on alcohol safety programs. The fiscal year 1998 funding is at the same level as fiscal year 1997.

So, again, are these requested amounts for these types of programs sufficient, in your judgment, to deal effectively with the growing problems associated with drunk driving?

Secretary SLATER. Senator, first of all, let me say that the increase in the number of accidents involving alcohol-impaired drivers was not a figure that went unnoticed by those of us within the Department. We are committed to safety as the No. 1 priority, more than just through rhetoric. That kind of reality is what has caused us to make a significant increase in our request for funding to really provide more incentive to States to respond to these kinds of issues.

As relates to the alcohol-impaired driving program, we do request an additional $9 million. That is a significant increase, but I would like to note that overall, as it relates to all of the NHTSA programs, we are requesting an 11-percent increase in those programs.

So, again, to give States a toolbox from which to select those initiatives that best meet their particular challenges, we are asking for total funding in the amount of $333 million for NHTSA for these types of programs.

We are also beginning to focus more and more on driver behavior as an area on which to provide additional resources and focus to deal with this particular issue. We have made significant contributions on the infrastructure side, dealing with pavements and the like, also as it relates to vehicle safety, but we do believe we can do more in the area of human factors and that is where we are going to focus a lot of attention and effort in the coming years.

Senator BYRD. Mr. Secretary, I compliment you on your response.

I hope that you will be more aggressive, very aggressive in pushing the States in this direction.

Secretary SLATER. Yes, sir.

SAFETY OF WASHINGTON, DC, AREA PARKWAYS

Senator BYRD. The life you save may be mine, and I am thinking of the George Washington Parkway.

Secretary SLATER. Oh, yes.

Senator BYRD. Recently we have seen some terrible, most tragic accidents occur on that road, and it was my understanding in watching the TV that $16 million would be needed to install structural divides between the road going east and the highway going west.

Secretary SLATER. Yes, sir; your divides.

Senator BYRD. Those median strips are so very narrow in so many places.

Do you have any comment?

Secretary SLATER. Yes; I do, sir. This is something that we have followed very closely. I might also add that the Baltimore-Washington Parkway, about which I know Senator Mikulski is very interested—we have looked at these and we have really tried to work with the Park Service to make the necessary improvements. I might add, though, that our figure is more in the area of about $10 million for the improvement, but I am willing to be mistaken on that point.

The only point I want to make is we will work with the Park Service in partnership to make sure that the necessary improvements are made. We are expediting the process to provide for some temporary structural improvement over the next few months, and then we will move forward with the kind of resources and initiative necessary to provide for the permanent barriers.

But if I may, Senator, let me just say that I saw a very interesting editorial in the Washington Post dealing with this issue, which noted that these parkways were not built to interstate standards, nor were they built with their use to be in the same way as the interstates are used.

In the final analysis, I think we have to seek the assistance and the support of the driving public that will use this facility and know that it is constructed in the way that it is constructed so as to accentuate the pristine beauty of the roadway and the landscape, as well as to provide a transportation service. We just all have to be considerate of the individuals with whom we share the road. So, I think enforcement is also a part of the answer, and that is really what I am getting to.

Senator BYRD. Mr. Chairman, I know my time is up. May I ask one question of the Secretary with regard to the funding that is needed in regard to the problem that we just indicated?

Would this be funding that would come through this subcommittee or would it come through the Interior Appropriations Subcommittee which has jurisdiction over the parks?

Secretary SLATER. It is going to come from our Federal Lands Program, which is a part of our overall DOT program. So, this committee would have a lot to say about those resources and how they are expended.

Senator BYRD. Mr. Chairman, I hope we will do something about this.

I thank the chairman and thank the Secretary.

Senator SHELBY. Senator Faircloth.

MILEAGE OF APPALACHIAN HIGHWAY SYSTEM

Senator FAIRCLOTH. Thank you, Mr. Chairman.

I also share an interest with Senator Byrd on the Appalachian Highway System. I was 8 years working with it.

Have we added additional miles to it? Have there been miles added since the inception—what? Thirty years ago?

Senator BYRD. Over 30; 32 years.

Senator FAIRCLOTH. Have there been additional miles added to that system or is it a locked-in mileage? If we have continued to

add mileage to the system, then there is some reason for not having completed it in 30 years, so are we still adding? That is my question.

Secretary SLATER. Yes; I understand the nature of the question.

Let me just say that I do not know personally whether miles have been added. I would say this, that most of the costs and the increase that we have determined are really based on other factors, the need to ensure that the roadways are compatible with the environment and a lot of our clean air responsibilities that have come into existence in the ensuing years. But that represents the increase in the costs more so than the addition of miles.

I have just gotten a note that no new miles have been added.

Senator FAIRCLOTH. No new miles.

Senator BYRD. It seems to me, if the Senator would yield, that there have been some new miles added from what they were in the very beginning.

Secretary SLATER. OK. Let me just say that what I would like to do is to look into it. I know that the system is pretty much consistent with the way we have looked at the Interstate System where originally it was about 42,000 miles, if I understand correctly. Then over time, because of changes in demographics, there were some roadways that were added, and we have got a system now that is about 45,000 miles. I would not be surprised if a few miles have been added to the system.

But the point that I want to underscore is that the increase in the cost is primarily based on inflation and based on other responsibilities that we have to meet that go beyond just the laying of the concrete, the asphalt, and the steel, many of them environmental considerations. We are taking those into account appropriately so, and our objective is to complete the system as soon as possible at a cost as low as possible.

Senator BYRD. Mr. Chairman, would the Senator yield again?

Senator FAIRCLOTH. Sure.

Senator BYRD. I wonder if the Secretary—and perhaps I am the one who is confused—is talking about the interstate mileage system when I believe the Senator is talking about the Appalachian corridor.

Secretary SLATER. Yes; I was talking about Appalachian. But my point is I would not be surprised that some miles were added. We are going to confirm that.

But then I went on to use the interstate as an analogy. Originally it was laid out actually during the Roosevelt administration, and then during the Eisenhower administration, we were able to put together—Senator, you noted your presence at the time—not only the concept but also the funding mechanism. Then over time, because of some demographic changes, we did add miles here, miles there. We are talking about I–73/74 right now. So, those kinds of additions have been made over time, but it has not resulted in a large addition. We started at about 42,000 miles. We are now at roughly 45,000. That is not a significant addition with a system of that size, and I would think that the same would hold true with the Appalachian development highway program.

[The information follows:]

No corridors have been added to the system since 1978. However, Congress amended the 1965 Appalachian Development Act to increase the original 2,350-mile Appalachian system in 1967 to 2,700 miles, in 1975 to 2,900 miles, and finally in 1978 to its present size of 3,025 miles.

VARIED USES OF HIGHWAY TRUST FUND

Senator FAIRCLOTH. Thank you.

Secretary Slater, the administration has expanded the use of highway trust funds in many, many areas. When we added a 4.3 cents per gallon tax increase on gasoline, it simply went to the general revenues. And now the President has proposed that funding for Amtrak come from the trust fund, which it did not in the past. Additional funds for the National Highway Traffic Safety Administration come out of the trust fund.

If we keep bleeding the highway trust fund—and that is what we are doing with every program that comes up—do not we at least need to give the States additional flexibility in the use of their transportation funds?

And if we need to fund Amtrak, do you favor an additional one-half cent per gallon as they have wanted, and is that the direction we are headed in?

Secretary SLATER. First of all, let me just deal with the issue involving Amtrak. We are engaged in ongoing discussions internally about how to best fund Amtrak. Once we are clear as to our thinking, we will then, as we always have to do, come to the Congress for your consideration of that proposal, and hopefully in the process, we can find some common ground there.

What I have said is that, as Secretary of Transportation, I do view Amtrak as being central to our transportation system for the 21st century. Now, the issue of how we fund it is a matter that is open to discussion and to debate.

On the question of the use of the trust fund for purposes that go beyond, say, the hard side of transportation, meaning the investment in the concrete, asphalt, and steel, with the highway trust fund, let me just say that with our reauthorization proposal that will become clearer as we unveil it and roll it out. The focus will be on the preservation primarily of the system as it exists, with over 80 percent of the resources going toward the NHS system, interstate maintenance——

Senator FAIRCLOTH. Excuse me.

Secretary SLATER. Yes, sir.

Senator FAIRCLOTH. Maintenance of the Interstate System?

Secretary SLATER. The NHS which includes the interstate; yes, sir.

Senator FAIRCLOTH. Just the maintenance, not expansion.

Secretary SLATER. Well, also expansion.

Senator FAIRCLOTH. But primarily maintenance.

Secretary SLATER. Primarily maintenance because most of the system is in place.

And I want to get to that question of flexibility because that is exactly what we are doing. We are giving the States the option. They are not being forced to do anything. They are going to have the flexibility to use the resources to make the decisions that they think best, clearly after having gone through the planning process.

But the point I want to make is that, with the reauthorization proposal, we are going to focus primarily on preserving the system that we have, and that could include expansion. But the NHS, which includes the Interstate System, the interstate maintenance portion of the NHS, the bridge program—many have mentioned bridges here today—and then the Surface Transportation Program [STP], which is almost like a grant program that provides maximum flexibility to States and local governments to deal with their transportation needs. Eighty percent of all the funds will go toward that kind of an investment.

When you compare apples to apples, meaning ISTEA and our program, the total amount for ISTEA is about $157 billion. For our program, again apples to apples, those things in our program that are in ISTEA, our total is about $169 billion, which is still a considerable increase, I think about 8 percent.

Then you get to the additions that take our total program to roughly $175 billion. But again, most of the program goes exactly as you have expressed in your comment, toward the core system, the core programs.

But we do offer a proposal to include other things, for instance, the welfare-to-work portion of our effort, at $100 million. That is a part of our initiative to ensure that all Americans, wherever they find themselves, whether in urban, suburban, or rural America, have the benefits of our transportation system and also have really the skills that make them viable players in our society, individuals able to make a difference. But it is only a small portion of the bigger pie.

Then we also hope to make that pie even bigger through our innovative financing initiatives, again the State infrastructure banks and also the Federal credit program that we hope to finance at about $100 million per year. That is the way we hope to deal with the important issues that you have raised, Senator.

Senator FAIRCLOTH. Are we going to see this flexibility in the administration's ISTEA proposal that is coming up?

Secretary SLATER. Yes, sir; we hope to provide even greater flexibility.

An example, the ITS technologies, intelligent transportation technologies. We want to make those kinds of expenditures eligible for all of the major programs, but we want to give that flexibility again to the States and to locales.

Senator, I too have had the honor of serving as a commissioner in my State, you serving as the head of your program in North Carolina. I know that from that vantage point, you want as much flexibility as possible when it comes to dealing with too many projects with too little money, and with that flexibility, you can be strategic and you can put the moneys to the greatest use. We hope to make that the norm rather than the exception.

AVIATION COMPUTER SYSTEMS PROCUREMENT

Senator FAIRCLOTH. Secretary Slater, my time is running out but I have one question that bothers me, and we talked on it briefly in my office the other day.

Secretary SLATER. Yes, sir.

Senator FAIRCLOTH. I understand it was not of your doing and you were not even there. But the $1 billion that was put into an utterly failed computer system is a great source of bother to me and a lot of other Senators that I have heard mention it. I understand that some of the overall project might be salvageable for something.

But has any investigation internally been pursued about how they could spend $1 billion—and I think that was the figure—on a total failure? And not only did it waste the $1 billion plus, we went 12 years with a deteriorating system for the FAA. We are operating with an absolutely antiquated system. Has there been any investigation as to who created this fiasco?

Secretary SLATER. Well, let me just say that I do believe that there have been some investigations. What I would like to do is to follow up with more detailed information on that.

[The information follows:]

There were several investigations in the form of studies on the AAS program and the problems that surrounded it. Studies were conducted by the National Volpe Transportation Systems Center, Center for Naval Analysis, Lincoln Labs, the Software Engineering Institute, and a team of independent FAA experts. Those investigations concluded that there were multiple reasons that resulted from the actions of numerous organizations for the failure of AAS. Subsequent to these studies, the program was rescoped, top-level management of the program was changed, major improvements were made in the way major acquisitions are managed, and the resulting programs are fully on track.

Secretary SLATER. What I would like to do, if I may, is to say that this sort of thing cannot be tolerated, that we have limited resources, and as good stewards, we have to ensure that those resources are expended in such a way as to bring about the best and the greatest good for the American people.

It is true that we had a very detailed conversation about this long before I was confirmed, and I made a commitment to you then that we would move forth aggressively and with dispatch to fully implement all of the laws that the Congress has given us to deal with acquisition reform, to deal with personnel reform, and hopefully in the next few months to a year, to get the tools that we need to deal with the long-term funding needs of aviation. But your point is well taken.

I would also like to note that Secretary Peña and Administrator Hinson and also Deputy Administrator Daschle, upon getting into office and getting a sense of this issue, did revive the approach to dealing with this concern, and I think we have had a pretty good record since that time. But it is a record that we want to make better. In partnership with you, Senator, and others who I know are concerned about this issue, I know we can.

Senator FAIRCLOTH. Could you have someone in your office send me the background on this?

Secretary SLATER. We will do that.

Senator FAIRCLOTH. And somewhat of a litany of how the fiasco developed.

Secretary SLATER. Yes, sir; we will do that.

Senator FAIRCLOTH. I understand we are going to have another hearing later on with the FAA people. I would like to have that report as soon as possible and before the hearing.

Secretary SLATER. Yes, sir; we will get that for you.

Senator SHELBY. Senator Mikulski.

TRANSPORTATION ISSUES FOR MARYLAND

Senator MIKULSKI. Mr. Chairman, thank you very much. I too would like to congratulate you on assuming the chairmanship and stewardship of this subcommittee. We have worked together in the House on Energy and Commerce where we did a lot of the railroad legislation in those days and also worked with the chairman on Treasury/Post Office where you showed us so many courtesies, for which we were appreciative. I look forward to working with you on this committee.

Mr. Slater, let me just talk about a few things. First, my opening statement is in the record, but transportation is vital to Maryland. We are in both the interstate and rail corridor from Massachusetts down all the way through the South into the Carolinas, and of course are part of the hub.

We are also in many ways part of the regional hub for the capital of the United States of America. So, it tends to be that our subway system, our highway system are very important to that.

Of course, we are on the Chesapeake Bay and the Coast Guard is so crucial to us.

So, we could go through all of those, but I would like to get to a few top priorities.

Your agency is truly where the rubber meets the road, and the American people really count on you for safety. I am not going to reiterate what my colleagues have said, but I really want to offer the strongest and amplified voice that our safety, particularly in rail and aviation and highway, really be affirmed, whether it is the behavior of drivers, the fitness for duty of FAA, and also of our rail.

Senator Byrd has left, but this time last year we were just about attending the funeral for some wonderful Job Corps kids who were killed in a most ghoulish accident in the MARC train in Silver Spring.

So, we are really safety obsessed and count on you to really be able to move on that. Often air safety captures the imagination of people, but everything from driver's education to switches now are yours.

WOODROW WILSON BRIDGE

Let me, though, go on to what I think is another safety issue and it does affect the capital area, and that is the Woodrow Wilson Bridge. I know this might be seen as a Maryland or Virginia project, but it is a national project because it is a bridge over the Potomac that is one of the key links in the I–95 Interstate.

As you know, the Woodrow Wilson Bridge is, No. 1, 30 years old. No. 2, it was designed to serve 70,000 people. It now currently serves one-quarter of a million people a day and projections increase.

The bridge is outmoded. It is of questionable safety as it goes on.

I wonder what the administration's timetable is and plans are for the Woodrow Wilson Bridge. I note a $40 million item in the budget. That is about 4 percent of what is estimated. So, I would like to hear from you your plans for the Woodrow Wilson.

Secretary SLATER. First of all, we recognize the importance of this structure to the overall transportation system of the country, especially the interstate. This is the only bridge on the interstate that is owned by the Federal Government, and because of that fact, we also understand the important role that we must shoulder and must carry in dealing with this very important transportation safety challenge.

Let me just say that the $40 million that is in the budget, the 1998 budget, is for continued design purposes, as well as I think about $10 million for rehabilitation purposes, to just extend the life of the structure.

But we do know that we are working on a short fuse here and we have got to deal with this issue as quickly and as expeditiously as possible. In that spirit, we are working with the Woodrow Wilson Bridge Commission that has worked tirelessly to come up with a design that I think has received at least positive response. It is a design that has a price tag in excess of $1 billion.

We have made the comment in the President's budget that we see ourselves as clearly having a $400 million or so obligation as relates to the structure, because that is the amount that it would take to rebuild the structure to current standards, if we were merely replacing it as is.

But we understand the concerns of both the State of Maryland and the State of Virginia, as well as the District, when it comes to dealing with this issue and want to come to some closure on it and look forward to working with you in that regard.

Senator MIKULSKI. So, you anticipate, from what you see, that the Federal Government's obligation would be one-half of what is estimated that the project would cost to rehabilitate the current bridge.

Secretary SLATER. That is correct.

Senator MIKULSKI. Therefore, your current thinking is that the other one-half would come from Maryland and Virginia.

Secretary SLATER. Well, clearly that is our current thinking, but I can tell you that we have gotten strong vibes from both Maryland and Virginia that it is their belief that since it is a bridge that is owned by the Federal Government, that our responsibility is much greater. We are taking those comments into account.

Senator MIKULSKI. This requires further conversation.

Secretary SLATER. Sure.

Senator MIKULSKI. I have gotten more than vibes from Governor Glendening. I have gotten vibrations from Governor Glendening [Laughter.]

Secretary SLATER. I understand.

Senator MIKULSKI. And the Maryland General Assembly, concern about exactly how we would do this.

What do you think would be a process by which we should go in order to be able to resolve what we are going to do and how we are going to pay for it so we really do move expeditiously on this project? Do you have suggestions on that?

Secretary SLATER. I do.

First of all, let me say that I have gotten more than vibes as well from Governor Glendening. We have talked directly about the matter and I do understand his position on it.

I think that there are a number of ways to approach it.

First of all, there has been significant coordination among the States and the District, the State leadership, the congressional leadership, and our Department on this matter. Also, I do think that there is a recognition clearly that we have a responsibility to play a substantial role when it comes to financing this project. One of our employees was actually the Chair of the Woodrow Wilson Bridge Replacement Committee.

Senator MIKULSKI. My time is going to run out. So, what do you think we should do?

Secretary SLATER. Yes; this is what I think we should do: Not lose the opportunity to take full advantage of reauthorization. It is a 6-year bill. It gives us an opportunity to deal with the money responsibilities over a period of time. Look at all innovative financing opportunities available to us, whether it is the State infrastructure bank [SIB] initiative or the credit program that we are going to bring on line to deal with large multistate projects, and to just stay engaged. I think we can come to some common ground on the matter.

There are many funding strategies to be taken into account, and we should explore them all. But I want to assure you that we understand our obligation to play a substantial role in dealing with this matter.

Senator MIKULSKI. Is it your intent within the next few months to meet with the Governors of the two States, their secretaries of transportation?

Secretary SLATER. Yes; that is my goal.

Senator MIKULSKI. I can say this on behalf of Senators Warner and Robb, Senator Sarbanes and myself, we are very eager to resolve this and I think we would look forward to any type of collegial consultation process in which we then would bring our Governor or our secretaries of transportation in for a meeting and almost like a little workshop on this to resolve this.

Secretary SLATER. Yes.

TRANSPORTATION-RELATED EMPLOYMENT

Senator MIKULSKI. I know my time is moving along. Let me just ask two things about jobs because you help people get to work. I have two questions on that.

No. 1, my concern is that I would like the United States to be a leader in manufacturing of transportation. Right now we are the world's leader in the manufacture of airplanes, but we are not the leader in manufacturing of buses and railcars. What is happening is we buy all of this stuff and it is not from America.

Now, this is not jingoism. I agree we believe in a global economy, but we spend all this money, Federal level, State level, on buses and railroad cars, freight as well as passenger. I wonder if you have thoughts on—not a Government program; we are not looking for a comrade five-point program here—but what we could do to strengthen the Buy American provision, not shackle the Government or private sector. But, boy, I wish when we were spending this money, we were back in the transportation business.

This is no fault of our cousins from Canada, who are wonderful neighbors, but we have got a little $20 million subway system run-

ning around this capitol, and we bought it from Canada. Well, I did not know if we had to spend $20 million and I did not know if we had to spend it in Canada. Maybe we did, and it is no fault of Canada. But, my gosh, every time I see a bus and a railroad car, I wish it was made by UAW workers or their equivalent somewhere.

Do you have thoughts on that?

Secretary SLATER. I do. Senator, first of all, I believe as well in the made-in-America spirit. I think that has been manifested in the Department of late with the significant rebound that has occurred on the aviation front, but I would also mention the shipbuilding industry as well. We, through the support of the Congress, have a Maritime Administration that is moving, moving forth aggressively, confidently, and I am sure will be a major player in the years to come.

There is a lot of talk about how we are moving from an industrial society to an information-based, technology-based society. We still need to build things and our people are capable of building things to be used in the 21st century. I think transportation provides an ideal arena in which to explore this kind of initiative.

One thing that I mentioned in my opening statement was a desire to have the support of the Congress, this committee in particular, as I move toward the implementation of what I am calling the Garrett A. Morgan Technology and Transportation Futures Program to focus on those transportation needs of the coming century and to work now to build a work force of visionary and vigilant individuals who can make real that dream.

I would like to bring in 1 million young people in that kind of effort, working with management and labor, and I have spoken to President Sweeney about this. I have spoken to CEO's, CAO's of some of the major companies, and I have also had conversations with many of you. I look forward to making this a reality.

Senator MIKULSKI. Well, I think that is a good step.

Would you also support strengthening Buy American provisions in both the authorization and appropriations?

Secretary SLATER. Oh, yes; yes, I would.

TRANSPORTATION AND WELFARE REFORM

Senator MIKULSKI. Thank you.

Mr. Chairman, my time is up. I just want to wrap up by saying I really support your initiative of welfare to work. I think transportation is one of the biggest deterrents, particularly in rural parts of my State, of people being able to move back into the market force. I think by that initiative, we will truly get welfare reform moving literally and figuratively, and I look forward to working with you.

Secretary SLATER. Thank you. Thank you, Senator.

STATUS OF ADMINISTRATION'S SURFACE TRANSPORTATION REAUTHORIZATION

Senator SHELBY. Mr. Secretary, when is ISTEA coming up?

Secretary SLATER. Well, we hope to have our bill soon, Mr. Chairman. You know I had two committee hearings last week. One of them went a little better than the other, and I think it is because I was more specific. I made a commitment then that we would have

our proposal ready within 7 to 10 days. We are nearing that 10-day period, and I am committed to fulfilling that commitment.

AIRPORT IMPROVEMENT FUNDING

Senator SHELBY. AIP funding is at an alltime low in recent history, and in the 1998 budget request you have requested an obligation ceiling of only $1 billion. In the past 4 years, Mr. Secretary, annual airline passenger enplanements have increased 16 percent and investment in airport development has decreased 23 percent. That is before the $460 million decrease in airport investment envisioned in the President's budget.

I have been informed that the FAA has pending applications for over 3 billion dollars' worth of airport improvement projects ready to go. The FAA cites 22 airports that are seriously congested and estimates, Mr. Secretary, that number growing up to 32—in other words, another 10—in the next several years.

Delays, as you well know, associated with congestion cost the airlines over $500 million a year directly, and the total cost to the national economy is many times greater, if you consider the time lost to passengers and businesses in doing it.

Yet, your budget request here requests the historically low airport improvement funding level that I mentioned earlier of $1 billion, lower than the AIP ceiling has been in 10 years.

Mr. Secretary, have we been spending too much on airports or is the President's budget underfunding our airport needs? And has the Department done any research on the economic impact of funds spent on new airports and airport improvements?

Secretary SLATER. On the latter question about the research, let me just say that we have ongoing research dealing with the overall impact of transportation on the economy and we are studying it from all vantage points. So, clearly, we are looking at it from the vantage point of investments in airports.

Let me also say that I do not think that we in the past have been spending too much on airport infrastructure improvements, but I also say that as we offer a budget in this environment, that I do not think, as we have reasoned, that we will be spending too little in this instance, because it is our belief that the larger airports have many, many opportunities to access resources for improvements on and improvements to the system.

It is your smaller airports that really, really rely on the Airport Improvement Program, and if we can continue to address their concerns and in innovative ways encourage the larger airports to try to leverage private sector dollars or to utilize public sector dollars in more innovative ways, then I think we can bridge the gap, if you will. But it is going to be difficult.

In a nutshell, this proposal is merely reflective of our desire to have as much investment as possible but within the context of a balanced budget goal, shared by both the administration and the Congress.

REGULATION OF GOLF CARS

Senator SHELBY. I want to get into the regulation of golf cars, whatever that is. I was intrigued, Mr. Secretary, to learn that the National Highway Traffic Safety Administration is proposing to

regulate the safety of golf carts. Evidently golf carts whose speeds do not exceed 15 miles per hour would be excluded. However, faster golf carts whose speeds are over 15 miles per hour but under 25 miles per hour would be regulated as golf cars.

Golf cars, I understand, would be required to have headlights, turn signals, taillights, reflectors, mirrors, parking brakes, windshields—windshields—and seatbelts. They would also have to post warning stickers that state, "This vehicle must not be operated on the public roads at a speed more than 25 miles per hour."

I know that the NHTSA has important responsibilities to deal with to reduce the number of deaths and injuries resulting from highway traffic accidents. However, I am not aware myself of any deaths or accidents dealing with these.

I would like for you to explain.

Secretary SLATER. Well, if I may, Mr. Chairman, I have been on the job now for a couple of weeks.

Senator SHELBY. Is this a surprise for you as well?

Secretary SLATER. And during my confirmation preparation and hearings, this is an issue that never came up.

Senator SHELBY. Would you look into it?

Secretary SLATER. I will definitely look into this.

I will say this. We are serious when we say we are going to take a commonsense approach to Government.

Senator SHELBY. Just common sense.

Secretary SLATER. Common sense. We will review this particular action.

Senator SHELBY. I hope you will. I do not have a golf cart. I do not ride in one, but I do not know how you make a car out of it.

Secretary SLATER. I understand.

[The information follows:]

There appears to be a growing demand, especially around retirement communities, for small, light-weight, low-speed vehicles as alternatives to the traditional passenger car for short, in-town trips. Part of this demand will be met by "Neighborhood Electric Vehicles" (NEV's), which are small, electric passenger cars manufactured for on-road use, but capable of being used on golf courses. Part of this demand will be met by golf carts, because States have begun to amend their laws to allow golf carts to use the public roads with other heavier forms of traffic at speeds up to 25 miles per hour.

The National Highway Traffic Safety Administration (NHTSA) has jurisdiction over vehicles used on the public roads. At the present time, any on-road vehicle capable of a speed of 25 miles per hour is subject to the full range of Federal motor vehicle safety standards. It does not appear practicable or necessary for NEV's, on-road golf carts, or other small, low-speed vehicles to meet current Federal motor vehicle safety standards, which, in the absence of further NHTSA action, they would be required to do. After studying the regulations of the City of Palm Desert, California, which has a golf cart safety program in force for golf carts registered for use on the city roads, NHTSA decided to propose creation of a new class of vehicle, called "Low-Speed Vehicles" (LSV's). All LSV's, whether fast golf carts or NEV's, would be required to have the safety equipment that Palm Desert has found to meet the needs for safety of that community. In addition, a warning label would be required advising that the LSV is not to be operated at speeds in excess of 25 miles per hour.

NHTSA is currently evaluating comments on the proposed regulation. The Senator is correct that there are no reported deaths and injuries concerning on-road golf carts. That is attributable in part to their scarcity. The possibility of accident involvement is bound to increase with their numbers. In addition, there is no assurance that Palm Desert's system of road zoning and restriction of LSV use to daylight hours—factors contributing to golf cart safety—will be adopted by other municipalities permitting the use of golf carts and NEV's on their streets.

TRAFFIC SAFETY TERMINOLOGY

Senator SHELBY. One other thing. The NHTSA has been in the news also for pushing a new policy that its employees are not to use the word "accident" in any official communication from the agency. Instead, the word "crash" is to be used. Do you believe that the NHTSA should be spending valuable resources—you know, we are having money problems—and time on initiatives such as changing the vocabulary of its employees? Is it reasonable to think that the Federal Government has a role in removing the word "accident" from our common language, common parlance? Would you look into that?

Secretary SLATER. I will look into it, but let me offer this.

Senator SHELBY. Everything is not a crash.

Secretary SLATER. I understand.

Senator SHELBY. I would think a crash would entail something really big.

Secretary SLATER. I understand. I will look into it.

Let me just say that for the second time in the history of NHTSA we have a physician at the helm, and there are within the medical profession terms of art. This effort is only to bring greater clarity to actions that can be prevented. Thus, they are actions that are not perceived as accidents.

But, now, I do not want to get into a long discussion of it. What I would like to do is just follow up with a detailed explanation and then look forward to discussing with the chairman and other interested parties why this is the approach that is being discussed internally. But no final action has been taken on this particular initiative.

[The information follows:]

NHTSA is promoting use of the word "crash" in lieu of "accident" because motor vehicle crashes and injuries are predictable, preventable events. Continued use of the word accident promotes the concept that these events are outside human influence or control. In fact, they are predictable results of specific actions. NHTSA can identify their causes and take action to avoid them.

SUBMITTED QUESTIONS

Senator SHELBY. Thank you. We do have a number of questions for the record that we will be submitting to you. I will have some. Senator Domenici had a number and other members, Mr. Secretary.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR SHELBY

ESSENTIAL AIR SERVICE (EAS)

Question. The FAA Reauthorization Act of 1996 provides a $50 million annual set-aside for EAS, funded by FAA "overflight" user fees. Will FAA realize $50 million in overflight fees in fiscal year 1997? Can this level be anticipated in 1998?

Answer. The FAA issued its rulemaking establishing the specifics of the overflight fee schedule on March 20, 1997. The charges will take effect 60 days after issuance of the rule, on May 19, 1997. As a result, fees will be collected for only about four and one-half months of fiscal year 1997, and are expected to be well under $50 million. EAS does not have access to these funds during fiscal year 1997 until collected revenues exceed $75 million; thus, no funds from the overflight fees will go to the

EAS program in fiscal year 1997. The Department expects that the overflight fees will generate about $90 million per year in fiscal year 1998 and beyond.

Question. In fiscal year 1997, EAS is funded at $25.9 million. Is a $50 million annual program level necessary? Currently, are eligible communities not receiving EAS service because of funding constraints?

Answer. The $50 million funding level for EAS and rural airport safety was established by Congress last year. In our fiscal year 1995 appropriations act, the EAS program was reduced by one-third and the Department was directed to implement service and subsidy reductions across-the-board (except in Alaska), but to keep at least some air service at all communities. In order to do so and stay within the budget, the Department had to reduce subsidy levels below even the statutory minimum service guarantees. The Department would now propose to restore service levels at all of the subsidized communities to at least the minimum statutory guarantees.

There are now nine EAS communities that have no air service as a result of the budget cuts: Kearney and Hastings, NE; Fergus Falls, Mankato, and Fairmont, MN; Brookings and Mitchell, SD; Goodland, KS; and Lamar, CO. As a result of the one-third, across-the-board budget cut, one of the major EAS airlines serving about 20 communities, Mesa Air, announced that it would suspend service at six communities. The Department issued an order prohibiting that suspension, as required by statute. Mesa took the issue to court claiming that the Federal Government had breached its contract by unilaterally reducing EAS subsidies. Mesa prevailed in a unanimous decision in which the Court ruled that Mesa, and by extension all EAS carriers, could suspend service where their subsidies had been cut, leaving affected communities with a hiatus in service.

FISCAL YEAR 1997 SUPPLEMENTAL REQUEST

Question. Currently, there are only two components to DOT's fiscal year 1997 supplemental request: $318 million to correct a Treasury Department error that affected States' highway allocations, and $4 million to cover a military cost of living adjustment for Coast Guard retired pay. Will you request a supplemental for highway funds to repair damage from the January floods in the Northwest, and, even more recently, from the damage stemming from tornadoes in your home State of Arkansas and flooding throughout the Ohio Valley? How much will you request? Will these be classified as "emergency relief" funds?

Answer. Yes, on March 19th the administration requested a supplemental appropriation in the amount of $291 million for emergency needs due to flooding. Of this amount, $276 million is needed for additional emergency relief funding due to floods in the Winter of 1996 affecting the States of California, Idaho, Nevada, Oregon, Washington and Montana. Many of these States required emergency relief funding under both their Federal-aid and the Federal roads programs. The remaining $15 million is requested as contingency funding, for the emergency requirements in the Midwestern and Mid-Atlantic States.

Question. Are there any other pending or possible DOT supplemental requests for fiscal year 1997?

Answer. No, there are none anticipated at this time.

OFFICE OF AVIATION AND INTERNATIONAL AFFAIRS

Question. OST's office of aviation and international affairs utilizes airline traffic and financial data to support its statutory responsibilities in aviation programs. Some of these responsibilities include: developing the U.S. position in aviation bilateral negotiations with foreign countries; deciding carrier selection cases and making international route awards; resolving international route transfer issues; reviewing the antitrust implications of carrier acquisition and merger proposals; setting international and intra-Alaska mail rates; and determining the essential air service needs of small communities and establishing appropriate subsidy rates for such services. The data and statistics that OST utilizes in all these areas is provided by the Bureau of Transportation Statistics office of airline information (OAI). In return for this data, does OST support OAI through annual reimbursable agreements? If so, at what level? If not, why not?

Answer. At times in the past, OST has supported the Office of Aviation Information (OAI) through annual reimbursable agreements when it was a part of the Research and Special Programs Administration. More recently, it was decided that all funds for OAI would be provided more effectively through the modal administration's authorizations. In the current fiscal year, OST does not have any reimbursable agreements with OAI.

TIMELY AVAILABILITY OF AVIATION DATA

Question. Please discuss any problems OST has encountered in the last two years with timely availability of airline data from OAI. Have these problems been resolved? If not, please outline some possible solutions.

Answer. Aviation data frequently are not available on a timely basis, particularly, the Passenger Origin and Destination Survey data and the monthly segment and market data that the airlines file on Form 41, Schedule T–100.

It is clear that timeliness, accuracy, availability and accessibility of aviation data are important for proper analysis. One possible example of a solution is our ongoing effort to replace the Passenger Origin and Destination Survey with a database built on data from computer reservations systems. If this effort proves feasible, we should have an excellent database for the future that could serve many purposes and would not be a major burden for the airlines or OAI staff to administer.

TRANSPORTATION SAFETY PRIORITIES

Question. Given the relative differences in fatality and accident rates on our nation's highways, in the air, on rail lines, and on waterways, are the Department's efforts adequately balanced to address the relative incidence in each mode of transportation? Does the Department conduct any cross-modal safety analyses?

Answer. Ensuring the overall safety of our transportation system requires us to focus our efforts on a diverse array of transportation activities involving the movement of both passengers and freight, some of it commercial, but most by private citizens. The magnitude of the Department's programs in each mode is also determined by the role that Congress has given to the various operating administrations. The FAA budget reflects the fact that it directly operates a massive and complex safety system, which requires the public's full confidence that it is extremely safe. NHTSA, in contrast, can use its regulatory power to set motor vehicle safety standards, but these automobiles are then operated independently by individuals. Other programs in NHTSA, as well as those of FHWA, must use their funding to form partnerships with the States and local governments that have the police and safety enforcement authorities.

All the modal administrations within the Department utilize a cooperative and leveraged approach to achieve continuous improvements in the safety of each mode of transportation. The Department's recently announced NEXTEA proposal reflects an increased emphasis on programs that address the single largest source of transportation-related fatalities (94 percent) and injuries (99 percent), the operation of motor vehicles, particularly passenger cars and light trucks and vans.

Cross modal safety analyses are conducted in the Office of the Secretary, primarily in the comparison of relative statistics and development of common measures, and to assure that safety approaches that prove successful in one mode are applied, where feasible, in others.

SURFACE TRANSPORTATION INFRASTRUCTURE

Question. Congress will take up the reauthorization of ISTEA this year. With continuing budget deficit reduction goals, increasing spending for transportation programs is difficult. Our infrastructure is deteriorating, and congestion clogs our cities. Total public spending on the capital needs for highways and bridges was about $40 billion in 1993, the most recent year for which data are available. However, DOT estimates that as a nation, we are about $16 billion short on an annual basis, just to maintain our existing highway and bridge infrastructure at the 1993 level. Issues at the forefront of the reauthorization debate are how Federal funds will be distributed, and what the Federal role will be. Are we currently getting the most bang for the Federal dollars we invest in our surface transportation infrastructure? Are we directing Federal funds to those programs that can produce results?

Answer. One of the key factors in the success of the ISTEA legislation over the past six years has been the flexibility it allowed for States and local governments to distribute funding to their top-priority transportation needs. The National Economic Crossroads Transportation Efficiency Act of 1997 (NEXTEA) continues this approach and responds to our core program infrastructure needs while helping us move toward a balanced budget. It would authorize about $175 billion for surface transportation programs from fiscal year 1998 through fiscal year 2003, and increases funding for core highway programs such as the National Highway System, maintenance of the interstate system, and the Surface Transportation Program by 30 percent. It continues the commitment to cities in terms of mass transit, helping them get more capacity from existing systems, and allows rural areas to play a greater role in protecting planning and in determining which projects get done first.

NEXTEA would give State and local officials greater flexibility to target funds toward projects that best meet community needs. It also increases the tools available to State and local officials by making intelligent transportation systems eligible under all major program categories and by expanding innovative finance strategies to cut red tape and leverage private and non-Federal public resources.

INTERMODALISM

Question. What actions will you take to further encourage the integration of surface modes of transportation to enhance the mobility of people and transport of goods? How will you address the conflict between continuing to fund modally-based programs while attempting to foster an intermodal approach to transportation decision making?

Answer. Although DOT's funding programs continue to be modally-based, they are significantly adaptable to local needs. To a much greater extent than previous surface transportation legislation, ISTEA allows State and metropolitan areas to spend their apportioned Federal funds based on thorough and inclusive planning rather than restrictive program categories. Specifically, almost 60 percent of the funds authorized by ISTEA have been available, at the initiative of State and local officials, for almost any type of surface transportation projects.

The administration's proposal for reauthorization—the National Economic Crossroads Transportation Efficiency Act, or NEXTEA—continues these ISTEA programs that have given State and local officials the freedom to spend Federal dollars on an expanded set of transportation solutions.

NEXTEA would retain the enhanced flexibility and eligibility provisions of three programs introduced by ISTEA: the National Highway System (NHS), the Surface Transportation Program (STP) and the Congestion Mitigation and Air Quality (CMAQ) program. Through these programs, $3 billion in five years has been transferred at local request from the FHWA to the FTA for delivery to its grantees. Without any administrative transfers, however, the STP and CMAQ programs support many projects that directly benefit multiple transportation modes. In addition to preserving this flexibility, NEXTEA would extend eligibility within certain programs to intercity bus and rail service and publicly owned freight rail service.

COLLOCATION OF DOT FIELD OFFICES

Question. Please provide a detailed plan of how DOT will collocate and/or consolidate the Department's surface transportation field offices (that now number more than 150) to best serve transportation needs in a cost-effective manner.

Answer. In June 1996, the Department chartered a co-location task force to review the field office structure and prepare a report.

To date, the restructuring effort has focused on six major areas: planning, safety, co-location, administrative resource sharing, program management and the establishment of metropolitan offices.

The task force identified approximately 160 offices (including CG, RSPA and FAA) that appeared to offer co-location opportunities. It is the goal of the Department to co-locate offices and consolidate services wherever reasonable in order to provide enhanced customer service, reduce costs and operate more efficiently. Currently, additional analysis is underway to determine the feasibility and costs associated with such a consolidation.

Because of the major costs associated with such a major co-location, the task force has recommended that the initiatives be undertaken as leases are due to expire or other restructures are about to be undertaken which would advance the consolidation. Presently, there are field work groups developing localized plans for their respective areas. Last November the first of many anticipated co-locations occurred when NHTSA moved into space occupied by FHWA in Region III. In this one case, we were able to reduce 2,096 square feet, which will result in overall rent savings of $37,854.

DOT SICK BUILDING

Question. What have been the total costs through fiscal year 1997 associated with cleanup of the "sick" Nassif Building? (Please display each year's associated costs, and a total to date.) Are any fiscal year 1998 costs anticipated?

Answer. As of February 28, 1997, the total costs associated with the cleanup and repair of the Nassif Building that have been incurred by the Government is approximately $6,389,000. The General Services Administration has picked up these costs for DOT. At this point in time, costs in fiscal year 1998 are not anticipated.

	Fiscal year—		Total
	1996	1997	
Environmental testing/health assessments	$941,875	$565,125	$1,507,000
Project management	591,000	1,104,000	1,695,000
Swing space rent	276,000	1,568,000	1,844,000
Moving expenses	97,000	116,000	213,000
Swing space set-up	1,130,000	.....	1,130,000
Total	3,035,875	3,353,125	6,389,000

FRA VACATING THE DOT BUILDING

Question. It is our understanding that some FRA offices have declined to move back to the Nassif Building, though the affected floors have undergone cleanup. Why? What additional costs will be incurred by this decision?

Answer. The Federal Railroad Administration (FRA) began relocating some employees shortly after air quality problems began to affect their work space in October 1995. As time passed, more and more employees were relocated to space outside the Nassif Building due to symptoms that employees believed were caused by the building's indoor environment. The sheer number of FRA employees working in different locations caused disruption to the organization. As a result, in August 1996, the entire FRA headquarters organization was relocated to a single location, with plans to remain there until the cleaning and repair program of the Nassif building is completed.

The FRA organization is now operating without disruption and would like to avoid the disruption of a major move back to the Nassif Building until the Department consolidates its headquarter operations following expiration of the lease on the Nassif building. The Department supports this request, since we are able to consolidate other elements of the Department from higher-cost space in downtown Washington into the vacated area of the Nassif Building.

NEW PROGRAMS

Question. If Congress authorizes and appropriates funds for the Transportation Infrastructure credit program ($100 million requested); the Intelligent Transportation System infrastructure integration program ($100 million requested); and the "access to jobs and training" transit grant program ($100 million requested), how quickly do you envision these programs spending out in fiscal year 1998 (and the outyears)?

Answer. For each of these three new programs, the administration is proposing $100 million for each of the 6 years of NEXTEA.

The Transportation Infrastructure Credit Program is expected to outlay 50 percent in the first year, 25 percent in the second year, and 25 percent in the third year.

The ITS deployment incentives program is expected to be fully obligated each year. It will be within the category of the Federal-aid program. Overall spend-out rates for the Federal-aid program are estimated at 15 percent in the first year, 53 percent in the second year, 16 percent in the third year, 5 percent in the fourth year, 3 percent in the fifth year, 3 percent in the sixth year, 2 percent in the seventh year, 2 percent in the eighth year, and 1 percent in the ninth year.

The Access to Jobs and Training grant program is projected to have an outlay rate similar to that of the existing Urban Capital formula program: 5 percent in the first year, 20 percent in the second year, 30 percent in the third year, 20 percent in the fourth year, 20 percent in the fifth year, and 5 percent in the sixth year.

CREDIT PROGRAM VERSUS SIBS

Question. Please describe the differences between the Transportation Infrastructure credit program and the current State Infrastructure Banks program.

Answer. The National Highway System Designation Act of 1995 authorized DOT to establish the State Infrastructure Bank (SIB) Pilot Program. SIBs are State-level investment funds capitalized in part with Federal grants. They are intended to complement traditional transportation programs and provide States with increased flexibility to offer many types of assistance, including low-interest loans, loan guarantees, and standby lines of credit. However, Federal capitalization grants for SIBs currently are limited to 10 percent of most categories of a State's annual apportion-

ments for fiscal years 1996 and 1997 and $150 million of "new money" to be shared among the participating States. Moreover, Federal legislation limits the annual disbursement of these funds, thus reducing the capacity of the SIBs to provide large amounts of credit assistance directly in the near term. SIBs will require a number of years to build up sufficient financial resources to gain access to external funding beyond their own contributed capital. Consequently, SIBs, like other startup credit intermediaries, are best suited to assist portfolios of smaller, relatively homogenous, shorter-term projects that are regional or local in scope.

A Federal credit enhancement program would complement existing financing techniques, including SIBs, by directing resources to areas of critical national importance—such as intermodal facilities, expansion of existing highways, border infrastructure, trade corridors, and other investments with national benefits—that otherwise might be delayed or not constructed at all because of risk or scope. Federal credit assistance would encourage more private-sector and non-Federal participation, address important public needs in a more budget-effective way, and take advantage of the public's willingness to pay user fees to receive the benefits and services of transportation infrastructure sooner than would be possible under traditional, grant-based financing. Essentially, providing direct credit assistance would be a more efficient and effective way for the Federal Government to help advance a limited number of nationally significant projects than increasing outlays for regular grant reimbursement programs or even SIBs.

ITS INFRASTRUCTURE INTEGRATION PROGRAM

Question. Please provide a detailed description of the proposed ITS infrastructure integration program.

Answer. The ITS infrastructure integration program is an initiative to foster the uniform national deployment of a computer and communications infrastructure in our surface transportation system, both inside and outside metropolitan areas.

In 1991, the Department initiated the Intelligent Transportation Systems program, through the Intermodal Surface Transportation Efficiency Act, to research, operationally test and promote the application of computer and communications technology to our surface transportation system, in part to address the growing gridlock in our nation. Over the past five years, we have learned through our research efforts that an intelligent transportation infrastructure applied to our surface transportation can improve efficiency, productivity, and safety. Such an infrastructure consists of a series of "elements," such as smart traffic signals, advanced traffic management systems, and more, that allow the public to travel more efficiently and safely. This system works best when the components are interoperable, or can "talk to one another." ITS is an important option in an era when we can no longer depend on building our way out of congestion.

We are proposing a one-time incentive to last through the next five years. Its purpose is to jump start State and local government involvement in deploying ITS in a coordinated manner, consistent with standards and within the bounds of the national ITS architecture. This deployment incentive focuses on:

—Integrating existing intelligent transportation infrastructure elements in metropolitan areas, including those elements installed with other Federal-aid funds.
—Installing, as well as integrating, the various elements of an intelligent transportation infrastructure for commercial vehicle projects and projects outside metropolitan areas, such as rural areas.

The priorities are as follows:

—At least 25 percent of the funds made available would allow eligible State or local entities to implement commercial vehicle information systems and networks, and international border crossing improvements.
—At least 10 percent of the funding would be made available for the intelligent transportation infrastructure deployment outside metropolitan areas (in rural areas).
—The Federal share payable to the project cost is 50 percent. The matching funds can include funds from other Federal sources.

The projects are to accelerate the deployment and commercialization of ITS; realize the benefits of regionally integrated, intermodal applications, including commercial vehicle operations and electronic border crossing applications; and demonstrate innovative approaches to overcoming nontechnical constraints.

Projects chosen for funding within the intelligent transportation infrastructure deployment incentives program would, in general terms, have to meet the following criteria:

—Help meet the national goals of the ITS program;
—Demonstrate public-private partnerships;

—Aim to achieve integration with the architecture and standards;
—Be a part of State and metropolitan plans for transportation and air quality implementation;
—Catalyze private sector investment and minimize Federal contributions;
—Include a sound financial plan for long-term operations and maintenance; and
—Demonstrate the ability to operate and maintain the systems.

This program will build upon prior efforts. We have already identified a core intelligent transportation infrastructure and set a national goal for deployment of this infrastructure across the United States over the next decade. We are facilitating model deployments that will serve as showcases for operators and users of the system. They also will show both State and local transportation officials and citizens how to envision ITS deployment in their communities. In 1996, four metropolitan areas were chosen: Seattle, Phoenix, San Antonio, and New York. We have also established eight model deployments of the Commercial Vehicle Information Systems and Networks (CVISN) to be operational by the end of 1997, in Connecticut, Kentucky, Michigan, Minnesota, Colorado, Washington, Oregon, and California. These model deployments will perform the same function for other State officials in helping them to envision the fully integrated system and to understand the benefits.

A deployment incentives program is needed to alleviate a hardening or "stove-piping" of the existing fragmented infrastructure. Timing of deployment is critical. At the moment, elements of the intelligent transportation infrastructure are being deployed piece by piece with no guarantee of interoperability. State and local governments will then have to live with a "stove-piped infrastructure," one in which components do not form a system and are not necessarily efficient.

This program gives State and local governments an incentive to cooperate with agencies, jurisdictions, and the private sector, to achieve fully integrated ITS deployment in accordance with the national ITS architecture and established ITS standards and protocols. This commitment will be shown through the signing of Memorandums of Understanding that clearly define the responsibilities and the relationship of all parties to a partnership agreement which outlines the institutional relationships and the financial agreements to ensure continued, long-term operations and maintenance for the project.

We're providing the incentive, but are also limiting the Federal share payable to 50 percent of the project cost and requiring a financial plan for long-term operation and maintenance. We're asking State and local governments to be creative, to use their own funding, other Federal-aid monies, and to leverage the private sector's involvement. This is a minimal Federal role. In short, after this five-year period, the incentive program will not be up for additional Federal funding in the future; it's a one-shot deal.

ACCESS TO JOBS AND TRAINING

Question. Why is the FTA a more appropriate provider agency for the proposed "access to jobs and training" program than Health and Human Services?

Answer. Transportation is one of the three major challenges faced by welfare recipients, along with day care and skills training.

Welfare recipients rarely own cars. Furthermore, studies show that existing public transit frequently does not provide realistic connections to the locations where entry-level jobs are concentrated. The need for off-peak time service and multiple stops for activities such as day care complicate further the problem of access to jobs.

DOT's Access to Jobs Initiative will enable State and local governments to provide the transportation services that welfare recipients need within the framework of the existing transportation planning process—an important factor in sustaining their delivery. But collaboration with the human service agencies is a key element of the proposed program. The criteria in the proposed program call for a coordinated planning process, a financial partnership and a 50/50 (FTA/non-FTA) match to ensure that transportation providers and human services providers are working closely to ensure that those Americans who have to go to work can get there.

HIGHWAY TRUST FUNDS

Question. I note that the President's Budget request would have Amtrak and FTA funded from the Highway Trust Fund, rather than general funds. Under your budget, the total percentage of highway trust funds in the transportation appropriations bill increases from 78 to 85 percent. What is the rationale for shifting the number of DOT programs from being funded by general funds to highway funds?

Answer. The administration proposes to use the Highway Trust Fund for all highway safety research and agency operations (parts of NHTSA are currently funded from the general fund), as well as the transit program and Amtrak.

The rationale for these shifts is that the programs to be funded from the trust fund are directly associated with highway construction or preservation, or are associated with providing alternative transportation services that contribute to reducing the demands placed on our highways, thereby improving service to the users of highways.

Question. What will the Highway Trust Fund balance be at the end of the current ISTEA authorization period, as envisioned by the administration's pending reauthorization proposal?

Answer. We project cash balances of $14.8 billion in the Highway Trust Fund and $9.6 billion in the Mass Transit Account at the end of fiscal year 1997.

FLEXIBILITY IN STATE USE OF FEDERAL FUNDS

Question. This approach of having different modes drawing on the Highway Trust Fund would seem to me to argue for increasing the States' flexibility in the use of their transportation funds. Do you share that view?

Answer. Yes. Under NEXTEA, State and local officials would have greater flexibility to target funds toward projects that best meet community needs, including Amtrak and intermodal terminals. It also increases the tools available to State and local officials by making Intelligent Transportation Systems eligible under all major program categories.

HIGHWAY TRUST FUND OFF-BUDGET

Question. What is the administration's official position on the proposal to move transportation trust funds off-budget?

Answer. The administration opposes taking the transportation trust funds off-budget. We should not redefine the deficit calculation to exclude certain programs or to exempt programs from appropriate budget controls. That would mean either a larger real deficit or a larger burden for deficit reduction on other critical programs in DOT or elsewhere in the Federal Government. Either outcome would be inconsistent with the joint commitment by the President and Congress to balance the Federal budget.

WOODROW WILSON BRIDGE

Question. I understand that the administration was prepared to transfer the Woodrow Wilson Bridge to the States of Maryland and Virginia and the District of Columbia back in 1990 and 1991. Why didn't this transfer take place? Why is this the only non-defense interstate bridge still under Federal jurisdiction?

Answer. The bridge has been the subject of three agreements. The December 18, 1961, agreement was simply a detailed contractual arrangement between the three jurisdictions (FHWA was not a party) as to the rights and responsibilities of each jurisdiction in the operation and maintenance of the bridge. It was the result of Federal legislation (Public Law 87–358, October 4, 1961).

A June 28, 1982, agreement was signed by the three jurisdictions and the FHWA. Again, this agreement was the result of Federal legislation (Public Law 97–134, December 28, 1981) that provided $60 million for 4R work on the bridge, and spelled out more details as to each jurisdiction's operation and maintenance duties, and provided that the "* * * three jurisdictions shall submit to FHWA within 6 months of the date of the agreement proposed reasonable terms and conditions upon which they would be willing to accept title to the Woodrow Wilson Memorial Bridge." This agreement was never fully implemented.

The last signed agreement between the two States, the District of Columbia, and FHWA was on April 19, 1985. The 1985 agreement required the jurisdictions to accept the bridge once rehabilitation of the bridge was complete, e.g. upon "completion and final acceptance of the construction work * * * which will include rehabilitation for the bridge bascule span and minor substructure rehabilitation." Although the $60 million provided under the 1981 legislation was used for the bridge—most of it for 4R work and some for a study on long-term needs—the District and the States declined to take over responsibility for the bridge because of the cost of continued maintenance.

Question. What is the traffic mix on the bridge between local commuters and through traffic?

Answer. Local commuters comprise between 85 to 90 percent, and through traffic 10 to 15 percent, depending on the time of year.

Question. What is the justification for the President's Budget request of $400 million?

Answer. The fiscal year 1998 budget includes $40 million for the Wilson Bridge project: $30 million is needed for the continued design (and construction) of a new

bridge, and $10 million is needed for necessary interim repairs and rehabilitation work on the existing bridge.

The Department has been working closely with the Woodrow Wilson Bridge Coordination Committee on options for replacing the existing bridge. The Committee has selected the current alignment, with side-by-side drawbridges having a 70-foot navigational clearance, as the preferred alternative for replacing the bridge. There would be a total of 12 lanes: 8 general purpose lanes, 2 merge/auxiliary lanes, and 2 HOV/express bus/transit lanes. The current estimated cost for this alternative is $1.56 billion.

$400 million is the cost to replace the existing structure. The NHS Designation Act of 1995 provides a framework for determining the Federal contribution of the cost to replace the existing 6-lane bridge with a replacement structure. The Woodrow Wilson Bridge Coordination Committee estimated that this would cost approximately $400 million.

Question. Since initial construction, how much has the Federal Government spent on the Woodrow Wilson Bridge?

Answer. A total of $168.9 million in Federal funds has been allocated since 1954; $163.9 million was at a 100-percent Federal share, and $5.0 million was at an 80-percent Federal share.

Question. Given that the Woodrow Wilson bridge alternatives being considered are all significantly in excess of the President's Budget request, is this bridge a reasonable candidate for the proposed new credit program in ISTEA reauthorization or another innovative financing approach?

Answer. The bridge likely would be eligible for a credit program or other innovative financing approaches; the project would also be eligible for regular Federal-aid apportionments. The bridge could be funded through a combination of a direct Federal contribution ($400 million) and some form of credit.

ALAMEDA CORRIDOR

Question. FHWA officials have cited the Alameda Corridor's Federal loan as a precedent for future finance efforts. Officials noted that FHWA used the project as a model in the agency's effort this year to create a new $100 million Transportation Infrastructure Credit Program. The program is intended to leverage Federal funds and provide credit to assist nationally significant projects, particularly large, multimodal, and revenue generating projects. However, since the Alameda Corridor project is in its early stages, there are a number of unanswered questions concerning the risk to the Federal Government if other funding sources are not realized and the success of this type of Federal loan at leveraging other funding. How important was the Federal loan to the project?

Answer. The Federal loan, which was signed January 17, 1997, is a vital part of the project's financial package. The $2 billion project is a public-private venture involving the ports and cities of Los Angeles and Long Beach, the regional transportation authority, the railroads using the corridor, and the Federal Government. The Alameda Corridor Transportation Authority (ACTA) is a joint-powers public agency established by Los Angeles and Long Beach to develop, finance, build, and operate the project. The two ports have already contributed $400 million for rights-of-way along the corridor, and the Metropolitan Transportation Authority (Los Angeles County's metropolitan planning organization) will provide nearly $350 million of its Federal, State, and local grant funds. Project revenues—user charges paid by the railroads and other income of the ports—will be used to repay approximately $735 million in revenue bonds and the $400 million Federal loan.

The Federal loan offers permanent financing with flexible payment features that should alleviate market concerns and promote efficient use of private capital by positioning the government as a patient investor in the project with a long-term horizon and no liquidity requirements. Those features include: (1) structuring flexible repayment schedules with deferrable interest and principal to match realized project revenues; (2) facilitating the project's access to private capital by enhancing the capital markets debt coverage, lowering interest rates, and reducing reserve requirements; and (3) leveraging substantial private financing by limiting Federal participation to 20 percent of total project costs. At a budgetary cost of only $59 million (to cover the subsidy or risk of non-repayment), the Federal Government is providing a $400 million loan that will help advance a $2 billion project with significant local, regional, and national benefits.

Question. How will the loan be used? Could you expand on how the Federal loan will be spent?

Answer. Under the terms of the January 17 loan agreement signed by DOT and the Alameda Corridor Transportation Authority, the Federal loan can be used for

any costs related to: (1) acquisition, design and construction of the project, including legal, administrative, engineering, planning, design, insurance and financing costs; (2) debt service, capitalized interest, contingency, or capital reserve funds, (3) debt service payments; and (4) costs of equipment and supplies and initial working capital.

Question. In the loan agreement, why was the Federal loan repayment made subordinate to the repayment of revenue bonds?

Answer. Given the uncertainty of the projected revenue stream and operating costs associated with large startup transportation facilities, investors and rating agencies typically require that the project revenue bonds have a relatively high coverage margin. Coverage is the annual surplus of net revenues after payment of operating expenses and debt service. A high coverage factor (such as 1.75 times) constrains the permitted level of annual debt service, reducing the amount of debt that can be supported and leaving a funding gap.

While project sponsors could seek to raise additional debt proceeds with a thinner coverage margin (such as 1.10 times), such debt likely would be rated sub-investment grade. The major capital market funding source for debt financing of infrastructure—the municipal bond market—is generally risk averse, and there is only a limited market for non-investment grade obligations. The situation defines the need for a flexible debt instrument that can be payable out of the coverage factor after the senior bonds' debt service. The Federal loan addresses this market gap and promotes the efficient use of capital by positioning the Government as a patient investor with a longer-term time horizon and no liquidity requirements.

Question. How much would the Federal Government lose if the project goes into default? How much would the Federal Government gain if the loan is paid back?

Answer. The Fiscal Year 1997 Omnibus Consolidated Appropriations Act (Public Law 104–208) provides $59 million for the Department of Transportation to pay the subsidy costs associated with making a direct loan not to exceed $400 million to ACTA for the Alameda Corridor project. If the loan is repaid in full, the subsidy budget authority of $59 million will be returned to the General Fund. In a worst-case scenario, none of the $400 million loan would be repaid, and the Federal Government would lose $400 million. However, such a scenario is unlikely. If project bonds are not issued to construct the project or an alternative source for funding the remainder of the project's costs is not put into place by December 31, 2005, the loan will still be repaid by ACTA from rental income from the partially built project and other port revenues. And if the project is fully constructed as planned, the flexible terms and rate covenants included in the loan agreement offer the Federal Government additional security.

Question. How much of the corridor's financing is based on Federal funding, including both direct and indirect Federal funds, both with and without the Federal loan?

Answer. The $2 billion project is a public-private venture among the ports and cities of Los Angeles and Long Beach, the regional transportation authority, the railroads using the corridor, and the Federal Government. Direct Federal contributions to the project include $45 million in ISTEA demonstration funds (USDOT), $2 million in Economic Development Administration funds (Commerce), and the $400 million direct Federal loan. Thus, the project will receive $447 million ($47 million without the Federal loan) in direct Federal funding.

In addition, the Metropolitan Transportation Authority (MTA) will provide another $329 million of apportioned Federal-aid highway funds. Total Federal funding for the project (including indirect Federal-aid highway funds passed through the Los Angeles County MTA) equals $776 million ($376 without the Federal loan).

Question. Will the revenue bonds be fully or partially tax-exempt? How could that affect the Federal loan?

Answer. Under current law, without special legislative authority, ACTA believes that a portion of its revenue bonds could be issued as tax-exempt debt (relating to public use/public purpose). The amount of the tax-exempt debt ultimately issued for the project should not affect the security of the Federal Government's investment, as the budgetary cost of the Federal loan was "scored" based on the assumption of all revenue bonds being taxable.

Question. Is the Alameda Corridor Federal loan being seen as a promising way to finance other projects? If so, why?

Answer. The Alameda Corridor Federal loan was a unique, ad hoc response to a specific project. The administration is seeking in NEXTEA a somewhat different approach. The Transportation Infrastructure Credit Enhancement Program would provide grants (up to 20 percent of total cost) to assist in the funding of nationally significant transportation projects that otherwise might be delayed or not constructed at all because of their size and uncertainty over timing of revenues. After projects

are selected by the Secretary, grants are made to capitalize revenue stabilization funds. A revenue stabilization fund could be drawn upon if needed to pay debt service on the project's debt obligations in the event of revenue shortfalls. The stabilization fund may also be used to secure junior lien debt or other obligations requiring credit enhancement. Limiting the use of the revenue stabilization fund to these types of obligations is designed to maximize the project's ability to leverage private capital, and assist it in obtaining investment grade ratings on senior debt. The program's goal is to encourage the development of large, capital-intensive facilities through public-private partnerships consisting of State or local governments with private business.

TRANSPORTATION INFRASTRUCTURE CREDIT PROGRAM

Question. How will the Transportation Infrastructure Credit Program affect the trust fund balance, since the program calls for more money up front and for payment out of the highway trust fund?

Answer. The new transportation infrastructure credit enhancement program is funded at $100 million. This level of funding would have a minimal impact on the highway account balance, which is projected to be about $15 billion at the end of fiscal year 1997.

Question. How will DOT assess the economic benefits of a project? Will it just consider future revenue streams or will it consider pollution reduction, congestion relief and other indirect benefits?

Answer. Projects selected for this program will have to demonstrate the ability to generate broad economic benefits, support international commerce, or otherwise enhance the Nation's transportation system and economy. Specific factors would include the extent to which the project: (1) advances high-priority corridors (NAFTA, trade corridors), intermodal connectors and border facilities, or otherwise promotes regional, interstate or international commerce; (2) enables U.S. manufacturers to deliver their goods to domestic and foreign markets in a more timely, cost-effective manner; (3) stimulates new economic activity and job creation; (4) reduces traffic congestion, thereby reducing shipping delays and increasing workforce productivity; and (5) protects the environment by enhancing air quality through the reduction of congestion and decreased fuel and oil consumption.

Question. Who will be able to apply for funding—private organizations, cities, States, metropolitan planning organizations, etc.?

Answer. The sponsor of a project eligible for assistance under the credit enhancement program must be a State, local government, or other public agency, or the project must be publicly owned and publicly sponsored, meaning it satisfies the Statewide and metropolitan planning requirements of Title 23, U.S.C., and the application is submitted by a State, local government, or other public agency. Therefore, the applicant could be a corporation, partnership, joint venture, trust, or governmental entity.

Question. Since the Department will not directly oversee the project, how will it assure that the Federal money will be used efficiently and effectively?

Answer. As with other projects funded in part through Federal transportation programs, the Department will work with its State and local partners to ensure that Federal funds are used effectively and efficiently in accordance with relevant laws and regulations. Recipient projects will be treated like "regular Title 23" projects in that they must be advanced by a State or local government (or agency thereof), satisfy the usual planning requirements, and be eligible for Federal assistance under Title 23 or chapter 53 of Title 49, U.S.C. In addition, the usual Federal requirements that apply to funds and projects under titles 23 and 49 shall also apply to revenue stabilization funds and projects receiving them under the new credit enhancement program. The Secretary of Transportation will consult with the Secretary of the Treasury to ensure that any grants made to capitalize revenue stabilization funds under the new program shall contain appropriate terms and limitations to ensure that Federal funds are used prudently in leveraging private capital to advance important national transportation investments.

Question. Given that the Department has had limited experience with loan guarantee projects such as the Alameda Corridor, should more experience be gained before establishing a nationwide program?

Answer. The need for and efficacy of Federal assistance (whether direct loans, loan guarantees, or credit enhancement) for large revenue-generating projects of national significance is already being demonstrated by the TCA toll roads (through Federal lines of credit) and Alameda Corridor (a Federal direct loan). Establishing a Federal credit enhancement program provides the benefits of being able to clearly set forth prudent and consistent policy guidelines and fiscal parameters that will

advance vital national transportation goals while maximizing efficiency and minimizing risk. Without a programmatic structure, such Federal credit assistance provided on an ad-hoc basis may not have the desired level of efficiency, equity, and effectiveness.

Also, we believe any Federal credit enhancement program should be limited in scope, targeted to a relatively small number of projects of national significance. Each project will be one-of-a-kind, evaluated according to a unique set of benefit and cost factors. It is not expected that the Federal Government will or should generate a large portfolio of such project financings. The program should rely on the discipline and credit evaluation expertise of the private capital markets. One measure of the program's success might be the extent to which it demonstrates the feasibility of long-term infrastructure investments to the private capital markets and can eventually be phased out.

Question. If this program is established, will the Boston Central Artery/Tunnel Project qualify for funds under this program? Does it meet the criteria for a project with a revenue stream? Has there been any discussion about using this program to help fund the suggested freight tunnel beneath New York Harbor?

Answer. The new Transportation Infrastructure Credit Enhancement Program is intended to help advance projects of national significance that require Federal assistance to secure financing and begin construction. Based on the proposed eligibility criteria (national significance, planning requirements, need for financial assistance, State/local support, size, and existence of revenue sources), the Central Artery project could be eligible for assistance. However, the project's current finance plan does not contemplate additional Federal assistance outside the State's regularly apportioned Federal-aid funding. Also, any project determined to be eligible for assistance would have to be assessed against various selection criteria.

To our knowledge, no proponents of the suggested freight tunnel beneath New York Harbor have approached the Department about seeking assistance under the Transportation Infrastructure Credit Enhancement Program. If the project satisfied the eligibility criteria set forth in NEXTEA, it could seek funding under this program. Its application would be evaluated along with those of other applicants.

STATE INFRASTRUCTURE BANKS

Question. To what extent are SIBs expected to leverage new, non-Federal money? Do any of the ten pilot States plan to try and attract private financing? If yes, how?

Answer. The extent to which SIBs will leverage non-Federal money will depend on a number of factors, such as the amount of non-Federal matching funds (State and private) contributed to the SIB; the type of assistance offered by the SIB, including the extent to which any assistance is subsidized; and whether the SIB is able to leverage itself, i.e., issue debt or provide credit enhancement in excess of its own contributed capital.

The Environmental Protection Agency's State Revolving Funds (SRFs) for wastewater treatment facilities have, on average, a leveraging ratio of about 1:2 (Federal grant contributions to total credit assistance provided). We believe SIBs are likely to have a higher leveraging ratio because they will be able to leverage funds through projects—by contributing only a portion of required assistance in conjunction with significant private and other non-Federal capital—as well as by issuing debt against their contributed capital. For example, a SIB loan of $10 million might be part of a total financing package for a project costing $100 million. Also, SIBs have a much larger and more diverse pool of potential recipient projects.

Three loans have been made by the initial ten States participating in the SIB pilot, and all three loans will support bond issuances by localities. In these cases, the loans will help the localities access the capital markets by raising their ratings and thus lowering the interest that the bonds will require when repaid.

Question. How does DOT plan to choose and allocate the $150 million in new SIB money for fiscal year 1997 and, if passed, DOT's request for $150 million in fiscal year 1998?

Answer. We are currently reviewing the new SIB applications, and approvals should be made soon. After this is completed, decisions will be made on allocation of the $150 million.

Question. Will the selection criteria DOT chooses affect the type of projects States submit in their applications? For example, will DOT likely target States with several projects as a State, or will DOT consider States submitting only one project for SIB funding?

Answer. The number of projects a State submitted in its application will probably not be a factor for selection. We hope the SIBs will be able to assist many projects, but we believe that more projects will be identified as a State implements its SIB.

Question. Why have SIBs been slow in getting projects underway?

Answer. A number of actions are required before a project can be funded from a SIB. After DOT approved the first 10 States in 1996, cooperative agreements had to be executed. Most of the agreements were signed at the end of fiscal year 1996. States had to establish a SIB structure and develop procedures. Once a SIB is in place, projects must be selected and financial assistance negotiated. A number of other project actions may be needed before a project is ready to receive funds from a SIB.

Another factor involves the Federal capitalization of SIBs. The legislation requires that SIBs be funded at the traditional highway and transit outlay rates, which means that Federal deposits into SIBs are made over several years. Therefore, the amount of Federal funds currently available to a State is considerably less than 10 percent of its apportionments—the limit a State may transfer to the SIB.

CENTRAL ARTERY/TUNNEL PROJECT

Question. In FHWA's opinion, are the State of Massachusetts projections of savings on the insurance program realistic?

Answer. We understand that the GAO is concerned about the degree of certainty that can be assumed for the large savings that have been reported for the Owner Controlled Insurance Program (OCIP or Wrap-Up Insurance). Given the fact that the project is entering the heaviest phase of construction over the next several years, GAO is concerned that the level of savings trended for the OCIP may not occur. While we understand the cautionary tone reflected in GAO's comments, the FHWA continues to believe that, as in a number of other areas on the CA/T project, an appropriate management and oversight strategy for the OCIP is to set clear and measurable objectives or milestones regarding project costs and schedules. Then FHWA's and the Project's performance can be clearly measured against meeting these objectives or milestones. Given this recommended oversight strategy, the OCIP is an excellent example of one of the more readily trackable programs. The Project Management Monthly Report tracks the Insurance Program's measures on a monthly basis, giving early indications of any positive or adverse trends. The structure of the insurance program now reflects and benefits from that trackability in its use of a retrospective approach that allows for adjustments in the cost of the program based on how claims have occurred during a preceding year. The extraordinary success of the Insurance Program can be reported as very real, given the established track record of safety programs and insurance claims on the project during the last four years, a period that certainly contained its share of heavy construction in sensitive areas. Each year that successes occur in very measurable and actuarial aspects of the insurance program, the Project is more and more able to report a firming up of the expected performance of the program in the future. Likewise, given the retrospective adjustments based on year-by-year performance, the Project will have early indicators of any trends that may be developing. Finally, the Project continues to proactively explore ways to further improve the excellent safety record. Therefore, in summary, FHWA has accepted and believes that the State's projected savings on the insurance program are realistic.

Question. Does FHWA believe the project's cost can be kept to $10.4 billion?

Answer. The Central Artery/Tunnel (CA/T) Project (the Massachusetts Highway Department—MHD—& FHWA) is aggressively managing to the $10.4 billion total cost through the implementation of strategies to meet cost containment goals for design and construction. The CA/T Project recognizes this estimate as achievable, and FHWA supports this management strategy that involves setting measurable milestones regarding cost and schedule and measuring the CA/T Project performance against these milestones. The CA/T Project uses trend analyses and early indicators that allow the management process to be dynamic and adjust to deviations in schedule and cost. As long as this aggressive management is maintained, the current budget is viewed by FHWA as achievable.

Question. What is FHWA doing to review and scrutinize project costs? What does FHWA think the cost of the project is?

Answer. The FHWA is actively involved with the MHD CA/T staff in scrutinizing and controlling total project costs, and in developing a variety of cost saving strategies. The unprecedented allocation of resources to staffing in the Massachusetts Division Office, with assistance from both Region and Headquarters Offices, has enabled the FHWA to provide a program of both comprehensive and tailored oversight regarding cost, schedule and quality. The FHWA engineering and technical staff provide a range of project- or contract-specific design and construction monitoring based upon a geographic assignment of responsibility. Each area engineer is specifically responsible for monitoring all Federal-aid work within this assigned area, re-

viewing designs to ensure that components are both economical and cost-effective. This design review also ensures compliance with necessary standards. Area engineers are also responsible for monitoring costs and quality for their area during construction, monitoring construction procedures and the administration of change orders as necessary. A variety of technical experts are available from the division, the regional and headquarters levels of FHWA to provide special expertise to the area engineers as needed during both design and construction. This expertise is especially valuable in bench marking design or construction procedures and cost-effectiveness in areas such as specialty tunnel areas or environmental mitigation.

Besides contract-specific monitoring, the Division Office, supplemented with assistance from the Region and Headquarters, also provides programmatic oversight through a variety of task team, peer review, and/or process review activities. These activities insure that design and construction processes are designed or re-engineered to provide streamlined and cost-effective outcomes. To give two examples from 1996, task team/process reviews were conducted on the wrap-up insurance program and the geotechnical instrumentation. Cost saving strategies were identified in each review. The Division Office also participates in a number of MHD CA/T committees that have been charged with managing costs on the project. Examples of these activities include the Cost Containment Committee (generating innovative approaches such as the Design-to-Cost program, an approach that controls growth of design estimates) and the Project Contingency Allowance Committee (controlling costs associated with such issues in construction as changed site conditions). Through further participation on value engineering teams and through construction partnering, Division Office representatives ensure that cost-effective functional designs are provided and moved to construction in a fashion where costly litigation or dispute resolution is avoided through collaboration with the contracting industry. Total costs and cost trends are closely monitored by the FHWA upper management at all levels by proactive involvement in Project Management Monthly reporting and through quarterly briefing of FHWA's highest management. These review activities include monitoring and periodic validation of macro-level Finance Plan assumptions or trends in areas such as inflation and bidding results.

In regard to the second question, as reported in an earlier question and as has been reported in the September 30, 1996 Financial Plan, FHWA has accepted the State's total cost as $10.4 billion.

Question. Does FHWA believe it is time for Massachusetts to revise its cost estimate to be more realistic? Why or why not?

Answer. The cost estimate for the Central Artery/Tunnel is validated monthly. This has been done for approximately a year now as part of the Project Monthly Management report that tracks the actual project cost and schedule, gives early indication of potential cost increases or decreases, compares it to the Cost/Schedule Update 6 (Rev 6) and previous forecast, and develops a new forecast for the remaining cost and schedule. The report also shows the changes from the previous month for actual versus planned costs and schedule time. The result is a current cost-to-go and total cost, and a current schedule on a monthly basis. Assumptions used for Rev 6 are also being tracked. While some of the assumptions are tracking better than others, the overall project cost is staying within budget. As part of the next Finance Plan Update, currently planned for October 1, 1997, we will assess the need to revise these assumptions.

Question. Does FHWA believe that the financing strategies outlined in the consultant's study are viable? Has FHWA conveyed these views to the State?

Answer. Massachusetts' Metropolitan Highway System (MHS) Financial Feasibility Study, while legislated by Massachusetts itself, is a key part of the State's plan to finance the Central Artery/Tunnel. FHWA's acceptance of the State's CA/T Finance Plan was conditioned upon the State's completion of the MHS Study and implementing legislation. The MHS Study was completed in December 1996 and contained numerous scenarios, the majority related to increasing existing tolls, to identify State funding for the CA/T, and MHS operation, and still allow a $400 Million (Federal and State) Statewide Program exclusive of the CA/T.

The Executive Office of Transportation and Construction's December 5, 1996, submittal to the Legislature and Governor contained specific recommendations primarily related to raising existing tolls for the tunnels and bridge in downtown Boston. Implementing MHS (State) legislation was introduced on January 6, 1997; two public hearings were held, at the first of which FHWA's Massachusetts Division Administrator answered questions as requested. The legislation has moved through the Legislature and was signed by the Governor on March 20, 1997. The existing legislation does not set toll levels, but does enable the Massachusetts Turnpike Authority to adjust tolls to meet the needs to complete the CA/T and operate the MHS and maintain a $400 million Statewide program.

While FHWA believes that the assessment of the options in the MHS Study is a State and local responsibility, we believe the study did a good job of identifying options that would meet both the State's needs and conditions as relate to the completion of the CA/T, maintaining a $400 million Statewide Program, and operating the MHS. FHWA also believes the existing legislation is feasible and will meet both the State's and our needs. FHWA has conveyed these views to the State both informally and in answering questions in a State legislative hearing.

Question. Is the use of grant anticipation notes to leverage future Federal funds a feasible strategy for financing $1 billion or more of a project's costs? What experience has FHWA had with these kinds of instruments?

Answer. In general, we believe that the use of grant anticipation notes (GANs) is a prudent and effective way to cover the timing gap between a project's up-front cash flow requirements for construction and the receipt of future anticipated Federal aid. The amount that can be financed through GANs depends on the size of the cash flow shortfall, the term of the notes, and the predictability of the future Federal grants to be used to repay the GANs.

GANs have been used extensively in connection with other Federal aid programs (notably FTA and EPA) but only occasionally with FHWA receivables. We believe the reason for this is that most States historically have had sufficient cash balances in their highway programs to internally finance the timing gap, thus avoiding the need to borrow externally through GANs. However, for large projects (such as the Central Artery) it may be necessary to consider using GANs to meet cash flow needs.

Question. What actions does FHWA plan to take if legislation is not enacted by the State to implement the study's recommendations?

Answer. On March 20, 1997, Governor Weld signed the Metropolitan Highway System (MHS) legislation into law, thus implementing the recommendations of the Executive Office of Transportation and Construction from the MHS Financial Feasibility Study. Given the enactment of the required legislation, FHWA will not have to withhold authority or take other actions in regard to this issue.

Question. Does FHWA believe that the shortfall estimates are accurate? How much will these estimates go up if costs increase?

Answer. Yes, the annual shortfall estimates (cash flow needs) are believed to be accurate for the scenario(s) used in the CA/T Finance Plan, and recognizing that the actual Federal funding levels for post-ISTEA are still unknown. The effect of cost changes, even assuming the same scenario(s) for unknown post-ISTEA Federal funding levels, would depend on what year the associated changes were built and needed to be paid. That is, a design change or construction change could be known today, but its effect would depend on whether the actual billing for the resultant work occurred in a peak cash flow year or afterward when cash flow needs are not as great.

Question. What fallback position is available to the State if the strategies outlined in the consultant's report are not sufficient to meet the funding gaps?

Answer. The Metropolitan Highway System (MHS) Financial Feasibility Study contained several options for the State share of costs associated with the CA/T interim cash flow needs, total CA/T project cost needs, and also operating expenses for the MHS. The options included revenue bonds backed by toll increases, interim borrowing backed by anticipated Federal funds, increased gas tax, toll increases, and/or other State sources. The Executive Office of Transportation and Construction requested legislation, which passed both houses of the State legislature and which has been recently signed by the Governor, turning the construction of the CA/T, and operation of the MHS (including the CA/T) over to the Massachusetts Turnpike Authority (MTA). The legislation also indicates the amount of State share to be paid by the Massachusetts Port Authority (MassPort or MPA), MTA, and the Massachusetts Highway Department. It also enables them to adjust tolls as needed to cover such costs. The State would have the option of covering funding needs by such tolls or short-term borrowing, or if necessary could consider a gas tax. The latter is not considered necessary by the State at this time.

TRANSIT NEW STARTS

Question. The President's proposed fiscal year 1998 budget would cut transit new starts by $126 million from the current enacted level of $760 million. There are now 13 new starts with full funding grant agreements in the funding "pipeline" and two more awaiting FFGAs. These 15 projects will cost $3.7 billion to complete. There are about 100 other projects already in various preliminary stages, totaling about $10 billion to $20 billion to complete. Should the administration be entering into new

full funding grant agreements when the new starts program is already oversubscribed?

Answer. The fiscal year 1998 budget proposes funding for 15 projects for which FFGAs are in place or pending. Our 1998 funding request reflects budgetary pressure, and while it is not the annual amount for fiscal year 1998 in the FFGAs, our proposed outyear funding is sufficient to cover funding requirements for these 15 projects. Furthermore, our reauthorization proposal includes an even higher level of contract authority that could become available dependent upon future Federal budget decisions. Therefore, our current plans to sign two new FFGAs are within our long-term budget plan.

Question. Why is the administration asking for a cut in transit new starts at the same time that it is poised to approve $850 million in new commitments?

Answer. The request for Major Capital Investments (new starts) funding in fiscal year 1998 represents the funding necessary to enable those projects recommended for funding to proceed at a reasonable pace.

The "$850 million in new commitments" (actually $853 million) represents the administration's planned Federal commitment through multi-year Full Funding Grant Agreements for two projects: the BART Extension to San Francisco Airport ($750 million) and the Sacramento light rail extension ($103 million). Through fiscal year 1997, $84 million has already been appropriated toward the total $853 million planned Federal commitment to these projects. Our request for fiscal year 1998 includes another $75 million for the two projects, leaving outyear requirements of $694 million in Federal funding. Our proposed outyear funding levels are sufficient to cover these funding requirements.

Question. Is the administration interested in working with new starts project sponsors to help reduce the size of the Federal commitment to these expensive projects?

Answer. There are already provisions in law that encourage project sponsors to do this, and FTA actively encourages their use.

Title 49, U.S.C., Section 5309(h) establishes the level of Federal participation in new starts projects at 80 percent of the net project cost, unless the grant recipient requests a lower percentage. There are at least two reasons why a project sponsor may want to reduce the percentage of Federal participation. First, project sponsors seeking discretionary funds for less than one third of the total cost of the project, or less than a total of $25 million in discretionary new starts funds, are exempt by statute from evaluation under the project justification criteria established in 49 U.S.C. Section 5309(e).

Second, the statutory project justification criteria themselves require an evaluation of local financial commitment. One indicator of this commitment would be a higher share of project costs from State and/or local sources. Therefore, a project with a proposed Federal share of 50 percent, for example, might be rated higher than a similar project proposed for 80 percent Federal funding (provided, of course, that FTA's analysis of the financing plan confirms its viability). This may speed the project with the smaller Federal share through the new starts funding process.

A number of project sponsors have taken advantage of these provisions in recent years. In Los Angeles, the Metro Red Line is being constructed with 50 percent of the project costs from Federal new starts funding. The Federal proportion of funding for the Houston Regional Bus plan, which evolved as a cost-effective alternative to a proposed monorail system, is slightly less than 60 percent. Light rail extensions in Baltimore and an extension of the BART system to San Francisco International Airport are being constructed as part of regional transit improvement programs, of which the Federal share will be less than one-third overall.

AVIATION EXCISE TAXES

Question. The aviation excise taxes were recently reinstated by the Congress, and went back into effect March 7th. Are there any critical FAA capital needs that will go unfunded because of the lapse in the aviation excise taxes?

Answer. No, the recent reinstatement of the excise taxes will fund the FAA's capital requirements for the balance of fiscal year 1997. However, according to the current legislation, the excise taxes will lapse again on September 30, 1997. Unless there are alternative financing plans in place, the FAA would not be able to proceed with the capital programs in fiscal year 1998.

Question. If so, are you planning to submit a supplemental request to fill urgent safety needs?

Answer. Since the excise taxes were reinstated, the FAA is proceeding with the capital programs and does not foresee a need for a supplemental in fiscal year 1997.

FAA ADMINISTRATOR

Question. How is the administration progressing on the appointment of a new FAA administrator?

Answer. Candidates have been identified and we are in the final stages of preparing a nomination. We expect to finish our internal processes shortly.

FAA FINANCIAL AND PERSONNEL MANAGEMENT

Question. The recent Coopers & Lybrand study is critical of the FAA's financial management of large procurement projects, and the agency's personnel management. There seems to be a continuing drumbeat of experts who have studied the FAA and all come to the conclusion that the agency must fundamentally change the way it makes decisions, approaches personnel costs, and transitions from older technology to new technology. These are not new challenges, but they are challenges that continue to frustrate the FAA and the Congress. It is especially frustrating in light of the fact that this Committee has been responsive to the department's requests for flexibility in the personnel and procurement areas. In the fiscal year 1996 bill, FAA was given unprecedented personnel and procurement reform tools, which the Coopers & Lybrand study points out that they have yet to effectively use. Why does the FAA fail to include any estimated savings from personnel and procurement reform in its five-year business plan?

Answer. Cost containment and potential cost savings for the agency in the longer term are basic tenets of personnel and acquisition reform.

Since the advent of personnel reform in April 1996, FAA has made significant accomplishments in implementing an initial phase of new personnel policies and processes. However, development of new personnel programs to replace the existing systems that have been in place for decades must be done in a thorough, systematic manner to ensure that the new programs support the underlying objectives, properly address problems with the existing systems, and ensure fiscal responsibility. Until we have made specific decisions on what the major components of our new human resource systems will look like, we cannot identify specific cost savings that might result from the new programs.

Under acquisition reform, our goal is to reduce costs of new acquisitions by 20 percent and reduce the time it takes to make an award by 50 percent by April 1999. At this time, it is too early to estimate specific future cost savings resulting from the new system. Only five or six new programs have been awarded since April 1996 when procurement reform went into effect. However, we do know that procurements have been awarded faster, and time is money.

FAA is developing metrics and will conduct annual internal evaluations that will build the infrastructure to calibrate and project savings that we can expect in the future. In addition, FAA will provide for independent evaluations of the acquisition management system later this year and in April 1999 as directed by the Appropriations and Authorization Committees.

Question. What savings have been realized from the procurement and personnel reforms? What savings are projected for fiscal years 1997, 1998, and the outyears?

Answer. While it is too early to assess the full benefits of the new acquisition management system (AMS), we know there have been successes and we must continue to work to ensure complete success. However, there have been numerous lessons learned under the AMS that indicate time savings for both the FAA and industry.

As an example, the STARS procurement was awarded in 6 months (with no protest) under reform; award under the previous system could have been up to 18 months. The time and resource savings experienced under this procurement is 12 months, not including any time and resources which would have been expended in the event of a challenge to the award. Another example is the procurement handled by the newly formed Security Integrated Product Team (IPT). This team used the reform flexibility and authority to make an award within a six-week period and saved valuable time and resources.

While many procurements have been handled in less time and with less resources, another factor that cannot be overlooked under reform is the culture change. An example of this culture change is the Computer Based Instruction procurement. Historically this action would have been handled as a single-source procurement. However, the IPT made the decision to compete the requirement. The IPT was able to award to a new contractor and save $3 million over the incumbent's prices, as well as obtain state-of-the-art equipment.

There have been many procurements of lesser dollar value that have been awarded in shorter time frames than would have been under the previous system. The reason for these shorter time frames is that the response times are tailored to the

requirement, there is more discussion with industry to obtain a better understanding of the requirement (therefore less time and resources spent on numerous proposal submissions), and the decision-making process is within the IPT.

We anticipate that there will be similar savings in the future. Our goal is to reduce costs by 20 percent and reduce the time it takes to make an award by 50 percent by April 1999.

Question. Why should Congress be expected to take seriously FAA's estimates of offsetting collections from user fees, if the agency can't accurately lay out the FAA's costs that are associated with the services for which they plan to charge the fees?

Answer. The FAA is implementing a cost accounting system that will permit the allocation of costs to users of FAA services. This system is to be fully operational by October 1, 1998. Until information from this system is available, an independent financial assessment conducted by Coopers & Lybrand, Inc., determined that a cost allocation study conducted by GRA Inc., which was recently finalized, provided an acceptable interim basis for attributing FAA costs to broad categories of users and could be used for fee setting.

FAA'S ACQUISITION SYSTEM

Question. In 1995, Congress gave FAA unique authority among Federal agencies to establish its own procurement system. In response, FAA replaced the extensive set of procurement rules with a 100-page document, entitled Acquisition Management System. GAO has reported that elements of the new system are a promising first step in improving acquisitions, but has expressed caution. How complex and difficult to address do you consider FAA's acquisition problems to be? What are the major issues that need to be addressed to solve the problems?

Answer. The problems are complex and difficult, especially considering the rapidly growing demand for air traffic management and infrastructure. Prior to the Acquisition Management System (AMS), a rigid set of acquisition laws, regulations, internal rules, and overlapping approvals contributed to costs and delays in fielding and maintaining systems. Excessive time to field systems often led to those systems containing obsolete technology. Also, there was no coordinated, corporate-level view of acquisition programs. Rigorous mission needs determinations, analyses of alternatives, and affordability decisions were not always focused at a corporate level.

The new AMS addresses the problems of excessive time and cost, unnecessary oversight, and burdensome processes. The AMS promotes time and cost savings by allowing streamlined processes, decision-making at a level appropriate for the circumstances, integration of all disciplines responsible for an acquisition into product teams, and innovation. All elements of acquisition are integrated by the AMS, from determining mission need to disposal. The AMS also requires the FAA to prioritize mission needs and make investment decisions based on those needs. In summary, the AMS will allow the FAA to buy what it needs, when it needs it, at the best deal, and will allow for changes.

AIRPORT FUNDING

Question. AIP funding is at an all-time low in recent history. And in the fiscal year 1998 budget request, you have requested an obligation ceiling of only $1 billion. In the past four years, annual airline passenger enplanements have increased 16 percent and investment in airport development has decreased 23 percent—and that is before the $460 million decrease in airport investment envisioned in the President's Budget. I'm informed that the FAA has pending applications for over $3 billion worth of airport improvement projects ready to go.

The FAA cites 22 airports that are seriously congested, and estimates that number growing to 32 in the next several years. Delays associated with congestion cost the airlines over $500 million a year directly, and the total cost to the national economy is many times greater, if you consider the lost time to passengers and businesses. Yet your budget requests the historically low airport improvement funding level of $1 billion—lower than the AIP ceiling has been in 10 years.

Have we been spending too much on airports, or is the President's Budget underfunding our airport needs?

Answer. Like many other Federal programs, the requested AIP level has been reviewed carefully to help the administration and Congress balance the Federal budget. Airports, particularly large ones, are able to raise capital for airport development in the private market. Also, the ability to collect and use Passenger Facility Charge funds will continue to provide an important supplement to Federal grant funds. We hope the newly authorized demonstration program for innovative financing will help airports do more with the Federal funds that are made available to them.

We are optimistic that the work of the National Civil Aviation Review Commission will produce recommendations for long-term funding of airport infrastructure, as well as other aviation programs.

Question. Has the Department done any research on the economic impact of funds spent on new airports and airport improvements? If so, please provide an executive summary of the results of this research for the record.

Answer. FAA has not conducted research into the broad impact of airport improvements on the economy of the surrounding area. FAA has conducted benefit/cost analyses of specific proposals for large airport capacity improvements to be funded in part through the Airport Improvement Program. These analyses were conducted within FAA and did not result in formal reports. We have included economic impact analysis as an element of the master planning process, and have developed a suggested methodology for use by airports.

WHITE HOUSE COMMISSION REPORT

Question. On page 11 of the Gore Commission report, the Commission concludes that "Cost alone should not become dispositive in deciding aviation safety and security rulemaking issues" and that "non-quantifiable safety and security benefits should be included in the analysis of proposals." What are some of the factors in this "non-quantifiable" category? Are these just factors that we'll know when we see them?

Answer. The White House Commission recommendation that cost alone not become dispositive in regulatory cost/benefit analysis is consistent with current FAA practice and with Executive Order 12866 (Regulatory Planning and Review), which recognizes that some significant costs and benefits are difficult to quantify. With respect to U.S. aviation safety and security, examples of difficult to quantify benefits include estimates of the value of public confidence in the safety of air travel, the value of trying to achieve 100 percent risk reduction with the use of redundant systems or procedures, and safety measures instituted as a result of risk analysis rather than a record of actual accidents. In regulatory actions where these difficult to quantify benefits or costs are included, the specific issues are identified and discussed so the reader is aware that they have been included in the analysis.

WEATHER-RELATED AVIATION RESEARCH

Question. Weather is a contributing factor in over one-third of aircraft accidents. In the report, the Commission sets the goal of reducing "the fatal accident rate by a factor of five within ten years and conduct safety research to support that goal." I note that the President's Budget request for aviation weather research has been reduced by over 60 percent below current levels (from $13 million to $6 million). Is enough money committed to weather research, or is this an area that deserves greater attention by the FAA?

Answer. Research and development project funding varies considerably from year to year, depending on the phase of research. The FAA's Aviation Weather Research program is in a phase where several components have completed the capital intensive portions and are now in a less costly period of analysis. We are studying how to implement the recommendations of the White House Commission Report, and can shift resources, as necessary, to fund any additional weather research.

NASA SAFETY PROGRAM

Question. I've heard that in response to the Gore Commission report, NASA has started planning a $300 million a year safety program. Is NASA the appropriate agency to lead on aviation safety, and what type of safety initiatives would you anticipate that NASA is best suited to contribute?

Answer. The FAA is working in partnership with NASA in an endeavor to reduce the aviation fatal accident rate by a factor of five within ten years. NASA has pledged to contribute one-half billion dollars over the next five years to support the safety research. The initiative, now named the Aeronautical Safety Investment Strategy Team (ASIST), was kicked off by an FAA and NASA workshop February 18–21, 1997. Subsequent ASIST workshops were held March 6–7 and March 25–28, 1997. The groups used facilities provided by Boeing and worked on a process for prioritizing safety research. Subgroups are preparing a comprehensive list of research projects being done by FAA and NASA to identify those projects with the most immediate impact. Long range research is also being examined in those areas expected to have a major impact on accident rates. The next workshop will be held April 17–19.

While aviation safety is the responsibility of the FAA, the agencies have worked in partnership for over ten years on several safety research initiatives that contrib-

ute to the overall goal of reducing accident rates. Current FAA/NASA cooperative research programs include aging aircraft studies, Advanced General Aviation Transport Experiments (AGATE) to include the General Aviation Propulsion Program (GAP), and new situation awareness methods such as the Aviation Performance Measuring System (APMS) program.

The research roles of the two agencies are complimentary in that the FAA's research program is focused on applied research with results expected within two to five years, while the NASA research programs tend to be longer term. Working in partnership will ensure that the research performed by NASA can be applied by the FAA in its advisory material and rules.

Question. I note that the Gore Commission Report mentions the need for a "new long-term financing mechanism to ensure that modernization occurs on an acceptable schedule, and that the resulting safety and efficiency benefits are realized faster." and that "Replacing the traditional system to excise taxes with user fees offers the potential to correlate revenues and spending more closely." What is the Department's view of what a user-financed regime might look like? I know that this is the task for the National Civil Aviation Review Commission, but can you give the subcommittee a sneak preview of what you expect the administration to favor for user fees, fuel taxes, ticket taxes, or other financing mechanisms?

Answer. User fees should cover the full costs of operating FAA. Ideally, the fees would be derived by determining the full costs of providing specific services such as air traffic control services to aviation users and relating the fees to those costs. Recommendations for specific types of changes and types of services subject to charge will be heavily influenced by the findings of the National Civil Aviation Review Commission.

PASSENGER FACILITY CHARGES

Question. To augment funding from the AIP grants, in 1990 the Congress established the Passenger Facility Charge (PFC) program. Under the program, commercial service airports can charge each airline passenger $1, $2, or $3 per trip segment up to a maximum of four segments per round trip. After determining which projects to fund with PFCs, an airport must apply to FAA for approval of the PFC. In 1996, PFC collections totaled over $1 billion. Generally, PFCs can only be spent on the same types of airport development projects that can be funded with AIP grants. However, in 1996, the Congress extended the use of PFCs to include relocating air traffic control towers and navigational aids as part of an approved project, and meeting Federal mandates. Have any airports as yet requested to use PFC's to relocate a tower or navigation aid? If so, what was the PFC contribution to the total project cost?

Answer. Yes, the Albany County Airport Authority in Albany, New York, has an approved project to relocate the air traffic control at the airport. The Albany County Airport was approved to impose and use $8,521,093 in PFCs toward the total project cost of $15,496,956. Also, numerous public agencies have been approved for the imposition and use of PFCs for runway projects of various types at airports they control. However, it is not known which, or if any, of these projects contained navigational aids as a construction element.

Question. Have any airports as yet requested to use PFCs to meet Federal mandates? If so, could you provide an example of the type of mandate and the PFC contribution to the total project cost?

Answer. Yes, many public agencies have had projects approved that were federally mandated or had projects that contained construction elements that were federally mandated. Examples of these mandates are: airfield signage; terminal security; projects to comply with the Americans With Disabilities Act (ADA) requirements; and clean air and water projects. Many of these mandates are carried out as elements of other major construction projects. For example, many ADA projects are contained within terminal rehabilitation projects. The FAA has approved over $15.2 million in terminal ADA projects and $16.4 million in airfield signage projects.

Also, Dayton, Ohio; Indianapolis, Indiana; Syracuse, New York; and Tulsa and Oklahoma City, Oklahoma, have environmental clean water projects totaling over $41.8 million approved or pending approval.

FAA'S FUNDING SHORTFALL

Question. In its fiscal year 1998 budget, FAA projects a $6 billion shortfall between its existing requirements and projected funding levels through 2002. In addition, the cost of the Gore Commission's proposal to accelerate improvements in aviation safety and security will increase this shortfall by over $2 billion, placing an ad-

ditional burden on FAA's resources. What cost containment efforts have you implemented to address these escalating costs?

Answer. The FAA has taken numerous steps in the last three years to reduce personnel costs and reduce FTE levels, as called for by the National Performance Review. Through the end of fiscal year 1996, the agency has been able to reduce overall FTE usage by 11.7 percent or 6,324 FTE. Cumulative savings as a result of FAA's downsizing exceed $1 billion through fiscal year 1996, with fiscal year 1996 savings estimated at over $400 million.

Since over 62 percent of the agency's work force is part of what is referred to as the "safety work force," the downsizing has been concentrated in the non-safety areas. The non-safety work force has been reduced by 18 percent through fiscal year 1996.

Some examples of efforts by the agency to streamline and achieve cost savings are as follows:

—Contracting Out of Level 1 Towers
  —85 Towers contracted out
  —Additional savings anticipated in fiscal year 1998
  —Supported by the NPR
—Airway Facilities (AF) Realignment
  —Reduced levels of AF organization in regions and field from 5 to 3
  —Nearly 900 supervisory positions eliminated
—Human Resource Management (HRM) Streamlining
  —HRM staffing reduced by over 400 positions since fiscal year 1993
  —Supervisory ratio increased from 1:5 to 1:15

The FAA is currently in the process of an integrated review of the agency's structure, processes, and restructuring plans. Contrary to previous studies that have concentrated on specific areas (e.g. regional structure, administrative services, etc.), the integrated review now in process will incorporate plans already in place in the lines of business as well as a corporate review of the FAA mission, processes, and structure.

Question. How has the FAA's investment in ATC modernization increased controller and workforce productivity? Could you discuss how this investment has reduced or contained personnel staffing levels?

Answer. The ATC modernization has not specifically reduced or contained air traffic staffing. An increase in controller productivity may be a by-product of our efforts to adopt new technologies. We hold technologies we pursue up to the standard of the agency mission: Safe, Orderly and Expeditious flow of Air Traffic. In the Standard Terminal Automation Replacement System (STARS) program, for instance, we have required only the capability to replicate our current functionality. In the preplanned product improvement area of STARS, we require the contractor to give us a platform within which additional functionality can be readily accommodated.

The Display System Replacement (DSR), like the STARS program, has kept the system as functionally close to today's system as possible. This was done intentionally to reduce schedule risk and transition and training impact to the facilities. The system will provide a platform that has open system architecture and will allow us to integrate new ATC technologies when they are available.

Among the expected additional functions are data link communications, surveillance enhancements, surface separation, improved weather display, Terminal Air Traffic Control Automation (TATCA), Enhanced Traffic Management System (ETMS), medium-range conflict probe and others. The benefits will accrue to FAA customers as a function of increased performance of the system, a large part of which is enhanced by controller productivity improvements resulting from better tools.

Question. How will FAA fund Gore Commission recommendations relating to the acceleration of ATC modernization and improvements to airport security?

Answer. The White House Commission recommendations are interrelated. The FFA's ability to accelerate ATC modernization and improve security will depend upon congressional action on the recommendation to implement user fees. These fees will provide the resources needed to address these two areas.

We are currently identifying those specific programs that need to be accelerated to meet full modernization by 2005. We are considering not only existing programs, but also identifying possible changes in how the FAA provides necessary services.

Some modernization efforts are already underway and budgeted, including development of data link, DSR, STARS, and some of the traffic management decision support tools. By late April 1997, the FAA expects to have schedules identified for each program element and refined cost data to share with the National Civil Aviation Review Commission. The White House Commission deferred to this body to help define the alternative financing mechanisms necessary to reach the 2005 goal.

The planning to support full ATC modernization is heavily dependent on the users equipped with avionics that produce both user and FAA benefits. Their input to this planning is critical for success and will occur prior to the July 15, 1997, deadline recommended in the White House Commission report.

DOMESTIC AIRLINE COMPETITION

Question. Nearly 20 years ago, Congress phased out control of domestic airline service and relied on market forces to decide fares and levels of service. Last year the GAO reported that, overall, air fares have decreased and service has improved since airline deregulation. However, GAO emphasized that several "pockets of pain" exist—that is, a number of smaller communities, particularly in the Southeast and upper Midwest, have higher fares and worse service today than under Federal regulation. What steps, if any, can the Department of Transportation take to ensure that the benefits of deregulation reach these areas of the country?

Answer. The GAO report identified some small-and medium-sized communities that had not benefited from deregulation, and they did find a few that they clearly identified as worse off today. They stated, "these pockets of higher fares and worse service stem largely from both a lack of competition and comparatively slow growth over the past two decades".

Geography and the size of the local economy are major factors that determine whether a community can support competitive service. If a city is relatively small and is located within a reasonable driving distance from one or more major cities, some of the population that would normally use the local airport will drive to the larger airports. This is particularly true if low-fare service is available at the larger nearby airports. To date, none of the low-fare carriers has entered a non-hub airport (defined by the FAA as enplaning fewer than 0.05 percent of domestic passengers or 263,028 per year) and only a handful have entered small FAA hubs.

Under deregulation, the Department does not regulate prices or service. These decisions are made by the airlines in the marketplace. However, a DOT study last year showed that the low-cost carriers were beginning to move into ever smaller markets, and if the growth of low-cost service resumes its pattern of a year ago, there might be some low-fare service to smaller cities over time. Another new development that could change the fortunes of the cities noted in the GAO study is the spread of the new 50-seat jets that are just beginning to come into the market. With these new aircraft, it will be feasible to offer jet service to smaller cities.

Question. What steps can local communities take to improve the quality of their air service?

Answer. At a round-table discussion about market-based solutions to local air service problems held in Chattanooga, TN, on February 7, 1997, two important local self-help measures were developed. First, was consumer education. Because of the importance of affordable air service to local economic development, local leaders should become more aggressive in educating consumers about competitive issues facing the local aviation marketplace. Second, local financial incentives were discussed. Such incentives can encourage market entry by guaranteeing a particular level of revenue or providing direct promotional support. In partnership with local airport authorities, corporations can make contractual or preferential agreements with interested new entrants or the most responsive incumbent carriers, steering business toward these airlines.

Question. GAO also reported last year that barriers to entry continue to limit competition at several key airports, such as Chicago O'Hare and New York LaGuardia, to an extent not anticipated by Congress when it deregulated the industry. The result, according to the GAO, has been significantly higher air fares at these airports. Do you agree with GAO's finding and conclusions? If so, what specific actions do you think are necessary to address these barriers to market entry?

Answer. We do not agree completely with GAO's conclusions. While fares may be higher in some markets out of these specific slot-controlled airports, our analysis of fares in Chicago and New York suggests that average fares for local passengers are not significantly higher because both cities have alternative airports that are not slot-controlled: Midway in Chicago and Newark in the New York area. We know, for example, that fares in the Baltimore-O'Hare market are disciplined by Southwest's service in the Baltimore-Midway market.

Nevertheless, in response to GAO's report, the Department announced that it would consider the impact on competition in responding to requests for exemptions from the slot rule by new entrants. This represents a new policy that should enable the Department to encourage new competitive service.

Question. A key barrier to entry that GAO identified was the artificial limits set by DOT on the number of takeoffs and landings that can occur at Chicago O'Hare,

New York LaGuardia and Kennedy, and Washington National. Many in the airline industry believe that these slot controls, established in 1969, are no longer necessary. Do you plan on re-examining the need for slot controls at these airports during your tenure?

Answer. Less than two years ago, the Department completed an exhaustive study of whether slot controls should be eliminated. We sent that study to Congress for its review. Based on that study, no changes were made to the slot rule. Because this was studied so recently, we have no active plan to revisit this issue.

Question. GAO has also identified the perimeter rule at Washington's National Airport as a barrier to entry. GAO suggested that Congress consider giving DOT the authority to grant waivers from the perimeter rule where it could promote competition. What are the Department's views on this issue?

Answer. The perimeter rule at Washington National was created by Congress in its oversight capacity over Washington's two local airports. The Department appreciates arguments for and against modification of the perimeter rule, and takes no position on whether it should be modified.

Question. Given that capacity in the air traffic control system and in the national airport system is available in some sectors and at some airports, while the system operates at or above capacity (at significant expense) in others, is there merit in considering a structure of user fees tied to peak-time pricing concepts on capacity-constrained airports or sectors on non-origin/destination travelers, to encourage greater utilization of system capacity by airlines?

Answer. The development of a user fee system will have to take into account many complicated factors, including peaking issues. DOT at this point is looking to the recently named National Civil Aviation Review Commission to sift through the data and arguments in developing a sound recommendation on user fees.

INTERNATIONAL AVIATION

Question. Over the past several years, DOT has been successful in reaching liberal agreements with other countries that dramatically increase U.S. airlines' access to those countries' markets. Unfortunately, DOT has made little progress with our two largest aviation trading partners overseas—the United Kingdom and Japan. Will DOT take a different approach toward the British and the Japanese under Secretary Slater than was taken by his predecessor? If so, how would the approach differ?

Answer. The goals for our aviation relationships with the British and the Japanese have not changed. In both cases, the Department is committed to eliminating the restrictions that limit the ability of U.S. carriers to structure their services in response to market demands. With respect to the United Kingdom, the proposed alliance between American Airlines and British Airways, for which the airlines are seeking antitrust immunity, has given the British an incentive to liberalize the air services relationship, and talks to establish an open-skies aviation regime have begun. Although the pace of negotiations to establish the new regime has been slow, progress is being made—most significantly, the British have accepted that the restrictions on entry to London's Heathrow Airport must be eliminated. However, further action is unlikely until after the British general election, which is scheduled for May 1.

With regard to Japan, we have been holding high-level exploratory discussions aimed at reaching a framework for resuming formal negotiations. Since the Japanese indicated they were not prepared to accept implementation of a fully liberal regime at this time, we have proposed that such a regime be phased in over a reasonable period. We are continuing to discuss this concept with Japanese officials.

Question. DOT policy has been that the grant of antitrust immunity to international airline alliances is contingent upon an "open skies" agreement removing all restrictions on air travel between the United States and the other country. During negotiations with other countries, DOT has used antitrust immunity as a carrot to obtain open skies accords. Does the current administration agree with this approach?

Answer. The possibility of securing antitrust immunity for an alliance in which their national carrier participated has provided an incentive for some U.S. bilateral partners to agree to "open-skies" aviation regimes. However, U.S. negotiators have made clear to foreign partners that an open-skies agreement is a necessary, but not sufficient, condition for the grant of antitrust immunity. Each of the immunized alliances was also subjected to in-depth competitive reviews by both DOT and the Department of Justice. These reviews were conducted separately from the open-skies negotiations, and as appropriate, conditions were imposed on the alliance to address

competitive concerns. This approach has yielded valuable new opportunities for U.S. aviation interests and will be continued.

Question. Two of the world's largest airlines—American Airlines and British Airways—propose forming a strategic alliance and have applied to DOT for immunity from U.S. antitrust laws. If the United States and the United Kingdom are eventually able to reach an agreement that opens up aviation trade between the two countries and antitrust immunity is granted to the American/British Airways alliance, do you believe that other actions will be necessary to ensure adequate competition? If so, what would those actions be?

Answer. It is the Department's position that an "open-skies" agreement with the British is a prerequisite for any decision to grant antitrust immunity to the proposed American Airlines/British Airways alliance. Moreover, the agreement must be accompanied by a competitively effective presence of U.S. carriers at London's Heathrow Airport. Since the application for immunity is pending before the Department, it would not be appropriate to comment on how any competitive concerns might be handled. However, an in-depth review of the competitive implications of the request for antitrust immunity will be undertaken by both the Transportation and Justice Departments. That review will be conducted separately from U.S. and British Government discussions on open skies.

COAST GUARD MISSION

Question. The Coast Guard makes a great deal of the multi-mission environment in which they operate. In light of budgeting constraints and the increasing mission demands placed on the Coast Guard in drug interdiction, search and rescue and maritime safety, is a reassessment of the Coast Guard's workload necessary?

Answer. No, a reassessment of mission workload is not necessary. The Coast Guard uses the same people and platforms to efficiently and effectively perform a broad spectrum of missions. The Coast Guard's authority to move assets between and among missions to meet emerging and differing national priorities while retaining a core maritime competence in marine safety, environmental protection, law enforcement and national defense, makes the Coast Guard a model for efficient government operations.

Question. Is the Coast Guard overextended? Should consideration be given to transferring some missions to the private sector?

Answer. No, the Coast Guard is not overextended. The fiscal year 1998 budget request marks the effective completion of the Coast Guard's Streamlining Plan, which is on track and has reduced the size of the Coast Guard without reducing services to the public. Over the past four years, the Coast Guard has saved the American taxpayer nearly $400 million and has reduced approximately 3,500 personnel to the smallest work force size since 1967. These savings have been achieved by restructuring, divesting inefficient assets, eliminating expensive infrastructure, and leveraging technology to reduce administrative overhead.

There are currently no plans to change or transfer any of the Coast Guard's primary mission areas of maritime safety, maritime law enforcement, marine environmental protection, and national defense.

Over the years, Coast Guard missions have evolved and grown through the addition of new missions that leverage the Coast Guard's core attributes and multi-mission capabilities against new national challenges. The Coast Guard is uniquely positioned as a military service with law enforcement authority as the lead agency for maritime drug and migrant interdiction and as the lead agency for environmental protection to advance the President's priorities in the marine environment, in national security, and environmental protection. The Coast Guard is constantly reviewing its goals, soliciting feedback from customers, and evaluating the cost of services as part of a quality approach to government services.

STREAMLINING THE COAST GUARD

Question. For the past several years, the Coast Guard has engaged in a streamlining effort—how is the plan proceeding?

Answer. The Coast Guard's National Streamlining Plan is proceeding on schedule and accomplishing projected savings. Coast Guard Headquarters was reorganized and downsized by 600 people. Coast Guard District staffs have dropped from 12 to nine, with field command and control staffing reduced by 374 personnel. Twelve Integrated Support Commands have been established, allowing operational commanders to focus on external customer delivery and facilitating field Command and Control reductions. Four activities prototypes have been established to test various concepts for greater integration of operations management. Most Coast Guard functions have moved off Governors Island, New York. Remaining work is on schedule to

place Governors Island's 170 acres and 225 structures in caretaker status by September 30, 1997. Training is being enhanced by the newly established Performance Technology Center in Yorktown, VA, and work continues for co-locating and integrating a Coast Guard-wide Leadership Development Center at the Coast Guard Academy by the summer of 1998. The Coast Guard has established a number of Centers of Excellence, including restructuring the Coast Guard's R&D Program and merging the Civilian Personnel servicing "hub" with the Coast Guard Personnel Command. Finally, work is progressing with the realignment of specialized command, control and communication (C3); IRM; and electronics engineering support functions, which are being relocated from the Electronics Engineering Center, Wildwood, NJ, by the summer of 1997.

STREAMLINING SAVINGS UPDATE

Question. In anticipation of possible budget cuts beginning in fiscal year 1997, the Coast Guard developed a national streamlining plan. The plan focused on reducing headquarters organizational units and personnel, consolidating field command and control and support, enhancing training, closing Governors Island, and creating centers of excellence. When the plan is fully implemented in fiscal year 2000, the Coast Guard expects to save between $63 million and $80 million a year and reduce its staffing by 1,300 positions. Conversely, the Coast Guard anticipates spending approximately $97 million in one-time relocation and construction costs to implement the streamlining plan's specific actions. For fiscal year 1997, the Coast Guard estimated eliminating 838 positions (555 military and 283 civilians) and saving $36.5 million in personnel and operations and maintenance costs as a result of streamlining. Is the estimate of $36.5 million savings in fiscal year 1997, due to actions taken as a result of the national streamlining plan, still accurate?

Answer. The Coast Guard's fiscal year 1997 budget request identified the elimination of 838 positions (555 military and 283 civilians) and $30.7 million in savings associated with the National Plan for Streamlining the Coast Guard (reference pages 2, 5 and 86 of the Coast Guard's fiscal year 1997 budget request). There was also $701,000 in annualized savings in the fiscal year 1997 budget request from the consolidation of civilian personnel offices portion of the national streamlining plan (reference page 92 of the Coast Guard's fiscal year 1997 budget request).

In addition, to reduce the negative impact on direct operational services of the $7 million congressional "general reduction" to the Operating Expenses account in fiscal year 1997, the Coast Guard accelerated portions of the national streamlining plan, resulting in the elimination of an additional 93 military positions, which provided an additional savings of $3.8 million that was originally planned to be taken in fiscal year 1998. Therefore, total on-budget national streamlining plan actions in fiscal year 1997 will result in the elimination of 931 positions (648 military and 283 civilian), saving $35.1 million.

An additional $7.9 million in national streamlining plan savings was reinvested to fund civilian pay raises, thereby bringing the gross savings to $43.0 million in fiscal year 1997 (reference page 29 of the Coast Guard's fiscal year 1997 budget request).

The following table summarizes the fiscal year 1997 streamlining savings:

Initiative	FTP	Savings
Annualized fiscal year 1996 actions		$700,000
Initial fiscal year 1997 actions	838	30,700,000
Accelerated fiscal year 1998 actions	93	3,800,000
Total net savings	[1] 931	35,100,000

[1] The Coast Guard expects to achieve a gross reduction of 931 positions in the Operating Expenses (OE) account as a result of its national streamlining plan and an additional 218 positions from other actions in fiscal year 1997. At the same time, the Coast Guard was required to add some positions in order to staff new and ongoing projects (e.g., new buoy tenders, Aids to Navigation Team Red River, Differential Global Positioning System Maintenance Engineering Facility, Afloat Tactical System project, and Communications Station Honolulu Transmitter project (reference pages 88–89 and 128–133 of the Coast Guard's fiscal year 1997 budget request).

Overall, for fiscal year 1997 (in all accounts), the Coast Guard expects to achieve a net reduction of 910 positions.

COAST GUARD STREAMLINING REDUCTIONS

Question. Does the Coast Guard expect to achieve a reduction of 838 positions by the end of fiscal year 1997.

Answer. The Coast Guard expects to achieve a reduction of 931 positions (FTP) in the Operating Expenses (OE) account by the end of fiscal year 1997 as a result of the National Plan for Streamlining the United States Coast Guard. The Coast Guard expects to achieve total net reductions of 910 positions (FTP) for all accounts by the end of fiscal year 1997, indicated as follows:

Fiscal year	Total work force	Cumulative work force
1994	−886	−886
1995	−953	−1,839
1996	−818	−2,657
1997	−910	−3,567
1998	+90	−3,477

Notes:
I. 1993 fiscal year baseline: 45,836 FTP
II. The fiscal year 1998 budget request eliminates 508 FTP from streamlining and other actions, and adds back 598 FTP (net increase of 90 FTP) for drug/LE initiatives, quality of life initiatives, crews for the new buoy tenders scheduled to be commissioned in fiscal year 1998, and pre-commissioning personnel for the polar icebreaker HEALY.

COAST GUARD STREAMLINING—FISCAL YEAR 1998 COSTS

Question. Of the $97 million in one-time relocation and construction costs, how much has already been expended and how much is expected to be expended in fiscal year 1998?

Answer. When the Coast Guard published its National Plan for Streamlining the United States Coast Guard in 1995, it estimated these costs at $107 million for fiscal years 1995 through 1999. On page 947 of last year's hearing record, the Coast Guard updated its estimate of fiscal year 1995 through 1997 streamlining exit costs at $103–$110 million. (Actual costs of $108 million for these fiscal years are in line with this updated estimate.) Over the next two years, the remaining streamlining costs are forecasted at $24-$26 million in fiscal year 1998 and $1.0–$1.5 million for fiscal year 1999. This would place the total cost of streamlining at $133 million to $136 million. Significant fiscal year 1998 and 1999 streamlining estimates include caretaker costs for Governors Island; pier improvements required due to unavailability of leased piers in Bayonne, NJ; remaining environmental remediation; and berthing improvements required at the Leadership Development Center.

STREAMLINING SAVINGS ESTIMATES

Question. Given the savings estimates of $63 to $80 million were made in 1996, can you provide a more precise savings estimate now?

Answer. The current estimate for net savings associated with the National Plan for Streamlining the Coast Guard is approximately $76.8 million, as follows:

Fiscal year	Net savings	Reinvestments	Gross savings
1996	$2,100,000	.....	$2,100,000
1997	35,100,000	[1] $7,900,000	43,000,000
1998	30,200,000	[2] 2,100,000	32,300,000
1999	9,400,000	([3])	9,400,000
Total	76,800,000	10,000,000	86,800,000

[1] In fiscal year 1997, $7.9 million in national streamlining plan savings was reinvested to fund civilian pay raises, bringing the fiscal year 1997 savings total to $43.0 million.
[2] In fiscal year 1998, $2.1 million in national streamlining plan savings was reinvested to provide funding for the Leadership Development Center (LDC) in New London, CT, bringing the gross fiscal year 1998 savings total to $32.3 million.
[3] Fiscal year 1999 reflects annualized savings from closing Governors Island.

COAST GUARD STREAMLINING SAVINGS

Question. What have been the total savings to date? (Please display by fiscal year, with a total). Are there savings anticipated because of the effort in fiscal year 1998? What are the next steps in this effort?

Answer. From fiscal year 1994 up to and including the fiscal year 1998 budget request, the Coast Guard will have saved $378.1 million (current year dollars) in gross Operating Expenses (OE) reductions. This includes approximately $67 million

in savings to date from the National Plan for Streamlining the Coast Guard, and all other Coast Guard-wide streamlining initiatives and programmatic reductions. The total savings are not adjusted for inflation. Assuming a 2.5-percent yearly inflation rate, the Coast Guard will have saved $397.5 million in constant fiscal year 1998 dollars.

In fiscal year 1998, the Coast Guard estimates that it will save approximately $55 million in OE reductions (including approximately $30 million from the national streamlining plan). The fiscal year 1998 budget request marks the effective completion of the Coast Guard's streamlining plan, which is on track and has reduced the size of the Coast Guard by approximately 3,477 people without reducing services to the American public.

[Dollars in millions]

Fiscal year	Coast Guard operating expenses reductions	Additional operating expenses enacted reductions	Total gross annual operating expenses savings	Operating expenses savings adjusted for inflation [1]	Cumulative operating expenses savings [2]
1994	($42.4)	($18.0)	($60.4)	($66.7)	($66.7)
1995	(42.6)	(23.0)	(65.6)	(70.6)	(137.3)
1996	(81.6)	(41.2)	(122.8)	(129.0)	(266.3)
1997	(54.3)	(20.2)	(74.5)	(76.4)	(342.7)
1998 Request	(54.8)		(54.8)	(54.8)	(397.5)
Total	(275.7)	(102.4)	(378.1)	(397.5)	(1,210.5)

[1] Inflation-Adjusted Savings = Constant fiscal year 1998 dollars at 2.5-percent inflation rate.
[2] Savings reflects gross Operating Expenses (OE) only.

COAST GUARD REAL ASSETS

Question. Please provide a comprehensive listing of all Coast Guard real assets in the Federal inventory.

Answer. The following table identifies the Coast Guard's assets by Civil Engineering Unit (CEU) and Headquarters (HQ) Unit. Information provided for the CEUs includes all buildings and structures within their area of responsibility.

Unit	Number of buildings and structures	Building square feet (thousands)	Value of buildings and structures ($000)
CEU Cleveland	9,547	4,133	1,302,452
CEU Miami	3,001	4,289	1,275,857
CEU Providence	7,952	7,757	1,308,048
CEU Oakland	4,911	5,301	1,047,677
CEU Honolulu	763	989	271,619
CEU Juneau	2,146	3,087	1,683,615
HQ Units:			
Academy	117	1,315	208,643
TISCOM	62	128	18,998
Petaluma	235	767	169,271
Yorktown	285	717	109,306
Mobile	104	367	75,658
Cape May	227	1,009	166,637
Yard	287	985	173,278
Totals	29,637	30,844	7,811,059

In the above table, "value" means "plant replacement value" and is derived by a formula. A listing of Coast Guard-owned properties to show acreage will be compiled; several months will be required to complete the task.

SALE OF COAST GUARD REAL ASSETS

Question. The Coast Guard fiscal year 1998 request for its Acquisition, Construction, and Improvements (AC&I) account is $379 million. Of this amount, $9 million

is expected to result from the sale of selected surplus Coast Guard properties. In developing its budget, the Coast Guard presented the Office of Management and Budget (OMB) with a list of 29 properties that the Coast Guard expected to be surplus in fiscal years 1997, 1998, and 1999. The Coast Guard estimated the fair market value of these properties to be $19.9 million. Which specific properties were selected by OMB to be sold to obtain the $9 million to supplement the AC&I account and how were these properties selected?

Answer. No specific properties were selected. The $9 million level was established based on forecasts of potential total proceeds, and in recognition that some properties on the list would eventually be unavailable for sale. No-cost transfers (from the federally-mandated screening process) could reduce the proceeds or delay disposal.

COAST GUARD REAL ASSETS IMPACT OF NOT SELLING $9 MILLION OF REAL PROPERTY

Question. If the Coast Guard falls short of selling the properties for $9 million, will the Coast Guard reduce its AC&I spending accordingly or does the Coast Guard expect to spend $379 million for AC&I whether or not any of the properties are sold?

Answer. The Coast Guard plans on new Budget Authority in fiscal year 1998 of $379,000,000 for Acquisition, Construction, and Improvements (AC&I) whether or not any of the properties are sold.

ENVIRONMENTAL CLEANUP OF EXCESS PROPERTIES

Question. What environmental cleanup issues has the Coast Guard identified with the $9 million of properties, selected by OMB, and what are the expected costs of cleaning up those properties?

Answer. The Coast Guard has evaluated the condition of the properties forecasted for sale in 1997. Two of these sites have been identified as having environmental cleanup issues. Both are included in the Coast Guard's fiscal year 1998 Environmental Compliance and Restoration (EC&R) budget under "Various Projects under $500,000 each" (page 338). Cleanup has been essentially completed at LORAN Station Dana, Indiana. Closure of the site has been requested from the State of Indiana. Because some additional sampling may be required for this site, $50,000 has been requested in fiscal year 1998.

At Electronics Shop Major Telephones (ESMT) Portsmouth, NH, $65,000 has been requested to initiate site investigation. Any follow-on environmental cleanups at this facility depend upon the results of the site investigation and will likely be budgeted in a future fiscal year.

As of the date of this response, the Coast Guard has not identified any environmental cleanup issues for the remaining 1997 properties, and is evaluating potential environmental issues in the properties proposed for sale in 1998 and 1999.

COAST GUARD REAL ASSETS—GSA REPORTING

Question. When does the Coast Guard intend to report the $9 million in properties to be sold to the General Services Administration to begin the Federal screening process? What is the process for disposing of selected surplus property from current status?

Answer. The following table provides the dates when the Coast Guard expects to report the 1997 properties to GSA. Report dates for properties to be sold in 1998 and 1999 are being determined.

1997 property	*Est. date to GSA*
Eatons Neck—GRP Long Isl Sound, NY	Jan 98
Sta Rockaway, NY	Oct 97
Housing—Loran Sta Dana, IN	Feb 97
ESMT Manasquan, NJ	Sept 97
Marblehead Lt—Ant Huron, OH	July 96
Comsta Boston—Marshfield, MA	Aug 97
ESMT Portsmouth, NH	Sept 97
Housing—Ft Crockett, TX	Sept 96
Highland Light, MA	Dec 96
Nahant Rec Facility, MA	Aug 97
Housing—Hyde Park, MA	Dec 97
Moorings/Land/Bldg—Petersburg, AK	June 97
Radar Site—Port Orford, OR	Nov 96

Once the Coast Guard declares the property excess to its needs, a formal Report of Excess is provided to the GSA, which acts as the Coast Guard's disposal agent. GSA completes the federally mandated screening of potential government and homeless reuse. If not reused for these purposes, GSA markets and sells the property for the Coast Guard. The sale proceeds, less GSA costs, are returned to the Coast Guard.

COAST GUARD REAL ASSET REPORTING

Question. Why is the Coast Guard not reporting all 29 properties to the General Services Administration as surplus?

Answer. It is anticipated 25 of the 29 properties will be reported to the General Services Administration as excess. The remaining four properties are:

—Housing—Wakefield, MA
—Housing—Randolph, MA
—Housing—Nahant, MA
—Air Station—Brooklyn, NY

After further study, the Coast Guard will retain the three family housing areas to ensure adequate housing for Coast Guard personnel in the Boston area.

Air Station Brooklyn will be transferred to the Federal Aviation Administration.

COAST GUARD REAL ASSETS—OPERATING COSTS

Question. What is the estimated operations and maintenance costs for fiscal years 1998 and 1999 for all 29 of the identified surplus properties?

Answer. The fiscal year 1998 operations and maintenance cost for the 29 properties is approximately $2,675,000. It is highly probable that 13 of the 29 properties will be disposed of prior to fiscal year 1999. Of the remaining 16 properties, 3 family housing areas will be removed from the surplus list and retained by the Coast Guard. The fiscal year 1999 operations and maintenance cost for the remaining 13 properties is approximately $1,414,000.

COAST GUARD REAL ASSETS—GOVERNORS ISLAND

Question. What is the current status of removing Governors Island from the Coast Guard's real property inventory?

Answer. The Coast Guard is required to maintain Governors Island on its real property inventory until the property is transferred or sold. Title 41 CFR 101–47.402–1 states that the holding agency (Department of Transportation) shall retain custody and accountability for excess and surplus real property pending its transfer to another Federal agency or its disposal.

The Coast Guard and the General Services Administration (GSA) have held quarterly partnership meetings to identify the various tasks that need to be accomplished in an effort to dispose of the island. This is not a typical disposal, due to the size, historicity, and value of the facility. The Coast Guard plans to submit the Report of Excess to GSA in July 1997.

STREAMLINING—MAINTENANCE AND LOGISTICS COMMANDS (MLCS)

Question. To develop its national streamlining plan the Coast Guard established two teams to assess potential organizational consolidations and training infrastructure modifications. The teams' objectives were to identify recurring budget savings of $100 million without reducing services to the public. They identified a variety of options to streamline the agency. The Coast Guard selected several of the options which made up the Coast Guard's national streamlining plan. Some of the options not included in the national streamlining plan were to replace the Coast Guard's current field structure with a regional structure, eliminate the two Maintenance and Logistics Commands (centralized support commands), eliminate one of the two Maintenance and Logistics Commands by merging them together, and close one of the three training centers (Training Center, Petaluma, CA) to consolidate training. Why did the Coast Guard decide not to eliminate the two Maintenance and Logistics Commands or merge them together?

Answer. Currently, two Maintenance and Logistics Commands (MLCs) directly support the two Area commands. The following factors contributed to maintaining the status quo as the most desired organization:

(1) The Coast Guard relies heavily on its MLCs for technical and administrative support of operational assets and crews. The disruption or inefficiencies of consolidation could affect front-line readiness and degrade vital services the Coast Guard provides the public. Consolidating both MLCs into one would have created a situation

where the single MLC would have an over-extended span of control and reduced customer focus, thereby adversely impacting operational capabilities.

(2) Maintaining two MLCs retains the existing strengths of the current organization. Each has adapted to the unique operational and support needs of differing geographic regions, and each MLC has a strong customer focus and familiarity.

(3) The Area/MLC combination links the delivery of support with operations in each Area. The current alignment maintains unity of command within each Area.

(4) Maintaining the two-MLC concept provides needed stability in order to establish the new Integrated Support Commands (ISCs) for decentralized support delivery. These new ISCs were designed to more efficiently and effectively provide front-line customer support while relying on their respective MLCs for resource, technical, and administrative support. In this sense, the MLCs and their ISCs are an integrated support system. Eliminating one MLC would necessitate additional staff for the new ISCs and pose a digression away from one major Streamlining objective—refining operations and support activities as core expertise.

STREAMLINING SAVINGS—MLCS

Question. What was the estimated savings of (a) eliminating the two Maintenance and Logistics Commands and (b) merging them together?

Answer. The savings that would have resulted from consolidating the two Maintenance and Logistics Commands (MLCs) was estimated at 83 full-time equivalents (FTE). Eliminating both MLCs and distributing their functions to other organizations was less efficient and had savings estimated at 64 FTE. In neither case was the level of estimated savings sufficient to offset the anticipated negative impacts discussed in the response to the previous question.

STREAMLINING—TRAINING CENTERS

Question. Why did the Coast Guard decide not to close one of the training centers?

Answer. There were three main reasons why the Coast Guard decided not to close one of its training centers. First, the up-front costs to close a training center and consolidate functions at other training centers were substantial. The least-cost option would have required an additional $20 million to $26 million in Acquisition, Construction, and Improvements (AC&I) funding to accommodate construction requirements. Second, the significant changes caused by streamlining initiatives required additional training, not less. Stability in the training system was imperative to successful streamlining. Finally, the Coast Guard had concern for the economic impact of closure on the local community in Petaluma, CA, particularly in view of other significant downsizing actions.

EXCESS CAPACITY AT USCG TRAINING CENTERS

Question. How much excess capacity (classrooms, sleeping areas) currently exists at each of the three training centers?

Answer. The following table shows utilization rates of the three major training centers in fiscal year 1996 as measured by berthing. In general, student capacity and classroom utilization are driven by total beds available for use. It is generally recognized with the training community that 80-percent loading is an achievable target capacity for training centers. This achievable level is based on the need for maintenance, male/female berthing limitations, and berthing constraints based on rank and/or seniority.

Training Center	*Average Percentage Utilization Rate fiscal year 1996*
Yorktown	88
Petaluma	58
Cape May [1]	64

[1] Recruit Training Center Cape May training load is seasonal. Cape May reaches a utilization rate in excess of 80 percent during the summer, with substantially lower loading during the winter when recruiting is more difficult. Total student load at Cape May ranged from a low of 2,355 in fiscal year 1994 to an estimated 4,395 in fiscal year 1997. Cape May is the Coast Guard's only recruit training center, and as such, the Coast Guard needs the capacity to handle fluctuating recruiting demands from year to year.

COAST GUARD CAPITAL NEEDS—FUNDING STRATEGIES

Question. Over the next ten years, the Coast Guard faces the prospect of having to replace billions of dollars of assets, particularly vessels. What are some potential strategies for the agency and the Department to obtain the necessary funds?

Answer. The Coast Guard has faced similar recapitalization challenges in previous years. In each case, the Coast Guard provided sufficient justification to the administration and Congress to support replacing assets that were essential to maintaining the Coast Guard's national security capabilities. For example, in fiscal year 1990, when the Coast Guard needed to replace its polar icebreaking capability and its aging patrol boats, Congress provided $847 million in Acquisition, Construction, and Improvements (AC&I) funding. Likewise, in fiscal years 1986 and 1987, when the Coast Guard needed to replace the HH–3F helicopter with the HH–60, and renovate the 210-foot Medium Endurance Cutters, Congress provided AC&I funding at a level of about $550 million each year.

In the next few years, the Coast Guard will face similar recapitalization needs as its long-range cutters and aircraft approach the end of their service lives. The Coast Guard expects to be able to provide sufficient justification to support funding an appropriate level of assets that serve such vital national interests as stopping the flow of illegal drugs (FRONTIER SHIELD); interdicting alien migrants (Haiti/Cuba); responding to national security crises (Cuban shootdown of U. S. civilian aircraft, TWA 800 disaster) and natural disasters (west coast flood relief); and responding to oil spills (Rhode Island).

The Coast Guard intends to work with the administration and Congress to support funding for outyear investment in Coast Guard assets that serve the national interest.

COAST GUARD CAPITAL NEEDS—SAVINGS FROM AC&I PROJECTS

Question. The Coast Guard's current fiscal situation may be worsened by its need to replace an aging fleet of ships, planes and other assets. The Coast Guard estimates that the total capital requirements for current and new acquisition projects will increase to as much as $1.2 billion in fiscal year 2002. This is more than three times the $370 million the Coast Guard received for capital projects in fiscal year 1997 and greatly exceeds OMB targets for the agency's capital needs through 2002. According to Coast Guard managers, their cost estimates represent the upper limit of future capital needs because they assume a one-for-one replacement ratio for ships and planes. Recent acquisitions of such equipment as buoy tenders have shown that the replacement ratio could be substantially less than this, however, due to improvements in technological capability. In addition, alternatives to replacement, such as renovating old assets, using DOD resources, or leasing rather than buying may also be considered.

Can you give any estimates of the yearly savings through 2002 which should be achieved because of your AC&I projects? If additional AC&I funding were identified, are savings possible by virtue of increasing the size of the buy quantity?

Answer. One of the cornerstones of the Coast Guard's streamlining philosophy has been to "invest in Acquisition, Construction, and Improvements (AC&I) to achieve outyear Operating Expenses (OE) savings." That investment strategy is paying more than $5 million in dividends in the fiscal year 1998 budget. The following recapitalization projects will save recurring dollars in the OE base through fiscal year 2002 and beyond. All projects with the exception of the Seagoing Buoy Tender will be completed and fully operational by 2002.

A. The combined Seagoing/Coastal Buoy Tender projects will reduce fleet size from 37 to 30 ships and save 500 billets, which will be part of a total anticipated recurring savings of approximately $12 million when all of the old ships are replaced with new ones. Project completion was scheduled for approximately 2002, but has been extended to 2004–2006 due to funding constraints.

B. The HC–130 Engine Conversion, which replaces old, fuel inefficient engines that are prone to explosion with safer, more efficient ones, will save $1.3 million per year when all engines are converted.

C. The Aviation Logistics Management Information System, which integrates two separate aviation inventory management systems, is projected to save 20 billets and yield additional yet-to-be determined OE savings.

D. The Fleet Logistics System, which will provide an information system for managing vessel logistics, is projected to save more than $9 million per year in efficiencies and reduced inventory costs when the system is fully operational.

E. The Finance Center computer consolidation, which replaced outdated information systems with one fully integrated system, is projected to save 10 billets and approximately $150 thousand per year when it becomes operational.

F. Communications System 2000, which converts 8 fully-staffed communications stations to 2 master stations, 5 remote sites, and 1 stand-alone station, will save approximately $2 million per year when completed.

G. The Personnel Management Information System/Joint Military Pay System will save approximately 190 billets and yield yet-to-be determined OE savings associated with integrating and centralizing the previously separate pay and personnel systems.

H. Local Notice to Mariners automation, which will integrate 4 non-compatible aids to navigation information systems into a single integrated system, is projected to save approximately 12 billets and yield yet-to-be determined OE savings due to efficiencies gained by the elimination of redundant processes and reduction of printing and mailing costs.

If additional AC&I funding was identified, the Coast Guard could accelerate some of these projects, such as the Seagoing Buoy Tender and HC–130 Engine Conversion, to achieve savings sooner. For example, the Coast Guard intends to award a full production contract for 11 Seagoing Buoy Tenders in fiscal year 1998. The initial strategy was to buy four ships the first year, four ships the second year, and three ships the third year. Due to funding constraints, funds were appropriated for just one ship in fiscal year 1997, and the fiscal year 1998 budget also includes funds for just one ship. If the Coast Guard had funds to buy these ships faster, OE savings could be achieved sooner by completing the project earlier. Cost avoidance would chiefly result from minimizing inflation costs and reducing the time project management staff and project resident office personnel remain on the AC&I payroll.

Accelerating other capital investments not mentioned above could also achieve acquisition savings by increasing the size of the option awards. For instance, both the Coastal Patrol Boat and Motor Lifeboat acquisitions have minimum and maximum option quantities offered under the contract. Were the Coast Guard to purchase the maximum versus the minimum quantities, these acquisitions could both have been completed one to two years earlier, saving costs associated with inflation and personnel required to manage the acquisitions.

COAST GUARD CAPITAL NEEDS—ACTUAL AC&I NEEDS IN 2002

Question. Since your current AC&I estimated needs assume a one-for-one replacement and, therefore, are probably significantly inflated, can you estimate what your actual needs might be in 2002?

Answer. The Coast Guard's Capital Investment Plan currently presumes one-for-one replacement of existing assets for which mission analysis has not yet been completed. Without a completed mission analysis, this is the most logical data upon which to base projected replacement requirements. However, the Coast Guard makes every effort to reduce acquisition costs through use of mission analysis and by leveraging technology. The combined Seagoing/Coastal Buoy Tender acquisitions are good examples where the use of mission analysis/technology resulted in less than one-for-one replacement. In these projects, 37 old ships will be replaced with just 30 new ones—a reduction in combined fleet size of almost 20 percent. However, each acquisition has independent characteristics, so the 20-percent reduction cannot be unilaterally applied to every ship construction project. For example, the Motor Lifeboat project will probably result in close to one-for-one replacement of the 100 old boats.

The Coast Guard's greatest capital investment need in fiscal year 2002 will be the replacement of its long-range cutters and aircraft. Mission analysis for this project is complete, and fiscal year 1998 funds are being requested for the concept exploration phase of the major systems acquisition to replace these vital national assets. Using fiscal year 1998 funds, the Coast Guard intends to award contracts to industry and government entities to propose integrated systems to replace its long-range assets. These integrated systems are intended to minimize quantity and maximize effectiveness and efficiency of the Coast Guard's long-range assets. Once the Coast Guard has a better idea of what and how many assets will be required, acquisition strategies can be developed to minimize budgetary impact.

Until concept exploration for the long-range cutters and aircraft replacement is completed, scheduled for the end of fiscal year 1999, the Coast Guard is unable to give a more accurate estimate of actual AC&I needs in fiscal year 2002.

COAST GUARD CAPITAL NEEDS—IMPACT OF FLATLINED AC&I APPROPRIATION

Question. What would the impact be both on costs and on program performance if AC&I appropriations were flatlined at $370 million through 2002?

Answer. Capital investments would be deferred, as would resultant Operating Expenses (OE) savings. For example, the Seagoing Buoy Tender project would have to be extended, which would further delay the projected recurring savings of approximately $14 million. This would also require the extended operation of buoy tenders already 50 years old. Likewise, the Coast Guard expects to replace its long-range

cutters and aircraft with fewer units, which should result in lower operating costs. Potential operating savings from this project would also have to be deferred. Concurrently, as Coast Guard assets age, particularly the long-range cutters and aircraft, they cost more to maintain. For example, the cost of each subsequent overhaul of one of the Coast Guard's oldest HC–130 aircraft increases by $500 thousand. As new acquisitions are pushed further into the future, their cost will be higher as a result of inflation.

The Coast Guard is an operating agency that relies upon capable, dependable assets to carry out its services to the Nation and the public. As these assets age, their availability becomes less certain as the ratio of maintenance to operations increases. For example, the seagoing buoy tenders are already over 50 years old and the 82-foot patrol boats are over 30 years old.

The most significant adverse impact would be on the future mission performance of our long-range cutters and aircraft. Some of the HC–130 aircraft are 20 years old, and the 378-foot high-endurance cutters are approaching 30 years of age and have already been overhauled once.

COAST GUARD CAPITAL NEEDS—AC&I

Question. What actions would you have to take to continue operations if the AC&I appropriation was not increased through 2002?

Answer. The impact of a flatlined AC&I appropriation would fall heaviest on the largest recapitalization projects—the Seagoing Buoy Tender replacement, the Coastal Patrol Boat, the National Distress System (short-range distress communications network), and the Deepwater Capability replacement (long-range cutters and aircraft). If these projects were stopped or slowed down through fiscal year 2002, the Coast Guard would have to perform its missions for 5 or more years using aging assets at or near the end of their service lives.

COAST GUARD CAPITAL NEEDS—ACQUISITION/RESEARCH & DEVELOPMENT PROGRAM LINK

Question. How is your AC&I technology improvement project linked to your research, development, testing, and evaluation projects?

Answer. The Coast Guard's Research, Development, Test, and Evaluation (RDT&E) program addresses potential for AC&I technology improvements in two ways.

The first involves project work that is specifically directed at acquisition-related technology improvement issues. In fiscal year 1998, RDT&E's Future Technology Assessment efforts include support for the Coastal Zone Mission Analysis now being conducted to examine all missions performed by the Coast Guard in the coastal zone (shoreline to 50 miles offshore). Once current needs in the coastal zone are assessed and future requirements projected, gaps in capability will be identified. RDT&E can then provide the technical expertise to conduct an emerging technology assessment to determine ways to close the gaps through leveraging technology, uncovering information, techniques, and alternatives to support appropriate AC&I technology improvement efforts. If the AC&I technology improvement is a major systems acquisition, the RDT&E program may also be called upon to assist with the concept exploration phase.

The second leverages the core expertise and technical knowledge of the RDT&E personnel to develop new or alternative methodologies for performing mission analysis using state-of-the-art operations research, modeling, statistical analysis, and other related techniques. This was used in the pre-acquisition phase of the Coast Guard's new project to replace its long-range cutters and aircraft. In fiscal year 1998, RDT&E personnel will participate as members of acquisition matrix teams engaged in the concept exploration phase of the long-range cutters and aircraft replacement project. The RDT&E program will also review requirements provided by acquisition matrix teams and perform focused technology assessments.

COAST GUARD VTS TECHNICAL SOLUTIONS STUDY

Question. Last year, Congress cut the funding for the Vessel Traffic Service (VTS) program and provided $1 million for a study of available technical solutions which minimize complexity and cost in any follow-on VTS programs. The President's Budget requests $5.5 million for PAWSS (Ports and Waterways Safety System), a follow-on to VTS 2000, to transition from "requirements development to acquiring an initial off-the-shelf system component." How is the VTS technical solutions study proceeding, and when might we expect the delivery of a report?

Answer. In response to last year's direction from Congress, the Coast Guard has held national and local-level public forums to gather user input on VTS require-

ments, and hosted technical symposiums to gather information on off-the-shelf technical solutions. Through this deliberate process, the Coast Guard and the users are partnering to define the problem, develop requirements to address the problem, and devise a mutually-agreed-upon solution. This evaluation process is the core of the Ports and Waterways Safety System project.

In March 1997, members of the national maritime community provided input on defining the elements that should constitute a basic VTS. A users forum in New Orleans is expected to deliver their local requirements by May 1, 1997.

The Coast Guard held a Technical Symposium in February 1997, where vendors presented information on commercially available equipment for use in VTS. The Coast Guard, with the assistance of the Radio Technical Commission for the Maritime Services, will hold a second symposium April 28–29, 1997, to allow vendors to demonstrate their equipment.

Using input from these various sources, the Coast Guard will be able to propose a viable new production program to Congress by October 1, 1997. The input gathered will also be used to define user requirements and develop a technical specification for acquiring an initial system in fiscal year 1998.

FUNDING NEEDED FOR VTS PROGRAM

Question. The Department does not envision the need for the $5.5 million requested in the President's Budget until the study of available technical solutions is completed, does it?

Answer. The development of VTS requirements is being accomplished in consultation with the maritime community. The $5.5 million to initiate installation of VTSs based on the new requirements will be required once consensus is reached on a VTS solution that realistically addresses the users' needs and meets the Coast Guard's duty to ensure waterway safety. Based on the positive progress of consultations at national and local levels, the Coast Guard fully expects consensus will be reached in the near future, and that funds will be required in fiscal year 1998.

DOMESTIC ICEBREAKING FEES

Question. The Coast Guard provides domestic icebreaking services in the Great Lakes region and on the East Coast, primarily to assist commercial shippers and fisherman. These services (particularly in the Great Lakes) are considered by the shipping community to be essential services that the Coast Guard provides as part of its mandate to facilitate commerce. A recent study by the Volpe National Transportation System Center calculated a cost-benefit analysis for icebreaking in the Great Lakes region. In this analysis, the cost of providing icebreaking services in the Great Lakes region was estimated at $8.8 million per year while the benefit to shippers was estimated at $78.1 million per year. In light of this significant benefit received by shippers, and the budgetary constraints facing the Coast Guard, some investigation of alternative icebreaking options may be warranted. The Coast Guard is currently studying alternatives to providing icebreaking services in the Great Lakes region. What conclusions have been reached in the Coast Guard's analysis?

Answer. While the Volpe study did not provide any formal recommendations, the economic data presented indicated Coast Guard services were a vital part of the shipping infrastructure in the Great Lakes. Consequently, the Coast Guard is currently preparing the Mission Analysis Report (MAR) and Mission Needs Statements (MNS) for Great Lakes Icebreaking Capability. This is the process that formally defines the performance goals, standards, and requirements for the Great Lakes icebreaking mission. It is being prepared with stakeholder involvement and is expected to be completed in early summer 1997. This document does not address "solutions," but does serve as the critical precursor to the formal, multi-year acquisition process that would then explore solutions and costs for Great Lakes Icebreaking Capability in accordance with the formal A–109 Acquisition Process. In the interim, the Coast Guard has committed to the continued operation of the CGC *MACKINAW*.

DOMESTIC ICEBREAKING FEES CRITERIA

Question. The President's fiscal year 1998 budget indicates that legislation will be proposed to assess and collect fees from commercial maritime carriers to recover the Coast Guard's cost of providing domestic icebreaking services beginning in fiscal year 1999. What would be the most reasonable and equitable means of charging user fees? What are the difficulties associated with identifying users and collecting fees?

Answer. The administration is preparing proposed legislation to allow the assessment of user fees beginning in fiscal year 1999 for icebreaking services provided by the Coast Guard. The proposed fee would be assessed to commercial activities con-

sistent with other applications of user fees, including those for highway, air, and rail. The fee would not apply to recreational vessels, fishing vessels, fish processing vessels, fish tender vessels, passenger vessels, ferries, public vessels, or vessels not traveling to or from a U.S. port.

The proposed user fee legislation establishes a fee level based on tonnage of cargo that is transported during the ice season through areas requiring Coast Guard icebreaking services. Since the proposed legislation specifies those vessels subject to the user fee, as well as the collection mechanism, no significant difficulties are expected in identifying commercial users or collecting the user fees.

DOMESTIC ICEBREAKING FEE ALTERNATIVES

Question. What alternatives exist to the Coast Guard providing icebreaking services in the Great Lakes?

Answer. One of the important highlights of the Volpe study was the clarification that the commercial shipping infrastructure is geared to a 42-week shipping season. Of those 42 weeks, at least 8 weeks require icebreaking services provided by the Coast Guard.

For industry and commercial shipping, the least-cost alternative to icebreaking services is increased stockpiling, at a cost of $78.1 million. The second-least-cost alternative was shipment by rail, with a projected industry cost of $192.02 million. The Volpe study states that the cost of shipping by rail would be $22.26 per ton, as compared with current shipping at $6.00 per ton. The third alternative evaluated in the study was pre-positioning inventory at a Great Lakes location below the Soo Locks (i.e. Escanaba, MI). The Volpe study states that the pre-positioning alternative is only feasible when the locks are closed and the pre-positioning location is still accessible. However, absent the availability of local icebreaking capability, pre-positioning is not feasible. Therefore, this is not a viable alternative to icebreaking.

Until such time as industry and commercial shipping can modify their infrastructure to operate in a shortened season, approximately 34 weeks each year, Coast Guard icebreaking services will be required. Industry and commercial shipping do not have the icebreaking resources to facilitate the movement of ships during the ice season.

AUTHORIZATION FOR INSPECTIONS OF FOREIGN-FLAGGED CRUISE SHIPS

Question. The multi-billion-dollar passenger cruise market in the United States is almost exclusively served by foreign-flagged vessels. There are only two oceangoing U.S.-flagged cruise vessels of any substantial size. Access to the U.S. market is therefore a very lucrative privilege, which is made even more so because the vessels and their crews pay virtually no corporate or personal U.S. income tax. To ensure adequate shoreside facilities, the safety of U.S. passengers and property, and enforcement of immigration laws, the Federal Government has enacted laws and dispersed responsibility for their administration and enforcement throughout several departments and agencies of the Federal Government. This raises the question of whether the foreign-flagged cruise vessels, which are enjoying substantial profits as a result of their monopoly, are paying their fair share of the cost to the Federal Government of ensuring that this extremely valuable U.S. market operates safely and in accordance with our laws and regulations. In 1996, the Congress authorized the Coast Guard to begin collecting fees for its inspection services. What is the status of the rulemaking to implement the authorization to charge user fees for the Coast Guard's inspection of foreign-flagged cruise ships?

Answer. The rule to set fees for foreign-flagged cruise ships is still in the conceptual stage. The Coast Guard is currently developing a work plan that establishes the critical activities and milestones necessary for this regulatory initiative. The Coast Guard currently expects to publish a rule by the end of 1998.

FEES FROM FOREIGN-FLAGGED CRUISE SHIPS

Question. How much does the Coast Guard estimate it will collect annually for its inspections? How will the collections be made?

Answer. The Coast Guard expects to collect approximately $616,000 per year from the inspection of foreign-flagged cruise ships. This figure is based on an annual charge per vessel of $4,896 and a foreign-flag passenger vessel fleet of 126 ships. Fees would be collected in the same manner as foreign tank vessel examination fees, with fees due prior to performance of the initial or annual examination. These fees would cover initial and annual examinations, and subsequent reexaminations. An average of four examinations/reexaminations are conducted per year for most vessels.

OTHER POTENTIAL FEES FROM FOREIGN-FLAGGED CRUISE SHIPS

Question. Are there any other services provided by the Coast Guard to foreign-flagged cruise ships for which fees could also be charged?

Answer. There are no other services provided by the Coast Guard to foreign-flagged cruise ships for which user fees could reasonably be charged. The Coast Guard was tasked with establishing user fees for services provided under Subtitle II—Vessels and Seamen—of Title 46 U.S.C. by the Omnibus Budget Reconciliation Act of 1990. The Coast Guard Authorization Act of 1996 amended Title 46 U.S.C. and removed prohibitions to the collection of user fees for foreign-flagged passenger vessel inspections.

DRUG TONNAGE REDUCTION UNDER FISCAL YEAR 1998 BUDGET REQUEST

Question. According to statistics from the Office of National Drug Control Policy, over 400 metric tons of cocaine enter the U.S. every year—which far exceeds the estimated annual consumption of cocaine in the country. The Coast Guard is requesting an additional $34.3 million to support its anti-drug activities in fiscal year 1998. The Coast Guard's fiscal year Budget in Brief states that the additional funds will be used to increase coastal border protection by increasing the number of hours that cutters patrol maritime areas, increase aviation capability by reactivating two HU–25Cs, improve training, increase intelligence, and international treaty support. How large a reduction in the entry of illegal drugs into the U.S. do you anticipate will result from the additional money requested by the Coast Guard? What is the basis for your response?

Answer. The Coast Guard estimates that once all additional assets requested in the fiscal year 1998 budget are on line, approximately 52 fewer tons of cocaine—an estimated 472 million "hits" of cocaine—will be prevented from entering the U.S. each year. (See pages 454 and 455 of the Coast Guard's fiscal year 1998 budget request.) The 1998 budget request, however, is the first step in a multi-year strategy to increase maritime interdiction effectiveness in support of the National Drug Control Strategy. The basis for the Coast Guard's analysis is a 1989 Rockwell International Study, "Measuring Deterrence." Deterrence is a major component of the Coast Guard's counterdrug effectiveness.

The Rockwell study indicated that when potential smugglers perceive a 40-percent probability of interdiction, 80 percent will be deterred from smuggling. The Coast Guard has used this study as a starting point for its law enforcement program standards. A deterrence model, based on these standards, has been used to project effectiveness and formulate optimal resource requirements included in the 1998 budget request.

Based on a recommendation from The Interdiction Committee, the Office of National Drug Control Policy is forming a working group to further investigate the effects of deterrence, and how it can be used in planning.

RESULTS OF COAST GUARD ANTI-DRUG EFFORTS

Question. What have been the results of the Coast Guard's anti-drug efforts? How much has been deterred? How much has been interdicted?

Answer. The Coast Guard's transit zone drug interdiction program is the first and, in many cases, only line of defense against drug traffic that threatens to enter the United States through maritime routes. The security of our maritime borders is dependent on the depth and effectiveness of interdiction resources operating in the transit and arrival zones.

Based on the analysis cited in the preceding question, the Coast Guard estimates law enforcement resources deterred an estimated 24 percent of drug traffickers from using maritime routes in the transit zone last year. This deterrence rate translates to an average of more than 100 tons of cocaine deterred from maritime routes each year. Deterrence rates are higher in areas where law enforcement activity is concentrated, such as the Eastern Caribbean.

In addition, over the past 3 years, Coast Guard law enforcement resources have seized an annual average of nearly 36 tons of cocaine and marijuana. Moreover, interdiction forces have disrupted, through jettisons and aborts, a substantial number of smuggling operations that further reduce success rates for drug traffickers attempting to export their illicit cargo to American shores.

In fiscal year 1997, the Coast Guard initiated Operation FRONTIER SHIELD in the Eastern Caribbean to demonstrate that smuggling routes could effectively be denied to traffickers by increasing resources committed to drug law enforcement. In the first quarter alone, nearly 14,000 pounds of cocaine were seized and an estimated 17,000 pounds of cocaine were lost at sea or thrown overboard by traffickers

to avoid arrest. The resources included in the fiscal year 1998 request will allow the Coast Guard to institutionalize capabilities and strategies that have proven effective in FRONTIER SHIELD. As a result, the Coast Guard expects increased seizure totals, disruptions, and deterrence if funded at the fiscal year 1998 budget request level.

ADDITIONAL PERSONNEL AND HOURS WITH FISCAL YEAR 1998 FUNDS

Question. Where will the additional personnel and assets be deployed? How many additional staff will the additional funds pay for? How many additional hours will assets be deployed with the additional funds?

Answer. Coast Guard's fiscal year 1998 budget request contains an additional 251 full-time positions (FTP) for increased drug law enforcement. Of these, 30 FTP are required to operate two additional HU–25 Falcon aircraft that will deploy to sites throughout the transit zone. One HU–25C will be based out of Air Station Miami, and the home base for the second will be determined by the Atlantic Area Commander.

An additional 105 FTP are necessary to increase C–130 Hercules aircraft flight hours by 1,600, increase H–65 Dolphin aircraft flight hours by 1,240, and improve H–60J helicopter deployment capability. These personnel will be assigned to Coast Guard air stations that support drug law enforcement.

For cutter initiatives, 24 FTP are intended to establish Maintenance Augmentation Teams (MATs) in Miami and Puerto Rico to support 110-foot patrol boats operating in these areas.

Of the 43 FTP intended for increased intelligence collection, analysis and dissemination, 20 of the intelligence related positions will be Coast Guard Investigative Service special agents assigned to existing Organized Crime Drug Enforcement Task Forces (OCDETFs), High Intensity Drug Trafficking Areas (HIDTAs), and regional Coast Guard Investigative Service offices. Two positions would support Defense human source intelligence programs in locations outside the United States. The remaining 21 FTP would augment intelligence collection analysis and dissemination at existing intelligence facilities, such as the Intelligence Coordination Center (ICC), El Paso Intelligence Center (EPIC), and Coast Guard area intelligence staffs.

International Training will be increased by 28 FTP to provide expanded deployable training teams. Coast Guard training teams provide experience and expertise to developing nations' maritime forces to make them better partners in counter-drug efforts. Three more FTP will be added to the Coast Guard Reserve Training Center to train additional boarding officers. The Reserve Training Center and International Training Detachment are located in Yorktown, VA.

Finally, 18 FTP are requested for law enforcement command and control positions. They will be assigned to Coast Guard units involved in drug law enforcement to permit more focused strategic and tactical planning, inter-agency coordination, and execution of the law enforcement mission. (Please see pages 200–215 of the Coast Guard's fiscal year 1998 budget request for a detailed description of the drug/law enforcement initiatives.)

COAST GUARD PERSONNEL POSITIONS

Question. To what extent could Coast Guard personnel working in off-line positions be reassigned to on-line positions so that cutters and aircraft could be deployed a greater number of hours?

Answer. Every position in the Coast Guard contributes to the overall mission effectiveness of the organization. As such, the Coast Guard makes no distinction between "on-line" and "off-line" personnel. The ability of Coast Guard cutters to deploy for the period of time they do, and for aircraft to fly their program hours, is contingent on the maintenance, logistics, and administrative support provided by other entities within the organization.

Coast Guard streamlining, which began in fiscal year 1994, has eliminated nearly 3,500 positions, and in the process has made the Coast Guard a much leaner and efficient organization. The Coast Guard has a diminished ability to surge in support of one mission without soon affecting the performance of another mission.

Increasing the deployment of existing resources is not simply a matter of buying more fuel and spare parts for cutters and aircraft. Resources are acquired, staffed, and funded to provide a specific level of service over a finite projected service life. Operating assets above their programmed standard will require more personnel and increased operations and maintenance funding.

OIL SPILL PREVENTION AND RESPONSE—POST-OPA 90

Question. The *Exxon Valdez* oil spill in 1989 highlighted many of this Nation's weaknesses in the areas of preventing and cleaning up oil spills. Over the recent years, the Coast Guard, along with several other agencies, has been implementing the Oil Pollution Act of 1990 (OPA 90), which the Congress passed to improve oil spill prevention and clean-up. The recent oil spill in Japan, however, demonstrates once again the risk associated with the maritime transportation of oil. It underscores the continuing need to be vigilant to prevent such occurrences and the difficulty in cleaning up an oil spill. How confident are you that measures developed as a result of OPA 90 will avoid another large oil spill, like the *Exxon Valdez* spill, or mitigate the environmental loss if one does occur?

Answer. The Coast Guard is confident that a significant discharge of oil is less likely to occur now that the spill prevention mandates of the Oil Pollution Act of 1990 (OPA 90) have been implemented. This is based on a marked drop in the number of medium (less than 10,000 gallons) and major (greater than 100,000 gallons) oil spills per billion tons of oil shipped since the passage of OPA 90.

The Coast Guard's two-pronged approach to pollution mitigation is prevention and, if an incident does occur, a successful response. The multi-disciplined approach to prevention includes double hulls for tank vessels, operational measures to reduce spills, more vessel traffic systems, improvements for vessel navigation, and international and domestic efforts to improve crew competency and qualifications. These measures, coupled with the Coast Guard's partnerships with industry organizations such as the American Waterways Operators, the U.S. Chamber of Shipping, and the American Petroleum Institute, have increased industry awareness and greatly reduced the chances of a significant discharge into the marine environment.

If a significant discharge were to occur, the Coast Guard is highly confident that the OPA 90-driven response and preparedness initiatives would ensure a rapid response and a successful mitigation of the spill's environment impacts. Successful responses in Rhode Island, Texas, and Maine are recent examples of more effective, post-OPA 90 mitigations and cleanups.

The Coast Guard's and the industry's preparedness levels were greatly increased with the development of vessel and facility response plans in conjunction with Area Contingency Plans (ACPs). Vessel and facility operators are required to "think through" their response activities in advance and contract with response resources. The ACPs, created by local Area Committees, form the shoreside complement to the vessel plans and provide the mechanism for the necessary advance coordination and cooperation among the response community, governments, agencies, industry, and environmental groups.

In addition to increased preparedness, OPA 90 had a positive effect on Coast Guard and industry response capabilities and resources. An additional Coast Guard Strike Team, pre-positioned oil spill equipment, Vessel of Opportunity Skimming Systems (VOSS), and an OPA 90-fostered growth in the commercial response industry have increased the overall effectiveness of the public and private sectors to bring appropriate resources to the scene.

Additionally, the Coast Guard has attained a more robust response posture with the adoption of the Incident Command System (ICS) as its response management structure. ICS has been embraced by other Federal agencies, State agencies and the industry. The Incident Command System fosters cooperation, communication, and concurrence on important issues. ICS has proven to be the most flexible and responsive way to incorporate the multiple governments, agencies, and private entities, to mobilize and respond effectively to an incident.

ADDITIONAL ACTIONS TO PREVENT OR MITIGATE LARGE OIL SPILLS

Question. What other actions, beyond the safeguards imposed by OPA 90, would significantly reduce the risk of a large oil spill occurring or mitigate its effects if one does occur?

Answer. Beyond OPA 90, the Coast Guard is pursuing the application of advanced technology, increased cooperation with international maritime interests, and drawing focus on the elimination of human error to improve mission performance and increase the overall effectiveness of the prevention and oil spill response programs.

The Coast Guard is actively researching and testing digital-based charting and computer-assisted waterways management systems. The Coast Guard has implemented a computer-based decision-support tool, complete with oil weathering models, dispersant application planners, and a geographic information system. The Coast Guard has acquired hand-held infrared cameras to complement its aircraft-deployed Side-Looking Airborne Radar and Forward-Looking Infrared systems. A command and control information management system is under development that

will greatly increase the ability to receive, display, analyze, and manage the large amount of information and data that accompanies a major oil spill response. Oil spill trajectory models and real-time imagery of oil spills are part of this system that will begin to be tested in 1998.

The Coast Guard is also working at the international level to improve the preparedness of the world's tanker fleet to respond to oil spills. The Coast Guard has been administering and enforcing the various conventions of the International Convention for the Prevention of Pollution from Ships (MARPOL) and participating in the International Maritime Organization-sponsored convention on Oil Pollution Preparedness, Response, and Cooperation (OPRC).

The Coast Guard's Prevention Through People (PTP) program recognizes that the majority of casualties are attributed to human factors, and focuses on improvements based on the human element, the vessel, and the operating environment viewed together as a system. PTP is fundamentally a voluntary program and relies heavily on the idea that increased safety leads to greater competitiveness through fewer accidents.

AVERAGE COST TO ROTATE COAST GUARD MILITARY PERSONNEL

Question. The Coast Guard's current policy is to periodically rotate all but a few of its military personnel, both officer and enlisted. Officer rotations vary from 18 months to 5 years, enlisted rotations vary from 2 to 4 years. Costs to rotate staff in fiscal year 1996 were about $73 million; other costs are also incurred for moving time and preparing over 19,000 orders annually. Some studies have questioned whether the Coast Guard should revise rotation practices by increasing the length of time between rotations and/or eliminating rotations for certain types of activities. Besides saving money, such a change could counter a problem pointed out in several studies—the undesirable effects of frequent rotation on the continuity of operations and ability to build expertise and knowledge in certain areas.

Coast Guard officials believe that current rotation policies are adequate and that they have developed optimum tour lengths that should not be revised. They said changing current practices would have several undesirable effects, including adverse effects on multi-mission capabilities, a smaller and less qualified leadership pool, and less qualified people because potential recruits may be concerned about being in undesirable locations for extended periods. The Coast Guard currently plans no formal study of this issue. What is the total average annual cost to rotate Coast Guard military personnel, including moving expenses, idle time, paperwork, and training?

Answer. From fiscal year 1992 to fiscal year 1996, the Coast Guard transferred on average 17,400 Coast Guard personnel each year at an average cost of approximately $63 million. The nature of the volunteer military workforce means that enlisted personnel contract for periods of four years. Currently, only 40 percent of the personnel completing their first 4-year enlistment re-enlist for another term. Officers enter the Service with either a three-year initial contract or a five-year commitment, depending on their accession source. Likewise, even those officers and enlisted who remain beyond their initial career decision point reach their elected or mandatory retirement date. These factors alone create a need to recruit, train, and transfer new members on a continuous basis. Thus, over 50 percent of all transfers were not discretionary, since they were required by new accessions, retirements, separations, or training. An additional 25 percent of the transfers were required due to the arduous nature/remote location of the assignment, or due to special needs of individuals.

There is no idle time in moving. Members are authorized four days to physically pack out and unpack their household goods incident to a change of station. Members are also allowed one day travel time per 350 miles of transfer distance, which averages 2 days per transfer. Members may also take accrued annual leave in conjunction with their transfers.

Paperwork associated with a relocation involves the member, his or her command, the servicing Personnel Reporting Unit, and the Coast Guard Personnel Command. Each of these commands has multiple functions and responsibilities beyond processing transfers. The time required to process transfer paperwork varies based on the type of assignment, location (in or out of the United States), and number of dependents being moved. Considering the non-discretionary nature of most moves and the complexities of establishing a standard "paperwork" cost of a transfer, no specific cost study has been conducted to determine the "paperwork cost per move." Similarly, training costs vary widely depending on the type of assignment, specialties involved, and previous experience of the individual. No specific study has been conducted to determine the "training cost per move."

IN-DEPTH STUDY OF LENGTHENING ROTATIONS

Question. Why does the Coast Guard believe that an in-depth study of the merits of lengthening rotations is not needed, given their high costs?

Answer. In July 1995, the Coast Guard dedicated 10 months to studying this issue. The end result was the change of two rotation policies: tour lengths for members assigned in Puerto Rico, Alaska, and Hawaii were adjusted; and alternate, shorter unaccompanied tour lengths were eliminated in these same locations. These changes established closer parity with tour lengths within the continental United States.

Additionally, in August 1993, the Coast Guard developed a geographic stability policy for enlisted personnel and began emphasizing voluntary extension of tour lengths and no-cost and low-cost transfers for both officers and enlisted members. In March 1995, the Coast Guard increased E–4 and E–5 tour lengths to 4 years for ashore billets. Finally, during the Coast Guard's streamlining initiatives, site location that would facilitate geographic stability to reduce transfer cost was a prominent factor in unit consolidations and relocations.

The Coast Guard believes these proactive changes, employed since 1993, have responded to the high cost of rotations.

ADVERSE EFFECTS OF LENGTHENING ROTATION PERIODS

Question. Would lengthening rotation periods adversely affect the Coast Guard's performance of its missions? Please explain.

Answer. Yes, lengthening rotation periods would adversely affect the Coast Guard's performance of its missions. Fifty percent of all rotations are non-discretionary due to accessions, separations, retirements, and training. An additional 25 percent are required due to the remote location of assignment, arduous nature of the assignment, or by special needs of the member or family. Remote location tours are those where the military member is unaccompanied by his or her family, such as assignment to one of three isolated Loran stations in Alaska. Arduous tours of duty are those tours in which a member is subject to frequent immediate recall or subjected to harsh physical demands, such as assignment to one of the Coast Guard's 86 patrol boats. Lastly, special needs are created when a military member or immediate family member experiences a change in physical or emotional status, requiring a move. For example, a special need arises when a spouse dies, creating a need to relocate a family closer to child care providers. Beyond these extraordinary assignments, more than 4,800 members are assigned to major cutters that deploy away from home port more than 185 days per year. Rotational assignments provide these and other members an opportunity for greater family stability.

The Coast Guard prides itself in the Service's ability to quickly and efficiently shift from one mission to the next without a degradation in mission effectiveness. This multi-mission capability is gained through the wide experience base of Coast Guard personnel, and is only achieved through the regular rotation of personnel to different assignments.

The Coast Guard needs a pool of highly qualified operational leaders. These leaders—men and women, officers and enlisted—acquire the requisite experience for command through exposure to different and increasing operational challenges, achieved by rotational assignments. An increase in tour lengths will cause a commensurate reduction in breadth of experience represented in senior leadership positions. Similarly, lengthening tours will lead to a decreased number of training opportunities for junior members in afloat, aviation, and marine science careers.

Finally, from a Service retention perspective, longer tour lengths decrease the attractiveness of the Service to new accessions. Most of the Coast Guard's new recruits are attracted by the opportunity to serve their country, while still gaining life experiences through operational assignments in different geographic areas, which will make them valuable contributors to the Coast Guard and the Nation. By lengthening tours, training and experience opportunities will decrease, and over-exposure to demanding assignments may further reduce their propensity to remain in the Coast Guard.

In summation, significant changes to the Coast Guard's rotation policies would significantly alter multi-mission effectiveness, leadership development, and retention in the Service.

COAST GUARD ROTATION POLICIES COMPARED TO OTHER MILITARY SERVICES

Question. How do the Coast Guard's rotation polices compare to the policies of the other military services?

Answer. The Coast Guard's rotation policy is similar to the policies of the Department of Defense (DOD). In general, the Coast Guard's rotation policy for assignments within the U.S. is four years in shore billets and three years in sea billets, except patrol boats, which are two-year assignments. In assignments outside of the continental U.S., tours range from 12 months to 36 months, based on the arduous nature of the assignment and remoteness of the location.

DOD's rotation policy within the continental U.S. is three years in both shore and sea billets; however, certain enlisted ratings extend sea billets to five years. Naval commands, such as combatants based in foreign countries and fleet marine forces deployed overseas, limit their tours of duty to two years. DOD shore duty outside of the continental U.S. ranges from 12 months to 36 months, based on the arduous nature of specific locations and whether the assignment is accompanied or unaccompanied.

All of the services make allowances from the general rotation policy to meet their service needs. For example, command cadre positions among all of the services tend to be shorter for assignments ashore and afloat. Additionally, first tour assignments afloat and some assignments ashore are 18 months to two years. Specific extensions and reductions are made to member tours based on special needs of the member or the service.

FREQUENCY OF ROTATION

Question. If the Coast Guard were to revise rotation policies, what programs or missions would lend themselves to less frequent rotations? For which programs or missions is it critical to maintain the current rotation policies and why?

Answer. As outlined in the previous questions, the Coast Guard has recently reviewed and changed tour lengths where appropriate. Also, for the reasons cited, there will be adverse consequences for making further changes.

AMTRAK REGIONAL SUPPORT

Question. Amtrak's financial health is precarious, despite the fact that its current appropriation level is $843 million (including $175 million just for the Northeast Corridor Improvement Program). Amtrak is the Nation's only intercity passenger rail system. It is burdened with many expenses over which it has little control, such as railroad retirement payments for employees of freight railroads as well as its own employees, six-year labor payments for workers who are laid off, limited opportunities for contracting out, heavy debt service payments, and limited opportunities to generate new revenues. Reform legislation that might have helped to reduce overhead and increase revenues failed to pass during the last Congress. Amtrak's future is troubled unless legislation is passed to either reduce its need for Federal subsidy, or to provide it with a dedicated revenue source, or to privatize it.

The annual appropriations process has been keeping Amtrak on "life support" while Congress and the administration have failed to agree on long-term solutions to make Amtrak viable, or to privatize it. "Life support" has not helped Amtrak to get stronger, but it has reduced the funds available for other programs.

What are your views on tapping into regional support for Amtrak service, whereby States and/or private investors could pay for Amtrak service?

Answer. The administration believes it is important that States, localities and the private sector provide support for those Amtrak services that are important to them. This is already happening. Since fiscal year 1995, the amount of State operating assistance supporting Amtrak operations has almost doubled. In addition, several States are purchasing equipment for enhanced Amtrak service. The Department's National Economic Crossroads Transportation Efficiency Act (NEXTEA) proposal includes increased flexibility in many programs to permit States to use Federal funds to provide capital support to Amtrak.

INNOVATIVE FINANCING FOR AMTRAK

Question. Could innovative financing be available to help Amtrak, such as State Infrastructure Banks or other Federal credit programs contained in your ISTEA legislation?

Answer. Amtrak capital support would be eligible for State Infrastructure Banks and the Infrastructure Credit Enhancement program in the Department's NEXTEA proposal. Amtrak has many capital needs that do not generate a positive return. It would be counterproductive to finance these investments. However, last year Amtrak ordered over $1 billion in equipment with the bulk of the financing provided through vendors and other non-Federal sources.

LONG-TERM PLAN FOR AMTRAK

Question. How do you plan to work with congressional authorizing and appropriations committees this year on resolving Amtrak's long-term problems? If no legislative changes are made, how long do you think Amtrak can continue "business as usual?"

Answer. The Department is committed to working with Congress, Amtrak management and labor, State governments, and other interested parties in the coming year to develop an affordable long-range plan that eliminates Amtrak's dependence on Federal operating subsidies. Amtrak is an important component of the Nation's intermodal passenger transportation system. We believe that Amtrak must have a reliable source of capital investment in the form of contract authority as requested in NEXTEA to address the previous lack of investment if we are to preserve the national system and permit Amtrak to achieve its potential.

REGIONAL SUPPORT FOR AMTRAK

Question. Is it more appropriate that States who directly benefit from regional Amtrak programs—such as the Northeast Corridor Improvement Program—share this burden with the Federal Government?

Answer. As stated earlier, the administration believes it is important that States, localities and the private sector support those Amtrak services that are important to them. New Jersey Transit and Amtrak recently signed an agreement to jointly fund infrastructure improvements to the Northeast Corridor over the next five years that benefit both commuter and intercity service. Washington State is funding track improvements in the Pacific Northwest Corridor. California, North Carolina, Pennsylvania, and Washington have all acquired equipment for Amtrak's use on intrastate service. The administration's NEXTEA proposal would offer States greater opportunities to support Amtrak service important to them.

HIGHWAY SAFETY ISSUES

Question. Currently, more than 40,000 people die every year on our Nation's streets and highways, and nearly 3.5 million people are injured in police-reported accidents. NHTSA Administrator Martinez has testified that all the "easy gains" in reducing fatalities and accidents and in making vehicles and highways safer have already been made. Incremental improvements will be much more difficult. What further gains do you believe that the Department can make, and what specific plans does the Department have to make these gains? Does DOT need new legislative authority or changes to existing legislative authority?

Answer. The Department's overriding goal in NEXTEA is safety, to reduce deaths and injuries from transportation-related crashes. We have fashioned a reauthorization proposal that cuts across intermodal lines to help achieve a safe and secure U.S. transportation system.

The NEXTEA proposals must contend with the fact that motor vehicle deaths and injuries have increased in recent years, and the traffic fatality rate has ceased its decline and instead stagnated. A number of risk factors associated with crashes are evident: the number of older and younger drivers is increasing; use of alcohol and other drugs is rising, and the results are showing up in our crash statistics; safety belt and child seat use is still low; and speeding and other forms of aggressive driving have increased. We also face higher speed limits and attempts to weaken or repeal motorcycle helmet laws.

NEXTEA needs to provide a balanced program for NHTSA that addresses both vehicle and behavioral safety problems, while providing a foundation for research, crash data and injury prevention activities. An active technical assistance program is required to support NHTSA's safety partners in the States and communities, health and business arenas, educators, and safety advocates.

A critical need in NEXTEA is to make an adequate Federal investment in highway safety, consistent with the top priority assigned to safety by the administration. Coupled with this is the Department's proposal to fund all of NHTSA's program from the Highway Trust Fund. NHTSA and FHWA incorporated flexibility for States to be able to shift their infrastructure safety funds to address other critical highway safety issues.

The goal includes continuing a performance-based Section 402 grant program that supports basic highway safety programs in States and communities. The Department's proposal also recommends continuing the use of incentive grant programs, because incentive grants have proven effective in motivating States to enact stronger laws and begin better programs. The proposal recommends incentives for new laws, programs and safety results in the areas of impaired driving deterrence and

increased restraint usage, plus new initiatives to strengthen State data systems, and programmatic and legal actions to deter drugged driving.

Since behavioral programs alone cannot prevent vehicle crashes and crash injury, the reauthorization needs to provide an adequate resource base for NHTSA's initiatives in both vehicle safety and consumer safety information.

A final goal for NEXTEA is to create a foundation of critical research for pursuing future safety initiatives in vehicle crash worthiness and crash avoidance, as well as behavioral areas. Priorities include linking vehicle safety engineering and medical research to learn more about preventing crash injury. High among the Department's priorities are promoting improved air bag systems, collision avoidance under the Intelligent Transportation System program, and intermodal human factors work using research tools such as advanced motion-based simulation. Continuation of national crash and injury data systems is also crucial.

FOREIGN EXPERIENCE

Question. What are we learning from other countries in reducing accidents and keeping unsafe drivers off the road? What fundamental societal differences, if any, exist between these other countries and the United States that would make it difficult to adopt their successful countermeasures?

Answer. Through bilateral contacts with researchers in most of the developed world, as well as active participation in international organizations such as the International Council on Alcohol, Drugs and Traffic Safety (ICADATS), the Department can stay abreast of advances in other countries. We have international cooperative agreements in place between NHTSA and Germany and the Netherlands to conduct research of common interest. In Germany, a series of studies was completed on the effects of various drugs on driving performance, and in Holland, a study of the effects of marijuana smoking on driving is underway.

Individual liberties differ greatly between the U.S. and other countries. For example, some members of the European Union, Australia and New Zealand more freely allow the use of automated enforcement devices, and view civil liberties in a different light. In much of Europe, automated speed enforcement is widespread. In Australia, besides the use of photo radar, no probable cause is required to compel a motorist to take a roadside breath test. Many Australian states use random breath testing, red light cameras, photo radar for speeders, and strict enforcement of belt use and helmet use laws to reduce crashes and injuries. These measures have worked and are acceptable to Australians, but it is doubtful that many of them would pass legal, constitutional, or political muster in the U.S.

In most countries other than the U.S., national laws, rather than a myriad of differing State and local laws, prevail. Most European countries have national police forces or, as in Canada and Australia, few state or provincial police agencies, instead of over 13,000 agencies as in the U.S. Their systems can often provide greater national uniformity in legislation, enforcement and adjudication.

The fundamental societal difference in occupant protection is reflected in the difficulty the United States has experienced in increasing its national seat belt use rate. Other industrial countries have not been hampered by the passage of secondary enforcement laws and the need to pass belt law legislation in a large number of States. An additional consequence of that process is that each one of these laws differs in some way from the other State laws. All this tends to erode the importance of compliance among the general public. Other countries have been able to raise use rates into the 80-percent range over a much shorter duration, which has then enabled them to implement stronger countermeasures involving the assessment of driver points for violators, and to implement enforcement programs that increase the risk of apprehension for belt law violations than is able to be accomplished in this country. The result is that these countries have use rates in the high 80 to low 90 percentages, while the U.S. has been stagnant at national use rates of 66 to 68 percent for the past 4 years.

SAFETY BELT GOAL

Question. The Nation has not reached DOT's goal that 75 percent of all vehicle occupants will use safety belts by 1997. Was this goal too optimistic? How do other countries achieve 90–95 percent usage rates? What do you propose to do to increase safety belt usage?

Answer. The usage rate goal of 75 percent by 1997 was not too optimistic; however, the level set was intentionally challenging because of the importance of increasing usage as quickly as possible in order to prevent unnecessary losses.

There are a number of differences between the United States and other countries that have achieved seat belt usage rates of up to 90–95 percent. These countries

have primary enforcement laws and have had these laws in effect for longer periods of time. Many of the countries with the highest use rates assess driver's license demerit points, in addition to fines, for seat belt law infractions. Some countries have nationwide traffic laws and police agencies. Others (such as Canada or Australia) have different laws in different states or provinces but have many fewer such jurisdictions than the U.S., with our 50 States and over 13,000 law enforcement agencies. This uniformity eliminates confusion about seat belt use laws, penalties, and enforcement.

The Department proposes a number of actions to increase safety belt use in the United States. As directed by President Clinton, NHTSA, in cooperation with the Congress, the States, automobile manufacturers, the insurance industry and other concerned Americans, has developed a plan to increase the use of safety belts and child safety seats nationwide. NHTSA also provided the leadership to establish the Air Bag Safety Campaign (ABSC, created May 1996). The ABSC is a public-private partnership including car and safety seat manufacturers, insurance companies, government agencies and health and safety advocates. The ABSC is building on three proven NHTSA program initiatives: intensive public education, occupant protection use law improvements, and high-visibility safety belt and child safety seat law enforcement programs. The ABSC is coordinating activities with NHTSA to maximize national impact.

NHTSA has made extensive efforts to provide States technical support to upgrade their safety belt and CSS laws. NHTSA has worked closely with many partners (such as the National Automobile Dealers Association, National Safe Kids Coalition, Juvenile Products Manufacturers Association, National Sheriffs' Association, International Association of Chiefs of Police, AAA, IIHS, and National Safety Council) and has distributed educational materials (such as video news releases, satellite media tours, consumer advisories, press releases, fact sheets and basic tips sheets, articles for magazines, press interviews, news articles, print ads, educational videos, and posters) to educate the public. NHTSA is assisting about 18 States to conduct Special Traffic Enforcement Programs (STEPS) thru June 1998 to increase belt use. In addition, the Department's NEXTEA reauthorization proposal includes an occupant protection incentive grant program to encourage States to increase their belt use and improve their occupant protection laws.

AIR BAG RISKS

Question. There has been a lot of publicity recently about the risks of air bags, particularly for young children and small women. What concrete steps is the Department taking to reduce these risks, while providing protection for front seat occupants of a car?

Answer. The Department has amended the occupant crash protection standard to ensure that vehicle manufacturers can quickly depower all air bags so that they inflate less aggressively. This action is temporary, and will provide manufacturers with the option of producing air bags that are less aggressive to small children and small-stature adults, such as small female drivers who are at risk with current air bag designs. These amendments became effective March 19, 1997 (62 FR 12960), and manufacturers are expected to take immediate advantage of the new provisions by planning to install depowered air bags in the very near future. These provisions apply to any new vehicle manufactured between March 19, 1997, and September 1, 2001.

CONSENSUS ON "SMART" AIR BAGS

Question. NHTSA has said there is a consensus that the "smart" air bag is the best means for preventing air bag deaths. How was this consensus determined?

Answer. Automobile manufacturers submitted comments in response to a "Request for Comments" on aggressive air bag deployments in November 1995 and a Notice of Proposed Rulemaking (NPRM) on options to reduce adverse effects of air bags in August 1996. Comments to both these actions indicated that manufacturers are actively developing improved air bag systems. The essence of an improved air bag is that the system will provide air bag deployment, when needed, and possibly at different inflation levels, and will not deploy when sensing a situation where the occupant will be at risk from the air bag deployment. The goal is to provide the optimum means for preventing air bag deaths while providing protection to a wide range of occupants in a variety of crash circumstances and severity.

TECHNOLOGIES FOR AIR BAGS

Question. What efforts has the Department made to encourage the development of different technologies to solve air bag risks to vehicle occupants?

Answer. The Department has encouraged advanced occupant crash protection through direct advisory briefings with the original equipment manufacturers (OEMs) and suppliers (e.g. the inflatable knee bolster, in production by Morton International; and the acoustic/infrared occupant position sensor produced by Aerojet General [now owned by Bosch]).

The Department has sponsored, through cooperative agreements, the following contracts: the assessment of pre-crash sensing technologies (Romeo Engineering International, Inc.); development and demonstration of occupant position discrimination through use of ultrasonic compartment mounted sensors and signal processor (Automotive Technologies International); and an economical radar system to detect and identify impending crash and closing speed immediately prior to impact, thereby providing information to allow earlier air bag deployment avoiding late deployments where the occupants are too close to the air bag prior to deployment (Hittite Microwave Corporation). In addition, a cooperative agreement with Automotive Safety Laboratory is producing major reductions in the aggressivity of deploying driver air bags through development of improved air bag inflators and redesigned air bags, thereby reducing the hazards to out-of-position small-stature drivers.

The Department also supports an ongoing test program at its Vehicle Research and Test Center to test and evaluate any new and innovative air bag systems that reduce the potential for injury and fatalities to occupants. To date, depowered and alternative inflator systems, along with a few improved systems using seat sensors, have been tested and evaluated.

"SMART" AIR BAG AVAILABILITY

Question. When will so-called "smart" air bags likely be available in cars?

Answer. Mercedes Benz has provided improved air bag inflation in their production cars sold in the U.S. for approximately seven years. Its air bag deploys at a lower crash severity if the occupant is unbelted (about 9 m.p.h. crash-induced velocity change) and only at high crash severity if the occupant is belted (about 16 to 18 m.p.h.).

According to U.S. car producers, improved air bags in their most simplistic and least sophisticated forms will be introduced in 1999, and improvements will be produced through the next 5 to 10 years, with each improvement reducing the air bag threat and increasing occupant crash protection. Initial systems will include such devices as dual level inflators, and then evolve eventually into more comprehensive systems that can discriminate by occupant size, weight and position, and by crash severity, deploying at differing levels, or not at all, accordingly.

SHORT-TERM SOLUTIONS FOR AIR BAGS

Question. Have other short-term available solutions been explored that do not require new technology (for example, variable sizes of air bags, variable deployment speeds, and variable reaction times that correlate to vehicle speed)? Is the technology for these three examples currently available? What is NHTSA's position on each of these options?

Answer. Variable sizes of air bags have not been developed outside Europe, where there is the "Euro-bag" or "face-bag" for belted drivers. This is a smaller bag that provides protection to the face and head in frontal crashes if the occupant is belted. If the occupant is unbelted, the Euro-bag may provide less chest or lower torso protection than that afforded by air bags sold in the U.S. NHTSA has found that nearly three-fourths of the lives already saved by air bags have been in crashes where the occupant has been unbelted. The Department, therefore, does not advocate only small air bags.

Variable deployment speeds are the subject of current efforts by the Inflatabelt Co. and dual-stage air bag inflators are available from several air bag suppliers (TRW, Morton International and Bendix/Allied Signal are three of the major suppliers in the industry). Dual-stage inflators allow a delay between activation of the first and second stages. The first stage permits an initial, slower emergence of the air bag, and based on the crash severity or occupant proximity, activation of the second inflator stage can provide rapid inflation and maximize gas into the air bag for best crash energy management for the occupant. Alternatively, the intentional non-activation of the second stage can provide a compromised, less aggressive deployment that is less likely to cause serious injury to an occupant who is too close to the air bag.

Implementation of dual-stage inflators and other sophisticated approaches to achieve variable deployment speeds requires reliable crash severity sensors and/or occupant position sensors. Such sensors are currently in various stages of produc-

tion, prototyping, or fleet evaluation testing. The Department looks forward to and encourages manufacturer implementation of such advancements.

QUESTIONS SUBMITTED BY SENATOR DOMENICI

ROSWELL RADAR STATUS

Question. Secretary Slater, over the past six years we have been working with the FAA to establish a stand-alone Terminal Radar Approach Control Facility (TRACON) at the Roswell Industrial Air Center Airport in Roswell, New Mexico.

I appreciate the FAA's monthly updates to the Congressional Delegation. However, I am very disturbed to learn that completion of the radar may once again be delayed by the FAA. This is just one more delay in the long line of similar setbacks in completing this important project and frankly my concern stems from the FAA's inability to stay on schedule.

I am continually being forced to readdress this issue during each appropriation cycle and would very much like to pin down a timetable and have the FAA's commitment that the project will be completed on time.

What is the current status of the Roswell Radar project and why are we once again facing a delay?

Answer. The building construction phase of the project is approximately 86 percent complete. Duct work and fire alarm systems are currently being installed in the TRACON building. With the improvement in the weather, the remote transmitter/receiver (RTR) construction has resumed and is projected to be completed by September 1997. The ASR–9 radar system was commissioned on March 24, 1997, one month ahead of the projected schedule. The delay we are experiencing in commissioning the facility is due to software development and testing difficulties Lockheed Martin has encountered with the ARTS2E automation system. The ARTS2E Program Office met with Lockheed Martin on March 20, 1997, and determined the system can be delivered no later than February 1998.

Question. Would you provide a current schedule for completion of this project and include any further anticipated FAA delays?

Answer. We do not anticipate any further delays to the following current timetable:

Function	Projected	Revised	Actual
Roswell ASR–9 Commissioned	11/96	4/97	3/97
RTR Construction Completed	9/97	9/97	.....
ARTS IIE Delivery	11/97	2/98	.....
Roswell Controller Training	12/97	4/98	.....
Roswell Ready for Commissioning	1/98	5/98	.....

Question. Will you give me your commitment that completion of the Roswell Radar Project will be a top priority within the FAA and will be completed according to the schedule you produce?

Answer. The Roswell Radar Project is a top priority in the FAA. We regret these unavoidable delays and remain committed to completing the project as soon as possible.

AGING AIRCRAFT CENTER IN ALBUQUERQUE

Question. Secretary Slater, you are aware of my ongoing interest in work to ensure the safety of our commercial air fleets. Exciting new technology is being developed to improve the safety of our aging air fleet at the Aging Aircraft Non-destructive Evaluation Center (AANC) in Albuquerque, New Mexico. This center has been supported by the FAA for the past six years and we are seeing substantial progress in developing new techniques to assess the structural integrity of our commercial fleets.

In fact, in your budget request, the administration highlights this new technology by stating it will save over 700 man-hours per aircraft inspection over current methods. You also acknowledge this new technology will require less disassembly of the aircraft to conduct the inspection which reduces the chance for ancillary damage during the disassembly and reassembly process should no corrosion be detected. Recently, I requested the Department of Transportation to designate this center as one of excellence so new technology may be utilized more extensively.

What is the process followed for a center to be designated a Center of Excellence by the Department of Transportation?

Answer. Public Laws 101–604 and 101–508 authorize the FAA Administrator to select and establish Air Transportation Centers of Excellence (COE) at universities and mandate the following evaluation criteria:

—Needs of the region for improved air transportation.
—Demonstrated research and extended resources.
—Established air transportation programs.
—National or regional leadership capability in air transportation solutions and advancements.
—Ability to disseminate results through State or regional technology transfer and continuing education.
—Proposed projects.

The FAA received approval from the White House Reinvention Laboratory to award sole source contracts without further competition, in addition to matching grants—a first in government. This enables aviation research centers to engage in engineering development and rapid prototyping, and to provide deliverables as appropriate.

The COE selection process developed by the FAA follows:

Step 1.

Needs Assessment. On an annual basis, the FAA conducts a survey of organizations to determine interest, need, and anticipated available funding to support a COE for a period up to ten years.

Following organizational responses, one technology area is specified and approved as the focus of the new COE, and base funding levels are solidified.

Draft solicitation is prepared.

Information Meeting. A public meeting is announced in the Federal Register, and an open session for potential offerors is hosted with the sponsoring organization(s). A draft solicitation is provided to attendees for discussion and external input.

Step 2.

Final solicitation is prepared, published and distributed.

Lead universities submit proposals.

Step 3.

Government subject matter technical experts evaluate proposals.

Government management/fiscal team reviews proposals.

Site visits are conducted to inspect facilities as appropriate.

Evaluation package is prepared by the COE program manager for final review by the FAA Associate Administrator for Research & Acquisition.

FAA Administrator announces selection.

Step 4.

COE program manager prepares cooperative agreement. New COE prepares for dedication.

FAA/COE define technical projects, and funding levels are established for matching grants. FAA awards grant at the time of dedication.

Step 5.

Technical monitor(s) and COE program manager administer grant awards.

Technical monitor determines need to award contracts and serves as contracting officer's technical representative.

Reporting requirements: Year 1, Quarterly Reviews; Year 2, Semi-Annual Reviews; Annual Meeting and Report; and Year 3, Symposium hosted by each COE, close out initial award, call for audit of matching funds.

Prepare Phase II documents.

Question. Where in the process is the Aging Aircraft Non-destructive Evaluation Center?

Answer. The Air Transportation Center of Excellence (COE) in Airworthiness Assurance (AWA) was approved in 1996 for establishment during fiscal year 1997. It is currently in the final stage of the selection process. The solicitation closed on February 15, 1997, and an initial technical evaluation followed. On March 20–21, 1997, the FAA's COE program manager and the airport and aircraft safety R&D division mangers hosted a joint meeting at the FAA William J. Hughes Technical Center. In attendance were representatives from the two proposing institutions found to be within the competitive range. Technical debriefings were conducted and an opportunity was provided for questions and answers.

Question. What would be the next step and a timetable for its evaluation?

Answer. The proposing universities will be given two weeks to provide additional questions for clarification and will submit a best and final proposal to the FAA within the next eight weeks. We anticipate an announcement in June, and establishment of the new Center by October. The Aging Aircraft Non-destructive Evaluation Center will be an integral part of any COE that is established in Airworthiness Assurance.

AGING AIRCRAFT RESEARCH FUNDING

Question. Speaking again of the Aging Aircraft Center, the administration's budget proposes to reduce the level of funding for aging aircraft research from $13.9 million in fiscal year 1997 to $13 million in fiscal year 1998. I am puzzled by this administration's policies regarding aviation safety. On one hand the President identifies commercial air safety as one of his top priorities, but on the other hand he produces a budget proposal that once again decreases funding for one of our most important aviation safety issues. Knowing that by the year 2000 more than 2,500 commercial aircraft in the United States may be flying beyond their original design lives, I believe this is dangerous policy.

Do you believe the administration's current budget proposal is sufficient to continue our efforts in ensuring aircraft safety?

Answer. The fiscal year 1998 budget request does not represent a decrease in the aging aircraft program. Rather, it reflects an increase of $2.4 million in contract funds. The total dollar amount appropriated in fiscal year 1997 was $13.9 million, which included in-house costs. The fiscal year 1998 budget request of $13 million reflects contract funds only, as in-house costs are now part of a separate budget line item. The budget proposal is sufficient to continue our highest-priority work in ensuring the safety of aging aircraft.

Question. What current activities will be sustained with these resources?

Answer. Our highest-priority aging aircraft activities in structural integrity, and maintenance and inspection in testing, evaluation, demonstration, and validation will be conducted.

Question. What activities will be reduced or eliminated due to budget reductions?

Answer. No major activities will be reduced or eliminated at the proposed $200 million budget level.

Question. What is the administration's proposed budget for the Aging Aircraft Non-destructive Evaluation Center in Albuquerque?

Answer. The 1998 budget requests approximately $3 million for inspection technology development and validation.

RECOMMENDATIONS OF WHITE HOUSE COMMISSION ON AVIATION SAFETY

Question. Secretary Slater, Vice President Gore's final report from the Commission on Aviation and Security made several recommendations to the President on increasing aviation safety and security. I believe this report has raised several important safety and security concerns which merit our attention, however, I would like to have your insight on one recommendation today. The Gore Commission also identifies aging aircraft as a major concern for aviation safety. In fact, the Commission recommends expanding the current Aging Aircraft program to include the effects of age on non-structural components of commercial aircraft.

Is the administration supportive of expanding the current aging aircraft safety testing to include non-structural components?

Answer. The FAA, working with the aviation industry, will develop a coordinated plan to implement the White House Commission recommendations regarding the effects of age on non-structural components of commercial aircraft. This partnership approach was used very successfully in the current aging aircraft program.

Question. Which technologies are the most promising/cost efficient in accomplishing this recommended goal?

Answer. At this time, the FAA has not identified which technologies are the most promising/cost efficient in accomplishing the White House Commission recommendations.

RURAL ROADS PROTECTION ACT OF 1997

Question. Secretary Slater, one transportation challenge rural States like New Mexico must face is maintaining and improving our vast rural road systems. Rural States like New Mexico, with a large land mass and smaller population, face an uphill battle in meeting the demands of supporting our transportation infrastructure. For example, I am sad to say that New Mexico is reported to contain five of the 20 most dangerous roads in the nation. While I understand that every State is in

need of additional highway funding, I believe we need to pay more attention to the special needs of rural States like New Mexico when reauthorizing ISTEA. For this reason, I have co-sponsored a bill which mandates a one-percent set-aside within Federal-aid Highway funding for rural States. I believe this set-aside is essential to leveling the playing field for rural States and will be helpful in providing the necessary funds to ensure safer roads.

Does the administration's NEXTEA proposal contain any provisions which would assist rural States such as New Mexico to receive additional highway funding?

Answer. The administration's NEXTEA proposal would authorize $175 billion over 6 years, which represents an 11-percent increase in funding over ISTEA. In addition, the highway apportionment formulas included in the proposal to distribute funds among the States attempt to strike a fair balance between the many diverse States of this nation. Beyond just the overall funding increase, NEXTEA would provide States and local governments with greater flexibility through expanded eligibilities in the core programs, better enabling them to target NEXTEA funds to the types of infrastructure investments that will work best for them.

Although we were cautious about proposing new programs in NEXTEA, the administration's proposal does include a new Border Crossing and Trade Corridors Program. This program would provide $270 million in funding over six years to assist States, such as New Mexico, in meeting needs at border crossings and along trade corridors.

NEXTEA also significantly increases the emphasis on safety with greater funding levels, better targeted safety programs, greater emphasis on safety results, and greater flexibility for States to tailor safety programs to their needs. It eliminates the current STP ten-percent safety set-aside and replaces it with two new programs: (1) a new Highway Infrastructure Safety Program ($3.25 billion over 6 years), and (2) an Integrated Safety Fund ($300 million over 6 years).

NEW MEXICO SPACEPORT

Question. Secretary Slater, as you are probably aware, New Mexico has the potential to be one of the leaders in commercial space launches. The State of New Mexico, through its Office of Space Commercialization has worked tirelessly to promote this effort statewide and I am excited about the prospect of bringing commercial space launches to Southern New Mexico. I believe New Mexico, with its excellent climate, high altitude, and low population density is well suited to take advantage of the new opportunities available in commercial space efforts being put forth by the State of New Mexico. Currently, the New Mexico Office of Space Commercialization has submitted an application for a site license to the Licensing and Safety Division of the FAA, and they are anticipating approval no later than April 16, 1997.

Would you work to ensure this license is issued to the New Mexico Spaceport on schedule?

Answer. The New Mexico Office of Space Commercialization (NMOSC) is utilizing a phased approach to development of a commercial launch site in New Mexico for the staging of activities involving reusable launch vehicle technology currently under development. NMOSC is employing a phased approach as a result of, among other things, the lack of detailed information on reusable launch vehicles. The FAA is cooperating with NMOSC's request and has been working closely with the State of New Mexico to complete a site feasibility review. The licensing process cannot be completed until the NEPA process is concluded and the site is finally selected and is under NMOSC's operational control. We will continue our close cooperative efforts with the State of New Mexico.

As part of its phased approach, NMOSC has requested a determination of feasibility of a proposed site in south-central New Mexico from the FAA, with the understanding that any findings by the FAA are preliminary, or conditional, in that they are subject to completion of all environmental reviews required under NEPA as well as acquisition of the land under consideration. A finding of site feasibility signifies that, based on NMOSC's planned uses for the site, it is situated in a manner that can support safe launch activities at the site.

Question. Secretary Slater, the New Mexico Office of Space Commercialization is currently working with the Department of Transportation to obtain the notice of availability on the Environmental Impact Statement it submitted for legal review. This approval is necessary for the State of New Mexico to begin conducting public hearings and proceed with future construction plans. Unfortunately, the DOT has been delayed in performing this important review for various reasons and currently no date has been set for initiating the review.

When can the State of New Mexico expect the Department of Transportation to conduct the legal review and issue a notice of availability?

Answer. The legal sufficiency review of the Draft Environmental Impact Statement for the Southwest Regional Spaceport has been completed and review comments have been provided to representatives of NMOSC for inclusion in the document. Department of Transportation cognizant personnel received the revised document from NMOSC and it is now under review. The Bureau of Land Management (BLM) and Fish and Wildlife Service (FWS) have voiced objections regarding the Southwest Regional Spaceport (SRS) EIS effort undertaken by the FAA. Once the final review is completed and the issues with BLM and FWS are resolved, the Notice of Availability will be published shortly thereafter. The notice should be published within the next two months.

INNOVATIVE FINANCING AND CAMINO REAL INTERMODAL CENTER

Question. Secretary Slater, the Department of Transportation recently began utilizing innovative financing initiatives to launch critical transportation projects nationwide. I have followed this new program closely and am impressed with its preliminary results. I believe it is essential for Congress to provide greater flexibility to States engaging in advanced construction using anticipated apportionments and private funding alternatives. One pilot project selected for this new program was the Camino Real Intermodal Center in Saint Teresa, New Mexico. The New Mexico Department of Transportation has partnered with a private entity to expedite a needed intermodal facility to make border crossing more efficient. I must commend the New Mexico Department of Transportation for being innovative and resourceful in meeting the increased demands for border crossings due to the NAFTA free trade agreement.

What effects has this new program had on transportation infrastructure construction, and do you see innovative financing provisions to be utilized more rather than less in the future?

Answer. The innovative finance program has created new ways of thinking about funding transportation projects. Innovative finance provides the States more incentive to obtain other sources of revenue, issue bonds, or seek donations. The program also provides more flexible Federal procedures, allowing States to better tailor finance plans to meet individual project needs. The result has been an increase in the non-Federal investment in projects and, for many projects, the ability to advance the construction schedule by several years. We believe these provisions will be used more in the future as States become more familiar their benefits.

Question. Has the DOT discovered any complications or inadequacies within this new program?

Answer. Certainly, some of the innovative finance provisions are more complicated to administer than traditional grant provisions; however, as we become more familiar with the new techniques, the complexities will diminish.

Question. I understand that within the administration's NEXTEA proposal, a new Border Crossing and Trade Corridors program is established to supplement existing funds available for border infrastructure. Are there provisions within this program which provide relief funds to States like New Mexico which have already invested significant highway funds to improve their border crossing stations such as Santa Teresa?

Answer. The Trade Corridor and Border Gateway Pilot Program contains three elements: (1) supplementary surface transportation planning funds for multistate efforts to coordinate trade corridor development; (2) supplementary surface transportation planning funds to support binational planning efforts; and (3) a discretionary capital program directed toward major international gateways with Mexico and Canada to improve gateway transport efficiency and safety. The capital improvement program would be restricted to the major gateways identified in the Department's ISTEA Section 6015 study report, "Assessment of Border Crossings and Transportation Corridors for North American Trade." The West Texas/New Mexico gateway is identified in the Pilot Program as being eligible.

The Pilot Program does not identify prior State and local efforts to improve gateways as a discretionary grant condition. It establishes criteria for grants as follows: (1) reduction in travel time through the gateway; (2) leveraging of Federal funds; (3) improvements in vehicle and cargo safety; (4) degree of binational involvement and cooperation, including cooperation with the Federal Inspection Services (Customs, INS, USDA, etc.); (5) innovation and transferability to other gateways; (6) local commitment to sustain the effort; and (7) full use of existing facilities prior to any new construction.

THE ROLE OF NEW MEXICO'S NATIONAL LABS IN TRANSPORTATION RESEARCH

Question. Secretary Slater, as you are aware, the State of New Mexico has two of our national labs. I believe these labs provide this nation with not only a strong national defense but a valuable resource for developing new technologies. Both Sandia and Los Alamos National Labs have permanent departments which research and develop Intelligent Transportation Systems (ITS) and alternative fuels. As we begin to debate the reauthorization of ISTEA, I have a strong interest in re-evaluating the current role our national labs play in transportation research and development. I believe our nation's transportation infrastructure is of the utmost importance, and as our transportation needs continue to grow, I believe our labs can play a significant role in researching and developing new transportation technologies.

Do you support our national labs playing a significant role in transportation research and development?

Answer. DOT considers the national labs to be a major technical resource, for both the public and private sectors of this country. DOT is an active member, along with many of the Department of Energy (DOE) labs, in the Federal Laboratory Consortium (FLC). The FLC is a legislatively mandated body that exists to make the technical expertise of the labs available to solve national problems and support industry in the development of commercializable products. The FLC has also proven to be a very effective forum for sharing technical insights across Federal agency and program lines.

DOT also uses national labs to perform research for it on a reimbursable basis, with great success. In addition to the work highlighted in the question, we are particularly proud of the work the Los Alamos National Laboratory performed to advance the state-of-the-art with transportation planning tools. An interagency Travel Model Improvement Program (TMIP) is addressing the linkage of transportation to air quality, energy, economic growth, land use, and the overall quality of life. One of the most advanced components of TMIP is the TRansportation ANalysis and SIMulation System (TRANSIMS). TRANSIMS is a series of advanced computer models specifically designed to help State and metropolitan planners meet the analytical requirements of the planning processes created in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). TRANSIMS was originally proposed by Los Alamos, and its development and testing is proceeding there.

We have had excellent results with our use of the labs for transportation R&D, and strongly support their continued use in this manner.

Question. Do you foresee our labs being utilized more rather than less in developing new Intelligent Transportation Systems and alternative fuels?

Answer. On August 6, 1993, the U.S. Departments of Transportation and Energy signed a Memorandum of Understanding (MOU) defining the working relationship between them for conduct of research on Intelligent Vehicle-Highway Systems, or IVHS (a more narrowly defined concept that has evolved into ITS). The MOU specifically permits DOT to "use the DOE and its laboratories on a reimbursable basis to conduct IVHS R&D and operational testing activities, and to transfer the technologies developed to the commercial sector." It highlights sensors, navigation systems, data fusion, communications, safety assessments, system concepts, and systems integration as areas for collaboration.

The Department of Transportation considers the DOE labs a major resource supporting its ITS program, and will continue to do so in the future. Moreover, our surface transportation reauthorization proposal provides opportunities for the Department of Transportation to enhance its relationship with the national laboratories, and we plan to take advantage of this opportunity. Their world-class and interdisciplinary scientific and technical capability in areas such as advanced materials, manufacturing, energy and environmental technologies (e.g., fuel cells and alternative fuels), simulation and modeling, testing, and electronics, coupled with their ability to prototype and demonstrate new and innovative concepts to address national problems, can be a real boon to the civil and commercial transportation sectors.

Question. Does the Department of Transportation recommend any changes to the current role our labs play in transportation research and development?

Answer. As mentioned previously, the Department of Transportation has been very pleased with the performance of the national labs, both as sources of technical expertise on advanced technologies, and on actual conduct of R&D. Much of the department's research and development, historically, has focused on applied research that can be implemented in the near term. The Intermodal Transportation R&D Program in our surface transportation reauthorization proposal, with its emphasis on basic research and longer time horizons, will be an area where the labs can make

significant contributions, and we hope to be able to draw on their skills more in the future.

PROCESS TO DISCONNECT AIR BAGS

Question. Secretary Slater, recently, both the United States House and Senate Transportation Committees held hearings on the unintended consequences surrounding air bag safety devices. Clearly, we have found that air bags save lives; however, we are now aware these devices actually pose a life-threatening situation for certain people and their families. I understand that the National Highway Traffic Safety Administration (NHTSA) and the automobile manufacturers are working to educate car owners and produce safer air bags. I would like to know what steps are currently being taken to modify the standard for air bag deployment and what stage we are currently at regarding new rules for legal air bag disconnection.

What is the current process a vehicle owner must pursue to obtain the necessary permit from NHTSA to have their air bag disconnected by an authorized automobile dealership?

Answer. The vehicle owner should contact NHTSA in writing, asking for permission to have the air bag(s) disconnected. The letter should state why the owner wants the air bag(s) disconnected and should provide any additional information, such as a physician's statement of medical reason why the air bag(s) could do more harm than good in this specific case. The letter should be addressed to: Office of the Chief Counsel, National Highway Traffic Safety Administration, 400 Seventh Street, Southwest, Washington, D.C. 20590.

TIMING OF NEW RULE ON DISCONNECTING AIR BAGS

Question. What is the current time line for implementing new regulations which allow vehicle owners to work directly with the dealership for air bag disconnection?

Answer. This proposed rulemaking is part of NHTSA's highest-priority rulemaking actions regarding air bags. The proposals for deactivation were published in the Federal Register (62 FR 831) on January 6, 1997. To date, over 500 respondents have replied to this proposal, with additional comments coming in almost daily. There are many complex legal issues surrounding this proposal. A final resolution of these issues is expected shortly.

UNBELTED TESTING STANDARD

Question. Are steps currently being taken to modify the testing standard for air bag deployment to no longer use the unbelted standard for certification?

Answer. NHTSA is currently responding to a petition from Senator Dirk Kempthorne to amend the provisions in its automatic occupant protection standard to place a moratorium on testing with unbelted test dummies. NHTSA has concluded that Section 2508 of the Intermodal Surface Transportation Efficiency Act of 1991 precludes it from eliminating the unbelted test requirement. Since NHTSA can recommend legislative changes to Congress, it is currently seeking public comments on the benefits and disbenefits of eliminating the unbelted test. The Request for Comments was published in the Federal Register (62 FR 8917) on February 27, 1997, with comments due by March 31, 1997.

NAFTA BORDER CROSSING AND TRUCKING

Question. Secretary Slater, the North American Free Trade Agreement (NAFTA) has opened our nation's borders to its neighbors to promote trade and strengthen our global economy. In 1993, the Senate passed a resolution which instructed the Department of Transportation to "uphold all United States truck safety standards, including truck sizes and weights" during the negotiations with Canada and Mexico. Unfortunately, with over a year behind us, this issue of commercial trucks crossing the Mexican border is still lingering and remains unresolved.

What is the current status of negotiations regarding the harmonization of truck safety standards with the Mexican government?

Answer. Since NAFTA was implemented on January 1, 1994, the Department of Transportation has worked with its counterparts in Mexico and Canada through the Land Transport Standards Subcommittee (LTSS) to develop compatible safety and operating standards for motor carriers. For example:

—Truck Requirements. The three NAFTA countries have adopted a basic commercial vehicle safety standard as the minimum level of mechanical fitness to be sustained by all commercial motor vehicles operating in international commerce. This standard is based on regulations currently in effect in the United States and Canada.

—Driver Age and Language Requirements. The three NAFTA countries have agreed to require that drivers operating in international commerce be at least 21 years old and be able to communicate in the language of the country in which they are operating. Thus, even though Mexico permits drivers to obtain a commercial license at age 18, only drivers who are at least 21 years old will be permitted to operate across the border into the United States. Moreover, those drivers will have to have at least a basic understanding of English.

—Hazardous Materials Requirements. Mexico requires drivers of trucks carrying hazardous materials to obtain an endorsement to their drivers licenses indicating that they have received specialized training for handling shipments of hazardous cargo, for driving tank trucks containing bulk shipments of hazardous materials, and for emergency response. Moreover, Mexico has promulgated regulations applicable to hazardous materials transportation that are based on the UN recommendations on the Transport of Dangerous Goods, which is the international consensus standard. In addition, the three NAFTA countries have published a North American Emergency Response Guidebook in English, Spanish, and French.

—Hours-of-Service and Driver Logs. The United States, Canada, and Mexico have agreed to assure that the duty time of drivers engaged in cross-border transportation will be recorded and accounted for. Mexico has already begun to take the steps necessary to implement a logbook requirement for hazardous materials and bus drivers. The three countries are developing a North American logbook that will be modeled on logbooks currently used in the United States and Canada. In addition, Mexico has asked that the United States and Canada assist in completing regulations on hours-of-service for commercial drivers that Mexico would implement for domestic and cross-border motor carrier operations.

If the Department were to consider amending existing truck size and weight regulations, it would follow the normal regulatory procedures for the issuance of Federal regulations, including ample provision for public comment on any proposals. Any proposals to change current vehicle weights and dimensions standards as set forth by statute would be decided by the Congress. No such recommendations are currently being considered by the LTSS.

Question. What are the areas of major contention involved in the negotiations regarding cross-border trucking?

Answer. In negotiations over the past year, the United States, Mexico, and Canada have discussed developing a strategy to assure that motor carriers are in compliance with their safety obligations prior to beginning cross-border operations. These discussions are taking place in the Land Transport Standards Subcommittee, which was established by NAFTA to address development of compatible safety and operating standards for truck, bus, and rail transportation and for the transportation of hazardous materials.

The three countries have agreed on critical safety areas that will be reviewed and approved by each country's authorities before a carrier can begin cross-border operations, including: (1) safety management systems, (2) driver qualifications, (3) hours of service compliance, (4) drug and alcohol testing, (5) condition of vehicles, (6) accident monitoring programs, and (7) compliance with regulations governing the transportation of hazardous materials. In addition, we have agreed on several elements that are essential to implementation of a successful cooperative and coordinated compliance and enforcement program, such as clear communications between governments and with motor carriers; development of electronic data bases and exchange of safety information for companies, drivers, and vehicles; and involvement of State and local officials.

Discussions with Mexico currently involve implementation of specific elements of a compliance and enforcement program in Mexico that will be directed at motor carriers who will be operating across the border into the United States. This program includes a roadside inspection program focussed on the northern border, a process for providing the United States with detailed information on motor carrier applicants for authority, and a safety management oversight program.

Taken as a whole, this strategy will enable the Department to evaluate a carrier's safety performance based on verified information provided by the Mexican government and the carrier itself. Only carriers with positive evaluations will be approved to operate beyond the commercial zones. In addition, this strategy will assure that carriers that receive such approval will be monitored for compliance with safety and operating regulations by inspectors based both in Mexico and the United States.

Question. When do you expect to have this issue resolved?

Answer. The Department hopes to have a package that resolves all outstanding transportation issues between Mexico and the United States in the near future. Senior officials from the Department and Mexico's Secretariat of Communications and

Transportation have met on many occasions over the past months to discuss safety issues that led to the delay of implementation of NAFTA's truck and bus access and investment provisions.

DOT's major concern is that there be a system in place in Mexico to independently verify the safety compliance of the carriers that will be operating across the border into the United States. Thus, officials are discussing with Mexico implementation of basic compliance/enforcement program elements for motor carriers granted authority to operate in the United States. DOT is working with its Mexican counterparts on how best to implement these measures and to determine a time frame within which implementation will be possible.

Question. Do you anticipate any further delay in finalizing this agreement in a timely fashion?

Answer. The United States remains committed to NAFTA and its promise of economic prosperity for North America. The United States fully intends to honor its NAFTA commitment to permit Mexican motor carriers to operate in this country. However, there are a number of steps that the United States, Mexico, and Canada can take together that will benefit motor carriers and their customers while enhancing public safety and security in all three countries. Once the safety concerns that led to the delay in implementing NAFTA's truck and bus access and investment provisions have been resolved, the Department of Transportation will begin processing applications from Mexican motor carriers to operate in the U.S. border States. The Department hopes to have a package that resolves all outstanding transportation issues between Mexico and the United States in the near future.

NONDESTRUCTIVE EVALUATION AND TESTING

Question. Secretary Slater, the administration puts an increasing emphasis on the use of technology in transportation in its fiscal year 1998 budget request. You know of my interest in the work that is being done by the Aging Aircraft Nondestructive Evaluation Center (AANC), which is supported by the Federal Aviation Administration. This collaboration has been very successful. Several years ago, the Department helped fund the use of such techniques on two bridges in New Mexico that were scheduled to be demolished. This project provided valuable information on the utility of these techniques to transportation.

The Department's budget request now includes $10 million for advanced research through the Federal Highway Administration to investigate new, emerging or advance technologies which have the potential for long-range application in highway engineering, safety, and traffic research and development. Throughout this initiative, nondestructive testing and evaluation is a component.

Mr. Secretary, can you please characterize the Department's current initiatives that focus on nondestructive evaluation and testing techniques or technologies and their contribution to the mission of the Department?

Answer. The contribution of FHWA's current initiatives in nondestructive evaluation to the Department's mission can be summarized in two words: safety and efficiency. The FHWA's current safety-related initiatives include projects to develop new and better technologies to detect and evaluate fatigue cracks in steel bridges; projects to evaluate bridges where the depth and condition of the foundations below ground are unknown; projects to ensure that the cables supporting large bridges are intact; projects to ensure that the highly stressed, yet hidden, tendons supporting prestressed concrete bridges are intact; and projects to facilitate the quantitative load testing of bridges. The FHWA is also developing nondestructive evaluation technologies which support rapid, efficient, and quantitative condition assessment in support of modern bridge management systems. The FHWA is developing new technology to rapidly and quantitatively evaluate the condition of bridge decks without the need to stop traffic. This particular project is highly significant because half of the bridge deck area in the United States is covered by asphalt and cannot be adequately evaluated using visual inspection. The FHWA is developing other devices to quantitatively measure overloading, fatigue loading, and corrosion rates in passive non-invasive ways. The FHWA is developing new tools, technologies, and methods to manage the Nation's bridges with factual objective data, in addition to subjective visual inspection.

Question. What is currently underway at the Department to assess, for example, the structural integrity of bridges? What are the components of this program?

Answer. A large component of FHWA's NDE research and development program specifically addresses structural integrity of bridges. In addition to the specific projects mentioned above, FHWA has developed a laser-based bridge deflection measurement system that quantitatively measures the three-dimensional deflection response of highway bridges to load. The system provides the ability to accurately

and precisely measure deflections at hundreds of points on a bridge. This global assessment technology can rapidly detect pathologic conditions such as corrosion or fatigue weakened girders that could compromise structural integrity.

The FHWA has also developed wireless telemetry systems that greatly facilitate the ability to assess bridge structural integrity through diagnostic and proof load testing of highway bridges. FHWA is also closely coordinating, cooperating, and cosponsoring bridge health monitoring technologies with its State partners. Several large-scale bridge instrumentation projects are underway in Ohio, New Mexico, Connecticut, California, and New York—all intended to develop systems to ensure structural integrity by measuring the dynamic and static response of highway bridges using sophisticated computer-based sensor and telemetry systems.

Question. What are the research goals of the proposed new program?

Answer. The goals of the Advanced Research Program are to improve the long-term safety, durability, mobility, efficiency, environmental impact, and productivity of highway and intermodal transportation systems. Certainly, Advanced Research has long been one of the cornerstones of the R&T programs in FHWA. During FHWA's outreach meetings in preparation for development of NEXTEA, we consistently heard from States that Advanced Research needed to be done by the FHWA. One top official, reflecting on the need for a national focus on Advanced Research said, "If not by FHWA, then who?"

There are elements of the more basic scientific research in all of our research categories (i.e., Pavements, Safety, ITS, Structures, etc.). However, the proposed initiatives are directed to five areas that have crosscutting applications. These five areas are:

—Diagnostic Methods: advanced sensors to nondestructively measure the "health" of the physical infrastructure (roads and bridges). Diagnostics lies at the intersection of three fields: nondestructive testing, material science, and computational structural mechanics.

—Materials Characterization: better understanding of the chemistry and microstructure of major highway materials (cement, asphalt, steel, etc.) will permit the engineering of materials to produce the macroscopic properties (strength, stiffness, toughness) that yield better performance. Many scientists believe this is the field with the greatest potential for dramatic improvements.

—Modeling and Simulation Methodologies: through the use of advanced computer assisted modeling, we can better understand multi-faceted relationships and can better predict the consequences of changing variables. This technology supports ITS, Safety, Materials, and Traffic Assignment. Effective modeling focuses the research and is perhaps one of the best investments we can make in terms of conducting research.

—Artificial Intelligence and Mathematics: developing, testing, and evaluating the reliability and robustness of software for many traffic, safety, structural conditions and other technologies requires advanced mathematical concepts such as expert systems, neural networks, voice recognition/synthesis, pattern recognition, advanced visualization, and related statistical and computational methods.

—Advanced Sensor and Commutations Technology: traffic control and vehicle surveillance systems are keys to the safe and efficient operation of most major urban highways in the next century. Development of "smart" detectors for highways, building on aerospace and military technologies, will leverage this investment.

Question. Is this a multi-year effort, and what are the outyear projected budgets for this advanced research program?

Answer. This program is proposed at a budget level of $10 million for fiscal years 1998–2000, and then at a level of $20 million for fiscal years 2001–2003. There is a need to "grow" staff and research management in several of these sophisticated areas, and prudent judgment suggests starting with a good foundation. As basic research flows through the R&D pipeline, experience has taught us that the heaviest demand is several years after the initial investment if we are to capitalize on our investment.

Question. How does the Department propose to implement this new initiative?

Answer. No increase in staff is proposed. We intend to lead this advanced research program using the much more effective Broad Agency Announcement device for acquisition of research. This approach permits FHWA to select several contractors with several different concepts from the same advertisement. Also, we would continue to utilize Cooperative Agreements and, when appropriate, grants to public agencies to leverage research providers such as the national laboratories. Internally we will continue to utilize NSF post-doctorate individuals, graduate research fellows, and loaned staff from States, other countries, and universities. As existing

staff retire or resign, we will investigate filling of each vacancy so as to maximize the effectiveness of the total R&D program.

HIGHWAY FUNDING REQUEST

Question. Secretary Slater, the President's Budget proposes that total highway spending for programs authorized under the Intermodal Surface Transportation Efficiency Act (ISTEA) will be reduced from their 1997 level of $20.5 billion to $19.9 billion in 2002.

The aggregate reduction, when compared to a current law spending path, is $3.9 billion over this five-year period.

Do you personally think such a reduction is possible, especially in 2001 and 2002, given the level of support here in the Senate for highway spending?

Answer. The administration is committed to the overall effort to balance the Federal budget, and all spending decisions should be made in that context. As we all know, hard choices are necessary to achieve a balanced budget. If we are to achieve a balanced budget, increased highway spending translates into decreases elsewhere. If both Congress and the administration are willing to make hard choices, then this spending level is realistic. But you may, of course, decide to pursue a different approach. We submitted a proposal that makes a serious effort to address the concerns of the Senate and others about achieving a balanced budget. It should also be noted that the $600 million reduction in obligations cited in the question is less than the $745 million reduction in highway demonstration obligations from fiscal year 1997 to fiscal year 2002.

HIGHWAY FUNDING NEEDS

Question. Do you also believe such a reduction can be achieved given the latest USDOT Conditions and Performance Report, showing a shortfall of $11 billion in local, State, and Federal highway funding just to maintain current highway conditions across the Nation?

Answer. The administration's reauthorization proposal seeks to maximize the overall level of funding for the transportation program within the framework of a balanced budget. We must work within the same financial constraints facing every other Department in trying to meet growing needs with limited Federal resources. To that end, we have initiatives designed to leverage the Federal dollar and increase private sector participation in transportation investment.

Specifically, our budget proposal will provide sufficient revenue, when combined with State and local match and expected State-only programs, to allow us to (1) continue improving the pavement conditions on our Nation's arterial system, including the National Highway System; (2) continue the reduction in the number of structurally deficient and some functionally obsolete bridges; (3) improve roadway surfaces, alignments, shoulders, sight distance, and other road related factors that contribute to continued reduction in highway fatality rates, including efforts to effect driver behavior that influences safety; and (4) continue making capacity and operational improvements to address the congestion problems associated with increasing highway travel demand.

ADMINISTRATION'S REDUCTIONS TO THE FAA

Question. Secretary Slater, the President's Budget proposes that total FAA spending will be increased from its 1997 level of $8.5 billion to $9.3 billion in 2002. This increase represents a 1-percent reduction when compared to a current law spending path over this five-year period.

Do you personally think such a reduction is possible, given the increased demands put on FAA, especially in light of the recently released report from the White House Commission on Aviation Safety and Security?

Answer. The Operations, Facilities and Equipment, and Research, Engineering, and Development accounts will grow at a current services spending path over the five-year period ending in 2002. Only the Airport Improvement Program (AIP) will be held constant at its fiscal year 1998 level. It is due to the lack of growth in the AIP account that the overall FAA budget appears to grow at a rate lower than current services

The five-year budget assumes a transition to full user-fee funding, which was endorsed by the White House Commission. The overall spending in the outyears will depend on FAA needs and users' willingness to finance those needs.

NEED FOR FURTHER AVIATION USER FEES

Questions. Will additional user fees, above those recommended from 1999 through 2002 in the President's Budget, be needed to meet the funding needs of the FAA?

Answer. Generally no; however, user fees are proposed to recover 100 percent of the FAA's budget, so any change in cost from current forecasts will result in adjustments to the user fee proposal.

FAA COST-BASED USER FEES

Question. Secretary Slater, the President's Budget proposes that beginning in 1999, the aviation excise tax will be replaced with a cost-based user fee system, raising $36 billion between 1999 and 2002.

How would these user fees be collected and how would they be assessed on the traveling public and the aviation industry?

Answer. The procedures for billing and collecting user fees in fiscal year 1999 to 2002 will depend on the specific fees that will be charged. The specific fees to be charged have not been determined and will be influenced by the recommendations of the National Civil Aviation Review Commission. How the user fees are assessed and collected will be based on several considerations, including whether the fees are paid before, after, or concurrent with the provision of services; the volume of payments to be made; and the size of individual payments.

Question. If these decisions have not been made, how did USDOT and OMB arrive at these revenue figures?

Answer. Projected revenues were based on the recovery of FAA's costs to provide service to users and are independent of how the fees would be assessed and collected.

Question. Would it have been more advantageous for the administration to wait for the final report of the National Civil Aviation Review Commission before making FAA user fee proposals in its budget submissions to Congress?

Answer. The administration is assuming that the work of the Commission will be completed by the end of this year and recommendations provided to Congress and DOT. This will allow time to make any necessary changes in the proposal to establish and implement user fees.

OUTYEAR FAA FUNDING

Question. Secretary Slater, the President's Budget proposes that beginning in 1999, the aviation excise tax will be replaced with a cost-based user fee system. However, the President's Budget is silent on where increases and reductions should be made in the FAA beyond 1998. Each account is zeroed out and total FAA spending is replaced by user fee revenues. There are no specific assumptions how these revenues should be spent.

In what accounts of the FAA budget between 1999 and 2002 will these user fee revenues be spent? How much will be spent for FAA operations, research, facilities and equipment, and the Airport Improvement Program (AIP)?

Answer. User fees will provide funding for all FAA programs. Estimates for the specific accounts in future years reflect 3-percent annual growth except for the Airport Improvement Program, which remains constant at $1 billion.

Question. If these decisions have not been made, how did USDOT and OMB arrive at the total funding level for the FAA between 1999 and 2002 shown in the President's Budget?

Answer. Using 1998 as a baseline, a 3-percent inflation factor per year was applied to operations, facilities and equipment, and research. AIP was straight-lined at $1 billion. As the President formulates his budget each year, decisions will be made on a year-to-year basis to update these assumptions.

QUESTIONS SUBMITTED BY SENATOR SPECTER

FOREIGN OIL DEPENDENCY AND TRANSIT

Question. As co-chair of an informal Senate Transit Coalition, I am very concerned that the administration's fiscal year 1998 budget request proposes only $4.3 billion for Federal transit programs, essentially a freeze from fiscal year 1997. You have proposed to eliminate Federal operating assistance for public transportation and the capital budget would not grow under your proposal despite available surpluses in the Mass Transit Account of the Highway Trust Fund and a widely recognized need to invest more in our transit systems. Coupled with Federal mandates and funding pressures at State and local levels, Federal cutbacks have already resulted in some

combination of fare increases and transit service cuts in many Pennsylvania communities.

At a time of instability in the Middle East (particularly Saudi Arabia) and a growing U.S. dependence on foreign supplies of oil, isn't it essential that we focus our resources on public transportation, which saves million of gallons of gasoline annually and has corresponding environmental benefits as well?

Answer. Yes. Transit reduces auto fuel consumption by nearly two billion gallons annually, lowering the Nation's trade deficit and reducing dependence on foreign oil. The energy and environmental benefits of transit are another example of what occurs when people are given transportation choices. Today's transit investments will reduce our dependence on foreign oil in the future and deliver other important benefits.

PENNSYLVANIA TRANSIT FUNDING

Question. A survey by my staff of nearly 20 small and mid-sized transit systems across Pennsylvania shows that 27 percent of their annual budgets comes from Federal sources. In Pittsburgh, the figure is even higher, at 22 percent of their $376 million annual budget. How do you envision these systems responding to the growing needs from their communities when we are curtailing the Federal Government's support?

Answer. We support continued stable funding levels for transit as reflected in the fiscal year 1998 budget and the NEXTEA reauthorization plan. In addition to stable funding, our proposals would increase transit agency flexibility in spending Federal transit dollars, allowing them to target resources to pressing needs. For example, the fiscal year 1998 budget merges Bus Discretionary funding and the Fixed Guideway Modernization grant program into Formula Programs. This increases the Formula Programs funding level from $2.1 billion in fiscal year 1997 to $3.3 billion in fiscal year 1998. This improvement gives transit agencies the ability to continue using former Bus Discretionary funds for bus purchases and Fixed Guideway Modernization funds for rail improvements and rolling stock, but the funds can also be used for any other eligible Formula purpose selected by the transit agency.

Another measure in the fiscal year 1998 budget and the NEXTEA proposal delivers relief to transit agencies through a redefinition of operating and capital expenses. Our proposal would eliminate operating assistance in urbanized areas over 200,000 population while providing relief by redefining capital to include maintenance expenses. This will match the transit definition of capital to the definition in the Highway program.

In areas under 200,000, all Urbanized Area Formula funding would be eligible for operating or capital expenses at the operator's discretion.

The proposed redefinition of preventive maintenance as a capital expense builds upon the measure endorsed in last year's Appropriations Conference Committee Report whereby a portion of transit vehicle overhauls can be reclassified from an operating to a capital expense.

FTA analysis indicates that the proposed capital redefinition will effectively offset the elimination of operating assistance. For instance, PAT, the Pittsburgh-Port Authority of Allegheny County, will be able to reclassify from operating to capital expenses over 8 times more in expenditures than its Federal operating assistance cap.

FTA will take all necessary measures to inform grantees of the change and will assist agencies in fully using the new provisions.

The combination of funding stability and increased flexibility will continue to provide transit agencies in communities of all sizes with important Federal support for transit. Federal transit funding leverages State and local support, and our proposal will continue this important Federal role.

ADEQUACY OF PROPOSED HIGHWAY SPENDING

Question. Highway spending authorized in the 1991 ISTEA law is limited by the annual obligation ceiling set in the appropriations bill, which is in turn a function of the 602(b) allocation received by your Subcommittee. In practical terms, this means that Pennsylvania is entitled to $750 million for fiscal year 1997 through formulas but can only spend $670 million, which is its share under the national obligation ceiling. Do you think that the $18.2 billion obligation limit on Federal-aid highway spending is sufficient, given the significant surpluses in the Highway Trust Fund? In Pennsylvania, for example, last year the State had to announce delays in construction of nearly 80 highway projects due to a projected lack of funds. As a result of the current obligation ceiling, Pennsylvania lost an estimated $80 million in fiscal year 1997 that it was entitled to spend through the apportionment formulas.

Answer. We realize that the Highway Trust Fund can support a higher level of funding. However, the administration's reauthorization proposal must be looked at within the framework of the entire Federal budget. The administration is committed to balancing the budget, and all spending and taxing decisions must be considered in that context. The reauthorization proposal seeks to maximize the overall level of transportation funding while still remaining within an overall balanced budget.

AMTRAK SERVICE CUTS AND PROGNOSIS

Question. The Amtrak Board has taken a number of steps to improve the financial situation of our national railroad, including a number of cuts in routes and service in Pennsylvania and other States. For example, the Board proposed eliminating the local Philadelphia-Harrisburg "Keystone Service," which was saved in part by a commitment by the Pennsylvania Department of Transportation to assume more of the costs. What is the status of the cuts in routes and service proposed by the Amtrak Board? What steps has the administration taken to work with the States to preserve routes and segments wherever possible? What is your prognosis for Amtrak?

Answer. Amtrak's Board proposed the termination of service on four routes effective November 10, 1996, which was postponed for a period of six months. These routes were the Boston to Albany segment of the "Lake Shore Limited," the St. Louis to Dallas "Texas Eagle," the Salt Lake City to Portland "Pioneer," and the Salt Lake City to Los Angeles "Desert Wind."

The Massachusetts and Texas State Departments of Transportation have developed a proposal that would, if approved by the State legislatures, continue service on the "Lake Shore Limited" and the "Texas Eagle" through October 1, 1997, during which time Amtrak and the States would work together to develop other concepts to make these trains commercially viable. It presently appears that the other trains will terminate service on May 10, 1997. The Department strongly supported the efforts of Amtrak and the States to identify means to provide the financial assistance necessary to preserve these trains.

With regard to Amtrak's future, the Department is committed to working with Congress, Amtrak management and labor, State governments, and other interested parties in the coming year to develop an affordable long-range plan that eliminates Amtrak's dependence on Federal operating subsidies. Amtrak is an important component of this Nation's intermodal passenger transportation system. We believe that Amtrak must have a reliable source of capital investment through contract authority proposed in the administration's NEXTEA bill over the next several years to address the previous lack of investment if we are to preserve the national system and permit Amtrak to achieve its potential.

AMTRAK BUDGET NEEDS

Question. As someone who rides Amtrak at least two times a week, I know that a safe, convenient and effective national passenger rail system is not a luxury, but a basic component of our modern economy and society. Amtrak also offers a viable alternative to congested highway and air travel.

What impact will the administration's budget request have on Amtrak's ability to provide intercity rail service in the future? How has the administration responded to the cost of replacing and modernizing Amtrak's physical assets (maintenance facilities, train equipment, and support assets), which represent a key challenge to the viability of the railroad?

Answer. The administration is committed to a long-term vision of Amtrak as an important component of this Nation's intermodal, intercity passenger transportation system. Amtrak must have the tools to develop into a self-sustaining competitive player. One tool that Amtrak must have is a reliable source of capital investment to address the previous lack of investment. The administration's NEXTEA proposal includes authorization of over $3.4 billion over the next 6 years to further progress the recapitalization of Amtrak.

The Department is committed to working with Congress, Amtrak management and labor, State governments, and other interested parties in the coming year to develop an affordable long-range plan that eliminates Amtrak's dependence on Federal operating subsidies.

QUESTIONS SUBMITTED BY SENATOR GORTON

AIRPORT IMPROVEMENT PROGRAM REDUCTIONS

Question. During your nomination hearing before the Senate Commerce Committee last month, as well as your written responses to submitted questions, you continually emphasized this administration's commitment to record amounts of dollars for infrastructure investment in the United States over the past four years. At the same time, however, the President's fiscal year 1998 budget submission lowers funding for the Airport Improvement Program (AIP) by over 30 percent—from an fiscal year 1997 enacted level of $1.46 billion to a proposed $1.0 billion in fiscal year 1998. This is not a new trend. When President Clinton took office, AIP was a $1.9 billion program. Every year since then, the administration has asked for less airport construction money than did the previous administration.

Regarding the Airport Improvement Program—not infrastructure as a whole—but the Airport Improvement Program specifically, can you tell me how the President continues to justify spending fewer dollars on aviation infrastructure when just yesterday, you released a statement from the Annual Commercial Aviation Forecast Conference that "an unprecedented 605 million people flew on the nation's air carriers in 1996 with enplanements expected to grow to nearly one billion by 2008?" Does the President believe that aviation infrastructure will magically regenerate itself without capital investment?

Answer. It is important to remember that the AIP is not the only source of funding for airport improvements, nor the only FAA program involved with aviation infrastructure. In fact, the majority of airport development dollars (75 to 80 percent) come from sources other than the AIP. Likewise, the FAA also administers funds for significant infrastructure programs such as the Facilities and Equipment (F&E) program. Although the ultimate "owner" of the F&E improvements, such as airport control towers and navigation aids, is the FAA, nonetheless nearly $1.9 billion is recommended for this aviation infrastructure program for fiscal year 1998.

Although certain programs are recommended to be reduced as part of the effort to balance the Federal budget, we believe that other funding sources, such as bond sales by airport sponsors and Passenger Facility Charges (PFCs), will be available to continue needed airport development. The FAA will, of course, continue to provide aviation design and operational standards to foster systemwide safety.

FUNDING PUGET SOUND REGIONAL TRANSIT

Question. As you are aware, the voters of a three-county region approved a $3.5 billion bond measure last November to construct a regional transit system in the Puget Sound area. The plan, called Sound Move, envisions a mix of light rail, commuter rail, High Occupancy Vehicle expressways and regional bus routes. Commuters would some day be able to travel through all portions of the system with a single ticket. Specifically, it calls for: a 25-mile light rail line with 26 stations between Seattle's University District and the City of SeaTac via downtown Seattle and the Seattle-Tacoma International Airport; a 1.6-mile light rail line between downtown Tacoma and the Tacoma Dome train station; and an 81-mile commuter line using existing freight track between Everett and Lakewood, via Seattle and Tacoma, with at least 14 stations. Of the total cost, the planners of this system will be asking for $737 million from your Department of Transportation to cover the Federal share of the project.

In the President's fiscal year 1998 Federal Transit Administration budget, however, not only has the President shifted all of Section 3 discretionary money back into formula grants, but more importantly for this project specifically, the President has eliminated funding for all future "new start" projects. The proposed budget, as you know, only provides money to continue funding existing full-funding agreements. How do you suggest that I explain to my constituents the President's desire, through his fiscal year 1998 budget submission, to look past the specific needs of the Puget Sound region as it relates to this specific project?

Answer. The Federal Transit Administration's policy, as found in its annual Report on Funding Levels and Allocations of Funds (the "3(j) Report"), is that transit major capital investments (or new starts) funding shall only be proposed for projects that will be construction-ready in the budget year. A project such as Puget Sound's should be funded with planning or formula funds until it is construction-ready.

Regarding the possibility of receiving funding in the next several years, NEXTEA provides $5.7 billion in budget authority for major capital investments over 6 years. Of this, $3.7 billion will be required for projects under existing or pending Full Funding Grant Agreements, using virtually all the funding under obligation limitations proposed by the administration. Those obligation limitations reflect our com-

mitment to help balance the Federal budget. If the economic and budget environment improves during the NEXTEA years, the obligation limitations may be increased, and as much as $2 billion may become available for additional projects like Puget Sound's.

Funding for additional new starts is also available through FTA's innovative finance initiatives, as well as the flexible funding provisions contained in ISTEA and broadened in NEXTEA.

CLINTON FERRY TERMINAL IN WASHINGTON

Question. Three weeks ago, I sent you a letter regarding the utilization of fiscal year 1997 funds for a ferry terminal project in Washington State, and to date, I have not received a response from your office. Accordingly, because you are here today, I would like your thoughts on this situation. Let me explain the details of this matter. On Wednesday, November 13, 1996, representatives from the Washington State Department of Transportation (WSDOT) received the first faxed notice of the fiscal year 1997 allocations of discretionary funds from the Federal Highway Administration's (FHWA) Olympia, Washington, Division Office. WSDOT officials were very pleased that two of the smaller local ferry systems in Washington State are scheduled to receive funding from the ISTEA Section 1064—Construction of Ferry Boats and Ferry Terminal Facilities—discretionary account. They were dismayed, however, to find that the Clinton Ferry Terminal was not included on the list.

A detailed analysis of the entire national listing of all discretionary funding categories for fiscal year 1997 also failed to show any funding for the Clinton Ferry Terminal. Upon further review, it appears that Washington State was overlooked, in spite of language in the Senate's fiscal year 1997 Department of Transportation Appropriations Report 104–325. Could you please explain how the FHWA has overlooked the Senate report language and neglected to provide funding for this project?

Answer. The FHWA was aware of the Senate report, but also aware of the language in the Conference report (House Report 104–785) stating that the conference agreement deleted the Senate references of priority designations and set-asides within the FHWA's discretionary grant programs. As a result, all candidates for discretionary ferry boat funding were equal from a legislative standpoint. In choosing among the many worthwhile candidates submitted nationwide, funds were not available to finance many excellent candidates, including the Clinton ferry terminal project. However, as you have noted, two other projects in the State were selected for ferry boat discretionary funding in fiscal year 1997.

HIGHWAY/RAIL GRADE CROSSINGS SEPARATION

Question. The following is an issue that you and I discussed during your nomination hearing, and I appreciate your willingness to help on this matter. As you know, with automobile and railroad traffic increasing in the Puget Sound region, the Port of Seattle, the Port of Tacoma, the Puget Sound Regional Council, and the Washington State Department of Transportation are currently working on a project to construct grade separations at existing street-level railroad crossings for both safety and traffic efficiency reasons. To date, this group has identified approximately 70 street-level crossings along the north-south corridor between Everett and Tacoma that should be grade separated. Unfortunately, this would have to be done at a cost exceeding $1.5 billion.

While grade separation and freight mobility are extremely important issues for the ports, they are also important in light of Burlington Northern-Santa Fe's decision to reopen Stampede Pass, a major east-west corridor in Washington State. Initially, BNSF projects that it will operate 10 to 12 trains per day during 1997, but will increase that number to 18 to 20 operations by 1998. With this new traffic moving through the Central Puget Sound region, cities from Auburn, Kent, and Maple Valley to Ellensburg and Yakima will be affected.

In your previous response to this question, you expressed your openness to "help develop consensus regarding the scope, cost and financial support needed to implement the rail improvements" in the region. Do you have any specific ideas on how funding for this project may be addressed within the context of ISTEA? Clearly, innovative financing is one possibility, but are there either existing alternative sources of funding or new programs that could be utilized to find funding for such a major project?

Answer. To implement the improvements envisioned along the Puget Sound rail corridor will require a public-private partnership among regional, State and Federal interests. The current ISTEA framework provides several flexible programs through which grade crossing eliminations can be funded. These programs include the National Highway System (NHS), the Surface Transportation Program (STP), and Con-

gestion Mitigation and Air Quality (CMAQ), as well as Railway-Highway Crossing and Hazard Elimination funds. The administration's NEXTEA proposal would continue these programs, and in some instances specifically extend eligibility to publicly-owned rail infrastructure.

These programs are funded, of course, from State allocations and spent according to local priorities. NEXTEA would establish two additional programs that might provide alternative sources of funding.

First is the Transportation Infrastructure Credit Enhancement Program, which would provide grants (up to 20 percent of total cost) to assist in the funding of nationally significant transportation projects that otherwise might be delayed or not constructed at all because of their size and uncertainty over timing of revenues. The program's goal is to encourage the development of large, capital-intensive facilities through public-private partnerships consisting of State or local governments with private business. The program would require a public agency to acquire and operate the rail facility, as is being done in California's Alameda Corridor.

Second is the permanent establishment of the State Infrastructure Bank (SIB) program. SIBs offer a menu of loan and credit enhancement assistance, such as direct loans, interest rate subsidies, lines of credit and loan guarantees. States can capitalize their SIBs using funds from regularly apportioned ISTEA categories and from a discretionary $150 million annual DOT fund for seed money. The program was originally limited to ten pilot States, but NEXTEA offers all States the opportunity to establish a SIB.

AVIATION USER FEES

Question. As the new Chairman of the Senate Aviation Subcommittee of the Commerce Committee, I have heard from many people who are very concerned with the $300 million in new user fees to be assessed as proposed in the President's Budget. Could you please specifically identify what types of activities these user fees will be assessed for?

Answer. The following fees are assumed in the budget request for fiscal year 1998:

—Security User Fee

—International AirCargo User Fee

—General Aviation (GA) Turbine Engine Airplane User Fee

The expected revenue in fiscal year 1998 from the three user fees is approximately $300 million. The charge rates and annual revenue from each fee have not yet been determined. The cost of service for each fee will be determined from the fiscal year 1995 Cost Allocation Study and supplementary analyses.

A more detailed list of services for which fees would be assessed follows:

Security: Services include the security inspection of domestic/foreign air carriers, inspections of hazardous materials, processing of application amendments for airport and air carrier security programs, testing and approval of advanced technology security equipment, and provision of aviation security technical assistance, education and training.

International Air Cargo: International air cargo is transported by domestic and foreign all-cargo carriers and in the belly of domestic and foreign passenger airplanes. The U.S. currently imposes no tax or fee on cargo transported by air into or out of the U.S. Airplanes carrying cargo to/from foreign countries receive terminal and enroute air traffic services from FAA. Services include domestic departures and domestic and oceanic fly-overs provided by enroute centers, and terminal radar approach control facility services. Service recipients are foreign and U.S. cargo carriers (direct service recipients) and cargo shippers (indirect recipients).

General Aviation Turbine Engine Airplane: Services include the provision of enroute and terminal air traffic services to turboprop and turbojet airplanes operated in non-commercial service which fly under instrument flight rules. Service recipients are GA turboprop and turbojet airplane operators.

QUESTIONS SUBMITTED BY SENATOR FAIRCLOTH

PRESERVATION OF RAIL RIGHTS-OF-WAY FOR TRANSIT

Question. The 1997 transportation appropriations bill included a "New Start" appropriation ($2 million) for the Triangle Transit Authority's plans to build a light rail system in Raleigh-Durham, North Carolina.

This system will use existing tracks and possibly build a limited number of additional tracks. The plan thus avoids much of the expensive right-of-way acquisition that drives up project costs. Their foresight will save the taxpayers tens of millions of dollars.

Is the policy of the DOT to encourage planning and construction of fixed-guideway transit systems before these rights-of-way are developed, sold, or otherwise lost for this use?

Answer. The Federal Transit Administration (FTA) encourages the consideration of fixed-guideway transit systems only when the local planning process identifies the need for a significant transportation investment, a wide range of multimodal alternatives to meet this need are systematically evaluated, and the ongoing financial support of such a system is adequately demonstrated. Such evaluation may in fact show that a fixed-guideway transit project on an existing rail right-of-way would be lower in cost than alternative rail alignments, and would have a greatly reduced environmental impact on the community in terms of noise, displacement, neighborhood traffic, safety problems, and destruction of parks and natural areas. However, the costs, benefits, and impacts of other mode and alignment alternatives must also be evaluated as part of this local process before a decision is made on the selection of a locally preferred alternative.

Question. What does the Department plan to do to encourage this advance planning?

Answer. FTA supports the preservation of transportation corridors through the local planning process. FTA will participate in the advance acquisition of railroad rights-of-way for future transit projects when: (1) the long-range metropolitan transportation plan for the area identifies a future need for fixed guideway transit in the corridor; (2) funding for the acquisition has been programmed in the metropolitan and statewide transportation improvement programs; and (3) the requirements of the National Environmental Policy Act (NEPA) regarding the consideration of alternatives prior to commitment to a particular project can be satisfied. In many cases, a NEPA categorical exclusion can be granted when a railroad right-of-way is merely changing ownership without any near-term change in its use.

AIRPORT CONSTRUCTION

Question. The administration budget cuts the funds for the Airport Improvement Program (AIP), which funds airport construction and improvements, from its current $1.45 billion to $1 billion. (Asheville Airport and Sanford-Lee County Airport submitted applications to the FAA for funds through this program).

AIP funding is at the lowest level in years. The administration requests $1 billion for 1998. In the past four years, annual airline passenger traffic is up 16 percent while investment in airport development has already decreased 23 percent. I know that State and local governments can now collect passenger fees, but I wonder about the lack of Federal participation. In fact, in my State, we have a number of airport expansion programs that the State is undertaking without substantial Federal aid, and I wonder if this is the future trend. Have we been spending too much on airports, or is the President's Budget underfunding our airport needs?

Answer. Like many other Federal programs, the requested AIP level has been reviewed carefully to help the administration and Congress balance the Federal budget. The ability to collect and use Passenger Facility Charge funds will continue to provide an important supplement to Federal grant funds, and we hope the newly authorized demonstration program for innovative financing will help airports do more with the Federal funds that are made available to them.

We are optimistic that the work of the National Civil Aviation Review Commission will produce recommendations for long-term funding of airport infrastructure, as well as other aviation programs. The Federal Aviation Administration will continue to place the highest priority on attaining adequate funding for the most critical system needs nationwide.

FAA MISMANAGEMENT

Question. Coopers & Lybrand just released its financial assessment of the FAA. The report concluded that "the FAA's core program managers have not demonstrated an understanding of financial management."

Last year, the FAA told this subcommittee that the congressional budget resolution for 1996 to 2002 left the FAA some $12 billion short over that time period, and this figure became known as "the gap."

I believe that the national air traffic control system is clearly a Federal responsibility. I believe that the FAA needs a stable and reliable source of funds. I look forward to that debate later this year.

However, I am concerned when the FAA points to a projected multi-billion funding dollar "gap," while I see no real movement towards internal reforms to promote efficient operation of the FAA.

Clearly, we will debate FAA reorganization at some point this year, and this will be a major issue for some Senators. However, meanwhile, what tangible steps have you taken to ensure that the taxpayers see an improved level of financial management at the FAA?

Answer. The FAA has taken numerous steps in the last three years to reduce personnel costs and reduce FTE levels as called for by the National Performance Review (NPR). Through the end of fiscal year 1996, the agency has been able to reduce overall FTE usage by 11.7 percent or 6,324 FTE. Cumulative savings as a result of FAA's downsizing exceed $1 billion through fiscal year 1996, with fiscal year 1996 savings estimated at over $400 million.

Since over 62 percent of the agency's work force is part of what is referred to as the "safety work force," the downsizing has been concentrated in the non-safety areas. The non-safety work force has been reduced by 18 percent through fiscal year 1996. Prior to the downsizing, administrative personnel accounted for only four percent of the total work force, which was already the lowest percentage among the departments of the Federal Government.

Some examples of efforts by the agency to streamline and achieve cost savings are as follows:

—Contracting Out of Level 1 Towers
  —85 Towers contracted out
  —Additional savings anticipated in fiscal year 1998
  —Supported by the NPR
—Airway Facilities (AF) Realignment
  —Reduced levels of AF organization in regions and field from 5 to 3
  —Nearly 900 supervisory positions eliminated
—Human Resource Management (HRM) Streamlining
  —HRM staffing reduced by over 400 positions since fiscal year 1993
  —Supervisory ratio increased from 1:5 to 1:15

FAA is continuing efforts to implement a cost accounting system by the end of this fiscal year. Work on this new cost accounting system began before the results of the Coopers & Lybrand assessment were available. The basic system will be in place by September 30, and continuous improvements will be made to the system to strengthen financial management in FAA.

Question. As you know, FAA procurement and personnel practices were relaxed last year, and this was intended to let the FAA modernization program move ahead. Was this a mistake in light of these studies and their conclusions about mismanagement?

Answer. The new personnel and procurement flexibilities provided to FAA have been beneficial. FAA has implemented the initial phase of new personnel policies and processes. Development of completely new personnel programs to replace the existing systems must be done in a thorough, systematic manner to ensure that new programs support the underlying objectives of reform, properly address problems with the existing system, and ensure fiscal responsibility. Procurement flexibility has allowed new contracts to be awarded in less time than under the previous system. This will result in avoiding cost growth due to longer program schedules.

HIGHWAY ALLOCATION ERROR AT DEPARTMENT OF TREASURY

Question. The DOT 1997 supplemental budget request includes $318 million to correct a Treasury Department accounting error that affected States' highway allocations. North Carolina lost $15 million in obligation authority due to this error. How hard will the administration push for this additional money from the Congress?

Answer. The administration believes this error should be rectified and is asking Congress to fund the correction.

MANAGEMENT OF HIGH-COST HIGHWAY PROJECTS

Question. As you know, the costs of large-scale highway projects continue to grow. The Boston Central Artery/Tunnel project is expected to top $10.4 billion.

The General Accounting Office (GAO) just released a report that encouraged the Federal Highway Administration (FHWA) to spread cost-containment strategies to State departments of transportation. The report concluded that FHWA was in a good position to spread the successful strategies to the States that lag behind in this area.

Do you agree with this conclusion?

Answer. The Department's surface transportation reauthorization proposal requires States to prepare financial plans as part of cost-containment for all projects estimated to cost $1 billion or more. Administratively, the FHWA has required fi-

nancial plans on the Central Artery project and the I–15 projects in Utah, and will continue to monitor costs on these projects.

Question. What steps will you take to implement these recommendations?

Answer. The FHWA will work with the States to implement these provisions and will share best practices of cost-containment as they are identified.

INACCURATE DOT STATISTICS

Question. When the so-called Baucus amendment was on the Senate floor last summer, many of us relied on charts prepared by the DOT. As it turned out, Department of Transportation charts and Federal Highway Administration charts conflicted in their data, and the final chart was admittedly wrong. As we move forward on the surface transportation reauthorization bill, we will again rely on DOT and FHWA charts.

What tangible steps have been taken to assure the accuracy of the DOT and FHWA charts that many of us will rely on?

Answer. The Department recognizes the importance of timely and accurate assistance to the Congress as it considers the complex issues associated with the distribution of funds among the States under reauthorized surface transportation assistance programs. In order to ensure that our technical assistance meets the standards we have set for ourselves and that you expect from us, FHWA has reorganized its technical assistance support staff to handle requests in a more timely and professional manner. An Apportionment Analysis Group has been established in the Office of Budget and Finance, with direct reporting links to the Acting Federal Highway Administrator.

FHWA also recently hired an outside contractor with expertise in this area to develop and operate a new model to analyze the distribution of highway funds among the States based on various proposals. We are now using that model, and believe it enhances our ability to serve the technical assistance needs of our many customers.

FHWA receives numerous requests for technical assistance on legislative proposals that often differ greatly in their basic program structure and design. This requires that FHWA utilize models that provide maximum flexibility to respond to many different highway program specifications. Given the importance to members of Congress of the computations of State-by-State shares under alternative program proposals, authorizing committee leadership (Chairman Chafee and Ranking Member Baucus of the Senate Environment and Public Works Committee, and Chairman Shuster and Ranking Member Oberstar of the House Transportation and Infrastructure Committee) asked the Comptroller General in a February 6, 1997, letter to validate the computer model being used by FHWA to provide technical assistance to the Congress. We welcome this review, which is currently underway, as we believe it will verify that the new model we are using contains all the attributes necessary to carry out this vital function.

SECTION 402 HIGHWAY SAFETY GRANTS

Question. I understand that the Section 402 Formula Grants for highway safety are among the most successful such programs. I note that the proposed budget freezes this appropriation at $140.2 million. The budget proposal increases other safety programs, such as anti-drunk driving initiatives and the National Motor Carrier Safety Program, so I wonder if this is a judgment on the Section 402 grant program.

What is your assessment of the Section 402 program?

Answer. The Section 402 program has been extremely successful in enabling all States to implement critical highway safety programs. Grants have leveraging effects and benefits far beyond their original amount. A recent assessment indicated that Federal funds have been vital for starting new programs aimed at improving traffic safety: 90 percent of the projects in 4 States were started entirely or partly with Federal grants as seed money. Every occupant protection project, every Community Traffic Safety Program, and each project to modernize traffic records began with Section 402 funds. Then, States and communities elect to take over the responsibility for projects begun with Federal funding. The assessment showed that 75 percent of the safety projects eventually obtained partial or complete funding from non-Federal sources and that 78 percent were eventually expanded to other areas of the State.

In addition, the Section 402 program is a major tool in the effort to reduce economic costs and reduce the Federal deficit. The benefits of traffic safety programs exceed their costs by very large ratios, up to 31-to-1. Even without factoring in pain

and suffering or loss of life, the economic benefits of traffic safety programs exceed their costs by a 9-to-1 ratio.

In NHTSA's fiscal year 1998 budget request, the consolidated Section 402 highway safety grant program, including formula and incentive grants, increases to $183.2 million from $165.2 in fiscal year 1997 ($140.2 million for formula grants and $25.0 million for Section 410 incentive grants).

QUESTIONS SUBMITTED BY SENATOR STEVENS

INTERNATIONAL OVERFLIGHT FEES

Question. Last year, the Congress gave DOT the authority to assess a user fee for international overflights, with the proceeds to help fund the EAS program. The legislation anticipated that these fees would not be levied on any flight with an origination or destination in the United States. It is my understanding that the administration is considering levying these fees on domestic Canadian flights and domestic Mexican flights that transit United States airspace. Is this accurate? When is the rule expected out?

Answer. The interim final rule was published in the Federal Register on March 20, 1997. Aircraft operations that transit U. S.-controlled airspace and do not land in, nor take-off from the United States, will be charged fees to recover the costs of providing air traffic control (ATC) and related services. Currently, overflights contribute nothing to the provision of FAA ATC and related services. The overflight fee for Canada-to-Canada operations is deferred until October 1, 1997. The deferral was given to allow time for U.S.-Canada consultations and NAV CANADA (the air traffic control agency of Canada) to implement its planned en route charge system, minimizing temporary disruption of air traffic due to the introduction of charges. No deferral was given to Mexican overflights. Given the pattern of Mexican aircraft operations, air traffic disruptions are not expected.

Question. Has the administration considered that the Canadian and Mexican governments might levy similar overflight fees on domestic U.S. flights that transit their airspace if we go down that path? Do you anticipate exempting domestic Canadian flights and domestic Mexican flights from this fee?

Answer. The administration does anticipate that Canada will levy overflight fees on U.S. domestic flights. Within the next two years, NAV CANADA will be required to become a fully user-fee-funded entity. Consequently, NAV CANADA will be required to recover all of its costs, including the cost of providing air traffic control services to U.S. domestic flights. The Canadian Government has presented a Note to the Department of State proposing consultations in early May to discuss overflight fees. We are in the process of setting a mutually satisfactory date for those discussions.

WIND PROFILING RESEARCH

Question. I've recently been briefed by representatives of the FAA and other organizations about some anemometer and wind profiling efforts that are ongoing in Juneau, Alaska. The effort that is underway will allow carriers to use the Gastineau Channel routes in a way previously not possible in ground-induced turbulence conditions, improving safety, and addressing the wind speed concerns that have led to a number of flight delays and cancellations. What the FAA is pursuing with Alaska Airlines and the National Center for Atmospheric Research (NCAR) is similar to what NCAR and the FAA did for the new airport in Hong Kong. This project should fit nicely with the HALASKA initiative, and I commend the effort to your attention and look forward to working with the Department to develop this new capability.

Does this particular initiative fit into the HALASKA effort, or more broadly, the Free Flight 2000 initiative?

Answer. While this capability is not specifically one of the free flight capabilities planned for Flight 2000, we are currently developing a program plan that will include weather initiatives, and this capability will be considered. The program plan is scheduled to be completed by the end of June.

FREE FLIGHT

Question. The term "Free Flight" has been discussed in many aviation publications in the past several months. In your view, how will this initiative provide the architecture and the tools to meet the projected 40-percent increase in flight operations by the end of the decade—and what shifts of resources will it require within the FAA?

Answer. The free flight initiative consists of an operational concept and a joint government/industry consensus list of 46 recommended actions necessary to evolve toward a mature free flight environment. These recommendations provided focus to the development of a complete architecture and a set of technologies and procedures necessary to meet the increased demand for services. This is outlined in the proposed FAA Architecture Version 2.0. The current FAA/industry review of Version 2.0 will help identify the appropriate shifts in resources necessary to gain free flight efficiencies in the earliest possible time frame. The architecture will implement the free flight enhancements recommended through the government/industry consensus process necessary to meet the projected traffic growth through the end of the decade and the 40-percent increase in passenger enplanements and the resulting 15-percent increase in air traffic operations forecast by the year 2006.

COMMUTER RULE

Question. Mr. Secretary, I want to draw an FAA rule to your attention that has a dramatic effect on Alaska. The rule is known as the "Commuter Rule," and requires that all airlines with scheduled service using planes with 10 or more seats conform to Part 121 requirements—the same rules that apply to jetliners. For almost all Alaska's air transportation markets, the increased economic burden represented by this rule renders 10- to 19-seat aircraft non-economic.

At present, most carriers with scheduled service in Alaska operate under Part 135—which is a much lower level of regulatory burden. The preamble to the "Commuter Rule" stated that "there are scheduled operations using airplanes of less-than-10 passenger seats conducted under Part 135, but they typically occur in geographic areas such as Alaska and Hawaii where air transportation is virtually the only feasible mode of transportation and where the operational environment is unlike other air transportation environments." Alaskan air operations with 10- to 19-seat aircraft are typically short-haul operations often carrying only 4 to 6 passengers—the additional aircraft capacity is utilized for cargo movement, mail movement, medivac evacuations, and other special needs that are unique to Alaska. They resemble air taxi operations more than commuter operations even though the flights are scheduled.

By comparison, the FAA's "Commuter Rule" was designed to cover operations for lower-48 carriers that either already operated under Part 121, or whose operations certainly resemble the operations of the large national carriers more than they do the typical Alaskan operation with 10- to 19-seat aircraft.

Last year, Senator Murkowski, Congressman Young, and I had a series of meetings with then-FAA Administrator Hinson about this matter. We informed him that over half the fleet of 10- to 19-seat aircraft had already been removed from service in Alaska—even though the rule was not in full effect—and that the other half of the fleet was anticipated to leave scheduled service by March of this year. We provided discretionary authority that would allow the FAA to view Alaska differently as they considered rulemakings. Unfortunately, the FAA has failed to use that authority.

While the FAA contends that the Commuter Rule will lead to greater safety nationwide in the 10- to 19-seat aircraft category, for every one of the 10- to 19-seat aircraft that leaves the fleet mix in Alaska, twice the number of flight operations must be made with less-than-10-seat aircraft (which still operate under Part 135) to move the same amount of people and cargo as would otherwise be moved in 10- to 19-seat aircraft. The net effect of this rule has been to reverse a 20-year trend toward the use of turboprop aircraft in Alaska—turboprop aircraft are more technologically advanced, better suited for the terrain, and the shifting weather conditions that characterize many areas of my home State.

Further, the safety record of 10- to 19-seat aircraft is the best for any category of aircraft operating within the State. The new commuter rule will require the increased burden of new dispatch rules, new communication protocols, new maintenance manuals, new operational manuals. In Alaska, many of the communications requirements are not possible—a fact that FAA has conceded as well as some other maintenance items. However, they refuse to modify the rule to save this class of aircraft operations in Alaska.

Given the safety record of these aircraft, I would really like to know how many of the accidents over the last several years in Alaska would have been prevented by the application of the Commuter Rule.

Mr. Secretary, rural Alaskan consumers are beginning to lose service with these larger turboprop aircraft, because the FAA regulations are forcing aircraft choice on carriers. This is really the wrong way for equipment decisions to be made, and may have significant safety consequences for Alaska.

My question is, have you had an opportunity to look into this situation? Do you have any thoughts for me as to how the FAA may proceed in this arena?

Answer. First, the Commuter Rule was designed to cover ALL commuter operations, including those in the State of Alaska. This rulemaking was based, in part, on safety recommendations from the National Transportation Safety Board (NTSB). These recommendations included Alaska commuter operations, although specific site visits were not conducted in Alaska as part of the NTSB's study. Many exceptions were provided for the 10- to 19-seat fleet based on specific comments from Alaska carriers and the Alaska public. These comments were provided to the regulatory docket.

During the implementation period, specific issues were raised by Alaska carriers that were resolved through exemption relief, operation specifications, or regulatory amendments. Examples of these include relief to use the Part 135 weather reporting and visibility minimums in remote areas, relief from some of the dispatch enroute communications requirements due to lack of infrastructure in parts of Alaska, and relief to carry personal medical oxygen by passengers in Alaska.

The statement that over half the fleet of 10- to 19-seat aircraft had already been removed from service in Alaska is not supported. A review and survey of all carriers shows that some carriers did go out of business in Alaska, but these actions were due to bankruptcy or lost leases or other financial reasons independent of and before the commuter rulemaking. Five carriers were in business and impacted by this rule in Alaska. The following represents the status of those carriers:

1. Pen Air. This carrier was the first in the country to transition to Part 121. Since their transition, they have added one, and are in the process of adding a second, 30-seat Saab aircraft, resulting in increased passenger seat availability. Exemption relief was provided for the carriage of medical oxygen. Actions are currently being taken to accelerate the installation of Automated Weather Observing Station weather reporting in Atka to meet the weather reporting requirements for this carrier.

2. Seaborne. This is a seasonal carrier that operates in Alaska during the summer months. Seaborne completed the recertification and did not require/request any exemption relief. They will conduct additional validation flights upon their return to Alaska in the May time frame.

3. ERA. This carrier completed the recertification. They did request, and were given, specific dispatch and some weather relief for their Bethel remote area operations. There was no loss of passenger seat availability or service in remote areas.

4. Frontier. This carrier did not meet the recertification deadline but is continuing the recertification efforts. The FAA has dedicated a team of inspectors to assist in these efforts. Exemption relief for remote area operations will be provided.

5. Cape Symthe. This carrier withdrew its transition plan. They operate a fleet of 9- or fewer-seat airplanes in addition to 3 turbine-powered Beech 99 airplanes. They are continuing to operate these three turbine-powered airplanes, but have removed seats to operate them in the nine- or fewer-seat configuration. The carrier states that operations with more than nine seats represents less than two percent of their operation. The FAA will continue to work with this carrier if it elects to transition and similar exemption relief will be provided.

The net effect of this rule is provision for the highest level of safety of operations in the United States, including Alaska. The agency has used the legislation provided for regulatory amendments, exemptions, or operations specifications relief for Alaska commuter operations. This legislation has also been used to address the needs of other Alaska carriers. It formed the basis for the Single Engine Instrument Flight Rule Notice of Proposed Rulemaking that addresses the needs of on-demand operations in single-engine airplanes. This rulemaking directly responds to requests from the Alaska Air Carrier Association and to the NTSB safety study in Alaska.

The FAA is also working with the above groups to study safety policies and regulations dealing with in-flight icing. The FAA has already issued several airworthiness directives that address in-flight icing for turbo-propeller aircraft and has also issued operational bulletins to this part of the industry. Also, as part of the FAA's in-flight icing efforts, the FAA has developed an in-flight icing plan that outlines several recommendations to improve safety for inadvertent flight into icing conditions. The FAA plans to implement as many of these recommendations as possible prior to the 1997–98 winter season.

DOT RESOURCES DEVOTED TO COMMUTER RULE RULEMAKING

Question. Please provide a breakdown of the OST/FAA FTEs and budget authority that can be attributed to the "commuter rule" rulemaking.

Answer. The FAA and the Office of the Secretary of Transportation accumulated costs of approximately $3.5 million in developing the commuter rule, beginning with the initial drafting of the rule in December 1994. Costs include dedicated rulemaking teams in the FAA headquarters, the regional offices, and field personnel involved in the data gathering; drafting of the rule; legal and economic support; public meetings; developing guidance for the FAA inspector workforce and industry; and working on implementation issues. The Department estimates that in the period between December 1994 and final implementation of the rule in March 1997, a total of 30 full-time equivalent staff were devoted to the commuter rule.

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

DOT STANCE ON 0.08 BLOOD ALCOHOL CONTENT LAWS

Question. When it comes to determining the appropriate Blood Alcohol Content (BAC) level for prosecuting drunk drivers, NHTSA has determined that drivers become significantly impaired at 0.08 BAC. NHTSA also found that the risk of being in a crash rises gradually as the BAC level increases, but then rises very rapidly after a driver reaches or exceeds 0.08 BAC.

Don't you think we need to take a more aggressive stance to get the States to adopt 0.08 for prosecuting drunk drivers?

Answer. Yes. NHTSA has been actively working to get States to adopt 0.08 BAC laws to reduce drunk driving. NHTSA has employed convincing research and timely technical assistance combined with public education and public support. Efforts such as these have resulted, for example, in Idaho becoming the 14th State to adopt a 0.08 BAC law. NHTSA will continue to provide useful support like the new publication "Setting Limits, Saving Lives—The Case for .08 BAC Laws" to its public partners to inform, educate and encourage the adoption of lower BACs in the States. In addition, the Department's reauthorization proposal in NEXTEA includes an alcohol incentive grant proposal that rewards States for enacting a 0.08 BAC law.

INCENTIVE GRANTS FOR 0.08 BAC

Question. Current law provides incentive grants to States that adopt 0.08 BAC. Even so, only 13 States have adopted this standard since it is fiercely opposed by the restaurant and tavern lobby. Now, your ISTEA proposal expands the existing incentives for going to 0.08 BAC.

Are you confident that expanded incentives will do the job in getting more States to adopt 0.08 BAC?

Answer. The Department has learned that incentive grants are effective in encouraging States to pass critical laws to reduce drunk driving. Since the passage of the amended Section 410 program in ISTEA in December 1991,

—Nine States have enacted 0.08 BAC laws. (A total of 14 States have 0.08 BAC laws.)

—34 States plus the District of Columbia have enacted 0.02 BAC laws for drivers under age 21. (A total of 37 States and DC have .02 BAC laws for drivers under 21.)

—Ten States have enacted administrative license revocation (ALR) laws. (A total of 39 States and DC have adopted some form of ALR.)

The Department believes that the new alcohol incentive grant proposal contained in NEXTEA places more emphasis than the current Section 410 program on adoption of 0.08 BAC laws as a means to receive funds. Under the current program, States can qualify for grant funds by implementing five out of seven laws or programs designed to reduce drunk driving. One of the seven requirements calls for a 0.10 per se law, and only after three years of grants is a 0.08 per se law required; therefore, States had many other options and several years of funding before considering passage of 0.08 laws as a route to receive incentive funds. Under the new proposal, there are three options for a State to qualify for funding—one option is by implementing four out of five specified laws and programs, the second is demonstrating specific performance, and the third is by enacting only two key laws: administrative license revocation and 0.08 BAC. States can qualify for funding under one, two, or all three options. However, this third option will more clearly focus State attention on 0.08 BAC laws as a means to qualify than the Section 410 approach.

HIGHWAY FUNDING SANCTIONS TO ACHIEVE 0.08 BAC STANDARD

Question. We have seen that highway sanctions HAVE done the job when it comes to getting States to do the right thing regarding drunk driving. And while I do not

usually propose legislation that could possibly sanction my own State's highway funds, I am prepared to do so to push New Jersey to do the right thing.

What would be your view of a bill that sanctioned highway funds from States that do not adopt 0.08 BAC after a reasonable period of time?

Answer. The Department supports 0.08 BAC. While the Department has witnessed success through the use of incentive grant programs to encourage passage of such legislation, the Department is open to considering a full range of options.

SANCTIONS VERSUS INCENTIVES

Question. In your formal opening statement, you correctly point out that we face a daunting challenge in reducing the fatality rate on our Nation's highways. A prestigious researcher at Boston University recently compared the number of alcohol-related deaths in the first five States that lowered their BAC limit to 0.08 to five nearby States. He found clear evidence that lowering BAC levels to 0.08 reduced the number of alcohol-related fatalities. Indeed, he estimated if all States lowered their BAC limits to 0.08, alcohol-related highway deaths would decrease in the United States between 500 and 600 per year.

Wouldn't you conclude that a sanction that pushed the States to adopt 0.08 would have a more immediate effect in saving lives than continuing or expanding incentive grants?

Answer. The Department has observed that incentive grant programs have been successful in pushing States to pass life-saving highway safety laws.

FAA PERSONNEL REFORM AND NEW YORK-NEW JERSEY CONTROLLER STAFFING SHORTAGES

Question. Mr. Secretary, in your formal opening statement, you call attention to the fact that the FAA personnel reform authority, which we included in the 1996 appropriations bill, has enabled you to hire the best people possible in the most effective way.

However, when we agreed to grant the FAA these personnel reform measures, it was in part with the intent of giving the agency the tools to get the right people in the right place at the right time. For years now, I have been frustrated with the FAA's inability to get the authorized numbers of air traffic controllers in place at the several air traffic facilities in my region.

Notwithstanding promises to the contrary, the number of controllers at the air traffic control tower and Newark Airport are almost ten percent below the authorized level. The same is true for the New York area TRACON, and staffing at the New York Air Traffic Control Center. It is 12 percent below the authorized level.

Given the far-reaching personnel reforms that we granted to the FAA in 1996, what explains these continued delays in getting the right number of controllers in the right place as soon as possible?

Answer. There are delays, unrelated to the personnel rules, associated with the recruitment, testing and selection of controller candidates. Overall controller hiring will be at an even rate of about 85 per month starting in April 1997. Newark Tower is scheduled to receive seven controllers in fiscal year 1997, four of whom are already onboard. Similarly, New York Air Traffic Control Center is scheduled to receive 42, of whom at least 12 are onboard. New York TRACON will receive a total of 22 in fiscal year 1997, of whom at least 4 are on board. All current and future hiring will be accomplished in a manner that allows sufficient time for required facility training.

Question. We continue to hear reports that trainees at these facilities cannot get fully qualified in the jobs that they are there to study because all available controllers are handling aircraft, and do not have the time to perform their training functions.

What is being done to address this problem?

Answer. We are implementing plans to increase staffing at New York area facilities. In addition, we have recently increased overtime funding for New York Center by $735,000 to optimize the on-the-job training of new hires.

In addition, we have developed some management controls at New York Center, such as: (1) the establishment of a stand-alone training department; (2) a staff manager for training; (3) assignment of two training specialists and two data analysts to the training department; and (4) six operations supervisors (one from each area to assume collateral training duties).

Question. What is your target date to get all of the facilities in my region staffed to the area called for by the FAA's own staffing plan?

Answer. The projected date to reach targets for full-proficiency-level controllers is September 30, 1998.

DIRECT AIR LINKS BETWEEN NEW JERSEY AND JAPAN

Question. Mr. Secretary, in March of 1996 United Airlines canceled the only non-stop service from Newark International Airport to Tokyo. Last year, over 85,000 passengers flew between New Jersey and Japan. New Jersey exported over $1.5 billion worth of goods to Japan's markets. Newark should have non-stop service to Japan.

What can you do to replace this critical air service with a carrier like Continental that has a vested interest in serving the Newark-Tokyo market?

Answer. Under existing aviation agreements with Japan, the United States does not currently have the right to designate a new carrier like Continental to serve the Newark-Tokyo market. However, we are now engaged in exploratory talks with Japan that we hope will lead to formal negotiations and an agreement that will open up additional opportunities for U.S.-Japan air services, including the opportunity for carriers like Continental to enter the Newark-Tokyo market.

Question. As an interim step would you consider allowing a carrier to take over the service as a replacement carrier?

Answer. Until the U.S. succeeds in negotiating additional rights, the only U.S. carriers authorized under the U.S.-Japan aviation bilateral agreements to operate nonstop Newark-Tokyo services are United Airlines, Northwest Airlines and Federal Express. Although these three airlines are authorized to serve the New York (Newark)-Tokyo market, we cannot require that any of these airlines serve a particular market. It is up to airline management to decide what markets it will serve.

QUESTIONS SUBMITTED BY SENATOR BYRD

HIGHWAY TRUST FUND BALANCES

Question. The Budget Reconciliation Act of 1991 saw to it that an additional two-and-a-half cents of the Federal gas tax began being deposited in the Highway Trust Fund at the beginning of fiscal year 1996. These new deposits, in combination with the increased amount of gas consumption, have substantially increased the balances of available resources in the Highway Trust Fund.

Under your budget proposal, how much will those balances grow over the six years of the next highway bill?

Answer. Under our NEXTEA and budget proposals and planning numbers for FYs 1998 through 2003, at the end of fiscal year 2003, the termination date for the reauthorized program, the cash balance in the Highway Trust Fund will be $48 billion, an increase of $24 billion from the $24 billion balance projected for the end of fiscal year 1997. We are proposing authorization levels in NEXTEA that are higher than outyear planning numbers in the budget. If the economic and deficit pictures improve beyond current projections, actual obligation levels might be higher than current planning levels and, as a result, Trust Fund balances could be lower than these projections.

USE OF TWO-AND-A-HALF CENTS

Question. Is it correct to say that the two-and-a-half cents that began being deposited in the Highway Trust Fund at the beginning of last year will not even be used under the highway spending figures assumed in your budget request?

Answer. Yes.

APPALACHIAN HIGHWAY SYSTEM

Question. Several weeks ago, the Chairman of the House Budget Committee held a press conference with other Members where they identified several Federal programs as "corporate welfare." I was astounded to learn that this group identified the Appalachian Development Highway System as an example of corporate welfare. The Appalachian Highway System was conceived to bring economic development to some of the most isolated and impoverished communities in the United States.

Mr. Secretary, can you imagine any definition of the phrase "corporate welfare" that can be made to include the Appalachian Highway System?

Answer. The Appalachian Highway System is a strong supporter of industry and tourism and enables the region's residents to move freely between their homes and jobs, schools and other public facilities. It is quite opposite of welfare in that it has enabled the creation of many new jobs and increased the ability of the Appalachian people to compete for jobs wherever they choose to work and live.

Question. I am grateful that you accepted my invitations to tour segments of the Appalachian Highway System in West Virginia. What were your personal observa-

tions during your tour of the Appalachian Highway System in West Virginia regarding the economic benefits that the Appalachian Highway System has brought to the region?

Answer. I was impressed by the beauty of the region, but also by the difficulty of construction. Significant economic benefits were evident both in the Corridor D area adjacent to Parkersburg and along Corridor G from Charleston to Williamson, including a new development near Charleston called Southridge, construction of another large development in the Logan area, and, in general along both corridors, considerable traffic volumes and residential and business development.

EMERGENCY RELIEF PROGRAM FUNDING

Question. Mr. Secretary, the recent tornados in Arkansas, as well as the severe flooding in my region of the country, come on the heels of earlier floods that impacted California, the Pacific Northwest, as well as the Midwest. Absent any supplemental funding, your Department will be limited to $100 million in emergency relief funding for this fiscal year.

Can you give us a preliminary assessment of the needs for emergency highway relief funding at the current time? What's the available balance in the Highway Emergency Relief sub-account?

Answer. The administration has submitted a fiscal year 1997 supplemental emergency funding request of $291 million for the emergency relief program. All available emergency relief funds have been allocated to the States.

Question. At present, do you expect to have sufficient funds to cover all of the highway restoration projects eligible for emergency relief for this fiscal year?

Answer. No. A supplemental appropriation will be needed.

Question. Do you have a sense of what amount of emergency supplemental funds will be needed?

Answer. The administration has submitted a fiscal year 1997 supplemental emergency funding request of $291 million.

Question. Do you know if and/or when the administration plans to seek an emergency supplemental for highway restoration funds?

Answer. The supplemental was submitted March 19, 1997.

PERFORMANCE OF AUTOMATED SURFACE OBSERVING SYSTEM AT AIRPORTS

Question. Mr. Secretary, on February 19, I sent a letter asking you to suspend the removal of contract weather observers from airports in West Virginia until you can certify that safety would not be compromised once they are removed. As I said in that letter, I have heard a number of complaints from airports in my State regarding the poor performance of the Automated Surface Observing System (ASOS). These automated weather observation systems are intended to replace these contract weather observers. However, they have been consistently reporting inaccurate weather conditions, especially during inclement weather.

What can you tell me regarding how the ASOS systems are performing across the country?

Answer. There are 389 commissioned ASOSs, sponsored by FAA or the National Weather Service (NWS), operating at airports throughout the Nation. Fifty-six additional systems are in the evaluation phase that precedes commissioning. ASOS observations comply with Federal aviation requirements.

A 6-month demonstration conducted at 22 operational ASOS locations in 1995 showed ASOS performance to be comparable with that of human observers in all critical aviation weather elements. This demonstration was sponsored by the FAA and NWS with participation by controllers, observers, and pilots.

The FAA is actively pursuing improvements and advances in ASOS sensor technology. Testing of an independent thunderstorm and lightning detection/reporting capability that will interface with ASOS is expected to be complete in late summer 1997, with national implementation planned by December 1997. Sensors that detect freezing precipitation have been purchased and are being installed. Additional enhancements are being included through a product improvement program.

In August 1996, the FAA began implementation of new Aviation Service Standards at airports with a commissioned ASOS. Developed in conjunction with industry and the NWS, the standards define four categories of aviation weather service. The standard level of service to be provided at an airport will be based on the occurrence of significant weather, aviation activity, distance to the nearest suitable alternate airport, and critical airport characteristics. Service provided under the new standards will range from ASOS operating in a "stand-alone" mode at low-activity airports, to ASOS operating with full-time augmentation and back-up at the high-activity major airports.

Question. Have you heard similar complaints regarding the ASOS systems from airports in other regions of the country?

Answer. The National Weather Service is responsible for the performance, maintenance, and logistical support of ASOS. The FAA's primary focus has been on operational issues that address user perceptions of ASOS and the acknowledged and truly distinct differences between human observations and those provided by automated systems.

The FAA has received a number of complaints from individuals employed as contract weather observers. A significant number of these complaints focus on the differences between reports generated by ASOS and those prepared by human observers or weather parameters that are not reported by ASOS. Complaints of this nature will be a major focus in the upcoming 120-day evaluation of ASOS at selected locations.

Question. What is your schedule for evaluating the capability of the ASOS systems in West Virginia?

Answer. The FAA will conduct a 120-day assessment of the ASOS system at selected locations, including all of the sites in West Virginia. The assessment will focus on sites with contract weather observers and the comments generated by those individuals over the past year. The assessment performed will include some combination of the following:

—field comparison of ASOS observations and manual observations for a length of time at each test site and analysis of discrepancies between the two observation types;

—pilot and airport operator feedback from user meetings at each test site; and

—evaluation of pre-commissioning certification data performed by the NWS for each test site.

ASOS commissionings in West Virginia have been placed on hold and the contract weather observers will be retained at all locations within the State, at least until the assessment is completed.

The selected test sites will include all sites at which contract weather observation was scheduled to be terminated within the next 120 days. We intend to address the perception of ASOS inadequacy, identify corrective measures where necessary (possible relocation of sensors, changes to software, etc.), and education of users on ASOS reporting capabilities.

Concurrent with this performance evaluation, the FAA will conduct an overall availability assessment by remotely gathering information from a representative sample of commissioned ASOS sites. This assessment will address site technical data such as system and sensor availability, frequency of augmentation by weather parameter, and frequency of backup by sites and by weather parameter.

The information gathered from these two assessment activities will be utilized in the overall annual Aviation Service Standards review to determine needed changes in weather elements reported at each service level, any change in ranking criteria, airport operations data or airport characteristics, and to identify, prioritize, and develop action plans to resolve personnel or equipment performance or procedural problems. The annual review will cover all ASOS sites, commissioned or not commissioned, whether they belong to the FAA or the NWS. An industry/government workshop will be conducted in April to present the plans for assessment and to obtain feedback from industry representatives on the implementation of the Aviation Service Standards over the past year.

Question. At this point, are you confident that the contract weather observers can eventually be removed from West Virginia airports and the ASOS systems will serve as adequate replacements for the contract weather observers without safety being compromised?

Answer. Yes. The ASOS provides observations in full compliance with documented Federal aviation requirements. The four parameters required for an instrument landing are wind, visibility, altimeter, and time of observation. The ASOS goes well beyond these requirements by also providing precipitation type and accumulation, cloud height, temperature, dew point, and selected significant remarks such as variable cloud height. Freezing rain sensors are being deployed at qualified sites, and FAA will begin to implement a thunderstorm reporting capability later this year.

The FAA is confident that the combination of service standards, product improvement plans, and an effective quality control program will address the concerns that have been raised regarding the performance and reliability of ASOS. Safety is and will remain the FAA's number-one priority.

QUESTIONS SUBMITTED BY SENATOR KOHL

REDUCTIONS IN AIRPORT IMPROVEMENT PROGRAM

Question. The President has proposed a funding level of $1 billion for the Airport Improvement Program (AIP) in fiscal year 1998, $460 million or 31 percent below the fiscal year 1997 level. The proposal includes increases for FAA safety personnel—air traffic controllers, safety and certification inspectors—yet decreases AIP, the core program of Federal investment in our aviation system and our primary mode of assisting those at the front line, the men and women responsible for day-to-day operations, safety and security at airports across the country.

My State of Wisconsin received approximately $20 million under the AIP formula and discretionary accounts in fiscal year 1996. Fiscal year 1997 figures are not yet available; however, the Wisconsin Department of Transportation predicts that Wisconsin airports could face precipitous and unforeseen reductions of $7 to $10 million under the President's proposal for fiscal year 1998.

Mr. Secretary, would you please take a moment to discuss the AIP reduction in the context of the U.S. Department of Transportation's (DOT) vision for the whole aviation system? In particular, how does DOT expect airports to cope with such significant reductions in core funding at a time of increased security requirements and record levels of passengers?

Answer. I agree that AIP is an important program, but the reduction of AIP does not mean that safety and security needs will go unmet, or even that all construction on airports will stop. The airport industry generally has the ability through its own revenue production activities, the collection of Passenger Facility Charges (PFCs), and other financing options, to continue needed airport development in the face of a smaller AIP. In making the hard budget choices, one consideration was these other sources of funding for airport development.

In contrast, we believed it necessary to maintain levels of funding for programs that do not have as well-developed alternative methods of funding, such as FAA's Facilities and Equipment program, personnel and operations funding, and our Research, Engineering and Development program.

The majority of airport development dollars (75 to 80 percent) traditionally come from sources other than the AIP. We believe that other fund sources, such as issuance of bonds by airport sponsors and PFCs, in addition to the AIP level we have proposed, will be available to undertake needed airport development.

COAST GUARD ICEBREAKING USER FEES

Question. The President's Budget instructs the Coast Guard to formulate a user-fee system for domestic icebreaking by fiscal year 1999. As you know, annual domestic icebreaking occurs almost exclusively on the Great Lakes and is crucial to both the regional and national economies. The Great Lakes region comprises nearly half of our national industrial and agricultural output and approximately one-third of our population. Without seasonal icebreaking, the economic impact would be felt across the country—in steel mills lacking iron ore, public utilities waiting for coal shipments, and all the world markets that rely upon the export of Midwestern grain. Icebreaking is also necessary in other areas of the country such as on the Hudson River or the Boston Harbor, and is only one of many services provided by the Coast Guard. Other Coast Guard services include such services as buoy tending and other navigational aid maintenance, vessel traffic control services, and many others.

I have strong concerns about the President's icebreaking proposal. As I've mentioned, the Coast Guard provides a whole host of services across all port ranges, and very few of these services are funded by user fees. It seems highly inappropriate for one narrow service to be singled out in this manner, especially when it would have such a grave impact on the economic viability of one specific port range.

Can you explain the administration's rationale for singling out Coast Guard icebreaking services to be funded through a user fee, when most other Coast Guard services are funded through regular appropriations? For the record, could you provide the Subcommittee with a list of all services provided by the Coast Guard, and itemize which of these services are funded through user fees? Have you consulted with the Saint Lawrence Seaway Development Corporation, another agency under the jurisdiction of the U.S. Department of Transportation, to better understand how this proposal would affect their efforts to attract vessels to the Great Lakes?

Answer. The administration intends to propose legislation to allow the assessment of user fees beginning in fiscal year 1999 for domestic icebreaking services provided by the Coast Guard. The administration's proposal is consistent with other applications of user fees where discrete services are provided to an identifiable commercial

activity user group that benefits from the service. In this case, the user group is commercial vessels operating during the ice season in the Great Lakes and northeastern U.S., and the commercial activity is the transport of cargo. The following vessels are excluded from the proposed fee: recreational vessels, fishing vessels, fish processing vessels, fish tender vessels, passenger vessels, ferries, public vessels, and vessels not traveling to or from a U.S. port.

Services provided to the public by the Coast Guard are categorized within seven major program areas: Search and Rescue; Enforcement of Laws and Treaties; Marine Environmental Protection; Marine Safety; Aids to Navigation; Ice Operations; and Defense Readiness. Services funded through user fees are listed in the Coast Guard User Fee Report, which is submitted to Congress annually. Of these existing user fees, nearly all fall within the marine safety mission area.

As the legislative proposal is developed, consultations are in progress with the Saint Lawrence Seaway Development Corporation concerning the user fee legislation and the impact of the legislation on the Corporation's efforts to attract vessels to the Great Lakes.

TRANSIT FORMULA FACTORS

Question. The President's Budget contains a number of significant changes to the Mass Transit Account. Most notably, transit discretionary grants have been folded into the formula program, and transit operating assistance has been eliminated for all but the smallest systems. It is my understanding that formula grants are currently distributed according to several factors, including population density, population and vehicle miles traveled (for the larger systems).

In addition, under the Federal Transit Administration, the President has requested $100 million for transportation assistance to welfare recipients. This effort to address one of the most crucial elements of successful welfare reform—transportation—is to be commended. Finding a job is only meaningful and sustainable progress if a person can get to work on time and secure a ride home once that work is done. For example, according to the Wisconsin Department of Transportation, in Milwaukee's central city, 64 percent of the residents do not have access to an automobile, and 17 percent of residents do not even have a valid driver's license. These figures demonstrate the vital importance of mass transit options in securing mobility for all. I look forward to working with you and the administration on implementing this new program.

On the other hand, I am concerned about the proposed compilation of transit distributions under the formula program. My State of Wisconsin has 1.6 percent of the urbanized-area population nationally, yet under the transit formula program, in fiscal year 1997 Wisconsin received only 1.2 percent of the formula distribution. That difference, 0.5 percent, may seem small, but in dollars it translates to $7.7 million, a very significant amount of money for Wisconsin's transit systems.

Mr. Secretary, would you please explain what factors are used to determine transit formula distributions and the respective weight of each individual factor? Also, would you please explain the role of population density as a criteria for transit formula distributions? Specifically, why does population density play a role for areas with populations over 200,000, even though it is not considered when determining distributions for areas with populations below 50,000, or transit assistance for the elderly and disabled?

Thank you again for your consideration. Again, I look forward to working with you on these and other issues.

Answer. The Urbanized Area Formula Program is distributed by a statutory formula based on urbanized area and transit service characteristics. It is designed to provide assistance based on relative needs for transit.

Of the funds provided, 9.32 percent is allocated to areas of under 200,000 population. Of this amount, 50 percent is apportioned based on urbanized area population, and 50 percent based on urbanized area population weighted by population density (population per square mile).

The remaining 90.68 percent is allocated to areas over 200,000 population. Of this amount, 33.29 percent is allocated by a formula reflecting fixed guideway needs. The fixed guideway tier has two parts. The first 95.61 percent of the fixed guideway tier is allocated 60 percent based on fixed guideway revenue vehicle miles, and 40 percent based on fixed guideway route miles. The remaining 4.39 percent is allocated by an incentive formula designed to reward service efficiency and effectiveness. This allocation is based on fixed guideway passenger miles weighted by fixed guideway passenger miles divided by fixed guideway operating costs.

The remaining 66.71 percent of the funds for areas over 200,000 is allocated by a formula reflecting bus needs. The bus tier also has two parts. The first part is

the basic formula, which comprises 90.8 percent of the bus tier funds. Of the basic bus tier amount, 73.39 percent is allocated among areas over 1,000,000 population, of which 50 percent is based on bus revenue miles, 25 percent is based on population, and 25 percent is based on population weighted by population density. The remaining 26.61 percent of the basic bus tier is allocated to areas under 1,000,000 population, of which 50 percent is based on bus revenue miles, 25 percent is based on population, and 25 percent is based on population weighted by population density. The second part of the bus tier is the incentive tier, and is allocated based on bus passenger miles weighted by bus passenger miles divided by bus operating costs.

In summary, population density is used to weight population in allocating 50 percent of the funds for urbanized areas under 200,000 (which account for 9.32 percent of the total), and 25 percent of the basic bus tier funds for areas over 200,000, (which account for 54.93 percent of the total). Thus, population density-weighted population is a factor in 18.39 percent of the allocation.

Population density is used as a factor to account for the greater transit needs in dense urban areas. Fixed-route transit works best when population densities are high, since traffic congestion is generally higher in such areas and additional population density results in a higher number of potential transit riders. Population density is not used in the non-urbanized and specialized program formulas, since their services are generally provided on a demand-responsive basis where population density is substantially less important. Instead, these programs are allocated based only on non-urbanized area population, and numbers of elderly and disabled persons, respectively.

QUESTIONS SUBMITTED BY SENATOR MURRAY

FLEX FUNDING POSSIBILITIES

Question. I wanted to first thank Secretary Slater and tell this committee how I met our new Secretary. He had been in office less than a week when he traveled unexpectedly, over 3,000 miles to the most remote corner of our mainland, to join myself, Commandant Kramek and the community of La Push, Washington. In an emotional farewell, the Secretary honored three Coast Guardsmen who lost their lives rescuing a distressed sailboat off the Washington Coast. I can tell you, Mr. Secretary, that your remarks and presence there that day are immeasurable. It meant so much to the families of these heros, the entire Coast Guard community and the Quillayute Indian Tribe who shares this community.

Mr. Secretary, I also wanted to commend the work of your deputy assistant secretary John Horsley. John was a long-time County Commissioner from the State of Washington and has been a tremendous asset to your Department.

Mr. Secretary, as you flew over the Olympic Peninsula in my State, you had the opportunity to view its natural beauty. This area surrounding the Olympic National Park is an unspoiled treasure and has become a destination for cyclists from around the State and Nation. However, logging trucks and cyclists do not mix well and we have witnessed unfortunate tragedies over the last few years. I have been working with 7 different communities around this Peninsula who are voluntarily constructing a 360-mile bike trail. We have used Scenic Byway funds and hope to expand these dangerously narrow road shoulders. I wanted to get your sense of Enhancement and CMAQ funds, along with future possibilities for safety improvements that can be used by our communities in a flexible manner.

Answer. Washington State has received $404,539 in Scenic Byways discretionary funds for the construction of pedestrian and bicycle facilities along Highway 101. The administration's surface transportation reauthorization proposal continues the National Scenic Byways program. There would be $15 million available each fiscal year to fund eligible scenic byways.

Several categories of Federal-aid funds are available for development of bicycle facilities and improving their safety. These facilities are one of the eligible activities under the transportation enhancement provisions of ISTEA. ISTEA provided that ten percent of the Surface Transportation Program (STP) funding was to be used for ten specific activities identified in the legislation; bike and pedestrian facilities are part of that list.

Under the administration's proposal for NEXTEA, we continue to fund project activities for transportation enhancements to the same or greater extent as we have done under ISTEA. We have found the program to be a major contributor to our efforts to participate in the President's initiative to sustain our communities

through a variety of measures that will spur economic development while maintaining the true sense of community connectivity.

The Congestion Mitigation and Air Quality (CMAQ) program is another source of funds that could be used for bicycle and pedestrian trails, provided the project is located in a nonattainment area and the project results in an improvement in air quality. However, the Olympic Peninsula is not a nonattainment area, so these funds would not be available for this bike trail project.

FUNDING PUGET SOUND REGIONAL TRANSIT

Question. Mr. Secretary, you are probably aware that the voters of the Puget Sound Region recently approved a Regional Transit Plan that has a 50/50 match. It's a mix of commuter rail, HOV lanes, express bus service and highway improvements to relieve congestion in such sites as Bellevue's crowded I–405. My constituents are excited about this proposal, but very skeptical that our shrinking budget and backlog of projects will prevent us from ever getting off the drawing board. Can you comment on the future of rail new starts in relation to projects currently underway and suggestions for my State as we begin this process?

Answer. The Federal Transit Administration's policy, as found in its annual Report on Funding Levels and Allocations of Funds (the "3(j) Report"), is that transit major capital investments (or new starts) funding shall only be proposed for projects that will be construction-ready in the budget year. A project such as Puget Sound's should be funded with planning or formula funds until it is construction-ready.

Regarding the possibility of receiving funding in the next several years, NEXTEA provides $5.7 billion in budget authority for major capital investments over 6 years. Of this, $3.7 billion will be required for projects under existing or pending Full Funding Grant Agreements, using virtually all the funding under obligation limitations proposed by the administration. Those obligation limitations reflect our commitment to help balance the Federal budget. If the economic and budget environment improves during the NEXTEA years, the obligation limitations may be increased, and as much as $2 billion may become available for additional projects like Puget Sound's.

Funding for additional major capital investments is also available through FTA's innovative finance initiatives, as well as the flexible funding provisions contained in ISTEA and expanded in NEXTEA.

AIRPORT IMPROVEMENT PROGRAM

Question. Mr. Secretary, you have stated that your foremost concern is safety. I remain concerned that we may compromise that safety by targeting the Airport Improvement Program for nearly half a billion dollars in cuts. Many of our airports are suffering, particularly rural areas who depend upon AIP funds for their survival and safety. How can our airports absorb these cuts?

Answer. A reduction in funding for AIP does not mean that safety and security needs will go unmet or that new construction at smaller airports will stop. The larger airports generally have the ability through other financing options, such as Passenger Facility Charges, to continue needed airport development if lower funding levels are provided for the AIP. The proposed budget will allow safety, security and high-priority capacity development to continue at the smaller airports.

HIGHWAY/RAIL GRADE CROSSINGS SEPARATION

Question. As you know, the West has experienced tremendous growth, particularly in regards to freight rail as we move goods to the West Coast for shipment abroad. A new rail corridor has just reopened through the middle of Washington State. Unfortunately, many communities are now watching freight trains daily cross their front yards. I am hopeful that we can work together and with these communities in helping to fund grade separations that mitigate some of the impacts this new rail corridor brings.

Answer. ISTEA provides a flexible framework of programs through which grade crossing eliminations can be funded, such as the National Highway System (NHS), Surface Transportation Program (STP), Congestion Mitigation and Air Quality (CMAQ), and Railway-Highway Crossing and Hazard Elimination funds.

The administration's NEXTEA proposal would continue these programs and, in some instances, specifically extend eligibility to publicly-owned rail infrastructure. These programs, of course, are funded from State allocations and spent according to local priorities.

NEXTEA also establishes two additional programs that might provide alternative sources of funding:

—The Transportation Infrastructure Credit Enhancement Program would provide grants (up to 20 percent of total cost) and encourages public-private partnerships consisting of State or local governments with private business. (Note: the program would require a public agency to acquire and operate the rail facility, as is being done in California's Alameda Corridor.)

—A permanently established State Infrastructure Bank (SIB) program makes possible an array of loan and credit enhancement assistance, such as direct loans, interest rate subsidies, lines of credit and loan guarantees. States can capitalize their SIBs using funds from regularly apportioned ISTEA categories and from a discretionary $150 million annual DOT fund for seed money.

SUBCOMMITTEE RECESS

Senator SHELBY. This will conclude the hearing. The hearing of the Subcommittee on Transportation is now recessed.

The next subcommittee hearing is scheduled to be held on Thursday, March 20 at 10 a.m. in Dirksen 192. The topic then of the hearing is transportation infrastructure financing. Thank you.

[Whereupon, at 12:13 p.m., Thursday, March 6, the subcommittee was recessed, to reconvene at 10:05 a.m., Thursday, March 20.]

DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1998

THURSDAY, APRIL 10, 1997

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:01 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Richard C. Shelby (chairman) presiding.

Present: Senators Shelby, Bennett, Faircloth, Stevens, Lautenberg, Byrd, Kohl, and Murray.

DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

STATEMENT OF JANE F. GARVEY, ACTING ADMINISTRATOR

ACCOMPANIED BY:

GEORGE REAGLE, OFFICE OF MOTOR CARRIERS

PETER J. BASSO, DEPUTY ASSISTANT SECRETARY, BUDGET AND PROGRAMS

OPENING REMARKS

Senator SHELBY. The subcommittee will come to order.

Thank you for coming today, Ms. Garvey, Mr. Linton, and Dr. Martinez. We will get into some of the funding implications of the administration's NEXTEA proposal in a few minutes, but I want to discuss briefly with you some of the administration's priorities in light of the funding constraints we are likely to face for fiscal year 1998.

In addition, I want you to have the benefit of hearing from the subcommittee membership about their particular priorities in this funding cycle and for them to have the benefit of your expertise on the administration's reauthorization proposal which will ultimately influence our appropriations bill.

I think that the most important goal of the reauthorization legislation is to help States find the tools and the flexibility to address their specific transportation needs. Clearly the types of transportation infrastructure investment needed in the Nation's urban centers differs significantly from the needs of rural communities or areas of the country that are experiencing high growth rates.

My State transportation officials tell me that ISTEA has complicated their lives and made it more difficult to meet Alabama's

transportation needs. In short, they want more money and fewer categories.

Many States would like to see a more equitable return of what they pay into the highway trust fund. I agree with them and have supported proposals that would ensure that States receive at least a 95-percent return on the payments they make to the highway trust fund. I believe we must help them to make the Federal investment in this program more effective.

Today, I am interested in exploring with you and with the users group panel that follows you as many of the following issues as time permits, such as, how is NEXTEA more flexible and simpler to utilize than ISTEA?

How has the intelligent transportation systems program's evolution affected the administration's funding priorities?

How can we better focus our infrastructure investments on national priorities and on projects with significant economic returns?

What is the administration proposing in terms of financing programs and toll programs?

And in light of the severe constraints facing the transit new starts program under the 1998 budget, what does the administration's reauthorization proposal anticipate for the program over the life of NEXTEA?

And how has the administration restructured the safety set-aside program for rail-highway crossings and hazard elimination?

Over the next several months, the authorizing committees will struggle with allocation formulas, policy and equity issues, and reviewing whether the current funding categories have fulfilled the promise of ISTEA. The Transportation Appropriations Subcommittee will struggle to stretch its limited Federal resources among the competing priorities articulated in current law and in forthcoming authorization legislation.

The current budget environment further complicates our task, but it is critical that we focus our limited Federal resources on projects that create jobs, create opportunities, create economic activity, and improve mobility. As we complete the rest of our hearings and as a budget resolution takes shape, we will have a better idea of the funds available for transportation.

I can assure you that we all want more money for specific programs, projects, or initiatives. There are no easy choices. I remain dedicated to continuing in the search for more efficient, less costly ways to deliver transportation services, to work with the authorization committees to improve programs by enhancing their flexibility, and reallocating funds from lower to higher priority activities.

I hope the discussion we have today will be candid and productive and that we can start to focus on our highest priorities and needs as we move to appropriate Federal resources for the surface transportation program.

PREPARED STATEMENT

Before I ask you to summarize your opening statement for us, I want to first recognize the ranking member of the subcommittee, Senator Lautenberg.

[The statement follows:]

PREPARED STATEMENT OF SENATOR SHELBY

Thank you for coming today, Ms. Garvey, Mr. Linton, and Dr. Martinez. We'll get into some of the funding implications of the Administration's NEXTEA proposal in a few minutes, but I want to discuss with you some of the Administration's priorities in light of the funding constraints we are likely to face for fiscal year 1998. In addition, I want you to have the benefit of hearing from the Subcommittee membership about their particular priorities in this funding cycle and for them to have the benefit of your expertise on the Administration's reauthorization proposal which will ultimately influence our appropriations bill.

I think that the most important goal of the reauthorization legislation is to help states find the tools and the flexibility to address their specific transportation needs. Clearly, the types of transportation infrastructure investment needed in the nation's urban centers differs significantly from the needs of rural communities or areas of the country that are experiencing high growth rates. My state transportation officials tell me that ISTEA has complicated their lives and made it more difficult to meet Alabama's transportation needs—in short, they want more money and fewer categories. Many states, like Alabama, would like to see a more equitable return on what they pay into the Highway Trust Fund. I agree with them and have supported proposals that would ensure that states receive at least a 95-percent return on the payments they make to the Highway Trust Fund. We must help them to make the federal investment in this program more effective.

Today, I'm interested in exploring with you, and with the user group panel that follows you, as many of the following issues as time permits:

—How is NEXTEA more flexible and simpler to utilize than ISTEA?
—How has the Intelligent Transportation Systems program's evolution affected the administration's funding priorities?
—How can we better focus our infrastructure investments on national priorities and on projects with significant economic returns?
—What is the administration proposing in terms of financing programs and toll programs?
—In light of the severe constraints facing the transit new starts program under the fiscal year 1998 budget, what does the administration's reauthorization proposal anticipate for the program over the life of NEXTEA?
—How has the administration restructured the safety set-aside program for rail/highway crossings and hazard elimination?

Over the next several months, the authorizing committees will struggle with allocation formulas, policy and equity issues, and reviewing whether the current funding categories have fulfilled the promise of ISTEA. The transportation appropriations subcommittee will struggle to stretch its limited federal resources among the competing priorities articulated in current law and forthcoming authorization legislation. The current budget environment further complicates our task, but it is critical that we focus our limited federal resources on projects that create jobs, create opportunities, create economic activity, and improve mobility. As we complete the rest of our hearings and as a budget resolution takes shape, we will have a better idea of the funds available for transportation. I can assure you that we will all want more money for specific programs, projects, or initiatives. There are no easy choices. I remain dedicated to continuing the search for more efficient, less costly ways to deliver transportation services; to work with the authorization committees to improve programs by enhancing their flexibility, and reallocating funds from lower to higher priority activities.

I hope the discussion we have today will be candid and productive—and that we can start to focus on our highest priorities and needs as we move to appropriate Federal resources for the surface transportation program. Before I ask you to summarize your opening statement for us, I would ask the ranking member of the subcommittee, Senator Lautenberg, if he has an opening statement that he wishes to make?

STATEMENT OF SENATOR LAUTENBERG

Senator LAUTENBERG. Thanks very much, Mr. Chairman. I also want to welcome our witnesses from the administration. They are three very capable administrators, and I am pleased again to be able to have you in front of this subcommittee.

We are examining, as everyone is aware, the details of the administration's NEXTEA proposal, the proposal for the reauthorization of the Intermodal Surface Transportation Efficiency Act.

Let me also commend you, Mr. Chairman, for structuring this hearing the way that will allow us to discuss NEXTEA simultaneously with our Highway Administrator, Transit Administrator, our Highway Safety Administrator because it is in keeping with the spirit of ISTEA which is to structure generally an intermodal system and this, thusly, I think we can call it an intermodal hearing because we have all the parts as we would like to review them.

I recall vividly—I didn't say fondly, Mr. Chairman—my experience 6 years ago when I served as chairman of this subcommittee while working on the authorization of ISTEA as a member of the Environment and Public Works Committee. Mr. Chairman, it will be a real challenge to accommodate, as you said in your remarks, three Senate authorizing committees, while producing an appropriations bill that stays within our ceiling and maintains our role in overseeing and directing transportation expenditures. But it is a critical task for our country's future and I pledge my best efforts to work with you.

ISTEA was a bold and innovative step toward launching America's transportation system into the next century. The last 6 years demonstrated that it works. It increased planning and flexibility, put power in the hands of local planners, encouraged new technology, and prioritized the mitigation of transportation-related pollution in congested areas.

While the Nation's existing infrastructure continues to decay and we face reduced budgets, economic competition demands ever greater efficiency. We need to build upon ISTEA's successes to prepare for more intense global competition. We should retain ISTEA's intermodal system and its flexibility to let State and local officials use Federal assistance in the manner that is most appropriate for their needs.

In many ways my State, New Jersey, is a national microcosm. We have densely populated areas, sprawling suburbs, rich farmlands, and vast protected, open spaces. New Jersey is a corridor State linking commerce and travel between the Northeast and the rest of the country. No State is more intermodal than New Jersey. From the moment goods arrive in the ports of Elizabeth and Newark, they are loaded onto rail cars or trucks and they are distributed to the rest of the country. Goods traveling just 24 hours on a truck from New Jersey will reach a market of 40 percent of the total population of the United States and Canada, over 100 million people.

New Jersey is also a very heavily commuting State. There are more cars per mile on New Jersey roads than any other State in the country, but in many areas there is no place else to put down more concrete, to open new roads. We cannot build ourselves out of congestion and we are heavily reliant on new technology, mass transit, and Amtrak to reduce congestion.

ISTEA's focus on moving goods and people efficiently has given States and localities greater latitude in deciding which transportation system works best for them. The flexibility provisions contained in ISTEA undeniably improve the efficiency of our Federal transportation spending.

My State has enthusiastically opted to use over $163 million of ISTEA highway funds for mass transit. That is the choice that we

made. That is where it serves us best. Other States have used transit formula funds to build highways, and we should continue to advance the agenda of balance and flexibility.

We must also acknowledge that Amtrak is a critical part of our national transportation network. It needs the kind of capital investment that is necessary to improve its bottom line, its operating efficiency.

Mr. Chairman, I recognize that Amtrak will be called to testify before us at a later subcommittee hearing, but I want to note today that one of my greatest disappointments during the ISTEA conference 6 years ago was that my provision to allow States the flexibility of using their Federal ISTEA funds for Amtrak's expense was dropped.

Finally, I want to underscore the need to promote safety on our highways. After several years of steady improvement, we are now seeing a tragic increase in deaths associated with drunk driving. These are preventable deaths and we should insist on making our highways safer.

I look forward to discussing with our witnesses this morning how we can enhance the efficiency and safety of our Nation's transportation system. ISTEA has worked for our cities, our country, our environment, and our economy. The subcommittee's responsibility must be to build on the success of the past and not turn the clock back on transportation progress.

I thank you very much, Mr. Chairman, for the opportunity.

Senator SHELBY. Senator Byrd.

Senator BYRD. Mr. Chairman, I would like to yield to Senator Stevens first.

Senator SHELBY. Senator Stevens.

Senator STEVENS. You were here first, Senator. I will be glad to wait. Thank you very much.

Senator BYRD. Well, I thank you.

Mr. Chairman——

Senator SHELBY. The former chairman yielding to the current chairman of the Appropriations Committee. That is good. Then yielding back. That is good. [Laughter.]

Senator Byrd.

STATEMENT OF SENATOR BYRD

Senator BYRD. Mr. Chairman, the soon-to-be chairman again. [Laughter.]

Senator STEVENS. I knew a revolution was coming. [Laughter.]

Senator BYRD. Thank you very much, and let me commend you, Senator Shelby, for proceeding with these important hearings on the reauthorization of the Intermodal Surface Transportation Efficiency Act.

The crafting of a new surface transportation bill may well be the most important legislative challenge that we will face in this congressional session. While the surface transportation bill is an authorizing measure in the jurisdiction of three different Senate authorizing committees, I think it is wholly appropriate and indeed necessary for this subcommittee to review the administration's reauthorization proposal which has come to be known as the National Economic Crossroads Transportation Efficiency Act

[NEXTEA], for it will be the actions of this subcommittee that will determine whether the Federal Government will continue its ill-advised trend of disinvestment in our surface transportation infrastructure or whether we will make positive strides to replace our aging and inadequate highways and transit systems.

It will be this subcommittee that will determine whether the dozens of authorizations included in the surface transportation bill will be funded. What will really matter to the health of our national transportation enterprise is whether this appropriations subcommittee can increase substantially the annual obligation limitations that pertain to our surface transportation program.

Budget realities over the last 6 years have meant that all of the promises contained in ISTEA—at least some of the promises—were not met, and without adequate resources over the next 6 years, the promises of NEXTEA will not be met either.

One does not have to look past the administration's NEXTEA proposal to observe this disconnect between legislative authorizations and actual resources. Our very able Transportation Secretary, Rodney Slater, testified to this subcommittee that the administration's NEXTEA bill would authorize a total of $174 billion, or an 11-percent increase over ISTEA funding levels, but a review of the actual budget submitted by the administration clearly asks the Appropriations Committee to impose a freeze on the annual obligation limitation for the core Federal-aid highway programs for each of the next 6 years. There will be no increase in highway funding under the administration's budget, and the budget request calls for similar freezes for the next 6 years when it comes to transit and highway safety funding as well.

This would fly in the face of the most recently published Federal Highway Administration study which indicates that it would require an additional $15 billion each year just to maintain the current inadequate condition of our Nation's roads and bridges.

So, I hope, Mr. Chairman, that we will all work hard to ensure that transportation infrastructure is granted the highest priority in our annual budget deliberations, and toward that end, I was pleased to join with 55 of my Senate colleagues on both sides of the aisle in writing to the distinguished chairman of the Budget Committee, Mr. Domenici, to request that sufficient resources be allocated to the Environment and Public Works Committee to authorize the $26 billion annual highway program.

But we will be doing a great disservice to our States, our communities, and the driving public if we go forward and authorize a substantial increase in Federal highway spending but constrain the Appropriations Committee so tightly as to eliminate any hope of an actual increased obligation over the next 6 years.

So, I urge my 55 colleagues who wrote and those who did not write in support of a $26 billion highway program to join in seeking to secure sufficient domestic discretionary outlays in the upcoming budget resolution to support such an increased level of highway spending.

And I join with my colleagues in welcoming our witnesses here this morning, Acting Federal Highway Administrator Jane Garvey, Federal Transit Administrator Gordon Linton, and National Highway Traffic Safety Administrator Dr. Ricardo Martinez.

I am especially glad to welcome Dr. Martinez because I think it is critical that the issue of safety be prominent in each and every decision that we make in the development of a new highway bill. And as we discuss highway safety this morning, I remind my colleagues, if I needed to, that our highway construction agenda and our highway safety agenda must not be viewed as mutually exclusive. Indeed, one of the most important ways we can improve safety on our highways is to modernize them.

For this Senator, the most important safety provision in the administration's NEXTEA legislation is the proposal to grant a predictable source—a predictable source—of funding from the highway trust fund for completion of the Appalachian Development Highway System. The unfinished segments of the Appalachian Highway System are among the most dangerous roads in my State. And the same is true across the entire 13-State Appalachian region. The unfinished segments of the Appalachian Highway Corridor System often consist of undivided, two-lane roads that twist and turn around dangerous mountain curves with little or no shoulder room and very little or very poor visibility. This makes for a very dangerous situation in light of the fact that these inadequate highways must be shared simultaneously by family vehicles, school buses, and heavy commercial vehicles loaded with coal, timber, and other products.

In conclusion, Mr. Chairman, I commend the administration and the witnesses for their efforts in presenting to Congress, which they will do, the administration's proposed ISTEA reauthorization measure. I look forward to working closely with them and with the President in achieving much needed improvements in the areas that I have set forth in my remarks. Thank you, Mr. Chairman.

Senator SHELBY. Senator Stevens.

STATEMENT OF SENATOR STEVENS

Senator STEVENS. Well, thank you very much, Mr. Chairman.

I will always defer to my good friend, Senator Byrd. I think he is the person who has the institutional knowledge for our guidance, and I am pleased to hear what he said.

Ms. Garvey, Mr. Linton, and Dr. Martinez, I have some questions I would like to submit, Mr. Chairman, so I will not go into those.

But I come from a State that will be just 40 years old next year, and it is sad for me to have to try to explain to my people why there are more Federal highways in Puerto Rico than there are in Alaska. Alaska is one-fifth the size of the Union. It stretches from Maryland to California and from Duluth to New Orleans in distance, and we have the same amount of roads by mile in Alaska today that we had when we were admitted to the Union.

I have decided to commit myself to change that now, and that is why I did not sign the Senator's letter because it is not enough. I do not know why rural America has been neglected so much. It is not your errors. It is the past errors of our society.

But, for instance, we have 80 percent of the national park acreage in our State and we have fewer access roads to those parks than exist in the Nation's Capital for the National Capital parks.

Now, we have very few transportation links between our cities and now the Congress is telling us that there will no longer be any

subsidy for air mail which in Alaska is our lifeline, and we can get subsidies on the roads. But that is the catch-22. There are no roads.

So, what I would like to urge for you to do is to keep in mind that we are going to have to find some way to work together. I know that there are many people here who talk about the donor theory to the trust fund. I wonder what their predecessors would have thought in the days when General Eisenhower, then Colonel Eisenhower, devised the Interstate Transportation System, he had decided that only those States that paid taxes into the fund would receive highways. We are still part of the growth of America in Alaska and several other States I can think of that are rural States. And I do believe we have to find some way to bring a balance back to this system.

I have asked you for some specific answers to specific questions, so I might address some amendments.

As Senator Byrd says, it is our joint intention that we will monitor the expenditures of moneys under these authorization bills to assure the balance that the Senate is capable of bringing about. We are the focus of that balance in the historic compromise that formed this country. One of the Senate's most important functions is to bring about the balance in terms of States versus the population centers of the country.

So often I have witnessed the changes in the road systems of our neighboring State of the State of Washington. Again, there are twice as many roads in King County, WA, as there are in its northern neighbor, Alaska, which is 40 times the size of that State.

I want to emphasize to you that I intend to work with my friend from West Virginia. We share common thoughts, I think, with regard to the application of these funds, and I see no reason to put more and more money into these circular roads that go around population centers and not have the access for the rural people to get to those centers. It is a time for us to rethink this highway situation and NEXTEA is going to be the time we get to do that.

So, I look forward to working with you. I look forward to the answers to my questions so I might properly frame the amendments I intend to offer. Thank you very much.

Thank you, Mr. Chairman.

Senator SHELBY. Senator Faircloth.

STATEMENT OF SENATOR FAIRCLOTH

Senator FAIRCLOTH. Thank you, Mr. Chairman.

I am very much aware that this subcommittee is not going to be involved in the efforts to rewrite the new surface transportation bill, but I am pleased and I think it is proper that we examine the issues here.

North Carolina is one of the largest donor States, and we have traditionally been receiving 87 cents on the dollar return of our money. We have lived with that for a number of years, but under NEXTEA, that would go down.

Now, I am not the only North Carolinian committed to the fact that there should be a more equitable distribution. I am a strong supporter of Step 21 which returns 95 percent to each State. I know that, Mr. Chairman, you are a sponsor of the same bill. For

too long money has been pulled out of the Southeast and fed into the Northeast.

But now the Interstate System is complete, virtually, and there is no reason for the big discrepancy between donor and recipient States because the maintenance of the Interstate System is going to be the major expense on the highway system of all States.

Early parts of the Interstate System were very inadequately built. There was no way to convince in the 1960's the Federal Bureau of Public Roads that you had to drain a roadbed before you built the road, and they were built without proper drainage, subsoil, and they are giving away in many, many places. In fact, some of them have long since given away. So, there is going to be additional drainage and a lot is going to have to be done.

Senator BYRD. Mr. Chairman, would the Senator yield?

Senator FAIRCLOTH. Yes.

Senator BYRD. This again points out the fact that we do not pay enough attention to history. The Romans knew better than to do that. They knew that it was important to drain the roads.

Senator FAIRCLOTH. Well, you are absolutely right, Senator. What happened was nobody ever got reelected because he built a superior road, but he got reelected because he built a lot of roads, so he built more mileage out there.

The German Autobahn was well drained and it has held up much, much better with the proper drainage. But you have no strength. The surface of a road is merely to keep it dry whether it is asphalt or concrete. There is really no basic strength. The strength is in the sub-base and we simply did not drain it. It popped and it is falling apart.

But I believe that the role of the Federal Government in transportation must be an equitable one and the States need some ability to respond to local needs. And this is one of the important things so that we can either go to new roads or to repair of existing ones.

Mr. Chairman, I thank you for holding the hearing and look forward to participating.

Senator SHELBY. Senator Kohl.

PREPARED STATEMENT

Senator KOHL. I thank you very much, Mr. Chairman. I have a statement which I will include in the record.

Senator SHELBY. Without objection, it will be so ordered.

[The statement follows:]

PREPARED STATEMENT OF SENATOR KOHL

Good morning, Mr. Chairman and members of the subcommittee. Welcome Administrators Garvey, Linton and Martinez, and all those who will be joining us on the second panel. We appreciate your continued help and input with our work on transportation appropriations for this year and a transportation policy framework for the next six years.

It is my hope, which you no doubt share, that together we can do more in the next six years than we did under ISTEA. The number one message we hear about transportation and ISTEA reauthorization is that we are not doing enough—that our current investment in transportation infrastructure is not sufficient.

Fortunately, we all agree that investing more and investing it more wisely is imperative to ensuring economic growth, and improving transportation safety and the livability of our towns and cities.

Thank you all for coming, and I look forward to hearing your thoughts on how we might best achieve those goals. Thank you, Mr. Chairman.

INTRODUCTION OF WITNESS

Senator SHELBY. Do you have anything else?

Senator KOHL. No.

Senator SHELBY. Again, I want to join and welcome Jane Garvey, the Acting Administrator, Federal Highway Administration; Mr. Gordon Linton, Administrator, Federal Transit Administration; Dr. Ricardo Martinez, Administrator, National Highway Traffic Safety Administration. Your written statement will be made part of the record.

Ms. Garvey, if you will proceed as you wish.

STATEMENT OF JANE F. GARVEY

Ms. GARVEY. Thank you very much, Mr. Chairman. I have a very brief opening statement, if I could.

Members of the subcommittee, thank you for the opportunity to testify here this morning on the administration's proposal for reauthorization.

A few weeks ago, Secretary Slater appeared before this subcommittee and provided an overview of the Department of Transportation's fiscal year 1998 budget request. He described our transportation network as the envy of the world and, simply stated, he said that transportation is critical to the economic growth of this country. It is critical to sustaining our quality of life.

We are now, as so many of you have suggested, at an important juncture as Congress considers reauthorization of the Nation's surface transportation program. In a sense ISTEA transformed transportation decisionmaking. It was a sea change. It was a revolution.

The administration's reauthorization proposal reflects the message that we have heard from our stakeholders, the message that we have heard from our customers. Stay the course of ISTEA. Tune it. Do not toss it.

When the administration's NEXTEA proposal was submitted to Congress last month, it defined several of the Secretary's key national transportation priorities. These priorities include strategic investment in infrastructure to support economic growth, safety programs that will help reduce highway crashes, and a commitment to commonsense government and innovation.

I would like to very briefly describe the key themes from the Federal Highway perspective.

First of all, the administration's reauthorization proposal includes program increases for the core programs, the core programs that are clear national priorities. That means interstate maintenance, the National Highway System, and the surface transportation program. And when combined with the other provisions, it will allow States and MPO's to use their Federal transportation funds strategically and more flexibly. Our proposal builds on the record level of Federal investment over the past 4 years. Indeed, NEXTEA increases transportation authorizations by 11 percent over the $157 billion authorized by ISTEA.

In the highway formula area, we have sought to strike a fair balance among the many diverse transportation needs in the Nation.

Included in the Department's proposal is $20 billion in obligations for the Nation's highways and bridges.

We realize that we need to say right up front that these proposed funding levels do not fully meet the needs of the Nation's highway systems, but the levels do reflect the continuing commitment of both the President and the Congress to balance the budget and to reduce the Federal deficit. Our spending decisions have been made within the context of a balanced budget.

We are, however, proposing contract authority levels in our NEXTEA proposal that are higher than the proposed obligation level for 1998. We are doing this because if we have an improved economic condition, then we have room in our program to grow.

Secretary Slater has said that transportation safety is his highest priority. Our proposal in the 1998 budget provides the resources to fight and improve the highway safety and improve the fatality trends that we are seeing in our country. Our proposal builds on the strong components of the existing law. It streamlines programs, for example, by combining the NHSTA and the FHWA section 402 safety programs and consolidating the safety construction category.

We are also proposing incentives to encourage agencies to work closer together in dealing with their safety problems.

A cornerstone for the future is a strong shift of resources and energies to innovation, innovation that would provide for a greater return on our investment. For Federal Highway, this moves us from a traditional oversight role to one of proactive leadership and it makes technology and innovation in the broadest sense a leading element in the transportation system for the 21st century.

NEXTEA proposes a $100 million a year transportation credit enhancement program, a program that really has three goals: to leverage Federal dollars, to encourage private sector investment in projects of national significance, and to move projects into construction sooner.

Our reauthorization proposal also would continue the funding for State infrastructure banks with a level of $150 million a year.

Finally, Mr. Chairman, as we examine the Federal role in transportation and as we continue to work to increase the efficiency and effectiveness of our Government, Federal Highway has undertaken a comprehensive set of streamlining actions to support Department initiatives.

We look forward to working with Congress and we look forward to working with this subcommittee in particular to further the advances launched in ISTEA. Thank you very much, Mr. Chairman.

PREPARED STATEMENT

Senator SHELBY. Thank you, Ms. Garvey. We have the combined statement of Ms. Garvey, Mr. Linton, and Dr. Martinez, and it will be made part of the Record.

[The statement follows:]

PREPARED STATEMENT OF JANE F. GARVEY, GORDON J. LINTON, AND RICARDO MARTINEZ

ISTEA REAUTHORIZATION

Mr. Chairman, Members of the Subcommittee. Thank you for the opportunity to testify in support of the Administration's proposal for reauthorization of the Inter-

modal Surface Transportation Efficiency Act of 1991 (ISTEA) and for our respective agencies' budget requests.

OVERVIEW

A few weeks ago, Secretary Slater appeared before this subcommittee and provided an overview of the Department of Transportation's fiscal year 1998 budget request. He told how our transportation network is the envy of the world, and how it has made us the most mobile society on earth. His message is that safety is our number one priority and that transportation is critical to economic growth and to providing our citizens with the mobility on which they have come to rely to sustain their quality of life. And it is about showing that safe and efficient transportation and a clean environment can go hand in hand. We Administrators of the DOT agencies most concerned with ISTEA are here to reinforce that message and to provide details about our reauthorization proposal.

We are now at a critical juncture as we examine ways to reauthorize the surface transportation program this year and to continue to improve our transportation systems. The Administration seeks to build upon the ISTEA foundation in the six-year, $175 billion authorization proposal announced by the President, Vice President, and Secretary Slater last month—the National Economic Crossroads Transportation Efficiency Act of 1997 (NEXTEA). In the President's words, "we're taking the next big step to maintain and modernize our transportation system, and to make sure it is the best in the world." He also emphasized that NEXTEA is "one of the most important pieces of environmental legislation that will be considered by the Congress in the next two years."

When the Administration's NEXTEA proposal was submitted to Congress last month, it demonstrated several of the Secretary's key national transportation priorities. These priorities include strategic investment in infrastructure to support economic growth and enhance U.S. global competitiveness; safety programs that will improve the public health and safety of the Nation by reducing highway crashes and resulting injuries and deaths; an Access to Jobs and Training program to help ensure that welfare reform works; help to communities to balance mobility needs with environmental protection and enhancement, and a commitment to common sense government and innovation. Included among the innovations in NEXTEA are proposals for (1) innovative financing to ensure that Federal resources stretch as far as possible, (2) innovation in technology to accelerate advances that close the gap between state-of-the-art and state-of-the-practice, and (3) innovation to implement common sense government in order to provide the people we serve with programs and organizations that work better and cost less.

STRATEGIC INVESTMENT IN INFRASTRUCTURE AND SAFETY

The Nation's surface transportation system, particularly the National Highway System and its intermodal connectors, is essential to economic development, to providing Americans with greater mobility, and to national defense. Clearly, sustained Federal support for infrastructure is critical to the health of the economy. The challenge we face today is to improve our existing transportation network and to provide for continuing economic growth within constrained resources and environmental priorities.

National and regional economic growth relies heavily upon a well-functioning surface transportation system. For example, the payoff relating to highway transportation spending levels goes well beyond the actual infrastructure itself and is reflected in the contribution of the public infrastructure to private sector employment and private sector productivity. At stake are jobs and the economic productivity of the Nation. Our highways and their interconnectors to other systems are the lifeline of the Nation.

The Administration's reauthorization proposal and fiscal year 1998 budget strategically allocate our limited resources, with major increases for the National Highway System, Interstate Maintenance, Surface Transportation Program (STP), Congestion Mitigation and Air Quality Improvement, and safety programs—clear national priorities. When combined with other provisions in our reauthorization proposal that improve States' ability to use their Federal transportation funds more flexibly, NEXTEA will enable States to better target their funds to the types of infrastructure investments that will work best for them—whether traditional highway investments, transit or rail projects, safety improvements, ITS technologies, environmental needs, or new intermodal facilities to handle growing intermodal demands.

One example of the improvements our proposal would make is amendment of the definition of transit capital to include maintenance as an eligible expense. Such an approach would parallel the eligibility for Federal-aid highway projects. This would

allow local transit operators to make better decisions on whether to invest Federal funds to prolong the life of existing assets, or to invest in new vehicles, facilities and equipment. In addition, transit providers in urbanized areas under 200,000 in population would also be given the flexibility to use all their transit funds for any eligible transit purpose—including operating expenses.

The Administration's reauthorization proposal and fiscal year 1998 budget for the Department aim to build on the record level of Federal investment over the past four years. Indeed, NEXTEA increases surface transportation funding by $17 billion, or 11 percent, over the $157 billion authorized by ISTEA.

We propose authorization levels higher than the proposed obligation levels so there will be flexibility to increase transportation funding within a balance budget if economic conditions improve in future years. With multi-year authorizing legislation, such as our ISTEA reauthorization, we believe it is important that the contract authority levels are set at appropriately high levels. This allows for growth in the program in the outyears, if the budget picture permits such growth. And in the apportionment formulas that we have proposed to distribute Federal highway funds among the States, we have sought to strike a fair balance among the many diverse transportation needs of this Nation. However, we understand that there will be considerable debate over this matter and we offer our proposal as a starting point.

HIGHWAY INVESTMENT

Included in the Department's overall fiscal year 1998 program levels is $20.2 billion in obligations for the Nation's highways and bridges. This includes a Federal-aid highway obligation ceiling of $18.17 billion, which is approximately the same level as enacted in fiscal year 1997. The total contract authority proposed for fiscal year 1998 is $22.8 billion, up from $22.5 billion in fiscal year 1997.

All States have benefited from ISTEA infrastructure programs such as Interstate Maintenance, the National Highway System, the Surface Transportation Program, the Congestion Mitigation and Air Quality Improvement Program (CMAQ) and the Bridge Program. These core Federal Highway Administration (FHWA) programs are not only retained in NEXTEA, but, in the aggregate, authorizations would increase by 33 percent over ISTEA levels. The proposed funding levels for the highway program are sufficient to fund system maintenance and preservation costs and some capacity improvements. Yet these levels also reflect the continuing commitment of both the President and the Congress to balance the budget and reduce the Federal deficit.

Our NEXTEA legislation also includes more than $2 billion from the Highway Trust Fund for the continued construction of the Appalachian Development Highway System (ADHS) in the 13 States that comprise the Appalachian region. The ADHS is now 76 percent complete. In the past, this system of highways has been funded from the General Fund through various appropriations and authorization acts. Our NEXTEA funding proposal would promote much-needed economic development in the Appalachian region and throughout the entire eastern United States, because more than 92 percent of the Appalachian Development Highway System is located on our Nation's most critical and well-traveled highways—the National Highway System.

TRANSIT INVESTMENT

We propose budget authority in fiscal year 1998 of $5.1 billion, and a $4.4 billion obligation level. Within the fiscal year 1998 obligation level, our budget makes available $4.2 billion for capital investment in mass transportation. Beginning in fiscal year 1998, we are proposing to fund the entire $31 billion, six-year transit program from the Mass Transit Account of the Highway Trust Fund. Additionally, in fiscal year 1998, we are proposing that discretionary bus and bus-related funding and fixed guideway modernization funding, be rolled into Formula Programs.

NEXTEA proposes to combine some transit program categories to make the program simpler to understand and manage, at the Federal level as well as at the State and local levels. Our proposal would provide simpler, and more flexible program-wide definitions of eligible capital costs, matching ratios, and grant requirements. We would also expand the transferability of funds among the Urbanized, Non-Urbanized and Specialized formula programs.

NEXTEA proposes having a much larger proportion of the transit program go out by formula, rather than on a discretionary basis. This will help local agencies plan by reducing uncertainty over funding sources and earmarking, and will improve the equity by which the funds are distributed. It will also enhance the possibility of using innovative financing techniques to leverage the use of Federal funds.

New transit lines or significant upgrades to existing service can be more effective in some cases in addressing congestion than new or expanded highway capacity. Recent research by the firm Hickling-Lewis-Brod examined major transportation corridors and determined that high-quality transit significantly improves the overall door-to-door travel time for both transit riders and highway users. As motorists switch from automobile commuting to mass transit, congestion on highways lessens and highway travel time improves. Increased transit investment in these corridors is an effective use of transportation revenues that clearly benefits motorists.

Since January 1993, the Federal Transit Administration (FTA) has signed Full Funding Grant Agreements for 19 new or expanded fixed guideway projects totaling $7 billion. When State and local funds are also considered, these projects will result in the investment of over $12 billion in new mass transit infrastructure in metropolitan areas from coast to coast. These actions continue FTA's successful strategy of employing the mechanisms provided in ISTEA to execute long-term contracts and maintain the Administration's strong support for mass transit.

In addition, NEXTEA builds on the efforts in ISTEA to strike a balance between existing infrastructure and the need to build new systems. We recognize the need to balance new system construction with support to "older rail cities." Such support funds the replacement and rehabilitation of the existing rail fleet and the restoration of rail facilities such as stations, track, and yards and shops, as was guaranteed in ISTEA.

Our proposal provides an equal amount, $634 million, for major capital investments and fixed guideway modernization. That level for major capital investments over six years is sufficient to sustain the Federal commitment to all existing and expected FFGA's. The amount for Fixed Guideway Modernization will be funded under the Formula Programs and distributed by the current statutory formula for fixed guideway modernization.

SAFETY INVESTMENT

Secretary Slater has set transportation safety as his highest priority. Federal safety programs have contributed to real progress in highway safety. Safety belt use has grown from 11 percent in 1982 to 68 percent in 1996. Alcohol involvement in fatal crashes has dropped from 57 percent to 41 percent over this same 15-year period. The highway fatality rate has declined steadily since 1966, now at the all-time low of 1.7 per hundred million miles traveled.

Despite this significant progress, a look at recent statistics reveals that there is no room for complacency. After years of steady decline, the total number of highway deaths increased from 1992 to 1995. Motor vehicle crashes are still the leading cause of premature death of our Nation's youth. Safety belt use has grown by only two percentage points since 1993. In 1995, the number of alcohol-related fatalities increased for the first time in 9 years. In 1996, 41,500 people died and over 3 million more were injured in police-reported crashes. Although our fatality rate remains at an all-time low, highway crashes still cost the Nation $150 billion per year. Taxpayers share in these costs through Medicare, Medicaid, and income support programs. Twenty-four percent of all medical care costs associated with motor vehicle crashes are covered by public revenues (14 percent from federal revenues and 10 percent from State resources). In 1994, highway crashes cost taxpayers $13.8 billion, the equivalent of $144 in added taxes for each household in the U.S.

Improving air bag safety is a top priority. The National Highway Traffic Safety Administration (NHTSA) has initiated a comprehensive effort to realize more fully the life-saving attributes of current driver and passenger air bag systems, and to pave the way for the introduction of improved air bags in the near future. Our budget request contains an increase of about $8 million for air bag initiatives, a top-priority increase for fiscal year 1998.

Another major priority is to work with Governors and State legislatures to encourage the enactment of stronger safety belt and child safety seat laws. We will be implementing a Presidential safety belt plan to increase the use of these vital life-saving devices. We have a number of efforts underway to improve passenger safety of our children.

Speeding—exceeding the posted speed limits, or driving too fast for conditions—is a problem on all roads. The human and economic costs of speeding are staggering. In 1995, speeding was a factor in 31 percent of all fatal highway crashes, at a cost to society and the economy of more than $29 billion. Currently, 34 States have increased their speed limits beyond what would have been allowed under the former national maximum speed limit law, and 23 of these 34 States have increased their speed limits to 70 miles per hour or greater. NHTSA and FHWA have jointly devel-

oped and continue to implement a Speed Management Plan combining research, enforcement, roadway engineering and public education.

Recent surveys indicate that aggressive driving, a behavior often marked by excessive speed, has become the driver behavior that most concerns the motoring public. NHTSA's activities to combat aggressive driving include public information and education, demonstration programs in major urban areas to identify effective enforcement techniques, and research to determine the relationship between specific unsafe driving acts and crash involvement.

NHTSA programs have been highly cost effective. The number and costs of fatalities and injuries would be significantly higher if not for the effectiveness of these programs. Since 1992, safety belts, child safety seats, motorcycle helmets, and the age–21 minimum drinking age laws under have saved over 40,000 lives. Air bags have saved more than 1,850 lives.

ISTEA recognized the importance of the Federal-State partnership in highway safety. We believe that the status quo is not sufficient to accomplish what must be done. The successor to ISTEA must continue to look at new ways to advance this essential partnership and secure the safety of those traveling on our Nation's roads. Our reauthorization proposal builds on the strong components of the existing law, but streamlines programs, creates new flexibilities, and provides linkages among other highway safety programs to move our safety programs forward in a coordinated manner to address national priorities.

Our NEXTEA proposal is designed to help the States deter drunk and drugged driving and to encourage increased use of safety belts and child safety seats. It includes authorizations for significantly increased safety funding with greater emphasis on incentive programs. The flexibility inherent in these incentive programs, which give States the ability to chose whether to implement suggested legal and program criteria, has proved very successful in motivating States to make greater efforts in highway safety.

New incentives within the framework of our Section 402 State and community highway safety program will give added momentum to the program, at the same time that State and local attention is focused on high priority safety needs. Thus, in addition to the Section 402 performance-based grant program, NEXTEA provides authorizations for four carefully crafted and targeted incentive grant programs:

—an enhanced drunk driving prevention program to help States enact and enforce tough drunk driving laws;

—a new occupant protection program to encourage States to increase safety belt use—the single best way to protect the occupants of a vehicle;

—a new drugged driving program, a Presidential initiative to help States enact and enforce tough laws to prevent drug-impaired driving; and

—a new State highway safety data improvement program to encourage States to improve the data they use to identify the priorities for their highway safety programs.

NEXTEA increases authorized funding for NHTSA by about 25 percent, to $392 million in fiscal year 1998. Within the Department's overall fiscal year 1998 program levels is $333 million in obligations for NHTSA, about 11 percent more than the amount provided in fiscal year 1997. This greater amount reflects the high priority both this Administration and the American public give to highway safety. This funding level will provide a balanced program in fiscal year 1998—to address both vehicle and behavioral safety areas and to carry out essential safety research, including how to reduce crash injuries. We have a strong behavioral program that balances our regulatory mission in motor vehicle safety.

Under our reauthorization proposal, highway safety programs would become more flexible and streamlined in a number of areas. We have retained the railroad/highway grade crossing program, but would make funds under this program available to address noncompliance of grade crossing devices. We have combined the FHWA and NHTSA portions of Section 402 program so there is one allocation to the States; and we have proposed a reduction in the number of separate motor carrier program elements. We believe that our jointly administered safety delivery program is working well.

We have also created incentives for State safety agencies to work closer together in dealing with their safety problems. For example, if a State has an integrated safety planning process in place that deals with three major safety areas: roadways, drivers, and commercial vehicles, then they will have the ability to spend funds from both the STP and hazard elimination program for any of those three safety areas, as well as be eligible to tap into a new Integrated Safety Fund; again for use within any of the three safety areas.

We believe that with the increased funding and flexibilities which are being proposed, the States will be in a much better position to identify and resolve their safe-

ty problems. Our reauthorized program also includes a major safety research focus within the Intelligent Transportation Systems program for the development and testing of intelligent vehicle systems, which will include collision avoidance and in-vehicle information systems, and which promise dramatic safety improvements.

Our motor carrier safety program also retains its important role in our NEXTEA bill and our fiscal year 1998 budget request. For the last three years, the number of fatal crashes involving trucks has been higher than the number of such crashes in 1992. This follows the three-year decline in fatal involvements prior to 1992. The FHWA's budget request and NEXTEA proposal include $100 million annually for motor carrier safety, a 27 percent increase over the fiscal year 1997 level. The increased funding will be used to make improvements to driver safety programs, information systems and data analysis, and evaluation of all aspects of driver performance and safety.

These funds will support a results-oriented commercial motor vehicle safety program. Over 80 percent of the funds will be used as grants to States for the implementation of comprehensive, nationwide performance based safety programs. States will be given the opportunity to strengthen enforcement activities by investing in areas with the potential for crash reduction based on their own circumstances. The funds will also support national information systems, and analysis and development of new systems to support critical safety initiatives such as the Commercial Vehicle Information System. Within NHTSA, research will be continued to improve heavy truck safety, primarily in the areas of braking, rollover stability, tires and cab integrity.

INNOVATION IN FINANCING

As we administer transportation programs that will carry the nation into the 21st century within tight budgetary constraints, we must continue to ask ourselves how we can do it better. That is, how can we be more efficient, more innovative in the delivery of transportation services?

Government cannot meet all of the Nation's infrastructure investment needs alone. This Administration has strongly supported and encouraged creative financing solutions and more private sector involvement in infrastructure improvement and management of America's transportation system.

Our reauthorization proposal and our fiscal year 1998 budget would continue funding for State Infrastructure Banks (SIB's) at the fiscal year 1997 level of $150 million but funding would come from the Highway Trust Fund. This program had previously been funded from the General Fund.

In addition, we would continue to focus on new methods of improving the way available resources are used and maximizing their benefits. We are promoting new financing techniques that have the added benefit of leveraging still further resources, including those of the private sector, and bringing them on line for much-needed infrastructure investment. Our reauthorization proposal proposes a new $100 million a year Transportation Infrastructure Credit Enhancement Program to leverage Federal dollars and encourage private sector investment in transportation projects of national significance that may otherwise be delayed or not constructed at all because of their size and uncertainty over timing of revenues. With this new program, the Department will be able to make grants that, along with supplemental contributions by States and other entities, will comprise a Revenue Stabilization Fund for projects to secure external debt financing, or to be drawn upon if needed to pay debt service costs in the event project revenues are insufficient.

To maximize the impact of every dollar spent on transit, the FTA is working to introduce various innovative financing methods to the transit community. Since 1994, FTA has reviewed and approved 22 innovative financing transactions involving over $2.2 billion in Federally-supported assets. These included cross-border leases, sale/leasebacks, bond issues for construction, and leveraging of soft match. Altogether, these transactions netted over $143 million in additional private investment for the transit systems.

Innovative financing is but one of many efforts to expand funding availability for transit. Other initiatives include facilitating joint developments to attract private partners for transit infrastructure projects, and developing ways to better coordinate funding between Federal programs. For example, some Community Development Block Grant funds may be expended in support of transit projects in redevelopment communities. Also, FTA is Co-Chair of the DOT/DHHS Coordinating Council on Human Services Transportation, which seeks to link transportation delivery through multiple programs (Medicaid, elderly transportation, public transit) at the local level. Our Access to Jobs and Training initiative will also be an important tool in this regard.

FOCUSING ON PEOPLE AND COMMUNITIES

ISTEA focused on transportation's bottom line: making America a better place to live. It emphasized consideration of how transportation investment and policy choices affect safety, community quality of life, and the environment.

One of the most pressing problems today in light of the new welfare legislation is making the reforms work. Nationally, only six percent of those on welfare own an automobile. A person can't get a job if a person can't get to a job. In response to this problem, FTA has proposed a new initiative called "Access to Jobs and Training." Transit is the "to" in "Welfare to Work." The President alluded to this initiative in his State of the Union Address. Under this new program, governors, units of local government and nonprofit agencies will be able to compete for resources. The funds will be used to plan and implement the best methods of solving local transportation problems related to getting people off the welfare rolls and into jobs or training needed to enter the work force. Although it is our intent that funding will primarily support operating and capital costs for service start-up, other eligible costs include collaborative planning to assess employment transportation needs and develop service strategies, integrating transportation and welfare planning, the coordination of existing service providers, the development of long-term financing strategies, promotion of employer-provided financing, administrative costs associated with the program, and evaluation activities.

In addition, the proposed programmatic changes and expanding the definition of capital projects for mass transportation will give operators added flexibility within the transit programs to provide needed support for transit service to meet the requirements of the Americans with Disabilities Act.

ENVIRONMENT

Under NEXTEA, the basic program structure of our environmental programs remains unchanged from ISTEA. Our proposal also continues ISTEA's commitment to inclusive transportation planning which will enhance State and local decisionmakers' ability to consider the environmental impacts of their transportation investment decisions. Although our communities have made significant progress in improving air quality in recent years, we still face environmental challenges, not just to improve our air but to enhance our communities.

The CMAQ program has proven to be ISTEA's most flexible program, representing more than half of all flexible funds used for transit purposes ($1.7 billion of $3.0 billion). Other non-highway projects that assist areas in improving air quality are receiving an increasing share of CMAQ funds as well. Through 1996, over $500 million in CMAQ funds were used to establish or expand rideshare services, promote demand management, and support bicycle and pedestrian travel. CMAQ flexibility has allowed States to fund new innovative efforts such as vehicle emission inspection and maintenance programs, alternative fuel conversions and refueling facilities and the purchase of clean fueled buses and electric vehicles.

The congestion relief benefits of the CMAQ program have also been substantial. Houston's TransStar traffic management and control system uses cutting edge technology to manage over 300 miles of freeway and over 100 miles of high occupancy vehicle lanes. CMAQ has also funded many other congestion mitigation projects, including HOV lanes in Los Angeles, shared-ride services in Virginia and New Hampshire, and bicycle and pedestrian facilities in Montana. The benefits of promoting alternative travel options as envisioned by the Congress in ISTEA have clearly been realized through the CMAQ program.

Under NEXTEA, we will build on this success. The Department proposes an increase in the average CMAQ program funding authorization under ISTEA from $1.0 billion annually to $1.3 billion under NEXTEA, an increase of 30 percent. Funding eligibility would be expanded in several ways. These include providing funds on the basis of a State's maintenance, as well as nonattainment area, populations; clarifying that nonattainment areas for particulate matter (PM) are explicitly eligible and adjusting the funding formula accordingly; and including programs to reduce extreme cold starts (where the majority of vehicle emissions are generated) and to "buy back" or scrap higher-polluting pre-1980 vehicles. Also, with EPA's proposal to revise the national ambient air quality standards, the Department recognizes the need to extend funding to any areas newly designated under the new standards. We therefore propose that CMAQ funds be available to these areas after a State has submitted its implementation plan addressing the new standards to EPA.

NEXTEA also continues investment in bicycle paths, scenic byways, and recreational trails that cost relatively little but which greatly improve the quality of our lives. While bicycle and pedestrian projects can be funded under all of the major

ISTEA funding programs, transportation enhancement (TE) funds have accounted for 75 percent of funding for these projects.

Transportation enhancements are transportation-related activities that are designed to strengthen the cultural, aesthetic, and environmental aspects of our transportation system. Such projects have become an important part of our commitment to the redevelopment and sustainment of communities through a variety of transportation related activities, from the renovation of historic rail depots, such as the Lafayette Depot in Lafayette, Indiana to the rehabilitation of the historic Stone Arch Bridge in Minneapolis and funding for the Schuylkill River Park and Trail in Philadelphia. Because of the success of this program, in NEXTEA, we propose to retain the current TE provisions of ISTEA with continued funding from a 10 percent set-aside from STP funds, resulting in a funding increase of over 30 percent. We also included a provision that codifies the requirement that TE activities have a direct link to transportation.

INNOVATION IN TECHNOLOGY

As we began strategically planning for a post-ISTEA era, one of our goals was to create a fundamental cultural change both within the Department and the transportation community as a whole that would provide a foundation for the next century. One of the cornerstones for the future is a strong shift of resources and energy to technological innovation—innovation that would provide for a greater return on our investment. This change would also move us from a traditional oversight role to one of proactive leadership, and make technology, in the broadest sense, a leading element in the transportation system for the 21st century.

To make this happen, we are proposing significant increases in programs which support the advancement of technological innovation. Our reauthorization proposal and fiscal year 1998 budget request recognize that a strong Federal transportation research and technology program is not a trade-off with infrastructure funding, but is instead a powerful tool to ensure that innovation is incorporated into the multibillion dollar infrastructure program.

Within the FHWA fiscal year 1998 budget request, our proposed research and technology programs would be funded through a combination of direct contract authority and the administrative takedown from the Federal-aid highway program. Technology deployment and technology transfer programs—those elements of the research and technology program most closely aligned with program delivery and professional capacity building—would be supported through their own contract authority and not be a part of the administrative takedown. This would include activities such as ITS deployment, a proposed National Technology Deployment Initiatives program, the Local Technical Assistance Program, the National Highway Institute, and University Transportation Centers.

Funds to support pure applied research including basic ITS research and technology, and highway research and development, would be funded from General Operating Expenses as part of an administrative takedown as has been the case in the past.

INFRASTRUCTURE AND TRAFFIC SAFETY

FHWA is answering our Nation's challenge to make roads better. One of our active research and development programs is defining "better" to mean highways that are safer and operate more efficiently. The annual cost of traffic crashes is $150 billion and growing, and congestion costs U.S. businesses up to $40 billion per year. The need to explore innovative solutions to our highway safety problems has led to productive partnerships with NHTSA and the private sector.

New approaches to modeling and computer simulation of vehicle and roadside hardware are being funded jointly with NHTSA and have participation from the automotive industry. The use of these powerful simulation tools will enable us to design future roadside hardware that will perform at higher levels and reduce the severity of crashes. Helping drivers to see pavement markings at night and in times of bad weather is another promising area of technology.

Research in the Automated Highway System (AHS) will reach a significant milestone this August when its technical feasibility will be demonstrated in San Diego. The Department is also planning to link more closely the near term benefits of NHTSA's work in Crash Avoidance Systems with the research that has been carried out for the AHS. A major program review of the AHS will help us focus our resources so that we will be able to deliver sooner the benefits of integrating several collision avoidance systems into smart vehicles so we can reduce crashes while improving the efficiency of our existing highway system. The resulting Intelligent Vehicle program will capitalize on the synergisms that have been created through the

public-private partnerships of the National Automated Highway System Consortium and the more than 100 public and private organizations who are participating as associate members. NHTSA's continuing basic development and integration work will help ensure that intelligent systems are fully integrated within the vehicle, are useful to the driver, and work in concert with the highway system to produce significant safety improvements.

INFRASTRUCTURE MATERIALS AND TECHNOLOGIES

Building and upgrading the physical transportation infrastructure, principally the pavements and bridges across America, requires a major use of federal-aid transportation program dollars. The challenge we face is to make these roads better. This challenge is being addressed by applying technologies developed by the FHWA which can now make better pavements, such as ones called Superpave that will last longer; better bridge decks that last two to three times longer using epoxy coated reinforcement bars and fly ash concrete; and better bridge coatings that will last three to five times longer than previous systems. For example, FHWA-led research in High Performance Concrete (HPC) is helping to construct bridge structures that will accommodate loads twice as large as before. In 1996, this was demonstrated on a bridge in Houston, Texas. In 1997 we are working with more than 12 states to build more HPC bridges. Longer spans, fewer girders or beams, and longer life cycles, will result in substantial first cost savings at well over 1 million dollars for every 10–15 bridges built.

The FHWA will use requested resources to continue to develop, transfer, and implement technology through alliances with our partners and the international community. We will use research and technology dollars to improve the quality of infrastructure projects and reduce life-cycle costs in these times of limited funds.

MASS TRANSPORTATION RESEARCH

In the area of mass transportation research, a major accomplishment was the rollout, in October 1996, of the first prototype of the Advanced Technology Transit Bus (ATTB). The ATTB incorporates aerospace construction, accessible design and hybrid-electric propulsion into a single vehicle design.

FTA has been increasingly entering into joint sponsorships with other government agencies at the Federal, State and local levels, and partnerships with consortia formed by transit industry suppliers, transit agencies, national laboratories and universities. These partnerships can increase competition and leverage funding. Examples of programs involving such partnerships include the Advanced Public Transportation Systems program (APTS) and the Fuel Cell Transit Bus.

Federal transit research has played a key role in maintaining the Nation's global competitiveness in developments such as electronic farecards and transit vehicles powered by low-polluting fuels, hybrid electric buses, fuels cells and battery powered propulsion systems. The United States must continue devoting resources to this area to ensure that emerging technologies are developed for markets both domestic and international.

INNOVATION FOR TODAY AND TOMORROW—ITS

In 1991, under ISTEA, the Department initiated the Intelligent Transportation Systems program to research, operationally test and promote the application of computer and communications technology to our surface transportation system, in part, to address the growing gridlock in our Nation. Over the past five years, we have learned through our research efforts, that an intelligent transportation infrastructure applied to our surface transportation can improve efficiency, productivity, and safety. We are now ready to support deployment of integrated, interoperable ITS infrastructure, while continuing to conduct research in critical program areas. Consistent with the conclusions of a recent GAO review of the ITS program, we will also continue to provide deployment assistance directly to State and local agencies through technical assistance, guidance, training, and development of standards.

ITS research is already providing benefits related to improved efficiency of the surface transportation system by helping system operators monitor system performance, quickly identify and effectively respond to problems that develop, and provide timely, accurate information to travelers. Freeway management systems have increased throughput by up to 22 percent, while also increasing travel speeds and reducing accidents. Several locations utilizing ITS infrastructure freeway management systems in such states as Washington, Illinois, New York, Virginia, Minnesota, and California show reductions in total crashes from 15 percent to 50 percent. In San Antonio, Texas, reports show a 30 percent reduction in secondary crashes and a 35 percent reduction in total crashes. Based on DOT research, electronic toll collection

systems can move 200–300 percent more vehicles per lane than conventional systems.

Our fiscal year 1998 budget requests a funding level of $150 million for ITS research. This research will focus on a number of areas with high potential benefits such as advanced traffic control strategies, effective transit management techniques, and collision avoidance technologies.

It is estimated that widespread deployment of three basic crash avoidance technologies—rear-end crash warning systems, roadway departure warning systems, and lane change/merge crash avoidance systems—beginning in the next five years, could ultimately reduce crashes by 17 percent and save $26 billion per year. The results of ITS research can also be applied to allow more efficient and accurate automated safety inspections of commercial vehicles, further enhancing safety.

States are beginning to experience reductions in the cost of regulating motor carrier safety through the use of automated registration, fuel tax reporting, and weight screening processes. Such deployments can also significantly improve productivity for commercial carriers by reducing time and effort needed to prepare necessary paperwork, and can reduce the time now wasted while manual weight screening is done and manual safety inspections are performed.

ITS infrastructure consists of a series of elements, such as smart traffic signals, advanced traffic management systems, and more. This infrastructure allows the public to travel more efficiently and safely. Over the last five years we have learned that this system works best when the components are interoperable, or "can talk to one another."

In order to jump start State and local government involvement in deploying ITS in an integrated manner, consistent with standards and within the bounds of the national ITS architecture, we are proposing an incentive program. Our reauthorization proposal would authorize this ITS Deployment Incentives Initiative and provide $100 million per year to fund this effort over the life of NEXTEA. This deployment incentive program will focus on integrating existing intelligent transportation infrastructure elements in metropolitan areas, including those elements installed with other Federal-aid funds. It will also focus on installing, as well as integrating, the various elements of an intelligent transportation infrastructure for commercial vehicle projects, and projects outside metropolitan areas.

We believe that the timing of deployment is critical. At the moment, elements of the intelligent transportation infrastructure are being deployed piece by piece, with no guarantee of interoperability. State and local governments will then have to live with a stove-piped infrastructure, one in which components do not form a system and are not necessarily efficient. We believe this program gives state and local governments an incentive to cooperate with agencies, jurisdictions, and the private sector, to achieve fully integrated ITS deployment in accordance with the national ITS architecture and established ITS standards and protocols.

INNOVATION—IMPLEMENTING COMMON SENSE GOVERNMENT

Secretary Slater has emphasized common sense government and innovation as being among his top three priorities and it is reflected in our reauthorization proposal. Let me provide some specific examples:

—In our planning provisions in NEXTEA, we propose to simplify the planning factors, in order to focus States and MPO's on 7 broad goals rather than the 16 to 23 that are included in the statewide and metropolitan planning provisions of ISTEA.

—In the STP, we propose eliminating the quarterly, project-by-project certification of each state's STP projects and instead establishing an annual, program-wide approval for each state's STP program.

—Also for all projects off the NHS, we would reduce DOT oversight, replacing it with State oversight (except for environmental, labor standards, and similar laws which must remain a Federal responsibility).

—For transportation enhancements, we retain the simplification provisions in the National Highway System Designation Act of 1995—and we commit emphatically to doing everything we can administratively to carry out the letter and spirit of these provisions. In response to the NHS Act, we have already put in place provisions to allow for the use of donated funds, materials, and services as a State's match; allowed for advance payment options for cash-pressed localities; streamlined environmental documentation through the use of categorical exclusions; made changes in response to Uniform Relocation Act concerns; and are completing procedures to trim review time where historic preservation issues are involved.

—Across our entire program, we propose removing a variety of restrictions on reimbursement of State and local government costs, and eliminating requirements that State and local governments "turn in" to the Federal government revenues that they gain from Federal-aid highway projects, permitting States and localities to retain those revenues as long as they use them for title 23 purposes.
—For the Section 402 highway safety grant program, we will be expanding to all states the performance based management process begun as a pilot in fiscal years 1996 and 1997. Grant management will be simplified and states will have increased flexibility.

We are also working diligently with our partner agencies to ensure that we efficiently deliver "seamless" transportation service to our customers. In February 1996, the FHWA, FTA, NHTSA and Federal Railroad Administrators submitted a joint field restructuring proposal to former Secretary Peña. While each agency retained its existing identity and reporting relationships, renewed emphasis was placed on the spirit of intermodalism embodied in ISTEA. Headquarters and field officials of the four surface transportation modes and the Research and Special Programs Administration have been actively engaged in creating a new model—one which focuses on the complementary relationships of the surface transportation modes, as opposed to viewing them as separate and unrelated entities. The new model seeks to ensure seamless, intermodal, customer-friendly delivery processes through shared technical and administrative resources, while realizing reduced operating costs.

For example, in the planning area, one of the Department's more significant accomplishments includes the establishment of Intermodal Planning/Transportation Groups in each region which include representation from each of the surface transportation modes, RSPA, and other DOT modal administrations. Many of the regional groups also include representation from outside the Department, including the Army Corps of Engineers and the Environmental Protection Agency. These planning groups serve as vehicles for developing and overseeing agendas and carrying out specific initiatives related to transportation planning activities.

CONCLUSION

In implementing ISTEA, our efforts have focused on redefining and strengthening old partnerships and building relationships with new partners. From a program standpoint, we have emphasized the sustained economic growth that results from sound and substantial investment in transportation infrastructure, particularly the National Highway System, from programs that reduce costs to business and average citizens by enhancing highway safety, and from investment in research and technology innovation that will make our investments more efficient and effective. We look forward to working with the Congress to further the advances launched in ISTEA as our surface transportation programs are reauthorized to move us into the next century.

Thank you for the opportunity to testify today. We would be pleased to answer any questions you may have.

STATEMENT OF RICARDO MARTINEZ, M.D., ADMINISTRATOR

Senator SHELBY. Mr. Linton, do you or Dr. Martinez have any statement?

Dr. MARTINEZ. Yes, sir; I have a short statement.

Senator SHELBY. Go ahead.

Dr. MARTINEZ. Thank you, Mr. Chairman and members of the subcommittee. I appreciate the opportunity to testify today, and I appreciate your opening comments.

NHTSA is essentially a public health agency. Our goal is to prevent or lessen the consequences of motor vehicle crash injury. Our mission is to provide people with the tools they need to take responsibility for addressing injury prevention and improving safety.

We have made fairly good progress in this over the years. In the last 10 years, we have seen seatbelt use grow dramatically. We have seen drunk driving deaths drop dramatically and since 1992 have saved over 42,000 lives.

But despite this progress, things are slowing down. Our recent statistics show no room for complacency. The total number of deaths has been going down. Now it is beginning to go back up as the economy expands. Our fatality rate has been going down but has flattened in recent years. Seatbelt use has gone up and now that has flattened somewhat. Drunk driving has gone down and actually, as pointed out by Senator Lautenberg, went up last year for the first time in 10 years.

We have a lot of challenges. The second baby boom is coming. We have aging of the population. We have speeds going up on the highways. So, we have a lot of things to do to make sure that we can continue to protect people.

In 1996, over 41,500 people died on the highways and 3 million more were injured. This is a huge burden to our health care system. The economic costs to the Nation exceed $150 billion a year.

But we are poised to meet these challenges. We continue to have strong support for our activities and have built new partnerships in the States. And I want to point out that with each one of the States represented here today on the subcommittee, we have strong partnerships. We have also expanded partnerships with health care, education, and business sectors. We see a growing demand for our role and the ability to work with more partners. Our programs have been very cost effective.

We are requesting additional funding this year, 11 percent more than we received in 1997. Our top priorities are airbag safety and our budget contains an increase of $8 million for airbag work. My top priority is to get this increase and use it to improve airbag safety.

We have redone the section 402 formula based grant program to provide authorization for four new programs. No. 1 is to enhance

the alcohol-impaired driving program, and we have increased funding for that program by 60 percent. That has been a very effective incentive program. We have a new occupant protection incentive program to encourage States to increase seatbelt use, which we think is one of the most important things we can do. We have a new drug-impaired driving program as a Presidential initiative to help States enact and enforce tough laws to prevent drug-impaired driving.

We are also proposing a new State highway safety data improvement incentive grant program to become effective in 1999. One of the things we want to do is have the States and the communities take ownership of the problem by collecting data and identifying problems. We have to get States and communities able to find their problem, so we can come in and partnership as a resource to help them attack the problem. I want to point out that each one of the States represented here today have safe community programs that we started and are using this sort of approach.

We appreciate the opportunity to work with the subcommittee to improve highway safety and to answer questions in the time ahead. Thank you.

FEDERAL TRANSIT ADMINISTRATION

STATEMENT OF GORDON J. LINTON, ADMINISTRATOR

Senator SHELBY. Mr. Linton.

Mr. LINTON. Thank you very much, Mr. Chairman. I am very pleased to be here today to join with my colleagues, Dr. Martinez and Jane Garvey, in testifying on behalf of the administration's reauthorization proposal.

We at FTA believe that ISTEA works and that the proposal we are putting forward builds on the success that we have had over the last several years. We recognize that transit is a critical element in our overall transportation system and that the goal of every Federal transit program is to optimize the benefits of transit using commonsense Government and Government that costs less and does more.

These benefits that we plan to optimize include: basic mobility for millions of Americans; congestion relief that eases gridlock and makes the country more productive; and increased access to transit and other services which improve the quality of life in making our neighborhoods more livable.

We have developed our NEXTEA proposal around four key themes: flexibility, streamlining, predictability, and innovation.

FLEXIBILITY

First, flexibility. Flexibility in local decisionmaking has been one of the hallmarks of ISTEA. NEXTEA includes provisions to make the transit program even more flexible, thus further enhancing local decisionmaking.

One, we are proposing to allow urbanized areas under 200,000 in population to use all their transit funds for any eligible purpose. That is including operating assistance without limit.

More importantly, we are proposing to make preventive maintenance eligible as a capital expense, as it is now in the highway program. This change would give local transit operators the option to invest Federal funds to prolong the life of existing assets or to invest in new vehicles, facilities, and equipment. This change would also help to replace operating assistance for those systems in areas over 200,000 in population.

STREAMLINING

Second, streamlining. NEXTEA would combine some transit program categories, thus making the program simpler to understand and manage at the Federal level as well as the State and local level. Specifically, NEXTEA would combine the fixed guideway modernization and bus discretionary program into the urbanized area formula program. NEXTEA would also provide simpler and more flexible programwide definitions of eligible capital costs,

matching ratios, and grant requirements. And NEXTEA would also expand the flexibility between the urbanized, nonurbanized, and specialized formula programs.

PREDICTABILITY

Third, predictability. Under NEXTEA, a larger proportion of the transit program would go out by formula rather than on a discretionary basis. This would not only reduce uncertainty, it would also enhance the possibility of using innovative financing techniques to leverage the Federal funds. We propose to continue to fund new starts using the full funding grant agreements approach, as we have over the last several years.

In addition, NEXTEA would fund the entire transit program from the mass transit account of the highway trust fund at an authorized level of $5.1 billion per year.

INNOVATION AND WELFARE REFORM

Four, innovation. We are proposing a series of initiatives which will enhance the ability of State and local governments to provide safe and efficient transit service by focusing on new methods designed to meet new as well as old problems.

We are particularly proud of our effort in the area of welfare reform. We in the Department of Transportation, as well as across the Nation, have recognized that transit is, in fact, the to in welfare-to-work. If we are going to make a successful transition of those now on welfare into the work force, we must make sure that transportation services they need are in place, and that the local transit agencies are involved. We have included in our NEXTEA proposal a new access to jobs and training program of discretionary grants to expand opportunities to help meet that new market.

NEXTEA also proposes to continue and strengthen our research efforts. We are very proud of these programs which recently saw the rollout of the advanced technology transit bus [ATTB]. This bus would incorporate aerospace construction, accessible design, and hybrid electric propulsion in a single vehicle. The ATTB is a solid example of our defense-related technologies converted to transit use.

In closing, NEXTEA seeks to build on the success of ISTEA in meeting the President's goal of balancing the budget by 2002. NEXTEA provides substantial funding for transit, plus gives State and local decisionmakers better tools to meet the transportation challenges ahead.

I stand, Mr. Chairman and members of the committee, to answer the questions that you may propose.

Senator SHELBY. Thank you.

GAS TAX REVENUES

Ms. Garvey, Mr. Linton, Dr. Martinez, I am going to ask this question to all of you. Are you supportive of moving the 4.3 cents of gas tax revenues currently dedicated to general revenues to the highway trust fund? Ms. Garvey.

Ms. GARVEY. I hope we all give the same answer. [Laughter.]

Let me say that the administration has not been supportive in the past of moving the 4.3 cents back into the highway trust fund. The spending decisions that we make are all within the context of trying to balance the budget and reduce the deficit. I know this is an issue that Congress is going to look at and it is going to be, I know, hotly discussed through the next few months.

Senator SHELBY. Mr. Linton, is your answer the same?

Mr. LINTON. Absolutely. [Laughter.]

Senator SHELBY. Dr. Martinez.

Dr. MARTINEZ. Yes, sir. [Laughter.]

Senator SHELBY. I believe you all had a breakfast meeting. [Laughter.]

Do you oppose moving the transportation funds off budget? Ms. Garvey.

Ms. GARVEY. The answer is essentially the same, that the administration has not in the past supported that because of again the implications for the budget and for reducing the deficit and balancing the budget.

Senator SHELBY. The same for you, Mr. Linton?

Mr. LINTON. Ditto, Mr. Chairman.

Dr. MARTINEZ. Yes, sir.

Senator SHELBY. You all had two breakfast meetings. [Laughter.]

Ms. GARVEY. Mr. Chairman, thank you very much for leading with me. [Laughter.]

Senator SHELBY. Thank you. You are doing well on behalf of the administration thus far.

Senator BYRD. They had chicken for breakfast. [Laughter.]

Senator SHELBY. Chicken for breakfast, Senator Byrd says. Probably had a lot of it.

TRANSIT FUNDING UNDER NEXTEA

Mr. Linton, the transit program is the only major component of the administration's NEXTEA bill whose overall funding authorization was cut as compared to ISTEA. Specifically transit was cut $1 billion, from $31.5 billion to $30.5 billion, over the 6 years. Is the administration sending Congress a signal that transit is less of a priority than it was under ISTEA?

Mr. LINTON. Mr. Chairman, let me just say that, considering this issue of fairness, I think transit will, in fact, get its fair share under the NEXTEA proposal. Although it may appear that transit is getting a reduction, actually under NEXTEA transit will get a 4 percent higher amount than it received under ISTEA. After you adjust for the—there is a bubble that was placed in the authorization ceiling in the last year that makes it appear as if transit gets less funding.

Senator SHELBY. How large a bubble? Do you know or do you want to furnish that for the record?

Mr. LINTON. I can submit that to you for the record, but it is clear that the bubble in the authorization ceiling makes it appear as if there is less money for transit. But it is clear I believe that the NEXTEA will provide a 4 percent higher allocation for transit than was the case under ISTEA.

[The information follows:]

ISTEA authorized $5.1 billion each year for fiscal year 1993 through fiscal year 1996, and then jumps to $7.2 billion in fiscal year 1997. This is a "bubble" of $2.1 billion in fiscal year 1997. Without this "bubble", the total ISTEA authorization would have been $29.4 billion. This when compared to the $30.5 billion proposed in NEXTEA would mean a 4 percent increase.

NEW STARTS

Senator SHELBY. Mr. Linton, currently there are 13 transit new starts with full funding grant agreements and 2 more, Sacramento and San Francisco BART, awaiting FFGA's. If the two additional projects receive their FFGA's, for a total of 15 projects, please describe for the committee how much new start funding would be available for other projects under the $634 million level proposed in the President's budget. How much would be available if new starts were to be funded at the high authorization levels proposed in NEXTEA?

Mr. LINTON. Our authorization level for the NEXTEA proposal is $5.8 billion in budget authority. If we look at our commitments to the existing full funding grant agreements, we would have assumed $3.7 billion of that. That will provide about $2 billion additional available under the authorization of NEXTEA for additional projects.

Senator SHELBY. But that would really cripple new starts in that area, would it not, if all these were fully funded that you have on the board.

Mr. LINTON. Well, it will mean that it will be difficult to meet all the demands in the country for new start projects, but clearly we have followed the path that was established in ISTEA in terms of authorizing the projects that we worked on, as well as the earmarks by the Congress. That has led us to the $3.7 billion figure that we will be working with into NEXTEA.

Senator SHELBY. Mr. Linton, I understand that yesterday, April 9, you wrote to the chairman of the Los Angeles County Metropolitan Transit Authority and essentially informed him that you plan to rewrite the full funding grant agreement regarding the troubled Los Angeles rail system. Evidently you found serious deficiencies and questionable assumptions in the recovery plan proposed by Los Angeles. Your letter states—and I quote:

> We're incredulous that despite the engineering and financial difficulties on the construction already underway, the board is contemplating even more requests to the Congress about various costly extensions to your rail system.

If you rewrite the FFGA, the grant, for Los Angeles, will you free up more contingent commitment authority to be used for other FFGA's, other projects?

Mr. LINTON. I am amazed how quickly my letters get around.

Senator SHELBY. They came over the transom. [Laughter.]

Mr. LINTON. Let me just say, Mr. Chairman, that quite frankly we have had some concerns over the years with the project in Los Angeles. We did send a letter, as you indicated, to the chairman of the board, and we did call for rewriting the full funding grant agreement.

However, in our rewrite of the full funding grant agreement, what we are attempting to do is segment MOS–3 into three separate legs, primarily for administrative funding/programmatic reasons so that we can better monitor how much the Federal share is

committed to each one of the legs and to also make sure that we can monitor how the local share is being provided by Los Angeles.

However, in that rewrite of the FFGA, we do not see where there will be any additional contract authority available because the three segments of the project will still be called for in MOS–3.

Senator SHELBY. Senator Lautenberg.

HIGHWAY APPORTIONMENT FORMULAS

Senator LAUTENBERG. Thank you, Mr. Chairman.

As we all are aware, the challenge to existing formulas is developing, and one of the things that I want to point out is that though we talk about a return of dollars to particular States based on their contribution, I think if we extend that proposition, we have got to look at what return we get overall from the Federal Government based on contributions that we make. I would quickly point out that unfortunately New Jersey gets 68 cents on the dollar for all Federal programs, 68 cents on the dollar that we send down to Washington. So, we will have to look very carefully at this change in formula that is contemplated.

Now, I would ask you, given our need to conserve fossil fuels and the direct link between gas consumption and pollution, why do you choose to continue the practice of distribution of large sums of highway money to States based on their consumption of gasoline?

Ms. GARVEY. I think the formula is the most difficult issue that we face. It is certainly among the most difficult issues.

In the area of the STP program, we have included population as one of the factors. VMT is still a factor. You are right, Senator. And that seemed to be from our perspective one of the best ways to at least gain some equity.

Senator LAUTENBERG. Because I think realistically what it does is it penalizes those who choose to invest in energy efficient systems and trains, buses, et cetera, at their peril.

Ms. Garvey, in examination of the 25 busiest airports in the United States, 4 of them are used regularly by my constituents. That includes Newark, La Guardia, Kennedy, and Philadelphia. These four airports contribute a very high percentage of the ticket tax revenues that go to the airport grants program.

Well, do you think we should guarantee each airport a grant equal to 90 percent of the revenues that they contribute toward grant programs no matter what their needs are? You are just getting ready for a whole series of questions I know. [Laughter.]

I want to give you some practice.

Ms. GARVEY. I was not prepared for an airport question, Senator. [Laughter.]

If you give me overnight, Could I get back to you tomorrow on that one?

Senator LAUTENBERG. I am willing to do that because it is a little bit out of left field.

Senator SHELBY. Senator Lautenberg, if you would yield. I assure you we will get together, the two of us, and put together a hearing if you would like that, on this subject.

Senator LAUTENBERG. Excellent. Thank you very much, Mr. Chairman. You see the South and North come together here very quickly. [Laughter.]

And I like that. I have found that to be with Chairman Shelby. We work together on other committees too.

Well, if we distribute Federal airports—funds, rather—airports. Boy, that would be a good subject—based on needs rather than contribution, again why recommend that we do the reverse when it comes to distributing Federal highway funds? It is fairly simple, is it not? We will talk about that at a later date too I assume.

ITS TECHNOLOGY

Up through fiscal year 1997, we have provided almost $1.3 billion in funding to explore and apply new intelligent transportation systems [ITS]. These technologies are expected to improve the performance of roads and transit systems and increase capacity while protecting or improving safety.

Based on your most recent evaluation of this program, can you point to any concrete benefits that the Nation's taxpayers have received from this investment?

Ms. GARVEY. I think there are several areas. Starting with safety—and Dr. Martinez may want to talk about this more specifically, but in the area of safety, I think ITS has been enormously successful. One of the lessons that we are hearing and one of the observations that we have made in looking at the operational tests and also looking at the GAO report is that integration is key. When you look at ITS, it is most successful when it is integrated. That is really the emphasis that we are focusing on as we look at NEXTEA. Where can we deploy ITS in an integrated fashion to improve safety, to improve capacity. I think managing the systems we have built, ITS is key for that.

There are some applications even in the rural areas. We have a mayday system that works very well by identifying where there are accidents using ITS. Tourist information is another area that both rural and metropolitan areas find ITS very successful.

So, integration is important, training of State DOT's——

Senator LAUTENBERG. By integration, you are saying safety, efficiency bring forward the elements, or are you talking about a system that has an automobile link to a central data system that includes not only perhaps mapping, emergency calling? What is the——

Ms. GARVEY. The second part of your response, Senator, is the emphasis that we see or the area that has the most potential.

Dr. Martinez.

Dr. MARTINEZ. We look at three phases of a crash: avoiding the crash to begin with, what happens during the crash, which is our vehicle standards, and after the crash which is why we actually have such a strong role in EMS. But interestingly enough, after the crash also has a role with ITS.

The biggest bang for the buck from our perspective with ITS is the crash avoidance itself. Ninety percent of these crashes are human factors related, not vehicle related. So, therefore, we are seeing programs come on board the car to help with hazard warning, control of the vehicle, fatigue issues, et cetera. Some of them actually are already coming into the marketplace. We see that as the fastest way to get ITS into the marketplace as the infrastruc-

ture is being built. We see a huge payoff with ITS in terms of benefits for the dollars spent.

ITS ROLE IN TRANSIT

Mr. LINTON. If I may add, I think that ITS probably has the most applications in the transit industry, particularly in the areas of fleet management. We see a number of opportunities there to reap savings to our systems as we look at issues such as welfare to work and trying to create opportunities to move people from job sites to training sites as well as to their homes.

We see opportunities for things such as route deviation where you can use the ITS technology to take buses off route, to pick individuals up when they are not on a fixed-route system.

We see its uses in paratransit where you need to have an individual response to individuals.

We also see it in customer service. It enables customers to know what time vehicles are arriving so that they can better plan their time and their day.

ITS technology is valuable in emergency response by identifying where vehicles are located in case of accidents. It also provides information when there are security incidents on buses and rail vehicles; the ITS control center is used to get that information to police and other emergency personnel. So, it is very effective in transit.

Senator LAUTENBERG. Thank you very much, Mr. Chairman.

Senator SHELBY. Senator Byrd.

ZERO TOLERANCE LAW

Senator BYRD. Dr. Martinez, the zero tolerance provision, which I included in the National Highway System Act, will implement sanctions on States' Federal highway funds beginning in October 1999 if they do not pass a law requiring that youths under the age of 21 be prosecuted for drunk driving if they have an amount of alcohol above .02 in their system. At the time we passed that law, about 24 States had this policy in place.

What can you report to this subcommittee regarding the other 26 States and how many of them have implemented a zero tolerance law since passage of the National Highway System Act?

Dr. MARTINEZ. Well, that is a success, I think, of zero tolerance. It was accompanied with a Presidential radio address that talked about how simple it was, the concept that if you cannot drink under 21, you should not be able to have any alcohol in your system under age 21. I can tell you that as of June 10, 1995, 13 States have enacted zero tolerance laws, 13 additional States added to the 24 that already had that law.

Senator BYRD. What do you see for those that have not implemented this?

Dr. MARTINEZ. Well, we have a very large coalition that is working with the States to have them move forward. There are other States who have discussions under way I believe right now. I believe at least three States are looking to change their law in order to come into compliance with that zero tolerance provision. Our hope is that all States have zero tolerance in the next few years and that it becomes the law of the land.

Senator BYRD. Are you pushing hard for that?

Dr. MARTINEZ. Yes, sir.

Senator BYRD. Or are you just hoping?

Dr. MARTINEZ. We are pushing hard. We think that seatbelt use and drunk driving are two very important issues. We have a big focus not on just drunk driving but drunk driving and youth, and it is not just a matter of talking about zero tolerance, but the ability to enforce those laws. We are working also with the judicial system and with law enforcement because one of the problems we find, for example, in the younger groups under 21 that cannot get their alcohol as readily in bars and restaurants, what they do is purchase it at convenience stores or have someone else purchase it. They consume it in other places such as parks or river fronts, et cetera. So, you have to have special patrols for that.

I think that we are seeing, not only the continuation of efforts from us with our coalitions built throughout the States to pass the laws, but also to make sure those laws are seen by the youth as being effective, and they will be complied with.

Senator BYRD. Do you anticipate that any of the States will not be in compliance beginning in October 1999?

Dr. MARTINEZ. I think that is a distinct possibility, but it is something that we do not hope will happen. What we have done is create a program called Partners in Progress to not only expand the partnership but also to find ways to move this into the States. Our hope is that most all the States—or all the States would address this issue and respond to this issue within the next 2 years.

Senator BYRD. What are your impressions as to how the law has aided our efforts to minimize drunk driving by our Nation's youth?

Dr. MARTINEZ. We have found that zero tolerance laws are effective in decreasing fatalities and decreasing crashes in youth. It sends a very strong message. Youth are the highest risk drivers. They also have crashes at lower BAC. So, it is a triple win in our opinion. We find variation in the amount that it decreases. It has decreased fatalities as much as 16 percent in some places. We are excited about that.

We also know that just raising the age to 21 has dropped deaths by 50 percent over the last 10 years in that age group. We think this adds a significant margin of safety to that young, inexperienced driver.

AGGRESSIVE DRIVING

Senator BYRD. Does your administration have any ideas or proposals that would promote zero tolerance of aggressive reckless driving?

Dr. MARTINEZ. Yes, sir, we do. That is an area of tremendous concern for us. Just in local surveys in this area, we found that people are more concerned about aggressive driving than they are about drunk driving, because they see it so much more often. They can see that on the highway every day going back and forth to work, and it is certainly an area of anxiety.

What we are doing is working with 21 States right now in order to increase awareness, and at the same time increase the enforcement. One of the areas we find of greatest benefit is to increase or have highly visible law enforcement for aggressive driving.

One of the concerns we have is that over the last 10 years we have seen an increase in traffic on the highways by 35 percent. Yet, we have seen no commensurate increases in law enforcement.

We have programs ongoing in four or five States to look at how they are going after aggressive driving and evaluating those and then bringing those to other States in our role of trying to find best practices. But it is an area of extreme importance for us.

Senator BYRD. An aggressive driver may be drinking.

Dr. MARTINEZ. Absolutely and not wearing their seatbelt and following too closely and many other things. High risk behaviors link.

The other thing I will point out is that we found that by going after aggressive drivers, you also pick up a lot of other criminal behavior. I think North Carolina with their Click It or Ticket campaign has shown a tremendous correlation between people with outstanding arrest warrants, lack of seatbelt use, and other behavior just from going after those without seatbelts.

Senator BYRD. Should we consider legislation to encourage States to toughen their laws and their enforcement of those laws to vigorously prosecute these reckless, aggressive drivers?

Dr. MARTINEZ. We certainly think that is an option. What we have done right now is to begin the research aspect on it, on what we need to do to attack the problem.

One of the other areas I am concerned about is whether or not the sanctions are strong enough. Are we giving the tools to the law enforcement and to the judicial system to be able to prosecute and send the right message to people? So, I would expect in the next year or so, as we finish up our studies and our evaluations, we will be able to come forward with some very solid recommendations.

Senator BYRD. Mr. Chairman, I see my time is up. Thank you.

Senator SHELBY. Senator Faircloth.

USE OF ITS TECHNOLOGY IN THE TRUCKING INDUSTRY

Senator FAIRCLOTH. Thank you, Mr. Chairman.

Ms. Garvey, I noticed that the NEXTEA, the administration's reauthorization proposal, is committed to the promotion of intelligent transportation systems. Amongst other tools, this is the transponders on trucks to identify where they are, which can let them move nationwide and bypass weigh stations. If they have been weighed in Virginia, for example, they do not have to be weighed in North Carolina.

You are encouraging the use of these systems. Is that right?

Ms. GARVEY. For safety reasons, yes. Yes.

Senator FAIRCLOTH. All right. The companies put in this expensive system, the transportation, the trucking companies, and now you are attempting to use them as an enforcement tool. Is that not in a direct opposition to encouraging them for safety, encouraging them to put them in? And then you turn around and use it as an enforcement tool, and the trucking company that does not have it simply does not come under the enforcement rule. The one that does have does. If I ever saw a reason not to put one in, you are giving it to them. Besides that, you say you are encouraging them to do it.

Ms. GARVEY. We are encouraging them through some incentive programs for safety reasons, and Senator, I think the point you

raise in terms of enforcement, could it be abused, for example—we are working very closely with the trucking industry to establish some guidelines that works for them and works for us as well. A number of the trucking companies that we have worked with, obviously, are also very, very concerned with the safety benefits of some of the technology that we are suggesting.

Senator FAIRCLOTH. You are missing the point. You say that you are encouraging the use of ITS for safety, but when you subpoena records, it is a strong disincentive to all companies. We can't lose focus of the need for safety and these subpoenas don't help.

Ms. GARVEY. Yes, sir.

Senator FAIRCLOTH. And then you turn right around and subpoena the records. So, the trucking companies are abandoning the whole system. Now, which way are you headed?

Ms. GARVEY. We are heading toward using it for safety and working with the trucking companies to establish the appropriate guidelines for enforcement.

Senator FAIRCLOTH. What are trucking companies telling you?

Ms. GARVEY. Mr. George Regal, from our motor carriers office is here, who has worked very closely with ATA and with a number of the trucking companies, I would like for him to respond more directly.

Mr. REAGLE. Senator, I think in the past our enforcement people have in some cases been overzealous.

I think you have two things happening. You have technology emerging which we see can really help us with safety and the companies do as well.

Senator FAIRCLOTH. Who are you with?

Mr. REAGLE. I am with the Office of Motor Carriers under Ms. Garvey.

Senator FAIRCLOTH. OK, you are with the——

Ms. GARVEY. Federal Highway.

Mr. REAGLE. And so I think you have two things emerging. You have companies using technology for safety which is a plus. You have our enforcement people who in some cases—and I know the particular case you are talking about—where they in fact may have been overzealous.

What we have tried to do—we have a draft proposal now that I would like to outline for you. One, it would create incentives for companies to use this technology by reducing the paperwork burden. Now, that was not the case with the specific case you are talking about.

Senator FAIRCLOTH. Well, which one am I talking about?

Mr. REAGLE. Well, I think there was a case in North Carolina where we subpoenaed records.

Senator FAIRCLOTH. How about the Ohio one?

Mr. REAGLE. In the past, because we have not had a policy, I believe in some cases we may have been overzealous.

Senator FAIRCLOTH. What does overzealous mean?

Mr. REAGLE. Well, where we have gone in and instead of working with the company to improve their safety management oversight, we have just subpoenaed records and done those kinds of things.

Senator FAIRCLOTH. Throwing your weight around.

Mr. REAGLE. Well, that may be the right term. Yes, sir.

Senator FAIRCLOTH. All right, go ahead.

Mr. REAGLE. So, what we are trying to do is, one, create incentives for companies to use technology by in turn reducing their paperwork burden.

Two—and I think this will alleviate the problem—the methodology we use to go audit a company in the first place has been changed, and now almost exclusively, we would go into companies whose accident rates were above the average. So, we would be visiting companies who in our view would be bad carriers.

And two things could occur. If one of those bad carriers, in fact, did not have technology and our safety investigator went in, one of the suggestions he would make would be you might want to acquire technology to help you have a better safety management oversight system. Where the rubber sort of hits the road is that if we go into a company that has poor results, but it also has technology, we would want to look at that kind of technology and see how it is being used for safety purposes.

I think this policy will really go a long way in alleviating the problem you have talked about, sir.

Senator FAIRCLOTH. All right. My time is about out. I will pass it on.

Senator SHELBY. Thank you.

Senator Kohl.

NEXTEA FORMULAS

Senator KOHL. Thank you very much, Mr. Chairman.

Ms. Garvey, as you may know, my State of Wisconsin contributes more to the highway trust fund than we receive. Under ISTEA, Wisconsin and other donor States, as you know, have relied upon equity adjustments to address this problem. For example, in January of this year, Wisconsin received a one-time adjustment to compensate for its poor return in previous years. While we certainly appreciate the help, 1 good year out of 6 is still not acceptable. In reauthorization, we need to put more fairness in ISTEA's core program formulas.

NEXTEA does not provide the kind of comprehensive formula reform that I am advocating. So, how do your proposals ensure that States like my own can count on equity promises being kept every year throughout the life of the bill?

Ms. GARVEY. As I mentioned earlier, Senator, I do believe that the formula issue, as you have suggested, is among the most difficult.

What we have done or tried to do certainly with our formulas is to strike a balance among the many competing needs. We have updated the formulas and the factors that are used. For example, population factors are the most current and will be updated annually as will the contributions to the highway trust fund.

In a couple of categories, we left the formulas as is. The bridge category and interstate maintenance are left as is. The NHS we have changed somewhat and also STP.

But I think you are absolutely right. Trying to find the right balance and strike the right balance is very challenging.

We are certainly willing. We have put our formulas forward, tried to address all the needs across the Nation, but we are cer-

tainly willing to work with Congress and individual Members to try to formulate an even better formula if there is one.

Senator KOHL. OK.

CHANGES IN DEFINITION OF CAPITAL

Administrator Linton, NEXTEA proposes changes to the primary transit programs including rolling discretionary accounts into formula, phasing out operating assistance, and expanding use of capital assistance, all at a time when welfare reform will only increase demands for alternative modes of transportation. Although you proposed a separate welfare-to-work program, the transit changes appear to be a repackaging of same much needed funds.

Do you feel that the current transit formulas reflect the emerging needs of urbanized areas of all sizes throughout the country, and how do your proposed structural changes help transit systems cope with declining resources?

Mr. LINTON. Thank you very much. Actually we think the proposed changes that we are making in our formula funds and our structuring of our program will enhance transportation services available throughout the Nation, as well as urban centers. We are going to provide more flexibility, specifically by changing the definition of capital to include preventive maintenance. As I indicated earlier in my remarks, that definition will make our program similar to Federal Highway's.

I will give you an example. If you paint a bus today, that is considered operating cost. If you paint a bridge, that is considered capital. And there are a number of examples of that. If you operate a traffic control center, that is considered capital. If you operate a similar center on the transit side, it is considered operating.

So, what we are trying to do is change the definition of capital so that it is consistent with the highway programs, so we will have similar definition across our surface transportation programs.

We also think that by changing the definition and moving our bus discretionary program into a formula fund, you allow systems to have a steady stream of revenues on a consistent basis. We would be able to formulize those funds and, therefore, transit operators would have those funds readily available for innovative financing and be able to leverage funds from other financial sources.

We think this proposal provides more flexibility, more predictability, and, therefore, will aid those local transit systems in better meeting local needs.

WELFARE REFORM AND COORDINATION BETWEEN AGENCIES

Senator KOHL. Thank you.

The administration has proposed an initiative to help States and localities move people off welfare into jobs. We are pleased that you have given special attention to transportation as an integral aspect of welfare reform.

My State of Wisconsin has been a leader in welfare reform initiatives, as you know, and next month the State department of transportation and local transit authorities are scheduled to conclude a comprehensive study on transportation components of welfare reform. When released, I would like to share the results with you.

For today I am encouraging you to make access to jobs responsive to States and localities that have already begun tackling this issue.

My question is, To what extent do you perceive performance under other welfare reform initiatives playing a role in this program?

Mr. LINTON. Well, we are very excited about the Access to Jobs and Training Program that you mentioned, but what we are also doing is working with programs such as Bridges to Work which is a program that is funded under HUD and which we were involved in at the very beginning. Over the last several years, we have been doing new initiatives which we call livable communities in which we have been doing things like incorporating training facilities, day care centers, et cetera, within the same locations of transit stations.

What we are trying to do across the Government is, working with our other partners, like the Department of Labor and the Department of Health and Human Services, to make sure that we have coordinated services to meet these emerging needs that will develop as a result of people moving from welfare to work.

So, we are trying to work across Departments and also to take that across-Department approach to State governments. We are working with the National Governors Association through a grant to allow them to begin to work with their State departments of labor, transportation, and welfare so that they can also move the resources that we provide on the Federal level to more effectively target them on the State level as well.

Senator KOHL. Thank you.

My time is up, Mr. Chairman.

Senator SHELBY. Senator Bennett.

UTAH I–15 PROJECT

Senator BENNETT. Thank you, Mr. Chairman. I want to take the opportunity to thank Ms. Garvey and Mr. Linton for the personal interest that they have taken in Utah. They have been to the State of Utah. They have taken a look at some of our problems there. Like everyone, we think our problems are unique. So, we are grateful that they are willing to take a look at it.

I want to touch on two Utah issues and get some comments and reactions from them as a result of their visit there.

The first one is the Olympics. I think we have finally recognized in this Nation that with the Olympics having achieved the level of international interest and complexity that they have, that a city can no longer host the Olympics. A State can no longer host the Olympics. A nation must be involved in hosting the Olympics, and as we learned in Atlanta, many of our problems relating to hosting the Olympics are transportation problems.

So, these Administrators, Mr. Chairman, have been to Utah to deal with preliminary planning on the Olympics and we are very grateful for their willingness to do that.

And we would appreciate any comment they might have about the activity going forward in the House that would indicate that any American city—this is not Utah-specific—that ends up as a host city for the Olympics would have flexibility under ISTEA legis-

lation to have transportation support coming from the Federal Government.

And then to get the second question down so that you can be thinking about it while answering the first, I understand that the rebuilding of Interstate 15 along the western front of the Wasatch Mountains, Salt Lake County in Utah, Salt Lake County, Utah County, Davis County, and so on, is the largest design-build project ever undertaken and that DOT is watching this very closely to see how it works out on the assumption that if we get what we think we are going to get, you will learn things that will allow you to save substantial sums when faced with similar design-build opportunities in other places.

Could you comment on both of those rather parochial interests of mine?

UTAH DESIGN-BUILD

Mr. LINTON. Sure, Senator. Let me start and I will leave the design-build on I–15 to Jane Garvey, but I can talk a little bit about design-build in transit.

Let me just say, Senator, I will be leaving here about 6 o'clock to once again go to Utah. I will be traveling there this evening. We will have a ground breaking tomorrow for your light rail system, as well as announcement of additional resources for bus fleet expansion from the current 1997 grant.

Senator BENNETT. If I could just interrupt you, you do remind me I have the same interest the chairman has with respect to full funding grant agreements and what would happen to diluting existing ones. So, when you are out there looking at our program and cutting the ribbon for it, keep that in mind.

OLYMPICS

Mr. LINTON. We have no desire or plan to dilute your full funding grant agreements. Let me be clear about that right now.

But let me just say that I will also be meeting with members of the Olympic committee as well as Mayor Cordini tomorrow and looking at continued efforts on our part to work with them as they pursue the implementation of the 2002 Olympic games.

We have learned a lot from Atlanta. We have learned that Olympics is a major national event. It requires additional resources, but it also provides opportunities for the Nation in terms of putting our Nation and our Nation's cities on front stage, allowing us to benefit from that event by increasing business opportunities and increasing tourism. So, as a result of that, we think it is more than just a local event. It is a national event.

However, that means there has to be a partnership, a partnership between private providers who the Olympic committees generally are, and State and local government, as well as Federal Government. We think the reauthorization proposal does give some attention to the significance and the uniqueness of the Olympics. And many of our cities around the country are looking forward to competitively competing for Olympic games in the years to come and they are looking for some flexibility within the reauthorization that will allow us to work with them as better partners.

Senator BENNETT. Thank you.

Ms. GARVEY. Very quickly. I–15 is the largest design-build, and we are watching it very closely. We are greatly encouraged by the creativity that I think Utah's DOT has brought to this issue, and we will learn a lot both in terms of new ways of contracting, innovative contracting, financing—we are working very closely with Utah's DOT to think of new ways to finance this project—and also streamlining some of the Federal processes. And I was reminded of this when the chairman raised some of the comments earlier, that we really need to look at ways to streamline and to be more efficient.

In a project that is very large and complex, we were able to get the environmental work done, very quickly and it is because people came around the table, all the Federal agencies, the State agencies, and really hammered out some agreements and some understandings very early on in the process. So, I think those are the lessons that we can apply to other projects as well.

While design-build may not be the answer for every project, it certainly is useful for large and interesting complex projects like this one.

Thank you.

Senator BENNETT. Thank you.

Senator SHELBY. Senator Murray.

FERRYBOAT FUNDING

Senator MURRAY. Well, thank you, Mr. Chairman, and let me thank you too, Ms. Garvey, for the work you have done within my home State of Washington. You have really been a leader in innovative financing and helping us finding some solutions to our infrastructure problems, and we appreciate it.

One concern that has been voiced by many of my constituents is the loss of the ferry fund. This is a very small source of funding but it is invaluable to my State and to many of the coastal States as well. We kind of see the water in my home State as an extension of the highway system, and, in fact, there are 24 million passengers who travel by ferry every year in my home State, many of them from their home to their job.

Can you share with us what the administration's reason is for eliminating this fund and possible alternatives for these commuters?

Ms. GARVEY. That was a difficult decision and discussion within the administration, and it was really an effort to scale back on some of the number of discretionary programs. But I know you are absolutely right. Your State has done a wonderful job in addressing water transportation as a key component.

The eligibility of STP has been expanded and a number of those projects can be funded through the STP program which will be significantly larger under NEXTEA. And again, that increased flexibility will give the State an option to choose water transportation just as they might choose highway or other modes of transportation as well under the STP program.

PUGET SOUND REGIONAL TRANSIT PLAN

Senator MURRAY. OK, I appreciate that. I would like to continue to work with you.

I believe you are aware of the Puget Sound regional transit plan that was passed by voters in my State overwhelmingly provides a 50–50 funding match and it mixes commuter rail, HOV lanes, and express bus service. I know you are working through a backlog of transit projects. Can you give me an idea of what kind of chance this stands under the NEXTEA plan?

Mr. LINTON. Well, as we stated earlier, we do have an authorization level under NEXTEA of about $5.8 billion and about $3.7 billion of that will be absorbed by existing programs. I have had a chance to meet with many of the supporters from your area. My regional office and I are going to be working very closely with them in looking at the major opportunities that will come about as a result of the passing of your local tax initiative.

I have been impressed with the corporate and business involvement in the projects, and we are looking to work with them to see how we can move this through as we go through each stage of the project. But I am very impressed with the broad based support, including support from the corporate sector, and with the local initiative itself. I think it is a marvelous model for how we can develop projects in the country.

Senator MURRAY. And very supported. So, I look forward to working with you on that.

Secretary Slater is going to be in Seattle this Monday. He is looking at the fast rail corridor that is going to go through the heart of Washington State. This is an exciting project, much needed for our economy, but it also brings some problems with it. I wanted to ask you for your thoughts on some innovative financing that will help us supplement grade separation projects and other challenges we face as this goes into place.

Ms. GARVEY. We certainly would be very happy to work with you. We have a great innovative financing team at Federal Highway. It may be possible to use some of the CMAQ funds to seed or to act as a loan. We can certainly look at a number of proposals with you. State infrastructure banks is another possibility. Washington has some good and interesting ideas in that area as well.

Senator MURRAY. OK, great. I look forward to working with you.

CMAQ FLEXIBILITY

One final question. I think we all recognize that safety is a priority for any piece of legislation, and I have been working with seven different communities around the Olympic Peninsula in my home State. We are trying to expand recreational opportunities in an area that is also very reliant on our roads for commerce.

Essentially what is happening is our logging trucks and our cyclists have been debating who is going to get the roads in that region, and we have had a number of tragedies that have resulted because of that.

We have previously used scenic byway funding to expand some of our road shoulders, but that funding is very limited and we have 360 miles of very dangerous highway around the Olympic Peninsula right now.

Can you comment on the flexibility of CMAQ funding, enhancements, or other resources that we might look to in the future for this project?

Ms. GARVEY. Both the CMAQ and the transportation enhancement are increased under the President's proposal. That may be good news for projects like that.

Senator MURRAY. And there will be flexibility within that too?

Ms. GARVEY. Yes, absolutely.

Senator MURRAY. OK. I appreciate it.

Ms. GARVEY. Thank you, Senator.

Senator SHELBY. Senator Byrd, do you have any second round questions?

APPALACHIAN CORRIDORS

Senator BYRD. I have proposed that States with Appalachian corridors that remain to be completed be allowed to draw from the highway trust fund on the basis of contract authority so that those States are not dependent upon appropriations from the general fund which appear as demonstration projects.

It seems to me that if we are going to emphasize safety, we should keep in mind that in these 13 States of Appalachia, 24 percent of the corridors remain to be completed. In West Virginia, 26 percent has not yet been constructed. So, West Virginia is behind the region.

I have noted that some of these roads in my State are among the most dangerous and produce more accidents and fatalities than any other highways. It seems to me that if we really want to improve the overall safety of drivers, we ought to work with a will in completing the construction of these corridors.

Do you have any comment?

Ms. GARVEY. Senator, I think your point about the need to address safety through the infrastructure investments along the corridor that you are speaking about is absolutely right on target. I think it is also true for a number of other rural roads as well and it is why the administration has really felt a commitment to the Appalachian corridor and obviously previous administrations as well. I agree wholeheartedly.

APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM

Senator BYRD. Some weeks ago the chairman of a committee—we have rules which preclude our naming names, although some Members disregard the rules, but the chairman of a certain committee held a press conference where he identified dozens of Federal programs as corporate welfare, and one of those programs was the Appalachian Development Highway System.

How can the Appalachian Development Highway System be regarded as corporate welfare in your estimation?

Ms. GARVEY. I would not describe it that way.

Senator BYRD. Pardon me?

Ms. GARVEY. I would not describe it that way, Senator. I think the points that you made earlier about the need to improve the highway both for safety reasons as well as even economic development reasons are positions that the administration would share.

Senator BYRD. You see, in West Virginia we cannot resort—I wish we could—to mass transit. We cannot have these high-speed rail systems, and we cannot depend upon aviation and airport grants. We have to depend upon highways. That is all we have. So,

I think it is very important from the standpoint of safety if for no other reason that we finish construction of the Appalachian Highway.

Corridor L, for example, runs from Beckley in Raleigh County, southern West Virginia, and joins up with I–79 around Sutton. Tourists and travelers from Canada and from the Northern States and from the Southern States use this corridor, and it has been two-lane, beautifully scenic. Two lanes. Very dangerous. Very dangerous. There have been a lot of fatalities on it.

First of all, I have assisted in completion of the construction of that highway, at least in appropriating all of the Federal funds under a matching system that would be required to finish it. Now, that would improve the safety of driving on the highways for out-of-State drivers, as well as for in-State drivers.

It seems to me if we would press harder to complete these systems—it is not easy to appropriate moneys for construction of highway corridors. It has been becoming more difficult all the time. So, that is why I suggested to the President that we initiate a program whereby these corridor States can, through contract authority, get money from the trust fund which would not compete with their other moneys that they ordinarily get through other formulas and so on so that those highways can be completed.

The people in Appalachia were promised these corridors over 30 years ago. I was around as I was around when we initiated the Interstate System.

The Senator from Alaska was here a little earlier talking about the needs in Alaska. I am the only remaining U.S. Senator who voted to admit Alaska into the Union. So, I have seen the need for this improvement of our way of funding the construction of corridors, leaving aside the economic impact that such completion would have, just talking about safety only.

I hope that we will redouble our efforts to help to see the completion of these corridors in these 13 States.

Now, if we want to really mean what we say, we ought to forget all this business about a tax cut. Forget it. It is no time to cut taxes. Of course, it is something I like to vote for. I have been voting for over 50 years, and that is about the easiest vote I have ever cast is a vote to cut taxes. But it is folly for the administration or for the other party to advocate a cut in taxes. I know it has a great political appeal out there, but we cannot talk out of both sides of our mouth and be believed and be seen as having any integrity. This is no time to cut taxes.

That money ought to be put on infrastructure, building up our country's infrastructure, so that we can compete in world markets, so that our children, our future citizens, will have an infrastructure that will enable them to improve their way of living and to increase the opportunities for jobs.

So, I know this is not in your grade level, but I hope the President and others will hear what at least one Senator thinks. It is absolutely folly to talk about cutting taxes at this period. Our unemployment is the lowest it has been in a long time. If we are not going to use the money that would otherwise go to pay for a tax cut, if we are not going to use that to lower our deficits, at least put it into infrastructure. I can think of no better way to spend it.

So, I am glad to hear you say that you think that completing the construction of these highways, making them four lanes and divided would be one of the foremost ways that we could advocate when it comes to improving safety.

My time is up.

Senator SHELBY. Senator Faircloth.

Senator FAIRCLOTH. Thank you, Mr. Chairman.

Senator Byrd, I was just wondering, did Strom vote not to let Alaska in?

Senator BYRD. Well, you know, I do not like to talk about somebody else's voting record. [Laughter.]

I can only tell you that this Senator is the only Senator who is still around who voted to admit Alaska and Hawaii into the Union. So, you will have to figure for yourself the answer to your question. [Laughter.]

Senator SHELBY. I think the Senator from North Carolina figured it out the first time. [Laughter.]

INTERSTATE REIMBURSEMENT COSTS

Senator FAIRCLOTH. Ms. Garvey, ISTEA sent $3.6 billion to New York, New Jersey, Pennsylvania and certain other States. It was supposedly to pay them for having built the New Jersey Turnpike, the New York Thruway, the Pennsylvania Turnpike, and some other preinterstate roads. I thought it was the most ridiculous and ludicrous thing I had ever heard of in my life.

Now I see you are sending them $6 billion more in NEXTEA. Will you tell me why?

Ms. GARVEY. I am going to turn to Jack Basso who is here with us who has developed some of the formulas and worked with Bud Wright.

Senator FAIRCLOTH. I am sure he is looking forward to it.

Ms. GARVEY. I bet he is. Do you think so? [Laughter.]

Sometimes it helps to be in charge and you can ask those guys to help you out a little bit.

Senator SHELBY. If the Senator from North Carolina would yield. When you are answering that, could you tell us what years this was done too?

Mr. BASSO. Yes, sir.

Senator FAIRCLOTH. What years what was done?

Mr. BASSO. I think the chairman is asking what year this money was incorporated and maybe I can tell a little bit about the system.

Senator Faircloth, I am the Deputy Assistant Secretary for Budget and Programs for the Department. Let me just make a couple of observations on that.

There has been obviously some significant debate about reimbursing for components of the system that really were built pre-1955. The administration's rationale has been that those were parts of the system that are the oldest parts of the system, are parts that did not have to be built and paid for at that time, and therefore——

Senator FAIRCLOTH. Let me ask you this.

Mr. BASSO. Yes, sir.

Senator FAIRCLOTH. Was the administration's rationale that they are going to turn all the tolls collected since 1940 over to the Federal Government?

Mr. BASSO. No, sir.

Senator FAIRCLOTH. Well, if they are going to keep the money—the Pennsylvania Turnpike was with bonds, was it not?

Mr. BASSO. Yes, sir, it was.

Senator FAIRCLOTH. Those bonds have long since been paid off, have they not?

Mr. BASSO. I really do not know, but I assume that is correct.

Senator FAIRCLOTH. When was it built?

Mr. BASSO. It was built in the late 1940's and early 1950's.

Senator FAIRCLOTH. All right. So, you are talking about 50-plus years.

Mr. BASSO. Yes, sir.

Senator FAIRCLOTH. So, the bonds were not issued in excess of 50 years.

Mr. BASSO. I understand.

Senator FAIRCLOTH. So, they have been paid off or are in default.

Mr. BASSO. Sure.

So, again——

Senator FAIRCLOTH. So, here is a highway that the traveling public has paid for totally, completely with a return to the investors on the bonds, and we are going to send them billions of dollars.

Mr. BASSO. Yes, Senator; and let me just again comment that our view was that those particular funds represented a decision the Congress made in 1991 to address an older segment of the system to provide basically costs, as they existed from a 1980 study, if I remember correctly. And the administration has decided, in submitting its bill, to propose to the Congress to continue that reimbursement.

Senator FAIRCLOTH. How long do you think we might continue that reimbursement? How long do you think we ought to continue to pay for a highway that has been built and paid for by the traveling public for 20 years and we are going to continue to pay them for it?

Mr. BASSO. I think beyond the life of NEXTEA, you know, it is very hard for us to anticipate what that might be. But clearly in this case, we have come forward with a proposal that will be debated in the Congress and decided. Senator, your position is respectfully understood by all of us who have dealt with this for a long period of time, sir.

Senator FAIRCLOTH. What do they do? Plan to cancel the tolls as soon as they get this money?

Mr. BASSO. Well, sir, I do not know about that. I could not answer that.

Senator FAIRCLOTH. What do you think?

Mr. BASSO. My opinion would be, based on——

Senator FAIRCLOTH. Do you think they are going to take down the toll booths on the New Jersey Turnpike?

Mr. BASSO. No, sir; I would be disingenuous to you if I told you I thought they were, and I do not think they would.

Senator FAIRCLOTH. Well, you could dance this around most any way you want to, but what it amounts to is $6 billion to these States, just extra money, totally pork barrel money.

How much did it cost to build the Pennsylvania Turnpike?

Mr. BASSO. I could get that figure for you for the record, Senator. I do not know right off of the top of my head what the cost was.

Senator FAIRCLOTH. Well, assuming that the split here would be about $2 billion, you are paying them about seven times what it cost to build it originally in reimbursement.

Mr. BASSO. As I said, the numbers that have been put forth for the reimbursement are based, as I recall, on a study that was done and completed in 1980 and it looked back at the original cost of the system. But I would be happy to get any of that information for you.

Senator FAIRCLOTH. You mean the $6 billion that we are giving them now was based on a study done in 1980?

Mr. BASSO. Yes, sir; it was. In fact, the 1991 legislation, the factors that were derived for each of the States was based on that same legislation except that one-half of 1 percent was guaranteed to each of the States without regard to whether they participated in this program or not.

INTERSTATE TOLLS

Senator FAIRCLOTH. Well, let me ask you one more thing. The proposal to put tolls on the Interstate System—tell me about that.

Ms. GARVEY. Thank you, Senator.

The proposal that the administration has put forward is an option for States. It is not something that is required. It is something that States can choose to use or not to use, whatever the case would be. It would involve public participation obviously, and it is just one more option for States to have, not a requirement at all.

Senator FAIRCLOTH. It is a tax increase.

Ms. GARVEY. It is an option, Senator, that would be a tax increase.

Senator FAIRCLOTH. Who would set the rate or the amount of the toll?

Ms. GARVEY. That would be decided at the State level through the planning process that is in place.

Senator FAIRCLOTH. Well, what if we put a $100 per car toll on I–95 through North Carolina? What would be the response to the Federal Highway Administration?

Ms. GARVEY. Well, to be honest, I cannot imagine the State DOT, with public participation, would be involved in something like that.

Senator FAIRCLOTH. We might just put it on interstate cars going from Virginia to South Carolina.

Ms. GARVEY. Again, it is an option for States to use.

Senator FAIRCLOTH. So, what you are saying is the States could put any sort of exorbitant toll on a highway they might see fit. Of course, I was making a ludicrous example, but for the Federal Highway Administration to say that States can put a toll on a highway that has been paid for by Federal money and the—this is a form of raising revenue.

Ms. GARVEY. Senator, the way the language is worded, it would have to be tied to the rehabilitation of that facility. So, in other

words, if you wanted to rehabilitate a section between point A and point B, a State could elect to do that. My experience in the last few years with States is that they approach those things very cautiously. It is an option that they have. ISTEA gave the option for bridges and tunnels, and States have, for the most part, chosen not to use that.

Senator FAIRCLOTH. Well, we have never had a toll road in North Carolina.

Senator SHELBY. If the Senator from North Carolina would yield for an observation. If we could follow some of the suggestions of the Senator from West Virginia and properly fund the Appalachian corridor the way the East got funded, there would probably be more equity there. The sum of $6 billion would do a lot I think for the Appalachian area, including most of the Southeast.

I would hope that we would have the administration's support in that regard. I know that Senator Byrd has toiled for years and years as he has pointed out, and this would affect not only West Virginia but North Carolina, Alabama, you name it. And $6 billion would do a lot for our area too, and I am sure that with the wisdom of Senator Byrd, we are going to pursue that till we get it.

Senator FAIRCLOTH. Thank you, Mr. Chairman. I intend to pursue opposing $6 billion to subsidize 50-year-old highways that have been paid for many times.

Senator SHELBY. Senator Bennett.

Senator BENNETT. Thank you, Mr. Chairman. I am cognizant of the fact that we have a vote coming, so I will not pursue all my time. But I would like to make a couple of philosophical statements.

I have not been around as long as Senator Byrd has, but I do go back a little ways. I served in the Nixon administration in the Department of Transportation, so I have some institutional knowledge of the Interstate Highway System and the philosophy behind it.

As we get into this debate about formulas, I would just share with you this concept that came from another official in the Nixon administration when I was there, a young adviser to the President by the name of Daniel Patrick Moynihan, who said that nothing that had been done in this country had had the impact on the way we live approaching the impact of the Interstate Highway System.

I remember the speech which he gave to us where he said Eisenhower has been categorized as a passive President, whereas Kennedy and Johnson were active Presidents. But historically nothing down in the Kennedy and Johnson administrations approached the impact of the Eisenhower decision to proceed with the Interstate Highway System, that this passive President had had more effect on Americans and the way they lived.

And the philosophy behind the Interstate Highway System was that it was national. It was truly an interstate system, and just because, to pick a State out of the air, Utah happens to have more miles than people in it and, therefore, more highway building than, say, a small State like, to pick another one out of the air, New Jersey, the impact on the Nation as a whole for the system to be able to provide free transportation of goods throughout the country affects everybody. It transformed the railroads, not necessarily for

the good from the standpoint of railroad investors, but the creation of an interstate network transformed everything for everybody, including fruit shipped from California to New Jersey, and in order to get there, they have to go through Utah.

If we start carving up the money on the basis of artificial boundaries that says, OK, this State is going to get so much money and if their highways break down and their infrastructure does not work, the folks on the east coast are going to feel that even though they say it is unfair for us to have paid for it.

So, I would hope you would keep that view in mind as you go through this.

The only other comment—and I probably should not say it, but I will—I am reading NEXTEA, and I will just highlight a few comments and then make an editorial comment.

It starts out, "President Clinton will announce." Then on page 4, "When President Clinton promised to rebuild America 5 years ago," and then it goes on. Page 7, "President Clinton recognized this in his January." Then page 8, "Under President Clinton, America is once again." Under Page 9, "President Clinton proposes to build, to support his comprehensive welfare program." Under page 10, "President Clinton has taken advantage of ISTEA's landmark to reduce," so on and so forth.

My only comment is, the election is over. This is an official document. Let us not use it for political campaigning purposes.

With that, I will go save the Republic, along with my chairman.

Senator SHELBY. I thank the Senator from Utah.

SUBMITTED QUESTIONS

I have a number of written questions for the record and the record will also stay open for other members of the committee that might have questions of the first panel.

All of you, I appreciate you coming. I wish you had not eaten breakfast together twice earlier. [Laughter.]

But you did and I understand that. I am sure that all of you will abide by the decision of the Congress in its wisdom, whatever we do up here, regarding legislation that would affect you and the American people.

I am going to go vote and we are going to have to recess, and then we will come back to the second panel. I thank all of you on the first panel.

Ms. GARVEY. Thank you, Mr. Chairman.

Senator SHELBY. We will stand in recess for about 10 minutes.

[A brief recess was taken.]

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR SHELBY

ENHANCING SAFETY WITH ROADWAY IMPROVEMENTS

Question. Under ISTEA, rail-highway crossings and other roadway hazard elimination projects were funded from a 10 percent safety apportionment from the Surface Transportation Program (STP) account. Because of the set-aside nature of the program, as the highway obligation ceiling went up, the State apportionments increased from $353 million in fiscal year 1992 to $600 million in fiscal year 1997.

The comparable NEXTEA "flexible highway infrastructure safety" program is a fixed-rate program, totaling $3.25 billion over the six-year authorization.

Does structuring rail-highway crossing and hazard elimination funding in a fixed-rate program preclude growth in this area if more highway funds are made available?

Answer. The Infrastructure Highway Safety Program (IHSP) provides funds to: 1) eliminate hazards on public roadways other than the Interstate, and 2) improve the safety of rail/highway grade crossings. The Rail/Highway Grade Crossing program receives a straight-line $165 million per year while the Hazard Elimination program receives the balance of IHSP funding, increasing from $335 million in fiscal year 1998 to $410 million in fiscal year 2003. These two programs no longer receive their funding through a percentage takedown from the STP. Under ISTEA, if increased funding were made available to STP, both Rail/Highway Grade Crossing and Hazard Elimination funding would increase. Under NEXTEA, unless more highway funds are made available specifically to the IHSP, funding for Rail/Highway Grade Crossing and Hazard Elimination programs would remain at NEXTEA authorized levels. The NEXTEA proposal allows states to shift hazard elimination funds to non-infrastructure safety programs, such as NHTSA's section 402 public education program or FHWA's motor carrier safety program.

Question. Do you believe that highway safety education and enforcement programs are more effective at preventing accidents and saving lives than correcting road hazards, separating grade crossings, and installing warning devices?

Answer. We believe both are necessary and effective. Under NEXTEA, States would be granted greater flexibility to use funding where they believe they can leverage the greatest results in grade crossing safety. Certainly, the safest crossing is one that does not exist. However, crossing safety is in most cases a local safety challenge that warrants diverse local solutions. That is why the Department initiated the multi-faceted Rail-Highway Crossing Safety Action Plan in 1994, and unveiled with Operation Lifesaver, Inc., the Always Expect a Train public awareness campaign in 1995. Since the Department instituted nationwide and multi-faceted safety initiatives, there has been a four-year downward trend in fatalities.

Question. I have heard that the administration is considering a new bill to amend or "fine tune" the safety section of NEXTEA. Can you confirm this? What programs are being reworked?

Answer. On April 17, Secretary Slater transmitted to Congress the "Surface Transportation Safety Act of 1997." This constitutes Part II of NEXTEA. Title IX—Traffic Safety, which contains certain amendments designed to enhance the safety provisions of NEXTEA. This title further encourages States to increase safety belt use by adopting primary enforcement of safety belt use laws; increases the number of new motor vehicles that may be exempted from compliance with Federal motor vehicle safety standards on the basis that they possess innovative safety features; closes a loophole in the vehicle safety statute by prohibiting retailers of motor vehicle equipment from selling defective items of equipment; clarifies the Secretary's authority to engage in harmonization activities that promote the worldwide improvement of motor vehicles; encourage new efforts to achieve uniformity in State laws regulating the titling and control of severely damaged passenger motor vehicles; and includes several regulatory reform proposals. The key provisions are:

Primary Safety Belt Use Laws: The Administration's NEXTEA proposal includes incentive funds to help States increase belt use. Primary enforcement is the most important life-saving aspect of belt use laws, adding significantly to the rate of belt use. This bill would establish a date certain by which all States would be required to have enacted primary safety belt use laws. Beginning in fiscal year 2003, a State that has failed to enact such a law would have a percentage of its highway construction funds transferred to its section 402 highway safety program. However, the transfer of funds would not apply to a State in a fiscal year beginning after fiscal year 2003 if the State has a statewide belt use rate of 85 percent or higher in both front outboard seating positions in all passenger motor vehicles.

Motor Vehicle Equipment Safety Defects: Closes a loophole by prohibiting all retailers, not just auto dealers, from selling defective items of motor vehicle equipment, such as child safety seats, that have been recalled.

Safety Compliance Exemptions: Increases the number of new motor vehicles that may be exempted from compliance with Federal standards on the basis that they possess innovative safety features.

International Harmonization: Clarifies the Secretary's authority to engage in harmonization activities that promote the worldwide improvement of motor vehicle safety without any diminution of U.S. safety performance standards.

Titling: Encourage new efforts to achieve uniformity in State laws regulating the titling and control of severely damaged passenger motor vehicles. The new program

would ensure that these vehicles are inspected for applicable safety and anti-theft standards.

Question. The NEXTEA proposal allows states to shift hazard elimination funds to non-infrastructure safety programs, such as NHTSA's section 402 public education program or FHWA's motor carrier safety program. Do you believe that highway safety education and enforcement programs are more effective at preventing accidents and saving lives than correcting road hazards, separating grade crossings and installing warning devices?

Answer. Both infrastructure and non-infrastructure safety programs are important. Our proposal gives states the flexibility to use their hazard elimination funds for non-infrastructure if the state has an integrated highway safety planning process and established goals and benchmarks for safety improvements.

Between 1992 and 1995, since ISTEA was enacted, the use of safety belts and child restraints has saved 35,000 lives, the use of motorcycle helmets has saved 2,155 lives, and age 21 drinking laws have saved 3,300 lives. Costs of highway crashes would have been $30 billion higher in 1994 (versus 1990) had it not been for injury rate reductions due to these and other safety countermeasures. Clearly behavior change can make a significant difference. Safety belt use has grown from 11 percent in 1982 to 68 percent in 1996. Alcohol involvement in fatal crashes has dropped from 57 percent to 41 percent over this same 15-year period. The President has set a national goal of 85 percent safety belt use by 2000, and 90 percent by 2005. NHTSA estimates that increasing belt use from the present 68 percent to 90 percent would save 5,500 lives per year. FHWA and FRA have estimated that during the period 1992 through 1995, hazard elimination saved 6,200 lives and highway-rail grade crossing safety programs saved 1,700 lives.

Risk factors are increasing that require renewed efforts in education and enforcement. The number of youngest and oldest drivers will significantly increase between now and 2005. The use of alcohol and drugs is on the rise and has begun to show in highway fatality statistics. Combined risk factors pose threats and challenges: aggressive driving, drivers who speed, run red lights, disregard traffic signs, drink, and don't wear their safety belt. Due to the aging infrastructure, safety features need to be added and upgraded, e.g., guardrails replaced, signs upgraded, new pavement markings, and hazards eliminated. Clearly highway safety must be attacked on all fronts.

FINANCING AND TOLL PROGRAMS

Question. What is the difference between State Infrastructure Banks and the Transportation Infrastructure Credit Program?

Answer. State Infrastructure Banks (SIB's) are State-level investment funds which are capitalized, in part, with Federal funds and offer loans and other types of financial assistance to transportation projects. Loan repayments and credit fees from the SIB's customers are used to replenish the funds and permit them to become self-sustaining financial institutions devoted to transportation investment. The Transportation Infrastructure Credit Enhancement Program, on the other hand, represents direct Federal assistance to specific projects. Rather than simply allowing States to use a portion of their Federal highway and transit grant funding to capitalize SIB's, this initiative would provide Federal assistance directly to projects of national significance—those projects with national economic benefits and financing requirements that exceed the capacity of SIB's and States' regular transportation programs. Under the credit enhancement program, the Administration's reauthorization proposal, $100 million per year would be used to capitalize revenue stabilization funds for one or more such projects of national significance to enable them to access the capital markets for most of their financing. These revenue stabilization funds would be used to secure external debt financing and if needed, to pay debt service costs in the event project revenues are insufficient.

Question. Since the SIB's program was authorized in the 1995 National Highway System Designation Act, what has the track record been for the program? How many of the 10 pilot states have secured federal loans?

Answer. The results to date for the SIB pilot suggest that the program will complement the regular Federal-aid program by serving certain local and state-wide projects that have access to dedicated revenue streams, but need flexible financial assistance to get underway.

With just four months having passed since most States signed cooperative agreements with FHWA and FTA to create their SIB's, financial activity has gotten underway with two loans from the Ohio SIB, each for $10 million, to support a $100 million bond issuance by Butler County for a toll road. A $1.18 million loan has also been made by the Missouri SIB for a debt service reserve fund to support a $17 mil-

lion bond issue by the Springfield Transportation Commission. Ultimately the bond issue will support a variety of street and intersection improvements including some overpass work.

Florida, Missouri, Ohio, Oklahoma, and Oregon intend to make additional project loans by October 1997. To date, $80 million in Federal funds have been transferred to States to capitalize their pilot SIB's. By October 1998, the initial 10 SIB's are expected to have provided various types of loans totaling $324 million supporting 1.6 billion in total project construction.

Question. The SIB's pilot projects financial condition report was due to Congress March 1st. When will this report be submitted?

Answer. The draft report is in the final review stage and should be issued soon.

Question. The primary barrier to implementing SIB's has been the low number of revenue-generating projects that will then be able to repay loans made by SIB's. In the Department's experience, what are possible ways for states to generate revenue in order to repay their SIB loans?

Answer. There are a variety of ways SIB loans can be repaid. Currently, the primary repayments being considered by the pilot states include user fees such as developer impact fees, tax increment financing, and dedicated local sales taxes. Repayments can include traditional tolls (potentially made more acceptable to the public through the use of automatic toll collection technology). In addition, SIB loans can be repaid with a dedicated portion of a State or locality's gas tax or future federal apportionments.

Question. If the Transportation Infrastructure Credit Program is established, what projects now underway would be eligible for funding? Would San Francisco's BART extension qualify? Boston's Central Artery project? Or the Woodrow Wilson Bridge?

Answer. Any type of surface transportation project that is proposed to be eligible for Federal assistance under title 23 or chapter 53 of title 49 in the Administration's reauthorization proposal would be permitted to receive a Revenue Stabilization Fund grant, as long as it satisfied the program's eligibility criteria. To meet those criteria, the project must: 1) be of "national significance" in terms of moving people or goods more cost-effectively (the Secretary will establish specific guidelines concerning improved productivity, cost-benefit analysis, job creation, and other factors); 2) be unable to obtain adequate financing on reasonable terms elsewhere; 3) be included on the State's transportation plan, and, if in a metropolitan area, be approved by the metropolitan planning organization; 4) have its application for assistance be submitted by a State or local government; 5) cost at least $100 million or an amount equal to 50 percent of the State's annual Federal-aid apportionments, whichever is less; and 6) be supported at least in part by user charges or other dedicated revenue streams.

Projects meeting these threshold criteria then would be evaluated by the Secretary based on a qualitative analysis of their credit-worthiness, degree of leveraging private capital, use of innovative technologies, and other factors. This program is intended to help large revenue-generating projects obtain private financing by enhancing their external debt. Projects already underway, such as the BART extension and the Central Artery, presumably have already secured the necessary financing or identified future funding sources and should not need such revenue stabilization funding. (The Central Artery project's current finance plan does not contemplate additional Federal assistance outside the State's regularly apportioned Federal-aid funding.) Based on the eligibility criteria, the Woodrow Wilson Bridge would be a candidate for direct Federal assistance under this program.

AIRBAG SAFETY

Question. NHTSA recently announced initiatives to improve air bag safety especially with respect to children and smaller-sized adults. For example, air bag deployment speeds are proposed to be lowered by up to 35 percent. Please describe NHTSA's efforts to make air bags safer for drivers and passengers.

Answer. On November 27, 1997, NHTSA published a final rule requiring vehicles equipped with air bags to be equipped with very obvious warning labels for parents and care-givers.

On January 6, 1997, NHTSA published a Federal Register notice proposing procedures to allow auto dealers or repair shops to disconnect air bags, at the request of vehicle owners, without requesting special permission from the Federal government. The public comment period closed on this proposal on February 5, 1997. Final decisions will be made soon.

On March 19, 1997, NHTSA published a final rule amending the occupant protection standard to allow vehicle manufacturers to quickly depower all air bags. For

the unbelted occupants, the regulation now allows a vehicle sled test to measure the performance, rather than the full-frontal barrier test. The agency and the vehicle manufacturers estimate this will allow air bags to be depowered by 20 to 35 percent. This interim solution will significantly reduce the risk to children and small statured adults.

In addition, NHTSA plans to propose mandating improved, advanced air bag technology. NHTSA believes that advanced air bags will provide greater safety in frontal crash protection for all size occupants. Advanced air bags will preclude air bags from deploying under unsafe conditions or effectively tailor the speed of the deployment to match the size of the occupant and the crash circumstances.

The agency has formed an Advanced Air Bag Technology Working Group under the Crashworthiness Subcommittee of the Motor Vehicle Safety Research Advisory Committee (MVSRAC) with participants from NHTSA, automobile manufacturers, automobile air bag suppliers, public health care professionals, and academia. The agency will use this working group's expertise to provide input to the agency on advanced air bag issues through MVSRAC. In addition, the agency is forming a team to work on the development of test procedures and performance requirements of advanced air bags. The agency also has a contract with the Jet Propulsion Laboratory (JPL) to assess the state-of-the-art in advanced air bag technology and the timeframe that will be necessary to bring these technologies to the market. A Final Report of the JPL work is due in October 1997.

Concurrent with all of these vehicle changes, the agency continues to work to increase safety belt use and to educate the public that children need to be placed in the back seat. President Clinton and Secretary Slater announced an initiative to increase the safety belt use to 85 percent by the year 2000. This is in addition to the ongoing nation-wide public initiative of the Air Bag Safety Coalition being conducted by the National Safety Council, in cooperation with NHTSA and other partners.

Question. NHTSA has a process to permit air bags to be deactivated upon application to the agency. What criteria does NHTSA use in deciding whether to approve an application? How many applications have been approved?

Answer. Although there is a statutory prohibition (49 U.S.C. 30122) against commercial entities knowingly making inoperative any device or element of design installed on or in a motor vehicle in compliance with Federal Motor Vehicle Safety Standards (FMVSS), NHTSA is not enforcing this prohibition with respect to air bag deactivation in the following cases:

a. The vehicle's owner or lessee submits a doctor's statement that the owner, lessee, or any other person 13 years or older who is a driver or passenger of the vehicle has a medical condition that justifies deactivation of the driver or passenger air bag or both;

b. With respect to a child age one to 12 years old who must sit in the vehicle's front passenger seat because of a medical condition, if the vehicle's owner or lessee submits a doctor's statement that the child has a medical condition that justifies deactivation of the passenger air bag;

c. The vehicle owner must transport an infant in the front seat of a vehicle with a passenger-side air bag, either because the infant has a medical condition necessitating that the infant be frequently monitored or because the vehicle lacks a rear seat that can accommodate a rear-facing child restraint; or

d. The vehicle owner has a frequent need to transport children under 12 in the vehicle and does not have enough seating positions in the rear to accommodate all children who must be transported.

From October 1, 1996, through April 29, 1997, NHTSA has received 6,039 deactivation requests, of which 1,897 have been granted. Approximately 80 percent of the grants were for adult medical conditions, while approximately 20 percent involved children, including both children with medical conditions and children riding in vehicles lacking a rear seat capable of accommodating a rear-facing infant seat. The ten most often cited medical conditions for which requests have been granted are, in approximate order of frequency: Osteoporosis/osteogenesis imperfecta/brittle or thin bone disease; Pacemakers; Heart/thoracic surgery; Breast cancer surgery/breast reconstruction, Tinnitus/hyperacusis; Emphysema/asthma/pulmonary conditions; Fractures (neck, back, ribs, etc.); Arthritic conditions; Dwarfism; and Previous air bag-related crash injuries.

In addition, a small number of requests have been granted for persons 4′6″ or shorter with no medical conditions, who would be unable to maintain a safe distance from the air bag.

SAFETY CHALLENGES

Question. A number of trends, demographics, and other issues comprise safety challenges facing NHTSA. Please give us your view on where highway safety is heading.

Answer. Despite significant progress, a look at recent statistics shows no room for complacency. After years of steady decline, the total number of highway deaths increased from 1992 to 1995. Motor vehicle crashes are still the leading cause of premature death of America's youth. Based on preliminary estimates the number of fatalities and the number of alcohol-related fatalities decreased slightly in 1996, but the number of crashes and non-fatal injuries increased yet again.

Key risk factors between now and the early 21st century are:

The number of youngest and oldest drivers is increasing. Between 1996 and 2005 the 15 to 24 year old age group will increase 14 percent, compared to an overall population increase of 7.8 percent, and the population over age 75 will increase 17 percent.

The use of alcohol and other drugs is rising. In 1995, the number of alcohol-related fatalities increased for the first time in 9 years. These fatalities still number over 17,000, even with the one percent estimated decrease in 1996.

Safety belt and child seat use is still low. Safety belt use has grown by only two percentage points since 1993; it stands at 68 percent. Agency checkpoints show that up to 80 percent of child safety seats are misused, and statistics show that every day an unrestrained child under the age of 5 is killed in a traffic crash.

Speeding and other forms of aggressive driving are increasing. Exceeding the posted speed limits, or driving too fast for conditions, is a growing problem on all roads. In 1995, speeding was a factor in 31 percent of all fatal highway crashes, at a cost to society and the economy of more than $29 billion. Currently, 34 States have increased their speed limits beyond what would have been allowed under the former national maximum speed limit law, and 23 of these 34 States have increased their speed limits to 70 miles per hour or greater. Recent surveys indicate that aggressive driving, a behavior often marked by excessive speed, has become the driver behavior that most concerns the motoring public.

The repeal of motorcycle helmet laws is becoming a reality. The motorcycle helmet law in Texas was recently repealed and there are moves in several other states to repeal.

A robust economy has been historically correlated with short-term increases in highway fatalities. While continuation of an expanding economy is a good thing overall for society, we must address the resulting increases in highway safety risk, e.g., higher number of miles driven for recreation at night, which is associated with higher risks; increased commercial traffic, which affects the vehicle mix on the road.

The vehicle mix on the road has been changing and will continue to change.

Sales of light trucks and vans have been increasing significantly, compared to sales of passenger cars. Since 1992 there have been more fatalities in car/light truck collisions than in car/car collision. Eighty percent of the fatalities are occupants of the passenger car.

Question. Safety belt and child seat use are low and drunk driving remains a major problem. How do you address these issues in the reauthorization and do you expect to be successful?

Answer. Included in the Department's NEXTEA legislation is a proposed incentive grant program designed to stimulate increased safety belt and child safety seat use. In addition, the Department's NEXTEA legislation includes a proposed incentive grant program designed to encourage states to implement laws and programs to combat alcohol-impaired driving. The program is intended to build on the successes of the Section 410 alcohol incentive grant program.

The Department expects these new programs to be successful. Just as in the Section 410 incentive grant program, where the number of qualifying states, including the District of Columbia, rose from 19 in fiscal year 1992 to 32 in fiscal year 1996, NHTSA expects the incentives offered will spur states to implement the laws and programs needed to meet grant criteria. In addition, participation in the occupant protection program will be accelerated as a result of the Presidential initiative to increase safety belt use rates nationwide.

Question. What are NHTSA's top priorities?

Answer. NEXTEA needs to provide a balanced program for NHTSA that addresses both vehicle and behavioral safety problems, while providing a foundation for research, crash data and injury prevention activities. An active technical assistance program is required to support our safety partners in the states and communities, health and business arenas, educators, and safety advocates. This is consistent with NHTSA's role as a public health agency.

Top priorities include:

Air bag safety:

In November 1996, we issued a rule requiring clearer and more precise air bag warning labels in both the passenger vehicle and on child safety seats.

In January 1997, we issued a rule extending the period for permitting air bag cut-off switches for passenger side air bags in vehicles without rear seats or with rear seats that are too small to accommodate a rear-facing child safety seat.

We issued two other proposals in January 1997: 1) to ensure that vehicle manufacturers can depower all air bags so that they inflate less aggressively; 2) to make it possible for vehicle owners to have their air bags deactivated by vehicle dealers and repair shops.

In February 1997, we issued a proposal to require that motor vehicles and add-on child restraints be equipped with uniform anchorages to secure the child restraints to vehicle seats.

In March 1997, we issued a final rule on air bag depowering, effective immediately, which allows the manufacturers to proceed with their depowering plans.

A comprehensive research effort to realize more fully the life-saving attributes of current driver and passenger air bag systems, and to pave the way for the introduction of improved air bags in the near future.

Occupant protection—Use of safety belts

Safety belts are the most effective means of reducing fatalities and serious injuries in traffic crashes, saving an estimated 9,500 lives in America each year. Our research has found that lap/shoulder belts, when used, reduce the risk of fatal injuries to front seat passenger car occupants by 45 percent, and the risk of moderate-to-critical injury by 50 percent. Child safety seats are the most effective occupant protection devices used in motor vehicles today. If used correctly, they are 71 percent effective in reducing fatalities to children under the age of five and 69 percent effective in reducing the need for hospitalization.

—President Clinton feels strongly that more needs to be done to encourage the use of these life-saving devices. On April 16, Secretary Slater responded to the President's call and released a national strategy to raise U.S. safety belt use to 85 percent by the year 2000. By 2005, our goal is to get 90 percent of the nation's vehicle occupants to use safety belts.

—Currently, with an estimated 68 percent of America's vehicle occupants buckling up, seat belts are saving about 9,500 lives a year. Going to 85 percent seat belt use would boost the annual number of lives saved in U.S. highway crashes by 4,194, and reduce crash-related medical costs by $6.7 billion a year. If 90 percent of vehicle occupants used their belts, 5,536 more lives would be saved annually and medical-related costs would be cut by $8.8 billion.

—Actions include: Building partnerships between government and the private sector to help America reach its potential of saving lives and preventing injuries through the use of seat belts and child safety seats; enacting State laws for primary (standard) seat belt enforcement and comprehensive child passenger safety; conducting active, high visibility law enforcement of State seat belt and child safety seat laws; and expanding well-coordinated, effective public education programs.

—Under NEXTEA, a new occupant protection incentive grant program, to encourage States to increase safety belt use, and a proposed transfer of highway construction funds to occupant protection programs to encourage enactment of primary safety belt laws.

Occupant protection—Child safety:

In February 1997 we issued a proposed rule for a universal child safety seat attachment system. The agency also has intensified its efforts to educate the public about air bag performance and to properly restrain children. We also have set a goal of reducing child occupant fatalities (0–4 years) 15 percent by 2000, and 25 percent by 2005.

Reduce alcohol-impaired driving among the population at large and especially for young drivers. Alcohol is the drug abused most frequently by our children, and is responsible for 35 percent of the highway deaths among our youth, ages 15–20. Forty-one percent of all fatal motor vehicle crashes continue to be alcohol-related, and 32 percent of these fatal crashes involve a drunk driver or pedestrian with a high blood alcohol concentration (BAC greater than 0.10 percent).

NHTSA's ISTEA Section 410 Impaired Driving Incentive Grant Program provides financial incentives to States to encourage improvements in laws and programs dealing with impaired driving. Since the passage of ISTEA, 37 States plus the District of Columbia have qualified for one or more years of incentive grants.

"Zero tolerance" laws make it illegal for a person under 21 to drive a motor vehicle with any measurable blood-alcohol content. In June 1995, President Clinton called on Congress to make zero tolerance the law of the land. Congress responded by including the provision in the NHS Act. These laws are very effective, reducing alcohol-related crashes involving teenage drivers by as much as 10–20 percent.

NEXTEA proposes an enhanced drunk driving prevention incentive grant program, to help States enact and enforce tough drunk driving laws and a new drugged driving incentive grant program, a Presidential initiative to help States enact and enforce tough laws to prevent drug-impaired driving

Crash avoidance research, conducted under DOT's Intelligent Transportation Systems (ITS) program

The goal of this research is to demonstrate that improved crash avoidance performance of vehicles can be achieved through the application of advanced sensing and communication technologies to motor vehicles. Achievements in this area require that these sensing and communication technologies are matched to the limitations and capabilities of all drivers without any diminution to safety.

Our near-term goal is to equip vehicles with several collision avoidance systems, in partnership with industry, to demonstrate their feasibility and safety potential. We estimate that if all vehicles were equipped with just three of the primary ITS crash avoidance systems (rear-end, roadway departure, and lane change/merge) 1.2 million crashes (one out of ever six) could be prevented annually, saving thousands of lives and $26 billion a year.

Giving states the flexibility to address their most critical highway safety problems

Under NEXTEA a new State highway safety data improvement incentive grant program, to encourage States to take effective actions to improve the data they need to identify the priorities for State and local highway safety programs

Full implementation of the new performance-based Section 402 state grant program.

Under NEXTEA, a program to encourage integrated safety planning and increased flexibility in the use of FHWA safety infrastructure funds for states to address their critical safety problems.

NHTSA'S ROLE IN REDUCING HEAD INJURIES AND ASSISTING EMS PERSONNEL

Question. Please describe NHTSA's role in working with EMS programs. Are EMS personnel the most likely health professionals to aid victims of motor vehicle accidents? How can NHTSA help improve the services provided by EMS personnel, especially with regard to head injuries?

Answer. NHTSA serves as a national leader, coordinator, facilitator and technical resource for EMS programs. The agency develops products and services and facilitates national consensus on issues which are more efficiently or effectively addressed at the national level than by individual states. Examples of agency programs include development of a national Standard Curricula for emergency medical providers and delivery of technical workshops on issues such as trauma system development, data management and quality improvement.

EMS personnel are typically the first health professionals to care for motor vehicle crash victims. NHTSA's central effort to improve the effectiveness of these professionals is the EMS Agenda for the Future, a vision and plan for EMS that provides guiding principles for the continued growth and evolution of EMS in a rapidly changing health care environment. The EMS Agenda addresses each of the critical aspects of emergency medical systems, assessing the current national status, projecting a vision of future performance, and recommending specific actions for realizing the vision. An implementation plan for the EMS Agenda for the Future is now being developed and will be published later this year.

Question. People injured in car crashes in rural areas may have to be transported long distances to reach trauma centers that can provide appropriate care. I understand that victims of head injuries, in particular, might be spared life-long disabilities if EMS providers could improve their emergency response protocols for brain trauma. Is NHTSA working with EMS programs to improve the treatment of head injuries?

Answer. NHTSA is currently updating the National Standard Curriculum for the Emergency Medical Technician—Paramedic. This curriculum includes both classroom and clinical instruction concerning patient assessment, injury mechanisms and head injury. The complete curriculum involves about 1,000 hours of instruction. In addition to the education of EMS providers, the agency also provides technical assistance for the development of regional trauma systems. These trauma systems utilize triage protocols that are designed to accurately assess the condition of trauma

patients and efficiently direct their transport to facilities with appropriate resources. An effective trauma system greatly improves the outcome of patients with severe trauma, such as head injury, by providing the best care in the least time.

Question. Each year we spend billions of dollars for long term medical and assisted living care of head-injured patients. Do you think that significant savings would be achieved by better EMS response to head injuries?

Answer. We believe that significant savings can be realized by better EMS response to all types of severe injuries, including head injuries. The outcome of severely injured patients is largely dependent on the amount of time between injury onset and appropriate stabilization and treatment. As the first link in the continuum of trauma care, the EMS system can influence patient outcome with a quick response, appropriate stabilization and rapid delivery to an appropriately equipped hospital emergency department.

INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

Question. Ms. Garvey, the ITS program appears to be starting an evolution into a different program. To this point, IVHS, now ITS, has been a program focused on research and demonstration projects. The Administration's budget and NEXTEA reauthorization proposals anticipate beginning a shift in focus to include a $100 million annual deployment program and a 6 year total contract authority funding level increase from $659 million in the last authorization bill to almost $1.3 billion in the NEXTEA proposal.

Despite this new push to deployment, a number of obstacles must be overcome before ITS technology is widely deployed and integrated. These obstacles include the lack of a working knowledge of the systems architecture, technical standards to integrate individual ITS technologies, technical knowledge at the state and local level, and cost-benefit data on ITS.

What are the reasons for doubling the contract authority for the ITS program?

Answer. Contract authority is being requested for those portions of the ITS program which would most benefit from a long-term, predictable source of funds. These program areas include the ITS Deployment Incentives Program, crash avoidance research, the Advanced Vehicle Control and Information Systems program area, the operational test program, the architecture and standards program, and major portions of the mainstreaming program area (technical assistance, planning/policy issues, and training). These represent program areas which we know will be viable and in need of substantial funding support throughout the period covered by the reauthorization of ISTEA. Program areas with resource needs which may vary widely in amount and technical content from year to year, such as most of the research program areas, will continue to be justified and requested on an annual basis through the appropriations process.

It should also be noted that the proposed ITS Deployment Incentives program, which is designed to help spur integrated, intermodal deployment of ITS technologies and strategies, accounts for a total of $600 million of the contract authority being requested. The remainder of the contract authority being requested for research and technology transfer activities totals $678 million, an amount comparable to the amount received for similar activities under ISTEA.

Question. Are ITS technologies ready for widespread deployment in light of the numerous obstacles?

Answer. First, ITS technologies are not only ready for widespread deployment, but are being deployed. As of 1995, we have counted ITS deployments nationwide as follows: 41 freeway management centers, 39 advanced public transportation management systems, 57 centralized traffic signal control systems, 39 ITS incident management systems, and 28 electronic toll systems. In fact, about $1 billion a year of regular Federal aid funds is being spent on three of the nine ITS components that we track on our financial system. In the nation's 75 largest metropolitan areas, deployment of eight of the nine items is underway in most of them.

However, this deployment is taking place with little regard to intra-regional compatibility let alone the interoperability called for in the national architecture—thereby losing the potential of the ITS infrastructure to bridge the modal and institutional fragmentation and enable seamless system management. Thus, in NEXTEA, we propose a deployment incentives program to ensure progress to integration. We have proposed a very small incentive program, the majority of which would be used for integration of ITS infrastructure in metropolitan areas where ITS infrastructure deployment is already underway. It would also provide incentives for deployment of the commercial vehicle ITS infrastructure and rural ITS applications. Several legislative changes are also proposed to clarify the eligibility of all ITS applications for regular Federal-aid funding.

Second, we view the primary obstacles to broader ITS deployment as the lack of the following: adopted standards, expertise among state and local officials, cost/benefit data, and available funds. In our NEXTEA proposal, we address many of these "barriers" to deployment.

A significant portion of our proposed research funding would be devoted to facilitating development of industry consensus on well over 100 standards. While the process will take some five years, we expect that draft standards critical to integration will be available in the next two years. None have been completed, and four more draft standards will be done by the end of the year. And we believe that we, will have agreement on one of the most critical standards that underlie the tag and reader technology in automatic toll collection before the end of the summer.

We also have proposed training for state and local officials. Deployment of ITS is not unlike the transition FAA went through when it went from a civil engineering organization that oversaw the building of airports to one that dealt with management of assets and airspace. For that purpose we have developed a five-year strategic plan, that is now being translated into a business plan and we have asked for significant funds—some $10 million in fiscal year 1998. Recently, we launched the program with the first of 70 overview seminars that will be given to our staff and partners across the United States in the coming few months.

In these courses, we will cover in considerable detail the costs and benefits that have been documented for this program. An impressive quantity of cost-benefit data has been presented to Congress and the nation at large. For example: Buying smarter by deploying intelligent transportation systems infrastructure reduces the need for new roads while saving taxpayers 35 percent. A comprehensive study by NHTSA has estimated crash avoidance countermeasures can yield a 17 percent reduction in all accidents, resulting in a net savings of up to $26 billion per year. A study by the FTA suggests that ITS can save transit authorities between $4 billion and $7 billion over the next decade. What is not available to local officials are the analytic tools necessary to demonstrate those benefits, because to date all of our analytic tools have focused on capital decisions with long range horizons. We are in the process of developing those tools now for use by states and metropolitan areas across the country.

APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM

Much is made of the need to upgrade Appalachian Development Highway System roads because of the economic development benefits for the parts of the country that these roads serve, but I do not want you to lose sight of the safety implications of failing to bring these corridors up to divided four lane standards. So I commend you for the commitment that the Administration's NEXTEA proposal makes to Appalachian Development Highways—more needs to be done—but it is a step in the right direction.

Question. In your review of the ITS program and as you consider the future of that program, have you identified rural safety applications from the research that has already been done? Please elaborate on these rural safety applications. What projects are currently funded and underway? What potential projects are being considered?

Answer. The Department has recently completed strategic and program plans for the Rural ITS Program which detail how we will allocate the increased resources of the rural program. Our needs analysis identified safety as the primary goal of the rural program. We have grouped the applications into seven critical program areas:

(1) Traveler Safety and Security Services such as wide area dissemination of safety information (weather and road conditions), site-specific safety advisories to alert travelers of near-term problems, safety surveillance and monitoring of rural transit vehicles, and vehicle or infrastructure based systems that prevent roadway departure crashes, animal-vehicle collisions, and high speed collisions between vehicles and farm equipment.

(2) Emergency Services such as May Day systems, and advanced dispatching and emergency vehicle based response systems which will reduce response times.

(3) Infrastructure and Fleet Operations and Maintenance Services which will reduce weather-related accidents and warn motorists of road work or other road hazards.

There are 11 active ITS program funded projects. But, there have been over 50 rural ITS projects funded from various private, state and Federal sources. A list of these projects can be provided upon request. The Federal ITS projects can be grouped into three areas: Research of safety information collection technologies (e.g., weather and road hazards), operational testing of May Day systems, and operational testing of safety information dissemination systems (e.g., in-vehicle displays or AM and FM subcarrier systems). In fiscal year 1997 we will initiate research and operational testing on Traveler Safety and Security Systems to investigate the most promising technologies that will reduce the most prevalent accident types. The focus will be on infrastructure based systems that do not duplicate the efforts of the collision avoidance program. Technologies may address the following issues: animal/vehicle collisions; low cost run-off road collision avoidance system; low cost vision enhancement system; and high speed farm equipment/vehicle collisions. We will also initiate research and operational testing of Emergency Response Systems. This effort will: 1) resolve the interface issues between the Public Service Answering Point and the Independent Service Providers; 2) investigate advanced applications beyond automatic collision notification which provide detailed information to emergency care givers in order to improve accident site care; and 3) investigate systems for achieving blanket communications for May Day services. It should be noted that a minimum of 10 percent of the proposed ITS Deployment Incentives program is set aside for the deployment and integration of rural ITS technologies.

Question. Most of the fatalities on rural roads are from single vehicle accidents. This would seem to me to be an area that Advanced Highway System research may have a significant life-saving application. I welcome your thoughts and comments.

Answer. The majority of rural single vehicle accidents are roadway departure collisions. The ITS program is working with industry on systems that will greatly reduce this accident type and that will be available in five to 10 years. Under the Intelligent Vehicle Program, we are developing a roadway departure collision avoidance system which automatically detects if a vehicle is leaving the lane, as well as a driver inattention detection systems and human factors guidelines to reduce driver workload. These applications will produce commercial products within five to 10 years. Deployment of these products will enable this accident type to be reduced much sooner than the AHS products will be available.

CONTRACT AUTHORITY AND OBLIGATION LIMITATION DISCONNECT

Question. In looking at the Administration's Budget submission and the NEXTEA reauthorization proposal, there appears to be a disconnect between the Contract Authority that the Administration is requesting for fiscal year 1998 and the Obligation Limitation level requested in the Administration's budget. Please explain the relationship between contract authority, obligation limitation, and liquidating cash.

Answer. Contract authority refers to the type of funding provided for the highway program. The authorizations contained in highway acts, such as ISTEA, set the amounts of funds that are available for use for the entire highway program. These authorizations, which are contract authority, represent the upper limits on the obligations that can be made by the Federal government. Sums authorized in Federal-aid highway acts, because they are contract authority, are made available for obligation without appropriations action.

An obligation is a commitment of the Federal government to pay, through reimbursement to the States, the Federal share of a project's eligible cost. Obligation is a key step in financing. Obligated funds are considered to be "spent" even though no cash is transferred, since an obligation is a legally binding commitment on the part of the Federal government to reimburse the State. As a result, obligations are usually the step in the financial process that are controlled in the Federal budgeting process. A limitation on obligations acts as a ceiling on the sum of all obligations that can be made within a specific time period, usually a fiscal year, and thereby controls spending. The limit is placed on obligations that take place within the specified time period, regardless of the year in which the contract authority was made available. Since the appropriations process has been the traditional way to control Federal expenditures, obligation ceilings are usually established in the annual appropriations act and are set at a level consistent with annual spending limits that are driven by the effort to reduce the Federal deficit.

By definition, contract authority is unfunded and a subsequent appropriations act is necessary to liquidate (pay) the obligations made under contract authority. This authority to pay obligations is referred to as liquidating cash.

Question. Why is the contract authority request for fiscal year 1998 $2.45 billion more than the total of the requested mandatories plus the requested obligation limitation?

Contract Authority	$22,480,000,000
Highway obligation ceiling	18,170,000,000
Mandatory highway programs	1,510,000,000
Total highway budgetary resources	20,030,000,000

Answer. The contract authority and obligation limitation amounts for our reauthorization proposal have been set at the maximum levels allowable within the overall budget targets. These levels reflect our continuing commitment to both balance the budget and invest in transportation. While the obligation level is lower than the contract authority for fiscal year 1998, we are hopeful that budgets in future years will permit the use of the funds that cannot be used this year. With multi-year authorizing legislation, such as our ISTEA reauthorization, we think it is important that the contract authority levels are set at the highest levels possible. Since unused contract authority can be carried over to future years, this allows for growth in the program in the outyears, if the budget picture improves. We think that our proposal is the best way to adhere to the financial concerns of today while still looking forward to the program needs of the future.

NEXTEA FLEXIBILITY

Question. As I mentioned in my opening statement, the State of Alabama views ISTEA as constraining them more than empowering them to meet their highway needs. I understand that there is a significant amount of flexibility in the current program, but that in many ways ISTEA is an overly complicated structure for administering funds to your State partners. What additional program flexibility has the Administration proposed in the NEXTEA submission, and what program delivery streamlining is envisioned?

Answer. NEXTEA proposes to build on the flexible programs and provisions of ISTEA to allow the States to put their funds into the surface transportation modes and project types that meet their own and the Nation's needs.

NEXTEA expands and clarifies eligible activities for all core Federal-aid programs, including the National Highway System (NHS), Interstate Maintenance, the Surface Transportation Program (STP), and the Highway Bridge Replacement and Rehabilitation Program. Added or clarified eligibilities include preventive maintenance; Interstate reconstruction; intercity passenger rail capital investment; bridge scour countermeasures; intelligent transportation system capital, operations, and maintenance; and intermodal activities.

Transferability provisions among the various programs and surface transportation modes allow States to put their money where their surface transportation needs are. Alabama took advantage of this feature and transferred ISTEA Surface Transportation Program funds to support transit in Montgomery and Birmingham.

NEXTEA also proposes several streamlining measures. Changes are proposed to make STP operate more like a block grant program while retaining accountability. NEXTEA establishes annual program-wide approval for non-NHS STP projects, rather than the current quarterly project-by-project certification and notification.

NEXTEA permits merger of plans, specifications and estimates approval and project agreement execution and provides for obligation of the Federal share on a project when the project agreement is executed.

NEXTEA expands flexibility to States and FHWA to determine mutually the appropriate level and extent of State and FHWA oversight on NHS projects. NEXTEA provides that FHWA's oversight responsibilities shall not be greater than they are under Certification Acceptance and ISTEA, unless the State and FHWA mutually decide otherwise. NEXTEA also provides that State must assume Title 23 oversight responsibilities on non-NHS projects.

VALUE PRICING PILOT PROGRAM

Question. What projects were implemented/completed under ISTEA's congestion pricing pilot program? What have been the results of these programs in terms of improved traffic volume and air quality and the availability of new funds for transportation programs?

Answer. Projects included under the Pilot Program, as well as congestion pricing projects in other parts of the world, are beginning to provide new, and sometimes surprising, evidence about the potential benefits of congestion pricing. Our projects are just in the beginning stages, and the evidence is necessarily preliminary, but we can provide some indication of how these programs can be expected to affect traffic, air quality, and revenue availability. We might also note that for all the implementation projects, local interest and support for congestion pricing has been quite strong.

For instance, in San Diego, where excess capacity on the I–15 HOV lanes is being sold to HOV's, the initial sale of 500 express lane passes at $50 each sold out in the first 6 hours of availability. In February of 1997, 200 subscribers were added to the original 500, for a total of 700 ExpressPass holders. In March, 1997 the monthly fee was increased to $70, and in April, an additional 200 customers may be added for a total of 900 ExpressPass holders allowed on the HOV facility. Despite a price increase from $50 to $70, 80 percent of the original customers opted to remain with the pilot program. Data is being collected to gauge price elasticity and the effects of raising the tolls on traveler behavior. One of the surprising findings from the early evidence on this project is that in the initial months of the pilot's operation, carpools on the HOV lanes have increased by 5 percent from 86 to 91 percent, while the rate of unauthorized users of the HOV facility has decreased from 14 percent to 4 percent due to increased enforcement. This important finding suggests the HOV Buy-In concept can be a "win-win" for mobility and the environment.

All reports have been strongly positive for the innovative pricing project on State Route 91 in Orange County, California. This project, a privately-designed, constructed, financed and operated project, opened in December of 1995. The State Route 91 "Express Lanes" constitute the country's first variable priced and fully-automated facility. This $126 million project has added four new lanes of capacity termed "Express Lanes" along 16 kilometers (10 miles) in the median of the highway. While this project is not a Federal-aid project, and is therefore not one of FHWA's pilot projects, Pilot Program funds are being used to support the California Department of Transportation's monitoring and evaluation study of this pathbreaking project.

In the first year of operation, public response to the Express Lanes has been excellent, with a steady increase of patronage to 25,000 daily customers. A recent opinion poll conducted by the California Polytechnic Institute at San Luis Obispo indicates that the project is viewed favorably by 65 percent of the Express Lanes customers, 62 percent of the free, HOV Express Lanes users, and 53 percent of the drivers in the adjacent freeway lanes. Express Lanes users reportedly can save up to 20 minutes in commute time, and the diversion of single-occupant vehicles to the priced lanes has made a noticeable improvement in traffic flow in the general purpose lanes. According to local transportation officials, the State Route 91 highway is running more smoothly today than at any time since 1980. Carl Williams, Deputy Secretary for Transportation for the State of California, reports that at the end of the first three months of operation, the roadway was covering the facility's operating costs. By December, 1998, the company expects to cover operating costs as well as meet their debt service. Williams also reports that HOV–3 vehicles account for 44,000 out of the 166,000 weekly trips on the express lanes. As an incentive to encourage ridesharing, vehicles with three or more passengers are exempt from the Express Lanes tolls, while all others are charged for Express Lanes usage. The costs vary with time, ranging from $.50 to $2.75 per trip. Frequent users can opt to pay a $15.00 monthly fee and receive a $.50 discount per trip, independent of time of day. All fares are automatically deducted from each customer's pre-paid account using electronic "read-write" transponders mounted on the car windshield. Currently, over 50,000 motorists have established an Express Lanes account and are equipped with transponders.

According to Gerald Pfeffer, Senior Vice President of United Infrastructure, an official of the State Route 91 Express Lanes owner/operator consortium, preliminary reports indicate that the majority of Express Lanes customers use the facility on a discretionary basis, rather than on a daily basis. Express Lanes customers represent all income levels, thereby dispelling the notion that only higher income motorists benefit from congestion pricing. Apparently, the facility is attracting a broad array of commuters including: contractors; plumbers; office workers; and parents. This finding is not surprising given the demographics of the population in that area. Affordable housing in the suburbs surrounding the State Route 91 facility attracts large numbers of lower to middle income residents who commute to employment centers in adjacent counties.

By all accounts, this project has been considered an initial success. While long-term success is yet to be determined, preliminary reports indicate that the capacity increase gained by the addition of two new toll lanes in each direction has substantially reduced peak-period congestion. Waiting times at entry points to the State Route 91 facility have been significantly reduced.

Other projects nearing implementation after initial pre-project studies under the Pilot Program are in Lee County, Florida, where off-peak toll discounts following an across-the-board toll increase in late 1995, will be used to try to divert traffic away from the most congested time periods. This project will be implemented within the next several months. In Houston, Texas, a pricing project about to get underway

will sell excess capacity on an existing HOV–3 lane on Interstate 10 to HOV–2 vehicles. Both of these projects are expected to provide new evidence on the response of travelers to the pricing of highway facilities. In Los Angeles, a just completed report on the first phase of the Southern California Association of Government's congestion pricing pilot study includes recommendations by a local task force of business, environmental and transportation interests for implementation of a HOT (High Occupancy Toll)-lane project in the Los Angeles area. Further study of specific routes will be pursued prior to implementation.

Question. What level of funding did the projects under the congestion pricing pilot program receive and spend?

Answer. A total of $30,613,479 of program funds were obligated prior to the rescission of unobligated balances and transfer of authorizations for fiscal year 1996 and fiscal year 1997 to other programs. Of this amount, $24,108,000 went to implementation projects in San Diego ($7,960,000), Lee County, Florida ($16,000,000), and to support the California Department of Transportation's monitoring study of the private sector project on State Route 91 in Orange County, California. Another $5,414,386 went to support pre-project efforts in San Francisco, Minneapolis, Houston, Boulder, Portland, and Westchester County, New York. An additional $1,091,093 was used by FHWA to conduct research and public outreach in support of local project efforts.

Question. To what extent has FHWA been able to overcome the reluctance of elected officials and policy makers to establish these programs?

Answer. We believe that significant progress has been made in bringing pricing to the forefront for consideration as a demand management tool in metropolitan areas across the U.S. Transportation officials, business interests, environmental groups, and others have begun to discuss the possibilities for road pricing solutions to congestion and air pollution problems. The progress that has been made flows out of the pre-project efforts that FHWA has supported, as well as FHWA's public education efforts, but is largely due to the efforts of FHWA's project partners at the State and local level. They have been on the front lines of introducing pricing concepts into the local context, and their efforts, following guidelines established by FHWA, have brought the participation of a wide variety of local interest groups into the development of local project proposals. Recent interest in road pricing has been spurred by the initial success of the privately-sponsored road pricing project on State Route 91 in Orange County, California, and by the early stages of our pilot project in San Diego. Our pre-project efforts in Florida, Texas, New York, Minnesota, Colorado, and Oregon have also generated considerable interest.

We recognize that much remains to be learned about the role that pricing can play in improving the efficiency of urban transportation systems but believe that carefully designed pilot projects, conceived and developed with full public participation, can play a positive role in improving urban transportation service. We recognize that the path to implementation will not be a smooth one, and any new projects will need to be developed slowly, with due regard to potential equity and other state and local concerns. Still the Department needs to be ready and able to provide support to state and local efforts when it is needed. The Value Pricing Pilot Program will provide a way for State and local governments and toll authorities to continue to experiment with congestion pricing solutions, using the Pilot Program both for financial and technical support. It will also provide a way of demonstrating Federal backing of these efforts.

Question. Why does the administration believe there is sufficient interest in congestion pricing to support the value pricing pilot program? How many projects are currently ready to take advantage of these funds?

Answer. We expect there to be considerable interest in this program in major metropolitan areas where concern with environmental problems and growing traffic congestion have led many to look for new and innovative solutions. As indicated by the activity on current pilot projects, and by the overwhelmingly positive response to FHWA's regional workshops on congestion pricing, very active interest in congestion pricing has been stimulated in several cities, including some of those facing the nation's worst air quality and congestion problems. The first workshop, held in Claremont, California in September, 1995, had 60 participants. In October, 1995, the second workshop, held in Philadelphia, had 80 participants. The Chicago workshop, held in May, 1996, had 104 participants, and 130 people participated in the Houston workshop in November, 1996. At our latest workshop, held in Tampa, Florida, in April 1997, approximately 80 attendees discussed recent and potential future applications of pricing in the U.S. Very active discussions by a wide variety of agencies represented at these workshops showed a very high level of interest in the potential of pricing solutions to congestion and air quality problems. A spur to the interest in pricing as an air quality tool will be the Environmental Protection Agency's soon

to be issued guidance document on "Use of Market Mechanisms to Reduce Transportation Emissions," which will describe how cities and states can gain SIP credits for the adoption of market-based transportation demand management measures.

Several of our current project partners, including Caltrans and the Southern California Association of Governments, the State of Minnesota, and Boulder, Colorado, should be ready to move forward with specific implementation proposals in fiscal year 1998. Portland, Oregon, and perhaps another project in Texas may be ready for implementation by fiscal year 1999. New York may be further from actual implementation, but this could change quickly depending on local conditions. The same can be said for possible pricing projects in the San Francisco area.

Even though we believe there is sufficient interest to justify our proposal, we also recognize that interest in the value pricing program and concept does not necessarily translate into a State and local commitment to implement value pricing projects. For this reason, FHWA has proposed to limit the risk of program funds not being used by incorporating into the Reauthorization proposal a "rolling lapse" provision, under which unused program funds would become available for redistribution to the States if they remain unused for congestion pricing purposes after four years of availability.

Question. What criteria will FHWA use to select the pilot projects?

Answer. As we did for the Congestion Pricing Pilot Program, FHWA will listen carefully to current and potential project partners in developing guidelines for program participation. We intend to be flexible and responsive to local needs, while maintaining sufficient oversight to ensure that projects will provide new and useful information about the potential of congestion pricing as a tool of transportation demand management. One of our goals will be to encourage broader applications of pricing, including new and innovative types of parking pricing, as we move forward under the Value Pricing program. We will continue to try to support pricing innovations by existing toll authorities, and we will continue to look for new and innovative applications of pricing that meet local needs and conditions.

INFRASTRUCTURE CREDIT ENHANCEMENT PROGRAM

Question. The grant amount is limited to $100 million per year, far less than many large projects. The Alameda Corridor project, for example, which meets DOT's criteria under the legislation and received a $400 million federal loan this year, could have absorbed the Program's resources for 4 of the program's 6 fiscal years. How does the Secretary intend to maximize the value of the program to a large project or projects?

Answer. The Alameda Corridor project will receive direct Federal assistance in the form of a loan, not a grant as contemplated under the proposed credit enhancement program. Unlike other forms of Federal spending, the Federal budgetary cost of such a loan is based on the estimated net present value of the cash inflows and outflows associated with the loan. Alameda Corridor will receive a $400 million Federal loan this year; however, that loan requires only $59 million of budget authority (appropriated in the fiscal year 1997 Omnibus Consolidated Appropriations Act, Public Law 104–208) to fund the estimated subsidy costs.

The Secretary intends to maximize the value of the Transportation Infrastructure Credit Enhancement Program by using grants (limited to 20 percent of project costs), together with any supplemental contributions by States and other entities, to establish a Revenue Stabilization Fund for each project which will be used to secure external debt financing or drawn upon, if needed, to pay debt service costs in the event project revenues are insufficient to meet annual debt service requirements. These grants could be most effective if they secured smaller, junior lien bond issues which in turn helped facilitate the issuance of larger, senior lien bond issues not directly assisted by the program.

Question. How and why did the program evolve from a loan program (outlined in the fiscal year 1998 budget request) to a grant program (NEXTEA legislation)? Has the intent of the program changed from the initial version of the proposed program, which was modeled in part on a $400 million direct federal loan to the $2 billion Alameda Corridor project? Would the program likely be used to assist projects as large as the Alameda Corridor project, or would it be limited to somewhat smaller projects?

Answer. The program evolved from a loan program to a grant program in order to address concerns raised by the Department of the Treasury. Although the Treasury Department shares DOT's view that large projects of national significance require additional forms of assistance, on fiscal policy grounds it favors grants over direct lending techniques to enhance a project's financing. The Administration's NEXTEA proposal synthesizes DOT's programmatic objectives of encouraging inno-

vative finance and private sector participation with Treasury's preference for using grant mechanisms.

Question. In addition to using grants for credit enhancement purposes, does the Department also intend to pursue credit enhancement in the form of direct loans similar to the Alameda Corridor project loan in the future outside the Credit Enhancement Program? If so, will the Department have the discretion to do so based on its authority under NEXTEA?

Answer. The Administration's reauthorization proposal (NEXTEA)—including the Transportation Infrastructure Credit Enhancement Program—does not contain the legislative authority to make direct loans (such as that received by the Alameda Corridor) or provide other forms of credit assistance. The Department cannot provide such assistance without legislative authority to do so.

Question. The Secretary is given the authority to select projects for Credit Enhancement Program grants. DOT has had inquiries from states, including small or rural states, and has noted that 18 states have projects costing less than $100 million that would qualify for Credit Enhancement Program grants. What projects in which states would qualify? What projects in which states would qualify for the program with projects at or over $100 million?

Answer. DOT has not made any determinations about the eligibility of specific projects for assistance under the proposed credit enhancement program. Of several threshold criteria relating to national significance, one addresses project scale. It would require a project to cost at least $100 million or 50 percent of the State's most recent annual apportionment of Federal-aid highway funds, whichever is less. The Department has noted that, based on fiscal year 1997 apportionments, there are 18 States that could potentially qualify projects costing less than $100 million for credit enhancement grants under this criterion.

Question. If this program is established, would projects now underway be eligible for funding? Would projects qualify such as the Boston Central Artery? San Francisco's BART extension? Has the suggested freight tunnel beneath New York Harbor been suggested as a potential grant recipient?

Answer. Any type of surface transportation project that is proposed to be eligible for Federal assistance under title 23 or chapter 53 of title 49 in the Administration's reauthorization proposal would be permitted to receive a Revenue Stabilization Fund grant, as long as it satisfied the program's eligibility criteria. To meet those criteria, the project must:

a. be of "national significance" in terms of moving people or goods more cost-effectively (the Secretary will establish specific guidelines concerning improved productivity, cost-benefit analysis, job creation, and other factors);

b. be unable to obtain adequate financing on reasonable terms elsewhere;

c. be included on the State's transportation plan, and, if in a metropolitan area, be approved by the metropolitan planning organization;

d. have its application for assistance be submitted by a State or local government;

e. cost at least $100 million or an amount equal to 50 percent of the State's annual Federal-aid apportionments, whichever is less; and

f. be supported at least in part by user charges or other dedicated revenue streams.

Projects meeting these threshold criteria then would be evaluated by the Secretary based on a qualitative analysis of their credit-worthiness, degree of leveraging private capital, use of innovative technologies, and other factors. This program is intended to help large revenue-generating projects obtain private financing by enhancing their external debt. Projects already underway, such as the BART extension and the Central Artery, presumably have already secured the necessary financing or identified future funding sources and should not need such revenue stabilization funding. (The Central Artery project's current finance plan does not contemplate additional Federal assistance outside the State's regularly apportioned Federal-aid funding.)

To our knowledge, no proponents of the New York Harbor freight tunnel project have approached the Department about seeking assistance under the Transportation Infrastructure Credit Enhancement Program. If the project satisfied the proposed eligibility criteria, it could seek funding under this program. Its application would be evaluated along with those of other applicants.

Question. Beyond the basic eligibility criteria, what expectations does the Administration have about the type of public-private partnerships that the Secretary would select for the Program to assist? Has DOT made any estimates on the amount of private capital that the Program might attract?

Answer. The goal of the program is to encourage the development of large, capital-intensive infrastructure facilities through public-private partnerships consisting of a State or local government and one or more private sector firms involved in the

design, construction or operation of the facility. It will encourage more private sector and non-Federal participation, and build on the public's willingness to pay user fees to receive the benefits and services of transportation infrastructure sooner than would be possible under traditional funding techniques. DOT has no preconceived notion of how these arrangements should be made. The program should be flexible enough to allow the public and private entities to structure their partnerships as effectively as possible according to their needs.

The credit enhancement program could effectively help these large projects access the capital markets if the Revenue Stabilization Funds were used to enhance junior-lien debt, which is difficult to sell. If a Revenue Stabilization Fund secured junior-lien bonds financing 33 percent of project costs, and if the reserve equaled 20 percent to 25 percent of the issue size, you might achieve a 12:1 to 15:1 leveraging ratio. Thus, annual budget authority of $100 million used in connection with junior lien bonds in this manner could support private financing of $1.2 to $1.5 billion a year. That would be only one project of a scale equal to the Alameda Corridor, but could represent a few projects of smaller scale.

Question. What entities will be able to apply for funding of these publicly owned facilities—private organizations, cities, states, metropolitan planning organizations?

Answer. A project sponsor may be a corporation, partnership, joint venture, trust, or governmental entity or instrumentality. If the entity is not a State or local government or any agency thereof, the project it is undertaking must be publicly owned and sponsored—meaning that it satisfies applicable Statewide and metropolitan planning requirements and that a State or local government or agency thereof submits its application to the Secretary.

CONGESTION MITIGATION AND AIR QUALITY (CMAQ)

Question. What type of projects were predominately funded out of the ISTEA CMAQ funds, e.g. HOV lanes, transit stops, etc.?

Answer. Since its introduction in 1991 as a major transportation program under ISTEA, the CMAQ program has steadily evolved to become an important component in the funding of State and local transportation projects and programs. Projects which are eligible for funding under the CMAQ program include: transit improvements, traffic flow improvements, shared ride/demand management programs, bicycle/pedestrian projects, alternative fuels, inspection and maintenance programs and others with air quality benefits.

The overall obligation rates for CMAQ projects for fiscal years 1992-1995 are as follows:

—$1,267,000,000 (46.8 percent) for transit including bus and vehicle purchases, new bus and rail services;

—$835,000,000 (30.9 percent) for traffic flow improvements including HOV lanes, traffic signal synchronization and turning lanes;

—$206,000,000 (7.6 percent) for rideshare/demand management programs including carpool and vanpool programs, guaranteed ride home programs, etc.;

—$74,000,000 (2.7 percent) for bicycle/pedestrian projects including new pedestrian and bike paths, pedestrian bridges and walkways, bike lockers and storage, etc.;

—$130,000,000 (5.0 percent) for other transportation control measures (TCM's) including inspection and maintenance (I/M) programs and other projects not classified by the above; and

—$193,000,000 (7.0 percent) for STP/CMAQ obligations in States with no non-attainment areas which may use CMAQ funds for STP-eligible purposes.

Question. Were the projects funded under the CMAQ program part of the States' transportation plans prior to passage of ISTEA or were they new projects? What are some examples of innovative projects built to help improve air quality? What air quality gains have been realized from the past six years of CMAQ projects?

Answer. The ISTEA charted a new course in flexible funding transportation programs with the creating and funding of the CMAQ program. The focus of CMAQ as an air quality improvement program is unique as a transportation funding program. In the early years of the program, it is likely that the projects funded under CMAQ had been developed prior to ISTEA and already were "in the pipeline," as it is sometimes referred. As the program evolved, other innovative alternative fuel projects, inspection and maintenance programs and freight improvements have been developed to meet the goals the CMAQ program, and funded under the broad eligibility allowed only under the CMAQ program. Transportation and environmental organizations contacted during a 1994 program review reported that many of the projects now funded under the CMAQ program would not have been funded under other programs.

The CMAQ program has funded some exemplary projects such as:

—The Intermodal Transportation Center in Worcester, Massachusetts. The intermodal transportation center will assist Worcester in encouraging the use of mass transit by providing easy access to rail, bus and shuttle services, enhancing bicycle and pedestrian access and improving traffic flow in the downtown area.

—The Transtar facility in Houston, Texas, is an advanced intelligent transportation management system which monitors traffic conditions and notifies authorities of freeway accidents and congestion problems. The center improves accident response time and reduces the blockage time on area freeways.

—A transit operating assistance project in Ventura County, California, represents an outstanding example of a cooperative, grassroots effort to implement a transportation/air quality strategy that benefits the local entities as well as the larger region. The county instituted new intracounty bus routes and linked the new routes to existing city-run services, allowing improved access to major activity centers throughout the county, and connections to existing dial-a-ride services in rural parts of the county.

In 1995 alone, CMAQ funded projects accounted for reductions in carbon monoxide of 431 tons per day, in volatile organic compounds of 170 tons per day, and in oxides of nitrogen of 113 tons per day. These benefits will continue for the life of the project.

While most CMAQ-funded projects are small relative to the size of the transportation infrastructure and yield benefits commensurate with that size, some projects yield considerably greater benefits. Inspection and maintenance programs have been funded under CMAQ programs in at least 5 States yielding between 2 tons per day to more than 20 tons per day.

CMAQ-funded projects are critical for some nonattainment areas to demonstrate conformity of their transportation plans and programs, thus allowing States and local areas to continue their federally funded programs. In these and other areas, CMAQ funding also has been necessary to ensure funding for transportation control measures contained in the State air quality implementation plan, or SIP.

Finally, the benefits of CMAQ funded projects should not be restricted only to air quality benefits when evaluating this program. Transportation projects usually meet multiple objectives, and this is true of CMAQ projects as well. In addition to air quality benefits, these projects have served to help provide congestion relief, environmental mitigation, economic development, and have assisted in meeting other environmental goals and objectives.

INTERMODAL ISSUES

Question. Has DOT conducted a comprehensive assessment of intermodal needs, with specific attention on freight infrastructure requirements? If so, what are the conclusions of this assessment?

Answer. In creating the National Highway System (NHS), the States and MPO's identified the critical highway connections to major intermodal terminals, including freight facilities, based on criteria established by the Secretary. This effort documented the major public and public/private intermodal connections affecting the efficient movement of people and goods throughout the nation. This information was sent to Congress on May 24, 1996, for approval as part of the NHS and will be used in the future to identify the condition and infrastructure needs of these connections.

Very large container ships are about to be placed in service on major shipping routes connecting U.S. ports to the global marketplace. To assess their impact on waterside and port infrastructure as well as landside transportation facilities, the Department of Transportation is conducting four outreach meetings during the spring and summer of this year that will involve representatives of shippers, transportation providers and pubic transportation agencies responsible for freight movement. This activity is jointly sponsored by the Office of the Secretary and the modal administrations within the Department involved in goods transportation. Its goal is to bring consensus within the Department and the freight community on the potential impacts on transportation infrastructure occasioned by these "big ships" as well as to provide sufficient time prior to these vessels common use to permit a coordinated response by those responsible for making transportation investments.

FHWA has undertaken a multi-year research project to study and document impediments to intermodal freight efficiency. Phase I of this research has concluded, and a two-volume report was produced in 1996. The report is titled "Intermodal Freight Transportation." Volume I, discusses impediments, data sources, and provides a detailed bibliography.

Volume II presents an intermodal impediments fact sheet and an in-depth discussion of the federal-aid eligibility of intermodal freight projects. The impediments identified include physical, regulatory, technical, facility, financial, labor, institutional, and operational barriers and impediments for port, rail/truck, and airport facilities. The one major conclusion of this research is that impediments to intermodal freight transport are widespread and diverse.

Phase II of the intermodal impediments project, currently underway, looks at strategies for overcoming the impediments identified in Phase I. The project will produce a primer for transportation planners on how to overcome impediments, along with detailed case studies of intermodal projects and processes in the U.S.

Question. Since DOT does not propose to fully fund NEXTEA and relies on the States and the private sector to provide funding through other financing methods and State Infrastructure Banks, does DOT have evidence that this approach will be adequate to meet intermodal needs?

Answer. NEXTEA's innovative finance programs expand the financing capabilities of States in order to complement DOT's traditional grant programs. State Infrastructure Banks (SIB's), for instance, offer a menu of loan and credit enhancement assistance that can tailor public funds for specific project needs, thereby increasing the effectiveness of an overall transportation program.

Our evidence indicates that most states intend to incorporate innovative finance techniques. DOT's solicitations for State Infrastructure Banks have received strong response. A pilot round in 1996 selected ten states for SIB designation. Our second round has attracted 26 new proposals from 29 states. From this experience alone, we can conclude that at least three-fourths of the states believe that SIB's offer the potential to improve their transportation programs.

Intermodal projects may indeed be well-suited for innovative finance and private sector participation. Most freight-related projects are linked to privately-owned or privately-operated facilities and thus offer the potential for significant private financial participation. On the other hand, a strictly passenger-oriented intermodal project frequently lends itself to private investment. Many passenger terminals, for example, provide retail and commercial opportunities that can attract private funds as part of an overall financial package.

Question. What steps is DOT taking to ensure that intermodal issues—particularly freight concerns—receive attention and action in the Department?

Answer. The Department has taken several steps to raise the profile of intermodal freight within the Department. It has sponsored several Freight Planning Seminars across the nation for Metropolitan Planning Organization, State, and federal transportation planners which highlight the many issues related to intermodal freight and adequately planning for freight.

In addition, the modal administrations have participated in two National Freight Planning Conferences (Albuquerque, NM, in September 1995 and San Antonio, TX, in October 1996) which provided forums for the discussion of the many facets of freight planning. Two additional National Conferences are being planned. These conferences draw attendees from various levels of government throughout the country, including the various modes at the U.S. DOT, as well as representatives from the private sector freight community.

The FHWA also sponsors, the Freight Stakeholders National Network, a consortium of the nation's eight major freight-related trade associations, which promotes more effective interaction between the public and private sectors on infrastructure planning and investment throughout the U.S. As part of this effort the modal administrations contribute articles to a bi-monthly newsletter called Intermodal Connections. This newsletter presents information on intermodal issues, including freight-related issues, to a wide range of transportation professionals.

The Department also has developed a course on "Landside Access for Intermodal Terminals" to address surface transportation infrastructure issues created by increasing volumes of maritime and air traffic. This three-day course focuses on the methodologies and design elements for improving landside access to seaports and airports and presents tools and techniques necessary to define challenges and make improvements. There have been 10 presentations of this course at major port cities around the country.

Question. How does DOT's current and proposed research support intermodal policy and infrastructure needs? Which modal administrations are conducting intermodal research and/or demonstration projects? What results are expected from this research and demonstration? What percentage of DOT's total research budget does this represent?

Answer. In addition to the specific courses, conferences, and publications referenced in the responses to questions 1 and 3 above, the following "general" re-

search activities within DOT have resulted in applications that support intermodal policy and infrastructure needs.

—Applications of Intelligent Transportation System (ITS) program technologies.

—Compendium of Intermodal Freight Projects, examples from throughout the U.S. of innovative projects and funding mechanisms.

—Freight Forecasting, development of a quick-response freight forecasting system, manual, and course.

—Public-Private Freight Planning Partnerships, research and documentation of the state-of-the-art in bringing the public and private sectors together to properly plan for freight.

—Tools for transportation planners, including the Characteristics of Urban Freight Systems (CUFS) manual, documentation of The Use of Intermodal Performance Measures by State Departments of Transportation, guidelines for public-private freight planning, and freight data handbook.

Many of the US DOT efforts to support intermodal transport through research, education, information services, and technology applications have been cooperative efforts involving multiple modal administrations and the Secretary's Office of Intermodalism. Examples of these cooperative endeavors are:

—Landside Access to U.S. Ports, 1992, study by Transportation Research Board (TRB): MARAD, FHWA, FRA co-sponsorship

—Report on Intermodal Activities in the Department of Transportation, 1993: Office of Intermodalism, FHWA, FRA, MARAD, FTA, FAA co-sponsorship

—Intermodal Technical Assistance for Transportation Planners and Policymakers, 1994: Office of Intermodalism, FHWA, FRA, MARAD, FTA, FAA co-sponsorship

—Intermodalism—Making The Case/Making It Happen, national conference and proceedings convened and compiled by TRB, 1995: Office of Intermodalism, FHWA, FRA, MARAD, FTA, co-sponsorship

—Setting An Intermodal Research Agenda, national conference and proceedings convened and compiled by TRB, 1996: Office of Intermodalism, DOD co-sponsorship.

The results of this research are outlined in responses to this question and to questions 1 and 3.

Although actual figures are not available, it is estimated that less than one percent of DOT's total research budget is specifically directed to supporting intermodal policy and infrastructure needs. Since intermodal transport makes use of individual modes' infrastructure, research directed to making the respective modal policies and infrastructure more user-friendly generates considerable benefits for intermodal transport.

FHWA RESEARCH AND TECHNOLOGY PROGRAMS

According to DOT, ISTEA provided $87 million for FHWA research and technology programs. The Administration's NEXTEA proposal authorizes $1.6 billion for the highway research program and includes $420 million for a new program entitled the "National Technology Deployment Initiatives" whose goal is to significantly expand the adoption of innovative technologies by the surface transportation community.

Question. What are the major elements of the substantially increased research program? What are the highest priorities of the expanded research program? Which ISTEA research programs is DOT proposing to keep and which is it eliminating? How will research programs be evaluated?

Answer. The major elements of the research and technology program included in NEXTEA are the 1) Intelligent Transportation Systems (ITS), 2) National Technology Deployment Initiative, 3) Professional Capacity Building and Technology Implementation Partnerships, 4) Long-Term Pavement Performance (LTPP) and Advanced Research, and 5) State Planning and Research Program.

The highest priorities of the research and technology program are to continue exploration, evaluation, and deployment of ITS technologies; deliver significant, tangible benefits to transportation users through acceleration of the deployment of all technologies; provide comprehensive technology training and education initiatives that yield the required competency to apply the technologies; initiate exploratory long-term research which involves more uncertainty and risk, but holds the potential for great payoffs; continue the LTPP program which was initiated by Congress; and provide funds to the States so that they may address research and technology transfer activities that are relevant to their needs.

The FHWA's Research and Technology Program consists of complementary elements of research, technology transfer, and deployment activities, reaching a range of partners and audiences—such as State and local governments, academia, Native

American tribal governments, private industry, and others—with different services—research, development, technology implementation, technical assistance, training, test and evaluation, incentive funding, technology exchange, etc. Solutions to national issues of infrastructure quality and mobility lie in innovations and new technologies. Discovering and refining technologies and then transferring, promoting, and integrating them into the national transportation systems requires a multifaceted program such as is proposed for the FHWA's Research and Technology Program under NEXTEA.

NEXTEA includes a number of programs that are included under ISTEA. Intelligent Transportation Systems, National Highway Institute, Local Technical Assistance Program, Eisenhower Fellowship Program, University Transportation Centers, University Research Institutes, Long-Term Pavement Performance Program and the State Planning and Research Program were included in ISTEA and are also proposed in NEXTEA. The National Technology Deployment Initiative is modeled closely after the Applied Research and Technology Program which was included in ISTEA. Also, the Technology Implementation Partnerships is modeled after the SHRP Implementation subsection which was included in ISTEA. The Advanced Research Program, a new element, focuses on exploratory, long-term research, which involves more uncertainly and risk than traditional applied research, but holds the potential for great payoffs.

The ISTEA research and technology programs which are not included in NEXTEA include the Highway Timber Bridge Research and Demonstration Program, Applied Research and Technology Program, Seismic Research Program, and Fundamental Properties of Asphalts and Modified Asphalts.

The FHWA Research and Technology Program is developed through an internal and external review process, including technical, program, and executive levels, considering needs within the highway system, "customer needs," highway community priorities, funding availability, and other issues. Projects are aligned with identified high priority areas to ensure that the program focuses where the needs are greatest. This review process continues through the technology transfer, deployment, and training stages to similarly ensure that the programs focus where the needs are greatest. Research is evaluated through a variety of means, selecting the most appropriate methodology to meet the circumstances. For example in ITS, we have used extensive field measurement techniques, robust integrated methodological processes, and peer review by practitioners and scientists, for field operational tests, model deployment, and the entire advanced transportation management research program, respectively.

It appears that in the opening paragraph to this question, the $87 million under ISTEA and the $1.6 billion under NEXTEA, including the reference to the $420 million for the National Technology Deployment Initiative, is a comparison of 1 year under ISTEA to 6 years under NEXTEA; neither of these figures includes ITS. In addition, some of the proposed funding under the Research and Technology Program under NEXTEA previously was General Operating Expenses (GOE) funds received by the Federal Highway Administration under the annual appropriations process.

Question. What has the ISTEA highway research program taught DOT about deploying new technologies in the field? How have these lessons learned been incorporated into the NEXTEA proposal? How will innovative technology information be disseminated and what tools will be used to significantly expand the use of innovative technologies?

Answer. During the years of ISTEA, closer ties and partnerships have been established throughout the transportation community. One very good example of this tighter association is the Priority Technology Program under the Applied Research and Technology program (ISTEA Section 6005); this program includes projects identified in the field and uses Federal/State/industry/academic partnerships to fund and conduct the projects as a means of increasing "ownership" among the partners and facilitating the movement of the technology into use.

Superpave technology is being implemented through a Federal/State/industry partnership that has provided significant acceleration of the technology. More than two-thirds of the States are already using the Superpave binder specification, and most of the remaining States will make the switch this year. The Superpave second goal, implementation of the volumetric mix design procedures by 2000, is also well on its way; two-thirds of the States were already using, during the 1996 construction season, equipment and techniques associated with this stage. The Superpave regional centers, formed through similar partnerships, will continue to help State, county, and local governments and others with their implementation of this technology.

The National Technology Deployment Initiatives (NTDI) under NEXTEA will focus resources on a distinct set of priority goal areas which directly address the

concerns of the traveling public. The NTDI was developed as a result of extensive outreach and discussion among major stakeholders within the surface transportation community. For delivery of NTDI resources, special emphasis will be placed on getting projects using innovative technologies "on the ground" through direct support to States and other implementors with funding and deployment support for individual projects. These projects will provide valuable insight to advance the state-of-the art, and with more widespread confirmation of the benefits of use of innovative technologies through the NTDI program, there will be significantly greater use of regular Federal-aid and other funds for technical innovation by the States and others.

Similarly, the Technology Implementation Partnerships program will facilitate the formation of partnerships and advanced implementation for products from the Strategic Highway Research Program as well as other high profile technologies that will benefit from a focused implementation effort. Individual organizations do not usually possess a "critical mass" of skills and financial resources to independently implement most advanced technologies; this program will facilitate bringing key partners together in a cooperative effort to plan and execute actions needed to expand adoption of innovation.

The Long-Term Pavement Performance (LTPP) Program, a 20-year effort under the Strategic Highway Research Program created in 1987, will be continued through partnerships with users such as State highway and transportation agencies, contractors designing and building roads, and international transportation interests. This long-term program has the unique challenge of testing, in actual service, performance of various pavement designs and materials in different conditions, resulting in a comprehensive national data set for analysis and ultimate improvement in pavement performance. The reauthorized LTPP will emphasize the creation of products to continue to fulfill the original LTPP program objectives and to meet future pavement technology needs.

Other Research and Technology elements similarly are designed to integrate a connection with the user community early in the process to facilitate adoption of innovative technologies. Means for dissemination include training, test and evaluation, deployment projects, technology exchange, hands-on demonstrations, or other means. A variety of traditional and advanced media are used to disseminate technologies and information about technologies, including classroom instruction, satellite broadcasts, mobile laboratories, computer disks, CD-ROM packages, and Internet-based instruction, to provide the highway community with the knowledge, skills and abilities needed to effectively implement and adopt the innovative technology.

Question. What are the indications that the surface transportation community will benefit from the $420 million National Technology Deployment Initiatives program? What methods will the new initiative use to increase the use of innovative technologies at the state and local levels? How do these differ from the training and technical assistance provided through the Local Technical Assistance Program—whose NEXTEA funding is $72 million? How is the National Technology Deployment Initiatives program linked to the ITS deployment activities?

Answer. Along with the other research and technology elements of NEXTEA, the National Technology Deployment Initiatives (NTDI) has been developed as a result of extensive outreach and discussion among major stakeholders within the surface transportation community. For delivery of NTDI resources, special emphasis will be placed on getting projects using innovative technologies "on the ground" through direct support to States and other implementors with funding and deployment support for individual projects. These projects will provide valuable insight to advance the state-of-the art, and with more widespread confirmation of the benefits of use of innovative technologies through the NTDI program, there is expected to be significantly greater use of regular Federal-aid and other funds for technical innovation by the States and others.

The NTDI will focus resources on a distinct set of priority goal areas which directly address the concerns of the traveling public; including improved safety, reduced delay, extended infrastructure life through use of high-performance materials and innovative preservation techniques, enhancement of the environment, and reliable system operation. Coupled with uses of advanced materials and construction/maintenance processes, we hope to foster increased use of innovative contracting procedures where valuable to the overall goals and will look to maximize flexibility in project administration to meet the need of implementing agencies. In addition, training will be combined with other methods, such as demonstration projects, to create a synergistic approach to each technology deployment area.

This focus on achieving actual deployment of innovative technologies in selected goal areas through funding and other direct support, predominately to State depart-

ments of transportation and highway agencies, is the key unique feature of the NTDI program. This contrasts with the Local Technical Assistance Program, for example, which provides technical training and assistance on a wide spectrum of transportation issues to city and county staff. In addition, the NTDI is not linked to the ITS deployment funding proposal, which will focus on integrating existing ITS components (such as traffic management systems, transit information systems, and traveler information systems) in metropolitan areas, and deployment and integration activities in rural areas and for commercial vehicle operations projects. We believe that the various elements of our proposal are very complementary, and each addresses an important Federal role in support of innovation.

INTELLIGENT TRANSPORTATION SYSTEMS (ITS) AUTHORIZED FUNDING

ISTEA established the Intelligent Transportation System (ITS) Program, and authorized funding of $659 million from 1992 to 1997. The administration's reauthorization proposal would provide $1.278 billion over six years—a 94 percent increase in contract authority. From 1992 to 1997, the ISTEA authorized funds were supplemented with $602 million through the annual appropriations process.

Question. What are the reasons for the doubling of contract authority for the ITS program?

Answer. Contract authority is being requested for those portions of the ITS program which would most benefit from a long term, predictable source of funds. These program areas include the ITS Deployment Incentives Program, crash avoidance research, the advanced vehicle control and information systems program area, the operational test program, the architecture and standards program, and major portions of the mainstreaming program area (technical assistance, planning/policy issues, and training). These represent program areas which we know will be viable and in need of substantial funding support throughout the period covered by the reauthorization of ISTEA. Program areas with resource needs which may vary widely in amount and technical content from year to year, such as most of the research program areas, will continue to be justified and requested on an annual basis through the appropriations process.

It should also be noted that the proposed ITS Deployment Incentives program, which is designed to help spur integrated, intermodal deployment of ITS technologies and strategies, accounts for a total of $600 million of the contract authority being requested. The remainder of the contract authority being requested for research and technology transfer activities totals $678 million, an amount comparable to the amount received for similar activities under ISTEA.

Question. Does DOT expect that the ITS program will continue to be significantly supplemented with additional funds through the annual appropriations process?

Answer. As noted above, we expect to continue to request funding through the annual appropriations process for activities such as research, program assessment, and program support. Our fiscal year 1998 budget request for these activities totals $54 million, which is less than half the amount received through the appropriations process in fiscal year 1997 ($122 million). If the contract authority available to the ITS program is increased as requested, and is not earmarked for specific projects, we expect annual appropriations requests for the program to remain relatively modest.

ITS DEPLOYMENT INCENTIVES PROGRAM

During fiscal years 1991 through 1997, the Congress has provided the ITS program with about $1.3 billion for research and development, operational testing of ITS technologies, and various activities to support deployment. In its NEXTEA proposal, DOT is refocusing the program to place a greater emphasis on deployment. DOT proposes a $100 million annual deployment incentives program, that would be used to integrate individual components of metropolitan areas' ITS systems. Despite this new push to deployment, DOT must overcome a number of obstacles before ITS technologies are widely deployed and integrated. These obstacles include: the lack of a working knowledge of the systems architecture, technical standards to integrate individual ITS technologies, technical knowledge at the state and local level, cost-benefit data on ITS, and funding in light of other priorities.

Question. The results of the model deployment programs will not be known before DOT begins distributing up to $65 million in deployment incentive funds for metropolitan areas. To what extent should DOT first complete and assess the model deployment program before it distributes deployment incentive funds?

Answer. Although we expect to learn a great deal from the implementation and evaluation of the four metropolitan area model deployment projects, the primary purpose of these projects is to serve as showcases of the integrated, intermodal de-

ployment of technologies and strategies which we already know to be very effective. The model deployments will help convince transportation decision-makers that integrated, intermodal ITS deployment is viable, practical, and cost effective. There is no need to wait for the completion and evaluation of the model deployment projects to help metropolitan areas which have already made a decision to deploy integrated, intermodal ITS infrastructure get started with seed funding through the proposed ITS deployment incentives program.

Question. According to the Administration's proposal, recipient's of the ITS deployment incentive funds will be required to conform to national ITS standards, yet many of the ITS standards will not be completed until 2001. How will recipient's conform to non-existent standards?

Answer. As noted in the section by section analysis accompanying the Administration's NEXTEA proposal, it is expected that the Secretary would determine on an annual basis which ITS standards would be used to fulfill the requirements of this provision. Only standards which were sufficiently mature in the development and adoption process would be included in this determination. It should be noted that, although some lower priority standards development and adoption activities may extend until 2001, we expect to have nearly all of the high priority standards in place well before then. Substantial progress is already being made. There are currently nine applicable standards which have been formally approved:

—SAE J1708, Truck & Bus Practice Serial Data Communications Between Microcomputer and Heavy Duty Vehicle Applications
—SAE J1663, Truth-In-Labeling Standard for Navigation Map Databases
—SAE J1761, Information Report on ITS Terms and Definitions
—SAE J1763, A Conceptual ITS Architecture: An ATIS Perspective
—NEMA TS–3.1 NTCIP Overview
—NEMA TS–3.2 Simple Transportation Management Protocol
—NEMA TS–3.3 Class B Profile
—NEMA TS–3.4 Global Object Definitions
—NEMA TS–3.5 Actuated Controller Unit Object Definitions

Four standards are currently in the review and approval processes within the standards development organizations:

—Message Set for Commercial Vehicle (CV) Safety & Credentials Information (TS 285)
—IEEE P1404, Guide for Microwave Communications System Development: Design, Procurement, Construction, Maintenance and Operations
—IEEE P1454, Recommended Practice for the Selection and Installation of Fiber Optic Cable in Intelligent Transportation Systems' (ITS) Urban, Suburban, and Rural Environments as well as Transportation Operating Centers and Associated Campuses
—Surface Vehicle Information Report: SAE J2355, ITS Data Bus Reference Architecture Model

Sixteen additional standards are under development, 13 of which should have usable products by the end of the 1997:

—NEMA TS–3.6 Variable Message Sign Object Definitions
—NEMA TS–3.x Ramp Meters Object Definitions
—Message Set for CV Credentials (TS 286)
—Dedicated Short Range Communication (DSRC) Protocol—Physical Layer
—DSRC—Data Link Layer
—DSRC Message Sets for CV Operations and Electronic Toll Collection
—Advanced Traveler Information Systems (ATIS) Core Message List and Data Dictionary
—In-Vehicle Navigation and Related ATIS Communications Device Message Set Standard
—Message Set for May Day Alert
—Location Referencing
—In-Vehicle Databus Interface
—Standard for Data Dictionaries for ITS
—Standard Message Set Template for ITS
—Message Set for External TMC Communication
—Navigation & Route Guidance (N&RG) Function Accessibility
—N&RG Transactions

Question. To what extent do you believe that transportation agencies at state and local levels have sufficient technical expertise to effectively use the Deployment Incentive Program funds for ITS system integration? Is there a risk that these funds will either go unused for some years as state transportation engineers begin to develop sufficient technical expertise, or that officials unfamiliar with ITS and systems integration will not make the best use of deployment funds?

Answer. Certainly, we do not contend that all States and metropolitan areas will be able to effectively use ITS deployment incentive funding during the first year or two of the program. However, we do believe that sufficient expertise does exist in many progressive States and metropolitan areas to make full and prudent use of the available funds at the beginning of the program. And as States and metropolitan areas increase their level of expertise, partially through the training and technical assistance activities sponsored through the ITS program, the pool of qualified applicants for ITS deployment incentive funds will grow. It should also be noted that we have specified very precise eligibility criteria for the ITS deployment incentives program, which would need to be satisfied before an application for funds would be favorably considered. Detailed knowledge of ITS and systems integration principles will be required to successfully satisfy these criteria.

ITS RESEARCH AND PROGRAM SUPPORT ACTIVITIES

In addition to providing funds for the deployment incentive program, the NEXTEA proposal includes $678 million over six years for carrying out multi-year research and operational tests of promising ITS technologies. These funds will be used to explore developing technologies, including the automated highway system (AHS) under which a computer and telecommunication network assumes the normal tasks of driving.

Question. What information does the Department have regarding the willingness of the public to accept the AHS concept, including their willingness to surrender control of their vehicles to a central computer system?

Answer. It is too early to tell how widely acceptable automated control will be. However, driving simulator experiments in the U.S. and Europe indicate that driver comfort with automated systems increases as the accuracy and reliability of the control system increases and as the drivers gain experience. Additionally, the 1997 Demonstration will provide a rich opportunity for passenger feedback on automated operations.

Question. What portion of these funds does DOT expect will go to further development of the AHS and related technologies?

Answer. As explained in the proposed NEXTEA legislation, the Department has integrated the AHS, collision avoidance and driver-vehicle interaction programs into the Intelligent Vehicle program. This program will shift resources to working with industry to develop integrated driver warning and assistance systems that will improve safety and mobility. Part of the Intelligent Vehicle program will investigate extending the capabilities of vehicle-based collision avoidance and driver information systems through interaction with the infrastructure. This is expected to yield improved safety and mobility. The only specific AHS work that remains is about $2 million per year to develop an AHS concept which evolves from the vehicle-and infrastructure-based systems resulting from the Intelligent Vehicle program.

Question. At the end of the six year authorization period, where does DOT expect the AHS concept to be and how much more money will be needed to advance full deployment?

Answer. At the end of the authorization period, US DOT will demonstrate an "intelligent vehicle" which will use on-board and limited infrastructure cooperative systems that will increase the driver's safety and efficiency but leave control of the vehicle in the driver's hands. We will also evaluate specific applications of trucks and buses where infrastructure cooperative automation yields substantial safety and mobility benefits. Potential applications include longitudinal and lateral control of transit buses in narrow tunnels and lateral control of snow plows to assist in finding the road edge. The AHS concept will be defined by the end of the authorization. But because full deployment is at least 50 years away, U.S. DOT has not estimated the cost nor do we plan to request additional funding in the near future.

NATIONAL TECHNOLOGY DEPLOYMENT INITIATIVES

Question. Section 6004 of the administration's proposal would establish the National Technology Deployment Initiatives program, with funding for $420 million over the 6 year period. According to the proposal, the program is intended to significantly expand the adoption of innovative surface transportation technologies. Goals include improving safety, environmental protection, and reduced delay in construction zones. As written, the proposal could extend to ITS applications. Will ITS projects be eligible for funding under this program? If so, doesn't this appear to conflict with the ITS Deployment Incentives Program restriction on deployment funding only for integration of existing or planned systems, and not new ITS systems in metropolitan areas?

Answer. In general, ITS projects envisioned by the Intelligent Transportation Infrastructure Deployment Incentives Program (NEXTEA Sec. 6057) will not be eligible for National Technology Deployment Initiative (NTDI) program funds. However, certain projects sometimes identified as ITS-related or non-ITS based traffic management concepts within the scope of the NTDI goals may indeed be supported with NTDI funds. An example would be Road-Weather Information Systems (RWIS), which have great value as a potential information source to both metropolitan and rural traveler information systems. RWIS's primary objective is to provide for more effective winter maintenance operations by guiding the timing, location, and extent of anti-icing and snow plowing forces, which can significantly aid safety and mobility. Innovations in RWIS and other winter maintenance techniques are expected to be advanced and deployed with NTDI funds, and this will enhance the value of traveler information in these areas.

WOODROW WILSON MEMORIAL BRIDGE

Reconstruction of the federally-owned Woodrow Wilson Memorial Bridge is estimated to cost nearly $1.5 billion—about $400 million for the bridge and $1.1 billion for the adjacent roadways and interchanges in Maryland and Virginia. As specified in the Woodrow Wilson Memorial Bridge Authority Act of 1995, the federal government will fund the reconstruction of the bridge, while the non-federal Authority (established by Virginia, Maryland, and the District of Columbia) will assume ownership of the bridge and undertake the reconstruction project. Accordingly, the NEXTEA proposal includes $400 million for bridge reconstruction.

Question. When will the Authority be ready to start design and construction?

Answer. Maryland and Virginia have passed enabling legislation to enter into an interstate agreement or compact to legally establish the Authority, but the District of Columbia has not. There also is no agreement among all involved parties on the project implementation schedule. The Woodrow Wilson Coordinating Committee plans to proceed with development of the project by the issuance of a design request for proposals upon the selection of a management consultant for the project and the issuance of the Final Environmental Impact Statement and the Record of Decision. This is with the anticipation of the having all outstanding issues resolved so that design can start in 1997 with construction being completed in 2004.

Question. Has a finance plan been developed, including specific sources of funding for roadways and interchanges? If the federal government is paying for the bridge, how will the roadways and interchanges be funded?

Answer. To date basic financial analyses have been performed for the total project to evaluate the various alternatives on an equal basis using different funding sources including tolls. If the federal government funds the bridge portion of the project, then the roadways and interchanges could be funded from a variety of sources including tolls, regular federal-aid apportionments, dedicated state highway revenue, and bonding which could be financed over a long term period.

Question. Should the project be allowed to progress without a finance plan?

Answer. Once the outstanding issues are resolved the project should proceed to construction with any necessary additional financial analyses being performed as appropriate. Due to the condition of the structure it is imperative that the project moves forward and final financing be completed as soon as possible.

Question. Will tolls be established for the bridge? If so, what amount of toll is being considered? Will travelers divert to the western half of the beltway to avoid paying tolls, thus worsening congestion in that area? Was the western half of the beltway constructed to accommodate the truck traffic that may use that section of the beltway to avoid tolls?

Answer. All of the replacement alternatives considered assumed tolls on the bridge. Only a reconstruction of the existing six lane facility would be toll free. The replacement alternatives considered tolls in the range of $1.00 to $2.00. Most of the truck traffic is local, so it is unlikely many of these trucks would divert to the western half of the beltway simply to avoid toll on the Woodrow Wilson Bridge; the distance is too long to offset the cost of the toll. Most of the western half of the beltway, including the American Legion Bridge crossing the Potomac River, has eight lanes.

Question. Is the $400 million federal contribution fixed? Has the federal government pledged to pay any cost increases that might occur on the bridge reconstruction?

Answer. The Administration has recommended that the federal contribution to the cost of the total project be the "minimum federal share" as defined in the NHS Designation Act of 1995 ($400,000,000). This recommendation coincides with the amount specified in the Administration's fiscal year 1998 budget as well as the Ad-

ministration's reauthorization proposal, introduced as S. 468. There has been no federal pledge to pay any cost increases beyond $400,000,000. The FHWA expects that the difference between the $400,000,000 Federal share and the total estimated reconstruction costs of $1,500,000,000 would be made up through a mix of sources—a portion financed with long-term, tax-exempt debt backed by user or other special fees, and a portion from the States which could include allocations of some part of their annual apportionments of Federal-aid highway funds available through reauthorization.

ENGINEERING COST ESTIMATES

Question. Will States continue to use 15 percent of construction costs as a basis for estimating the construction engineering component of an individual project's total costs? If not, how will States estimate the construction engineering cost component of total costs for any individual project?

Answer. Construction engineering costs can vary considerably from project to project, for example, engineering costs as a percentage of construction may be greater on a bridge construction project than on a highway rehabilitation project. FHWA has encouraged States to estimate engineering costs based on the type of project. The States have considerable information on actual engineering costs which can be used to develop more accurate project cost estimates.

Question. Will FHWA develop guidance on how to estimate costs, or will it be up to individual States to develop their procedure?

Answer. The States are in a much better position to estimate costs than FHWA. Since costs vary from State to State, estimates would be more accurate if developed by individual States. The States are responsible for estimating the total costs of the project, including design, right-of-way purchases, and construction so it is logical that they also be responsible for estimating engineering costs.

Question. What effect will removing this requirement have on construction engineering estimates and estimates for the total costs of individual projects?

Answer. Removing this requirement should have no effect on estimates. The 15 percent requirement does not apply to individual projects, but to the total program, therefore, any State currently using 15 percent as a standard estimate of a project's engineering cost is doing so on its own accord.

RAIL-HIGHWAY CROSSING PROGRAM

Question. According to FHWA, in 1994 the states used Section 130 funds to improve about 800 railroad crossings. Given the limited number of railroad crossings that can be improved with section 130 funds, to what extent does FHWA believe that states will use NEXTEA railroad safety funds to support education and enforcement initiatives?

Answer. Under the NEXTEA grade crossing allocation formula, 23 States will gain funds and 27 States and the District of Columbia and Puerto Rico will lose funds in fiscal year 1998 compared to their ISTEA allocation formula. (This analysis does not include hazard elimination funds which also can be used for grade crossing. If this is factored into the equation, 32 States and Puerto Rico gain and 18 States plus D.C. lose.)

States with increased funding are: Alabama, Arkansas, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Minnesota, Mississippi, Missouri, Nebraska, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Wisconsin.

States with decreased funding are: Alaska, Arizona, California, Colorado, Connecticut, Delaware, District Columbia, Florida, Hawaii, Kentucky, Maine, Maryland, Massachusetts, Michigan, Montana, Nevada, New Hampshire, New Jersey, New Mexico, New York, Oregon, Pennsylvania, Rhode Island, Vermont, Virginia, Washington, West Virginia, Wyoming, Puerto Rico.

Question. What are the reasons for expanding the section 130 program to allow the states to improve crossings on private property? How will the public benefit from federally-funded infrastructure improvements at these crossings?

Answer. Safety improvements at private grade crossings have the potential to decrease crashes and fatalities at these crossings. The safety problem at private highway-rail crossings has been a small but constant source of collisions and casualties over the years. In the last two years (1995 and 1996), there were 942 collisions resulting in 94 deaths and 261 injuries. This problem surfaced and was emphasized during public hearings which the Department held early in 1996. Crossings where the public would benefit would include those open to public travel and where the public is often not even aware they are on private property; for example, residential, recreational and industrial crossings. These categories comprise about 40 percent of

all private crossings. (The remaining 60 percent are farm crossings.) However, about two-thirds of the collisions, occur at these non-farm crossings. On a collisions per crossing basis, the most hazardous appear to be recreational crossings with residential and industrial crossings following a close second and third. Another major concern are the nation's passenger and potential high-speed rail corridors, where the public benefit accrues more to the rail passengers and crews. The intent of expanding this program to private crossings is to provide the State program manager the option of addressing these problems where and when there will be a public benefit. The State program manager will weigh these benefits against benefits which would be realized by other options and will select accordingly.

Question. To what extent, will NEXTEA require states to update rail and motor vehicle traffic information in the inventory when they improve the physical characteristics of a crossing? Will states be allowed to use rail-highway crossing funds to update the national inventory? With only 800 crossings improved annually, how will DOT ensure that the entire national inventory is updated?

Answer. Currently, and since 1975, updating the National Inventory has been a volunteer effort. Most states and railroads do update the file, some more regularly than others. In an average year, the Federal Railroad Administration processes between 80 and 100 thousand changes into the data base. We have proposed that the allocation of funds for crossing safety improvements be predicated (partially) on the number of public crossings and the type of warning devices installed at those crossings. The provision requiring states to post information on safety improvements made with Federal funds is intended to provide accountability and to insure that annual allocations are able to take into account improvements already paid for. We would expect that when a state posts changes or improvements to warning device information they will also update traffic counts. Highway planning and Section 402 funds are already available, and have been available, which may be used for updating the National Inventory, and Rail-Highway Crossing Funds could be used under this Administration's proposal.

Question. Will states that currently do not have many railroad crossing accidents and thereby cannot demonstrate a reduction in accidents be allowed to transfer all their railroad crossing funds to the hazard elimination program?

Answer. States will be able to transfer grade crossing funds to hazard elimination after they reduce public grade crossing accidents compared to the average experienced in calendar years 1994, 1995, and 1996. This does not preclude a State with a very small number of grade crossing accidents from transferring funds. For example, if over calendar years 1994–96, a State has an average of 4 crashes at public grade crossings per year, and then has only 2 such crashes in calendar year 1998, it can transfer 50 percent of its grade crossing funds into hazard elimination.

Question. NEXTEA also allows states to transfer up to 100 percent of hazard elimination funds to NHTSA's State and Community Highway Safety grant Program (also known as the section 402 program) or its motor carrier safety allocation. What is the potential impact of this transfer on the railroad crossing program?

Answer. The safety impact on the grade crossing program itself should be minor. Flex into the 402 program does not preclude expenditures on grade crossings. Grade crossing safety information campaigns are eligible for Section 402 funding. States would not have been permitted to flex their funds into hazard elimination unless they had already demonstrated a measurable decline in number of crashes, and then transfer is permitted only in proportion to the decline in crashes. NEXTEA proposes allowing transfer of funds out of the program only to the extent that the number of crossing collisions has been reduced. This, and the needs-based formula distribution of funds, will reduce both the number of states and the amount of funds likely to be transferred out of the program. The formula uses as a baseline the average number of collisions between 1994 and 1996. A rolling three year count is used in order to dampen any potentially erratic shift that an anomalous good or bad year could have on the distribution of funds. If a state has an average of one accident or less, they will be allowed to transfer the funds.

However, under NEXTEA, States would be provided more flexibility to address a wider variety of crossing safety improvement options as it broadens program eligibility to include education and enforcement programs, trespass prevention programs and improvements at private crossings when there will be a public benefit. Private crossing eligibility could be significant for those states developing high-speed rail corridors. Therefore, even a limited amount of funding could be used to leverage significant results in areas such as public awareness campaigns or enforcement programs, previously not eligible for the program's funding.

NEXTEA also retains 100 percent funding eligibility for projects which close or eliminate one or more crossings, and retain the $7,500 per crossing bonus program

eligibility for communities that close crossings (when bonus is matched by the railroad).

Question. How will state's apportionments for the Rail-Highway Crossing Program under NEXTEA compare to their apportionment under ISTEA? Which states will gain funds and which states will lose funds?

Answer. Under the NEXTEA grade crossing allocation formula, 23 States will gain funds and 27 States and the District of Columbia and Puerto Rico will lose funds in fiscal year 1998 compared to their ISTEA allocation formula. (This analysis does not include hazard elimination funds which also can be used for grade crossing. If this is factored into the equation, 32 States and Puerto Rico gain and 18 States plus D.C. lose.)

States with increased funding are: Alabama, Arkansas, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Minnesota, Mississippi, Missouri, Nebraska, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Wisconsin.

States with decreased funding are: Alaska, Arizona, California, Colorado, Connecticut, Delaware, District Columbia, Florida, Hawaii, Kentucky, Maine, Maryland, Massachusetts, Michigan, Montana, Nevada, New Hampshire, New Jersey, New Mexico, New York, Oregon, Pennsylvania, Rhode Island, Vermont, Virginia, Washington, West Virginia, Wyoming, Puerto Rico.

FINANCIAL PLANNING

Question. DOT's NEXTEA proposal will require a financial plan for any project with an estimated total cost of $1 billion or more. Does DOT have any specific requirements for the form content and scope of such financial plans? If so, when will they be published? If not, does DOT plan to implement this requirement on a case-by-case basis?

Answer. The FHWA does not currently have any specific requirements for form, content or scope of a financial plan. If the provision for a financial plan becomes law, FHWA will develop guidelines or regulations for this requirement.

Question. Currently there are no federal requirements for preparing a cost estimate. On what cost estimate will this requirement be based—an estimate prepared during an environmental impact statement process or some other specific estimate?

Answer. With the aging of Interstate highways, States are initiating some large scale reconstruction projects in urban areas costing billions of dollars, such as I–15 in Salt Lake, UT and Central Artery in Boston, MA. The FHWA required the States to develop plans for these two projects to outline the financial resources that would be available for the projects. These financial plans contain cost containment provisions and are updated at specified intervals as appropriate. As with the provision in the NEXTEA proposal requiring a financial plan for all projects estimated to cost $1 billion or more, FHWA would expect the State to use the most reliable estimate at the time it develops a plan. The FHWA also may require periodic updates of the plan.

Question. If a project is initially estimated to cost less than $1 billion, but then costs increase, will this requirement then apply?

Answer. The primary purpose of a financial plan is to serve as a cost containment strategy, therefore FHWA would expect the states to develop a financial plan for any mega-project that has the potential for reaching the $1,000,000,000 threshold.

ITS MAINSTREAMING

Question. Provide examples of some of the tangible results that can be expected from the ITS mainstreaming program. What measures of success does DOT use to estimate the benefits from the mainstreaming projects?

Answer. The purpose of the mainstreaming program is to make integrated, interoperable, compatible ITS infrastructure deployment as "normal" a part of the federal-aid highway and transit planning, development and funding processes, as construction of highway and mass transit facilities is today. That will require 1) technical assistance from headquarters until it can be delivered as a part of regular services provided through field offices. 2) guidance development on architecture, best practices, and the over 100 standards expected to support ITS deployment; 3) extensive training of FHWA and FTA staff as well as state and local staff working in this area. That will begin with an awareness of benefits and move to building key skills. In the short term our measures will be of "activities"—number of guidance documents, extent of distribution, number of courses, number of attendees etc. A more meaningful measure is the desired outcome of a surface transportation industry that routinely deploys ITS infrastructure as appropriate in a particular locality, existence of regional frameworks that are consistent with the national architecture,

use of standards, and routine inclusion of ITS in the planning process (which now includes operations planning.)

The tangible results that can be expected from the ITS/CVO mainstreaming program are institutional processes that lead to deployment of CVISN throughout the country by 2005. These processes consist of state ITS/CVO business plans which document the goals and components of a state's program, and regional business plans that integrate the business plans of the states to promote overall interoperability. Additional tangible results are expected through regional champions to help lead the deployment agenda and the mainstreaming forums which will focus on lessons learned and reduce the trial and error time that it takes to implement CVISN. The measures of success that DOT is using are the cooperative linkages that result between state agencies to allow CVISN to operate in an integrated fashion, and the level of technical readiness of the states to implement CVISN.

Question. The fiscal year 1998 request for the mainstreaming category is twice the size of the fiscal year 1997 funding. Why the substantial increase? What activities will this funding be spent on?

Answer. The total fiscal year 1997 investment in the Mainstreaming program area is approximately $13.5 million, including $2 million in training activities being funded under the Operational Tests program area. The request in fiscal year 1997, however, was for $21.7 million, because of the urgency of carrying out technology transfer and training. The GAO reflected the same urgency in it recent findings. This year, our Mainstreaming funding request mirrors our previous request. Our top priority is training, which will now be expanded to included state and local staff and more specialized skill building. Another activity being substantially increased is the Planning/Policy area, which is proposed to grow from $1 million in fiscal year 1997 to $4 million in fiscal year 1998. The increased funding for this program area will be used to continue and expand efforts to coordinate regional planning functions with State and local traffic operations and maintenance functions to foster an integrated approach to operations planning and deployment of ITS infrastructure to achieve transportation system operations and management objectives.

Question. How will this program make use of the results from projects such as the Model Deployment Initiative and Commercial Vehicle Information System Networks (CVISN)?

Answer. We have recently received an extensive case study of the Atlanta Showcase effort which has provided us and those developing the training curricula with an excellent set of detailed lessons learned. Likewise we expect that both the quantitative information emerging from both the CVISN and metropolitan area model deployments as well as the institutional lessons learned will become case studies used in numerous seminars, college curricula and our own training courses.

NATIONAL SCENIC BYWAYS PROGRAM

Question. How has DOT used the funding provided under ISTEA, and how successful has DOT been in meeting the program's goals and objectives?

Answer. The Scenic Byways Program Grant activities show that the States and local communities have achieved significant accomplishments, both in initiating new programs as well as strengthening existing programs through a variety of scenic byways projects. The Scenic Byways discretionary grant funds are serving as seed money for the States and local communities to conserve the unique qualities while developing economic resources along their byways. These funds have also provided an opportunity for the States and communities to work as partners in reaching common goals.

Consistent with ISTEA, scenic byways funds have been used to provide technical assistance to the States for the development and enhancement of scenic byways programs. Technical assistance activities have included workshops, conferences, and technical research to provide educational awareness to related scenic byways concerns. Additionally, a National Scenic Byways Clearinghouse as well as a World Wide Web site (Internet) have been established to allow the States and the public to have national/international access to current scenic byways information.

Question. What types of projects have been funded in this program during ISTEA? Has this led to a significant increase in the number of States implementing a scenic byways program?

Answer. Overall, $74,300,000 in Scenic Byways Program discretionary grant funds were awarded to 37 States, including Puerto Rico and the District of Columbia, for 552 projects. There were six categories of eligible project types outlined in ISTEA. The following identifies each project category, the funds awarded, and the total number of projects in each category.

Project category	Awards	Projects
Planning, design, and development of State scenic byway programs	$22,600,000	186
Making safety improvements to byways	782,000	2
Construction along the scenic byway (ranked in order of greatest number of projects to least: Interpretive Facilities, Pedestrian & Bike facilities, Turnouts & Overlooks, Rest Areas, and Shoulder Improvements	38,900,000	202
Improvements to enhance recreation area access from byways	1,500,000	26
Protecting historical, archaeological, and cultural resources adjacent to byways	665,000	6
Developing and providing tourist information to the public about byways	8,900,000	130
Total	74,347,000	552

Eighteen (18) States previously had no State scenic byways and program took advantage of Scenic Byways funding to establish one. Eleven (11) additional States used Scenic Byways grant funds to improve and upgrade their existing programs.

Question. What evidence does DOT have that projects funded with scenic byway program funds would not have otherwise been funded by States and localities using other Federal-aid funds?

Answer. Demand for projects funded with Scenic Byways Program funds exceeded the total available by 145 percent. While the States had the opportunity to use Transportation Enhancement funds (TE) to undertake these byway projects that were unable to be funded under the National Scenic Byway Program, generally they did not. This limited use of TE funds is due in large part to the significant demands placed upon TE funds for other purposes, such as bicycle and pedestrian facilities.

MOTOR CARRIER REGULATORY RELIEF AND SAFETY DEMONSTRATION PROJECT

Question. When does the FHWA plan to make available application forms for the operators of light trucks that are eligible to enroll in the FHWA's Motor Carrier Regulatory Relief and Safety Demonstration Project?

Answer. On August 28, 1996, the FHWA published a Notice of Intent which outlined our proposed project plan. After the comment period, modifications were made and a draft Notice of Final Determination was prepared. This Notice of Final Determination, to be published soon, will contain the application requirements.

Question. NHTSA has made wearing safety belts the centerpiece of its strategy to save lives on our Nation's roads and highways. For a number of years safety belt usage was on the increase on a nationwide basis. NHTSA has reported nationwide rates of safety belt use of 62 percent in 1992 and 67 percent in 1994. During hearings last year the Department once again reported that the rate was 67 percent. DOT's stated goal for some time has been to achieve 75 percent usage rate by 1997. In your current budget submission you indicate that your new goal is 80 percent by 1999. The 1999 goal appears very ambitious based on past accomplishments. Why does the Department keep raising the goal when it has yet to achieve past goals?

Answer. Safety belt usage rate goals established by the Department are ambitious, but achievable, when compared to historical data and our experience of what is necessary to meet these goals. Looking historically at safety belt usage rates, between 1982 and 1992 usage rates increased from 11 percent to 59 percent. This increase of almost 50 percentage points was due primarily to the passage of state seat belt laws. From 1991 through 1996, overall usage increased an additional nine percentage points as a result of increased enforcement and public education.

In response to the President's new initiative to increase belt use, on April 16, 1997 the Department submitted a plan to the President entitled The National Strategy to Increase Seat Belt Use in the United States. In addition to outlining a new four point strategy to increase safety belt usage, the plan calls for even more ambitious goals of 85 percent usage by the year 2000 and 90 percent by 2005. As compared to previous goals, the Department believes these new goals are achievable based on the Administration's support of the issue, our knowledge of what works in the states to significantly increase safety belt usage, and growing public and private sector support, such as the Air Bag Safety Campaign. Specifically, we now know that the combination of primary seat belt legislation, increased enforcement of existing laws, ongoing public education, and the establishment of public and private sector partnerships will dramatically increase usage in the U.S.

Question. What are the chances of achieving the nationwide rate of 75 percent during 1997?

Answer. In 1996, seven states reported a usage rate at 75 percent or above. California reported the highest rate at 87 percent. Overall, the national average for 1996 is 68 percent. NHTSA expects several additional states to raise their safety belt usage rates above the 75 percent goal during 1997; however, it is unlikely that the national average will increase seven percent points within one year.

NHTSA believes that it is realistic to expect that the United States will achieve President Clinton's new goals of 85 percent safety belt usage by the year 2000 and 90 percent by 2005. NHTSA believes these new goals are achievable based on the Administration's support of the issue and our knowledge of what works in the states to significantly increase safety belt usage. Specifically, we now know that the combination of primary safety belt legislation, increased enforcement of existing laws, on-going public education, and the establishment of public and private sector partnerships will dramatically increase usage in the U.S.

Question. How many states currently have a safety belt usage rate of 75 percent?

Answer. As of 1996, seven states reported safety belt usage rates at 75 percent or higher. These states are: California (89 percent), Hawaii (80 percent), Iowa (75 percent), New Mexico (85 percent), North Carolina (82 percent), Oregon (82 percent), and Washington (84 percent).

Question. How many states have achieved an 80 percent rate and which states are they?

Answer. As of 1996, six states reported safety belt usage rates at 80 percent or higher. These states are: California (87 percent); New Mexico (85 percent); Washington (84 percent); North Carolina (82 percent); Oregon (82 percent); and Hawaii (80 percent).

Question. What is the current range for the lowest usage rate and the highest?

Answer. Based upon 1996 data reported by the States, safety belt use rates range from 43 percent in North Dakota to 87 percent in California.

Question. What safety initiatives is the department planning between now and 1999 that will help it achieve a nationwide average of 80 percent when only a few states now enjoy that level of accomplishment?

Answer. On April 16, 1997, Secretary Slater submitted a plan to President Clinton, entitled The National Strategy to Increase Seat Belt Use Nationwide, which outlines a new strategy to achieve the Department's goals for safety belt use. This plan combines many of the highly effective current activities and initiatives with a new four point strategy for fiscal year 1998 and beyond. The plan is based on building public-private partnerships, enacting strong legislation, embracing high visibility law enforcement, and conducting coordinated public education. The plan builds upon existing programs and activities such as the Special Traffic Enforcement Programs and the Air Bag Safety Campaign partnership that have been so successful.

The plan also includes two new initiatives to help increase seat belt use. The first, included in the Department's reauthorization proposal, provides incentive grants to encourage states to improve their occupant protection laws and enforcement (sample criteria include enacting primary belt laws, requiring a fine of at least $25 for each safety belt or child seat violation, and conducting special enforcement programs). Alternatively, states can qualify if they meet belt use rate goals. The reauthorization proposal also includes a provision which would transfer funds from highway construction to occupant protection programs if a state does not meet belt use goals by 2002. The second initiative is a new Executive Order, signed by President Clinton on April 16, 1997, that requires all Federal employees to wear seat belts while on duty, requires belt and child seat use in National Parks and on Department of Defense installations, and encourages Tribal Governments and Federal contractors and grantees to adopt seat belt policies and programs

NATIONAL ADVANCED DRIVING SIMULATOR (NADS)

Question. NADS will be located at the University of Iowa in Iowa City, IA. As envisioned, NADS will represent the state-of-the-art in driving simulation, exceeding the capabilities for realism of the Daimler-Benz Driving Simulator (DBDS)—the most advanced driving simulator in the world—and the Iowa Driving Simulator (IDS)—the most advanced driving simulator in the United States. NADS is currently scheduled to be completed and operational in May 1999. TRW, the contractor building NADS, plans to begin fabricating the various simulator components (vision system, motion system, etc.) after the critical design review is completed in March 1997, the University of Iowa will award the contract to build the facility in June 1997. All components are scheduled to be completed before the end of 1998. The total estimated cost to build NADS now stands at $49.3 million—an increase of $17.3 million from NHTSA's original 1989 estimate. The Department of Transpor-

tation (DOT) approved NADS contingent upon NHTSA obtaining a one-third cost-sharing commitment from non-DOT sources. As a result, DOT will be responsible for paying $32.9 million toward the project, with the remaining $16.4 to be paid by non-DOT sources. To date, the University of Iowa and the State of Iowa have contributed $11.6 million, and TRW has contributed $3.6 million, for a total of $15.2 million, leaving NHTSA in search of an additional $1.2 million in cost sharing. Once operational, NADS will become the second driving simulator owned by DOT. FHWA currently has a driving simulator, called HYSIM, at the Turner-Fairbank Highway Research Center in McLean, VA. HYSIM was built in 1983 to study human factors issues relating to highway signs and markings, roadway geometry and in-vehicle displays. What research does DOT plan to perform on NADS that cannot now be performed on IDS or HYSIM, and how will this research benefit the Department?

Answer. Due the extremely limited motion cuing available from either the HYSIM or the IDS, neither of these devices is capable of realistically simulating hazardous driving situations that precede or precipitate vehicle crashes. Only the NADS, with its large excursion X-Y motion base (62 feet by 62 feet) and large yaw rotation capability (plus or minus 330 degrees) can provide the necessary motion cues that are generated by vehicles in pre-crash maneuvers. Without this level of motion cuing fidelity, the results of simulations in this regime of vehicle operation would be highly questionable. The extreme high fidelity of the NADS cuing systems will allow NHTSA to analyze with confidence the complex driver-vehicle interactions that occur during crashes. This will lead to the development of advanced driver aids and information systems to assist drivers in avoiding crashes.

Question. What would be the effect of DOT moving the FHWA research now being conducted at HYSIM so that it would be performed using NADS?

Answer. The FHWA research being conducted at HYSIM serves several critical functions to the overall research program in highway safety. The importance of maintaining the HYSIM at TFHRC is highlighted by the fact that the HYSIM:

—is closely integrated with in-house research conducted in other TFHRC laboratories;
—provides a flexible test bed in which research questions generated by contract research can be refined or extended;
—includes the Dynasign, which is a unique system of presenting highway signs and provides the means to evaluate signage in a dynamic driving environment quickly and flexibly;
—is in close proximity to FHWA highway engineers, who comprise the primary customer base for human factors research;
—is used as a demonstration and training tool for junior highway engineers and other FHWA customers.

Moving the research program to NADS would be deleterious to the FHWA research in highway safety and would destroy the critical daily interaction with FHWA engineers and human factors professionals required for conceptualizing, developing, and conducting highway safety research efforts.

Further, a move would:

—deprive FHWA engineers of human factors insights into every day safety issues, and result in the fractionation of highway safety concerns;
—decrease the efficiency of industry professionals who must work closely with both engineers and human factors researchers on the same project;
—disrupt in-house FHWA human factors research at a critical point in ITS and safety research restart-up time;
—postpone for several years the deployment and operational testing of ITS and safety systems;
—result in the loss of a critical number of experienced human factors FHWA professionals.

Question. DOT currently estimates a total project cost for NADS of $49.3 million. Through fiscal year 1997, NADS has received $27.8 million from DOT, $11.6 million from Iowa and $3.6 million from TRW—for a total of $43 million. However, NHTSA officials stated that NADS will need about $16.5 million in additional funding for it to be completed. If so, it appears NADS' total cost will be about $59.5 million. Please explain why it appears NADS needs about $10.2 million more than the $49.3 million estimate?

Answer. The estimate for the NADS Facility Development Cost of $49.3 million was provided to Congress in briefings to the House and Senate staff in January 1996 and has always been distinguished from the NADS Total Project Cost. The NADS Facility Development Cost ($49.262 million) is the cost of the Phase II construction contract ($34.105 million) plus the total of all cost sharing contributions ($15.157 million). The NADS Total Project Cost is the NADS Facility Development Cost plus costs associated with the Phase I design competition, Phase III transition

of the NADS operation to Iowa, program planning and management support including cost accounting, Iowa management support, Iowa technical support, and Congressionally mandated studies including the TRB utilization study and the contractor evaluation of Iowa contributed software. The following table provides consolidated costs for the total project:

NADS Total Project Cost Estimates

Project phase	*Project cost*
Phase I Design Competition	$7,827,000
Phase II—NADS Facility Acquisition:	
TRW Contract	(34,105,000)
University of Iowa Cost Share	(11,530,000)
TRW Cost Share	(3,627,000)
Subtotal Phase II	49,262,000
Phase III—Transition	1,800,000
Office Support	950,000
Total Project Cost	59,839,000

Question. DOT approved NADS contingent upon NHTSA obtaining a one-third cost-sharing commitment from non-DOT sources. If FHWA received the $12 million requested for fiscal year 1998, DOT's actual contribution would be $39.8 million, or about 67 percent of NADS' total project cost, which appears to be about $59.8 million. The Iowa and TRW contributions total $15.2 million, or about 26 percent of the total cost. What is NHTSA doing to obtain the additional non-DOT cost sharing (about $4.5 million) it needs for NADS construction?

Answer. The Department approved the NADS project with the condition that one-third of the acquisition cost of the NADS would have to be cost shared by non-DOT sources, not one-third of the total project cost. Thus, the one-third non-DOT cost sharing requirement is based on the $49.3 million or $16.4 million. The total cost sharing that is in place to date is $15.2 million, leaving a balance of $1.2 million yet to be secured. To date NHTSA has received no firm commitments for additional non-DOT cost sharing. However, NHTSA is currently exploring cost sharing with a major truck manufacturer. Preliminary discussion indicate that the manufacturer may be interested in providing the required truck cab and vehicle engineering and dynamics data.

Question. Other than NHTSA, has anyone made actual dollar commitments to pay for operating time on NADS?

Answer. At this time, NHTSA does not have any firm dollar commitments to pay for operating time on the NADS. This is not surprising, since users are unlikely to make such firm commitments 2 years before the simulator is built. However, NHTSA continues to believe in the overall finding of the TRB evaluation of the potential utilization of the NADS; i.e., the NADS will have an 80 percent utilization rate within 2 years of becoming operational.

TRANSIT NEW STARTS PROGRAM

Question. The transit program is the only major component of the Administration's NEXTEA bill whose overall funding authorization was cut as compared to ISTEA. Specifically, transit was cut by $1 billion—from $31.5 billion to $30.5 billion—over 6 years. Is the Administration sending Congress a signal that transit is less of a priority than it was under ISTEA?

Answer. The NEXTEA funding level reflects a more realistic level of increase for the program. ISTEA authorized $5.1 billion each year for fiscal year 1993 through fiscal year 1996 with a large increase in fiscal year 1997. It is proper only to compare ISTEA to NEXTEA without the $2.1 billion "bubble" provided in fiscal year 1997 Budget Authority. Therefore, NEXTEA represents an increase of $1.2 billion or 4 percent over six years. Transit remains the same high priority under NEXTEA as it did under ISTEA.

Question. Currently, there are 13 transit new starts with full funding grant agreements and two more, Sacramento and San Francisco BART, awaiting Full Funding Grant Agreements. If the two additional projects receive their FFGA's for a total of 15 FFGA's, please describe how much new start funding would be available for other projects under the $634 million level proposed in the President's budget? How much would be available if new starts were to be funded at the high authorization levels proposed in NEXTEA?

Answer. The outyear funding schedules for the BART and Sacramento projects have been accommodated in the President's budget at the $634 million level. The President's budget for fiscal year 1998 proposes to fund the existing 13 existing

FFGA's plus the BART and Sacramento projects. No funding is proposed for other projects in fiscal year 1998. It is anticipated that there will be no projects ready to receive an FFGA until next fiscal year.

To complete current and proposed FFGA's will require about $3.7 billion. NEXTEA would authorize $5.8 billion thereby leaving about $2 billion for additional projects.

Question. Will FTA be able to provide full funding grant agreements for the projects that will be requesting them in the next few years?

Answer. Assuming the authorization levels proposed in NEXTEA, FTA would be able to provide full funding grant agreements for additional projects.

Question. What impact will there be on the cost and schedule of these projects should federal funding not be available for 6 or more years?

Answer. Should federal funding be limited to the extent that no new FFGA's could be issued during NEXTEA, projects seeking new starts funding would likely face the following options: 1) cancellation; 2) delay until the next authorization period [with attendant cost increases and unknown scheduling adjustments]; 3) secure a combination of local and/or State, and non-new start Federal funding [Urban Formula, STP, CMAQ] to finance the project; 4) employ innovative financing techniques to leverage stable Federal revenue streams; or 5) use existing funds to raise bonds to finance construction.

To the extent that project sponsors delayed the initiation of the projects until Federal funding became available, the project costs would most likely escalate due to inflation, although the rate of increase might be mitigated by a more favorable bidding climate in the future.

Question. The President's budget generally freezes transit funding, except for the new starts program which was cut by about 17 percent. Thus, the budget proposes only $634 million per year in actual spending for new starts. The six-year NEXTEA bill proposes new starts funding that begins at $800 million in fiscal year 1998 and grows to $1.03 billion by fiscal year 2003. Since these additional new starts funds are not in the budget, where are they to come from?

Answer. The fiscal year 1998 President's budget proposes funding for 15 projects for which Full Funding Grant Agreements (FFGA's) are in place or pending. Our proposed outyear funding is sufficient to cover funding requirements for these 15 projects. Our reauthorization proposal includes a higher level of contract authority which could become available dependent upon future Federal budget decisions.

Question. Mr. Linton, I understand that on April 9th, you wrote to the Chairman of the Los Angeles County Metropolitan Transportation Authority and essentially informed him that you plan to re-write the full funding grant agreement regarding the troubled Los Angeles rail system. Evidently, you found "serious deficiencies and questionable assumptions" in the recovery plan proposed by Los Angeles. Your letter states that: "We are incredulous that, despite the engineering and financial difficulties on the construction already underway, the Board is contemplating even more requests to the Congress for various costly extensions to your rail system." If you re-write the FFGA for Los Angeles, will you free-up more "contingent commitment authority" to be used for FFGA's for other projects?

Answer. As part of my intensive effort to assist the LACMTA to manage this vital project, I intend to treat the three components of MOS–3, North Hollywood, East Side and Mid-City, as three separate legs. I will issue revised FFGA's for each of these legs with the overall Federal commitment for MOS–3 remaining unchanged. However, the MOS–3 outyear funding schedule will be revised to reflect cash flow requirements for each leg or segment. This will involve some reordering of the funding schedule. To the extent that outyear requests will be adjusted, some additional short term funding may become available. I do not anticipate that this will be a substantial amount and the final amounts will, of course, be contingent on the cash flow requirements analysis conducted by my staff for each segment.

We believe LACMTA's revised recovery plan, currently under preparation, will furnish a blueprint for ensuring that MOS–3 is completed in a timely and effective manner and for fully accomplishing LACMTA's other substantial responsibilities.

TRANSIT FORMULA PROGRAM FUNDING

Question. The FTA is proposing that, beginning in fiscal year 1998, the discretionary bus and bus-related funding and fixed guideway modernization funding be rolled into the Formula Program. FTA Officials state that funds from these categories will be available to be spent for any eligible purpose, as opposed to being limited to specific categories. FTA's most recent needs report painted a bleak picture as to the state of the nation's transit inventory. The report noted that over 13,000 buses were in excess of the useful life guidelines established by FTA and that over

3,800 rail transit vehicles were in excess of the minimum useful life guidelines. The cost to replace these vehicles could be in the billions of dollars. What is FTA hoping to achieve by moving funding for these categories into the Formula Program?

Answer. The significant transit needs are the primary reason for consolidating two categorical programs into a more flexible Formula program. Merging the Fixed Guideway Modernization and Bus grant programs into the Urbanized Area Formula program will provide transit operators with greater flexibility in targeting Federal funding to locally determined needs. Under this proposal, the formula funding level would increase from $2.1 billion in fiscal year 1997 to $3.4 billion in fiscal year 1998. Fixed Guideway Modernization resources will still be apportioned using the ISTEA formula, but once made available, these funds, as well as all other formula funds, may be used for any eligible purpose. This will help local agencies plan by reducing uncertainty, and will improve equity by distributing more funds by formula. It will also enhance the possibility of using innovative financing techniques to leverage the Federal funds.

Question. Under FTA's new funding proposal, what assurance is there that available funding will not be mostly directed to one category at the expense of the other?

Answer. This proposal places the responsibility for local decisionmaking where it belongs—in local hands. Local officials will be free to determine where their greatest needs lie, and direct Federal funding to eligible purposes as appropriate.

Question. What are FTA's long-range plans for replacing buses and rail cars that have exceeded their useful lives? Should we focus Federal funding more on the replacement and maintenance of the existing transit inventory and less on new starts systems?

Answer. We believe that State and local officials will act in the most cost-effective manner if given the authority. The flexibility inherent in the proposed merging of programs will enable local decisionmakers to tailor a larger pool of Federal funds to their specific needs. If the greatest need is bus replacement, funds can be targeted for bus replacement. If the greatest need is for rail vehicles or facilities, funds can be targeted for those purposes.

This flexibility is especially important given the differing life cycles between buses and railcars. Under the current division of programs, a transit operator that receives fixed guideway modernization funds cannot use those funds for new buses, even though the bus fleet may exhibit the greater need. By combining these programs, funds can be used for bus replacement/rehabilitation when needed, and railcar replacement/rehabilitation when needed.

We recognize the need to balance new system construction with support to "older rail cities" for the replacement and rehabilitation of the existing rail fleet and restoration of rail facilities. Our budget provides $634 million, the same amount as for major capital investments, to be distributed by the current statutory formula for fixed guideway modernization.

ACCESS TO JOBS AND TRAINING

Question. How long will it take for these projects to be implemented and begin assisting welfare or previous welfare recipients?

Answer. We anticipate funding the programs that are ready to be implemented to meet the needs of those transitioning from welfare to work. Although the funds are flexible and can be used to plan welfare to work activities, we are urging states and localities to plan and develop their strategies now, so that when funding becomes available, they may move to implement services quickly. The time constraints associated with welfare reform requires speedy action.

Question. Provide an example of the type of project this program will support.

Answer. Localities are free to develop the services and service strategies which the participating stakeholders agree are needed. Strategies may range from conventional bus services to flexible paratransit, including ridesharing strategies. We believe intelligent transportation technologies will allow for more effective coordination of service provided by transit agencies and other providers. The program criteria require that a mechanism be established to coordinate transportation and human service planning and to coordinate existing service providers in developing new service strategies. Therefore, participating transportation agencies, existing transportation operators, welfare agencies, employment training and other human service entities working with employers and community stakeholders are in the best position to develop appropriate service strategies. A funded program can incorporate several different services and types of providers working together to meet unmet needs. The program that is developed is meant to be derived from a comprehensive assessment of needs and must be programmed within the existing MPO and state transportation programming process. We would expect to receive a single applica-

tion to support a comprehensive program, not fragmented pieces from different local applicants.

Question. How many projects will $100 million support?

Answer. The number of projects would depend on whether projects receive a single grant for the entire period or phased funding over several years. This issue has not yet been resolved. We expect projects to occur in each state where welfare-to-work problems exist. In general we would not expect grants to exceed $3–4 million for individual areas.

WASHINGTON METRO

Question. Administrator Linton's testimony before the House Appropriation, Subcommittee on Transportation noted that the Washington Metrorail system continues on its fast track program for completion of the 103-mile system. His testimony also noted that the accelerated construction schedule, which continues to receive an annual appropriation of $200 million, is expected to save as much as $600 million. What does FTA base this savings on and is it true costs savings or expected savings from avoiding out-year inflation increases?

Answer. The fast track accelerates the construction schedule and completes the system five years earlier than originally planned. The estimated savings were based on the avoidance of out-year inflation increases.

Question. Washington Metro recently decided to extend the 103 mile system in Largo, Maryland. Have federal funds been provided to this project? If so, were they provided under a separate appropriation or as part of the $200 million annual appropriation?

Answer. No federal funds have been provided to extend the Metro rail system beyond 103 miles.

BUREAU OF TRANSPORTATION STATISTICS

Question. Since NEXTEA proposed a doubling of the BTS budget, please describe BTS' success stories that would warrant such a large increase in its budget.

Answer. The six-year total for NEXTEA is double the six-year total for ISTEA, but is a 24 percent increase in annual spending over the final year of growth in the ISTEA authorization. BTS started in the first year of ISTEA with a budget of $5.0 million, and grew incrementally pursuant to ISTEA to $25.0 million in fiscal year 1997. The proposed budget in fiscal year 1998 and each subsequent year is $31.0 million, which covers in addition to the Bureau's original responsibilities the airline and motor carrier programs not anticipated by ISTEA. Since its inception, BTS has been able to:

—Conduct the Commodity Flow Survey in 1993 and get the 1997 edition into the field, providing the first benchmarks in nearly two decades of what is shipped, its origin and destination, and how it moved. This was the first successful effort to measure shipments from non-manufacturing establishments and to estimate "bridge traffic" through each state.

—Conduct the American Travel Survey in 1995, providing the first detailed benchmarks of who travels, by which means, for what purposes, and between what locations.

—Complete three Transportation Statistics Annual Reports, including special analyses of transportation and economic performance and of transportation and the environment. The fourth edition, featuring transportation and mobility, is in the final stages of completion.

—Make foreign trade statistics more useful to the transportation community by splitting commodity flows across the US-Canadian and US-Mexican borders by mode and publishing the results on a monthly basis.

—Assemble and publish the National Transportation Atlas Database, a compilation of data on the location, connectivity, and other attributes of the highway, rail, waterway, fixed guideway transit, and airway networks.

—Initiate an interagency agreement with the Bureau of Economic Analysis to more precisely identify the resources consumed by the transportation sector, the quantity of transportation consumed by other sectors of the economy, and the contribution of transportation to the costs of products.

—Conduct a major study through four universities to ascertain the impacts of the Northridge Earthquake on the transportation system of Los Angeles, and the economic consequences of those impacts.

—Establish award winning programs to make DOT's data accessible. BTS has published 18 major CD-ROM titles, and has created an Internet site that serves over 9,000 customers per week with documents and data from BTS, the rest of

the Department, state and local transportation agencies, universities, and international organizations.

—Initiate cooperative programs with transportation and statistical agencies in Canada and Mexico to establish a continental perspective on transportation.

—Absorb the Office of Airline Information and improve the time between data collection and release.

—Absorb the Motor Carrier Financial and Operating Statistics program from the Interstate Commerce Commission and initiate a process to streamline and modernize the program.

—Launch the coordination and standards setting activities listed under a subsequent BTS question.

The proposed NEXTEA funding will meet growing demand for these services, both those initiated under ISTEA and those subsequently added to the Bureau's portfolio. The funding request will also allow pilot and proof-of-concept studies for the new initiatives indicated under the last BTS question as submitted by the Senator.

Question. What progress has BTS made in coordinating Departmental data collection efforts?

Answer. BTS is mandated by ISTEA to encourage coordinated data collection, but is precluded by ISTEA from requiring cooperation from other parts of the Department and other federal agencies unless authorized by the Secretary. BTS has been given responsibility within the Department to review all Office of Management and Budget clearance requests involving surveys to assure they maintain good statistical practice. BTS has also coordinated its own intermodal data collection programs with the other modal administrations and other federal agencies to maximize data collection effectiveness and minimize respondent burden and unwarranted program duplication. In compiling the National Transportation Atlas Database (NTAD), BTS assembled disparate spatial databases from other DOT agencies, established standard formats and metadata documentation that complies with the recommendations of the Federal Geographic Data Committee, and implemented procedures for ongoing maintenance and dissemination. The NTAD represents the first integrated set of spatial transportation networks useful for both national policy studies and intermodal analyses.

Question. What progress has BTS made in setting data collection guidelines and standards for the Department?

Answer. In spite of the limitations cited under the preceding question, BTS has successfully completed several standards-setting activities. BTS represented the transportation community in developing of the North American Industrial Classification System (which is replacing the Standard Industrial Classification system); updating the Standard Occupational Classification System; and the establishing the Standard Classification of Transportable Goods. The last item had been identified as a major need by the Department in 1969, and was accomplished when BTS took the initiative and won the cooperation of the Bureau of the Census, Statistics Canada, and Transport Canada. BTS is also the lead agency in ongoing work to establish standards for geographic data related to ground transportation as part of the National Spatial Data Infrastructure under the Federal Geographic Data Committee, as well as an effort to modernize the Standard Land Use Coding Manual. Most recently, BTS has been asked by the Department to review the feasibility and reliability of proposed output and outcome measures by each modal administration for compliance with the Government Performance and Results Act.

Question. What activities are planned for BTS over the 6 years of the NEXTEA proposal?

Answer. Most of the NEXTEA budget will be consumed by continuing those services required by ISTEA and those later transferred to the Bureau without funding (i.e., the Office of Airline Information and the Motor Carrier Financial and Operating Statistics program of the Interstate Commerce Commission). In response to customer demands, BTS also proposes building upon its initial products and services with three major initiatives. These initiatives include expanded programs of data collection and integration involving international transportation; expanded services to state, local, and private sector decisionmakers, including a grant program to enhance data collection and sharing throughout the transportation community; and a program to develop performance measures in DOT and support performance measurement by state and local agencies. Pilot and proof-of-concept activities would be initiated in each of the following areas under the proposed NEXTEA funding levels.

Transportation in a Global Economy

The initial BTS focus on domestic transportation must be expanded to reflect the increasing importance international trade has on the economic health of the Nation and its individual communities. This expansion includes:

—The domestic transportation of international trade and travel. BTS proposes to work with the Customs Service and the Bureau of the Census to determine where and how international trade and travel passes through the domestic transportation system. Such data are key to understanding the impact of NAFTA and other trade policies on the demand for domestic transportation facilities and services, and to identifying regional and local opportunities to compete in world markets. BTS has assessed major shortcomings in existing data as part of the Bureau's Transportation Statistics Annual Reports.

—The condition, performance, and use of transportation links to other nations. BTS proposes to assemble information on transportation facilities and services that link us to other nations, paralleling the Department's ongoing efforts to measure the condition, performance, and use of transportation within the U.S. The requisite work involves acquiring commercial data sources, maintaining data programs of agencies (such as those of the Maritime Administration) that may be lost with institutional change, and data integration.

—The International Transportation Database. BTS proposes to build a database that supports understanding of international issues, such as the role of transportation in global warming; provides comparative data to inform domestic policy with the experience of other countries with transportation; and contains basic information on international markets for U.S. economic interests.

Enhancing Relevance of National Transportation Statistics for State, Local, and Private Sector Decisions

The DOT budget is less than a fourth of all government spending in transportation, and only 5 percent of spending by the public and private sectors combined. For BTS to enhance the effectiveness of transportation decisions, the Bureau's national programs must be made relevant to the state, local, and private sectors that are the dominant stakeholders. The Bureau must improve the timeliness and geographic specificity of its data programs through increased sample sizes of data collections, the development of monthly transportation indicators, and the development of innovative analytical programs. To minimize cost and burden of these initiatives, BTS must also develop more efficient and less obtrusive methods for data collection, such as through capture of information from Intelligent Transportation Systems and administrative records. To maximize the effectiveness of these initiatives, BTS must also provide technical and financial assistance to organizations that integrate local data collections and analyses with national counterparts. Such activities are already taking place with respect to spatial data. BTS is actively participating in the development of the transportation framework layer of the National Spatial Data Infrastructure (NSDI), which relies on the integration of databases developed at the state and local levels to provide the most accurate and up-to-date spatial data which can be used nationwide. The demand for these activities is underscored by the Bureau's successful participation in the White House Economic Briefing Room, and by a policy statement passed unanimously by the Board of Directors of the American Association of State Highway and Transportation Officials that states "the U.S. Department of Transportation should encourage and support the further development of the Bureau of Transportation Statistics, a continuation of the dialogue between the Bureau and the states, and an exploration of the Bureau's services to the states, including the potential for increased technical assistance."

The Bureau's proposal recognizes that America is being wired for better communication and offers several programs to begin effectively using the new telecommunications technologies. Inherent in the BTS proposal is a plan for managing an integrated information infrastructure for the transportation community. The plan consists of expanding the National Transportation Library and establishing a series of partnerships with state and local agencies, universities, and trade associations. These partnerships will focus on improving the efficiency of data collection and increasing the exchange of information throughout the community. The Bureau is proposing a grant program to work with non-federal professionals as they begin to collect data through Intelligent Transportation Systems technologies, to work with universities and others as they begin to build repositories of transportation data and information on the Internet, and to work with the private sector to ensure that the Department provides American businesses with the right information at the right time in the right format so they can successfully compete in the global economy.

Performance Indicators

BTS plans to work with other DOT modal administrations to develop effective performance measures for transportation to support the Government Performance and Results Act. In response to requests from state and local agencies, BTS also

proposes to help state departments of transportation and metropolitan planning organizations to develop performance measures for their own purposes.

SAFETY ISSUES RELATED TO ANTIHISTAMINES

Question. The Committee is aware that NHTSA is currently developing a national public education program to combat the effects of fatigue, sleep disorders, and inattention on motor-vehicle crashes to be implemented and evaluated in 1998. This is a critical undertaking since in recent years, fatigue and drowsiness have been identified by experts as major causes of lost worker productivity, workplace injuries, and transportation-related accidents. This problem has been further compounded by the fact that many persons suffering from seasonal allergies self-medicate with over-the-counter (OTC) sedating antihistamines. Such reaction-impairing medications were reported to be factors in a recent Connecticut truck accident involving the death of an 11-year-old girl as well as a metro train accident in San Francisco that injured five people. With the 1998 public campaign, which was funded by this committee in fiscal year 1996 and 1997, will there be a specific focus on the dangers of driving while using sedating antihistamines, or will the campaign just have a general warning about driving while using impairing substances?

Answer. The development of the campaign is still in its early stages, so it is too soon to know exactly how it will address medications in general, and sedating antihistamines in particular. Both the target audiences and specific content of this public education program are established by a panel of nationally recognized experts in the areas of sleep and sleep disorders, education, and traffic safety. This panel is convened by the National Center on Sleep Disorders Research. At this time, the panel has recommended a focus on young male drivers and shift workers, two groups that appear to be over-represented in fatigue-related incidents. While the panel's recommendations are not yet final, they do not currently include recommendations to create a specific focus on sedating antihistamines. Rather, medication is one of several issues of which the panel believes that the motoring public should be aware.

Question. You have indicated that you have yet to find evidence that sedating antihistamines, or, for that matter, any OTC drugs, contribute to a substantial number of crashes and that it would, therefore, be inappropriate to issue warnings to the public about the use of sedating antihistamines. This is troubling because, as you know, such "evidence" is nearly impossible to collect since the information about falling asleep at the wheel, or information about any specific causes for such drowsiness, cannot be collected at the scene of an accident unless it is volunteered by the driver. And as you also know, independent research projects have concluded that the slowed reaction time experienced by a person using a sedating antihistamine is comparable to the delayed reaction of a person with a blood alcohol content (BAC) of .05. So, if it is inappropriate to issue warnings about sedating antihistamines based on a dearth of "evidence," wouldn't it be appropriate then to take the more positive tack of actively encouraging the nation's allergy sufferers to use non-sedating medications while driving, particularly given that such antihistamines are available?

Answer. This question implies that there is no evidence on the involvement of antihistamines in crashes. This is not the case. In a 1990 study of the incidence and role of drugs in fatal crashes, the Agency found that only 0.6 percent of drivers had any amount of antihistamine in their blood, compared with 51.5 percent showing measurable amounts of alcohol. This evidence suggests that antihistamines are not involved in a significant number of fatal crashes. While this does not mean that this issue is not important to recognize and address, it is important to concentrate resources on those issues that most demonstrably affect safety. NHTSA includes messages warning against impairment due to over-the-counter medications in its materials on drugged driving and driver education.

Question. For example, in 1993, the FAA approved the use of loratadine, a non-sedating antihistamine, by most pilots and air traffic controllers with allergies. Given that the FAA has recognized and addressed this safety issue, does any other agency in the DOT offer similar guidance in this area, such as the Coast Guard to its pilots and cutter commanders?

Answer. In general, the U.S. Coast Guard does not provide instruction as to the clinical treatment or therapy for specific health problems, including those requiring use of antihistamines. The over-arching policy is that all Coast Guard members must be "fit for full duty". This means that any health problem and its respective treatment must keep the "fit for full duty" concept in the forefront. Competent medical authorities (i.e., medical officers) make decisions as to the fitness for duty, using their clinical judgment, operational experience, input from supervisors/command,

and guidance set forth in various Coast Guard instructions. Advisory information on the use of specific medication in aviation is made available to medical officers through several publications including the Coast Guard "Flight Surgeon's Guide".

The Federal Railroad Administration also does not offer specific guidance on sedating antihistamines. It publishes medical regulations and conducts training for railroad company medical officers. FRA reviews the periodic training and testing of operating personnel conducted by the railroads.

The Federal Highway Administration issued a report in 1991 that states that "for treatment [of allergic rhinitis], only non-sedating antihistamines or intranasal steroid sprays should be used to prevent sedation that occurs with conventional therapy." A condensed version of the report states that commercial motor-vehicle drivers "should avoid potentially sedating antihistamines." This condensed report is included in FHWA's standard medical information package, which is sent to medical practitioners who request information regarding medical fitness qualifications for commercial drivers.

The Secretary of Transportation has reinforced modal efforts to urge caution regarding the use of medications by promulgating a policy strongly urging "all transportation industry employers to include in their employee training materials appropriate information to address" both over-the-counter and prescription medications for persons performing safety-sensitive duties. In addition, the policy encourages "employers to reiterate with their employees the need to report use of such medications when required by applicable DOT rules or by company policies."

Question. How does the FAA disseminate to medical directors at the air carriers information about the directive concerning the use of non-sedating antihistamines? Is this an adequate public information mechanism, and if so, could it be a model for NHTSA or other modes in the DOT which might consider adopting a similar advisory?

Answer. FAA provides medical advisory information including information on non-sedating antihistamines to aviation medical examiners (AME's), libraries, medical professional groups, aviation user groups, and others. This information is disseminated by the Office of Aviation Medicine (AAM) through the Federal Air Surgeon's Medical Bulletin, which is published quarterly and distributed to approximately 6,000 physicians. In addition, AAM has widely distributed information on the use of over the counter medications to both physicians and airmen.

The bulletin and other pamphlets such as Medical Facts for Pilots are prepared by the FAA's Civil Aeromedical Institute with policy guidance and support from AAM. AME's and other authors submit articles and photos for publication in the bulletin.

We believe that this is an adequate public information mechanism since all airmen are required to undergo periodic physical examinations by AME's. AME's are required to be knowledgeable of FAA policies and practices regarding the acceptability of medications in the performance of airman duties. Publication of pamphlets and distribution of informational material to libraries, medical professional groups, user groups, and others could, however, be effectively used by other modes of DOT.

Because the National Highway Traffic Safety Administration does not have regulatory control over motor-vehicle operators, it does not have a network of medical examiners through which to disseminate such information. Other modal administrations that have regulatory authority appear to use methods similar to the FAA.

Question. What plans does NHTSA have for the development of a safety standard in this area which could or should be applied to the surface transportation modes as well, particularly rail, transit and motor carriers?

Answer. NHTSA does not have statutory authority to promulgate a standard that would have any binding effect on motorists or on State and local governments. In the past, the agency has issued guidance about the negative effects that over-the-counter drugs and other drugs can have on driving behavior. As more information is developed in this area, the agency will issue additional guidance to the States and the public as the need arises.

QUESTIONS SUBMITTED BY SENATOR DOMENICI

AIR BAGS

Question. Administrator Martinez, I understand that last month, NHTSA (National Highway Traffic Safety Administration) published a new rule allowing vehicle manufacturer's to depower air bags so that they inflate less aggressively. NHTSA believes "this is a short-term solution to the problem of fatalities and injuries that current air bags cause to children and the elderly in low speed crashes." What

trade-offs result from this depowering decision? That is, if the depowering decision makes air bag deployments safer in low speed crashes, are vehicle occupants less safe in high speed crashes?

Answer. Based on the "Final Regulatory Evaluation, Actions to Reduce the Adverse Effects of Air Bags, FMVSS No. 208, Depowering," NHTSA, February 1997, the agency has estimated the benefits and tradeoffs of depowering air bags.

Assuming no changes are made in where children sit in vehicles, restraint usage rates, and no changes are made to the current air bags, an estimated 140 children, 25 drivers and 7 adult passengers would be killed in low speed accidents by air bags over the lifetime of one model year's fleet if all vehicles in that model year had driver and passenger side air bags. Of these, an estimated 47 children's lives, and a large portion of the 32 adults could be saved by depowering. For higher speed accidents, analyses based on test results and modeling indicate that depowering could save 4 to 22 belted passengers.

Analyses based on test results and modeling indicate that in higher speed accidents 16 to 151 drivers (comprised of 13 to 110 belted drivers and 3 to 41 unbelted drivers) would not be saved and 34 to 280 unbelted adult passengers lives would not be saved as a result of depowering every vehicle in the fleet.

Based on limited crash data on one less aggressive depowered air bag, an air bag on a General Motors designed Holden vehicle in Australia, an estimated 643 lives of belted occupants could be saved by having depowered air bags like the Holden bag in every vehicle.

Question. I understand that a new air bag technology, based upon compressed-gas inflation mechanism, has recently been developed and is much safer than currently installed air bags. I further understand that, last December, the federal government's Transportation Research Center in East Liberty, Ohio conducted a series of tests with this new technology. How many and what type of tests were conducted? How do the test results compare to test results for currently-installed air bags?

Answer. Air Belt Systems Inc. has made claims that their air bags are safer than conventional systems. The agency conducted over 175 tests on various production and depowered air bag systems. These tests included static (stationary vehicle) simulations of out-of position children, and 30 mph crash simulations of adult occupants. Eleven of these tests were conducted with air bags provided by Air Belt. The tests revealed that Air Belt's air bags are very similar to more conventional depowered air bags. With current technology, including Air Belt, a trade-off must be made between adult protection at higher speeds and minimizing injury to small children who are unrestrained. This trade-off can only be overcome with advanced occupant sensing, used in concert with computational algorithms and advanced multi-stage or variable inflators such as the Air Belt inflator.

Question. How does this alternative technology compare with depowered air bags? Would vehicle occupants be more safe with this new technology than with a depowered air bag?

Answer. Systems from several vehicle and component manufacturers were tested to assess aggressiveness of production systems and the potential benefit of air bags with less energy. Included in these tests were air bag systems supplied by Air Belt Systems, Inc. These systems were different from production air bags because they utilize un-heated gas and fast acting valves rather than chemical reactions and heated gas to deploy the air bag. The Air Belt air bag inflator has an output similar to depowered air bags with an additional low onset pressure rise-rate. The agency's test results showed the Air Belt design of air bags to be similar in performance to depowered air bags from other sources. Consequently, the agency does not believe that the present Air Belt air bag system is a total solution to the child and small adult injury problem, just as the agency does not believe depowering is the total solution.

Question. Are there other tests that NHTSA needs to perform with this new air bag before it can be safely installed in vehicles? Which tests and when, if appropriate, can NHTSA arrange to test fully this system?

Answer. The agency believes that the Air Belt system, together with other air bag systems, has the potential for future development toward advanced air bag systems. This development will require sensors and algorithms to tailor the air bag deployment in each particular crash based on occupant, crash and vehicle characteristics. The agency estimates three to five years before sensors and algorithms are sufficiently developed and tested to be ready for production vehicles. The agency believes that Air Belt Systems Inc. needs to conduct the necessary research for development and integration of such advanced air bags into production vehicles. The agency does not know if the design of the Air Belt system inflator will be superior to other inflators in developing smart air bag systems. Consequently, any developmental testing should be conducted in collaboration with auto manufacturers and air bag compo-

nent suppliers to ensure a competitive market that brings forth the optimum solutions for "smart" air bags.

QUESTIONS SUBMITTED BY SENATOR SLADE GORTON

INTERMODAL SAFETY

During both Secretary Slater's confirmation hearing in the Commerce Committee, as well as the first hearing of this subcommittee, I asked Secretary Slater about his thoughts/comments/suggestions on possible programs to help alleviate the freight mobility and passenger traffic congestion in the Puget Sound.

With automobile and railroad traffic increase in the Puget Sound region, the Port of Seattle, the Port of Tacoma, the Puget Sound Regional Council, and the Washington State Department of Transportation are currently working on a project to construct grade separations at existing street level railroad crossings for both safety and traffic efficiency reasons. To date, this group has identified approximately 70 street level crossings along the north-south corridor between Everett and Tacoma that should be grade separated. Unfortunately, this would have to be done at a tremendous cost.

While grade separation and freight mobility are extremely important issues for the ports, they are also important in light of Burlington Northern-Santa Fe's decision to reopen Stampede Pass, a major east-west rail corridor in Washington state. Initially, BNSF projects that will operate 10–12 trains per day during 1997, but will increase that number to 18–20 operations by 1998. With this new traffic moving through the Central Puget Sound region, cities from Auburn, Kent, Maple Valley, to Ellensburg and Yakima will be affected.

As I see it, I believe this matter of freight and passenger mobility raises two important issues. First is safety. While we have been fortunate thus far, with over 70 grade crossings between Everett and Tacoma, something has got to be done to ensure that the Puget Sound does not witness a train-car type of accident at one of these at-grade crossings in the future. From my perspective, with more trains and more passenger vehicles operating in the same limited amount of space, an accident is almost destined to occur if nothing happens to rectify this problem. Secondly, freight mobility in the Puget Sound area, unlike other regions in the country, relies on an equal balance of rail, truck and passenger traffic. Accordingly, it would seem that something has to be done to ensure that all three operations—rail, commercial vehicle, and passenger traffic—can all coexist in an efficient and safe manner to ensure that the Puget Sound can maintain its standing as the second largest import/export port on the West Coast.

Question. How would the President's NEXTEA proposal be able to address this issue of Safety? What other types of funding mechanisms would you recommend to fund a project that could potentially cost nearly $2.0 million?

Answer. The Department's NEXTEA proposal contains an Infrastructure Safety Program, funded at $500 million in 1998 growing to $575 million by 2003, which provides funds to eliminate hazards on public roadways other than the Interstate, and to improve the safety of rail/highway grade crossings. It replaces the STP safety set-aside program. The rail/highway grade crossing portion of the program is funded at $165 million per year, but additional infrastructure safety funds can be used for grade crossing improvements if the State decides it has the need. This program continues to be a 90 percent Federal share matching program.

In addition, NEXTEA would authorize an additional $50 million per year for an Integrated Safety Fund. This is a new incentive grant program designed to foster integrated, results-oriented safety planning. Where states implement an integrated safety planning process, additional funds will be provided that can be used for any purpose permissible under the various DOT auto, traffic safety or motor carrier programs.

Other sources of funding are: Surface Transportation Program (STP) funds and National Highway System (NHS) funds if the crossing is on the NHS. The State Infrastructure Bank (SIB) Program may also be an option if the projects are eligible under Title 23. The SIB program would require matching funds from the State and private sectors. In addition, the Transportation Infrastructure Credit Enhancement Program may be an option. If the project satisfies the proposed eligibility criteria, which include national significance, it could seek funding under this program. Its application would be evaluated along with those of other applicants.

Together, we believe these programs provide states, like Washington, the tools they need and the funding sources to enable them to address the grade crossing safety problems they face.

ELIMINATION OF 1064 PROGRAM

Question. The President's NEXTEA proposal eliminates funding for the 1064 program—the "construction of ferry boats and ferry terminal facilities" account. While I recognize there are several states that do not utilize this funding source because they do not operate a ferry system, that is true for many transportation programs. Respectfully using my friend and colleague from West Virginia as an example, few Washingtonians utilize the Appalachian Highway System, yet, I recognize the needs of that region and the importance in maintaining that program. How did the Administration justify eliminating the 1064 program when there are the Coastal and Great Lake state, each with unique marine transportation needs, that have used this program quite successfully to meet the transportation needs created by each state's marine environment?

Answer. During the outreach for the development of the ISTEA reauthorization proposal, there were two resounding points FHWA heard. One, ISTEA is working, it needs some minor adjustments, but it does not need to be restructured. Two, there are too many funding categories, and programs should be streamlined and consolidated. The FHWA had to strike a balance in responding to these points when formulating the program structure in the NEXTEA proposal. As a result, the NEXTEA proposal would eliminate selected relatively small discretionary programs, including the 1064 program. Ferry boats and ferry terminals are activities that a State can fund using Surface Transportation Program funds, National Highway System funds, or Congestion Mitigation and Air Quality Improvement Program funds, as appropriate. Accordingly, even if the ferry discretionary program is no longer funded, Washington and other Coastal and Great Lake states, can use their regular Federal-aid highway funds for improvements to their ferry system.

BORDER GATEWAY CROSSING PILOT PROGRAM

Question. The President's NEXTEA proposal provides $270 million for a Border Gateway Crossing Pilot Program. As you know, Washington State has been a national leader in working with its Canadian counterparts to develop an efficient flow of goods and people across the Northern border of Washington State, both through intelligent transportation systems, as well as the PACE program. Two questions—how do you envision this NEXTEA program being operated, and what type of State or local projects do you foresee as being worthy of funding from the Administration under this program?

Answer. The Trade Corridor and Border Gateway Pilot Program provides planning funds for multi-State corridor and binational transportation and program funds for improvements to border crossings and approaches. This program facilitates corridor development and border planning, and addresses the transportation impacts of NAFTA and international trade growth. It provides supplementary planning and program support to coalitions of States and transportation and economic development partners to encourage innovation and cooperation in dealing with these issues. The program provides specific sums for planning and coordination purposes with all remaining funds used for project implementation.

Corridor and border planning.—The program provides $3 million/year supplemental planning funds to States engaged in multi-State transportation corridor planning. Grantees must submit plans and implementation schedules for corridor improvements. It provides $1.4 million/year for border planning grants to States and MPO's. Under this program grants may not exceed $100,000 for any State/MPO in any one year, but grants can be made annually through the reauthorization period. Grantees must commit to joint planning with counterparts in Mexico or Canada.

Border Gateway Pilot Program.—This program provides discretionary funding to States or other implementing authorities to improve the safety and efficiency of international border gateways, through a combination of infrastructure, operational, institutional, and/or regulatory improvements. Selection Criteria for grants include: (1) reduction in travel time through the gateway; (2) leveraging of Federal funds; (3) improvements in vehicle and cargo safety; (4) degree of binational involvement and cooperation, including cooperation with the Federal Inspection Services (Customs, INS, USDA, etc); (5) innovation and transferability to other gateways; (6) local commitment to sustain the effort; and (7) full use of existing facilities prior to any new construction.

The program authorizes eight projects, including at least two each on the Canadian and Mexican borders, with no project receiving more than $40 million from this program through the reauthorization period.

The proposal intentionally does not specifically identify types of activities for which funds would be eligible to allow for a broader consideration of types of activities to address improved thruput. Generally speaking, the following would be eligi-

ble for the infrastructure elements of a border gateway pilot program, although the list is not definitive:

—Construction, reconstruction, safety improvements, or capacity additions to roads, bridges, and ramps connecting directly to a border crossing, either for the purpose of improving overall thruput or to separate commercial and non-commercial vehicles to expedite border clearance.

—Commercial vehicle inspection/enforcement facilities, used directly to process commercial vehicles within or approaching a major gateway.

—Grade separations for major border approaches.

—Telecommunications infrastructure dedicated to improvements in ITS/CVO and related EDI measures to expedite commercial thruput and/or coordinate binational border clearance procedures.

—Intermodal facilities that improve commercial and non-commercial thruput. Major rail freight relocations would be eligible only to the extent that they are also made eligible under other provisions of NEXTEA.

FERRY DISCRETIONARY PROGRAM

Question. In February, I sent a letter to Secretary Slater requesting assistance in resolving a funding dispute between the FHWA and the Washington State Department of Transportation (WSDOT). In the fiscal year 1997 Senate Transportation Appropriations Committee report, I specifically included language directing the FHWA to provide $2.5 million in fiscal year 1997 funds for a ferry terminal in Clinton, Washington. On November 13, 1996, however, representatives from the WSDOT received a faxed notice that the allocation of FHWA's fiscal year 1997 discretionary money did not include the Clinton Ferry Terminal. I would like your clarification on two matters regarding this issue. First, can you tell me why the FHWA chose to disregard the Senate report language that I included on the Clinton Ferry Terminal, which specifically designated $2.5 million for the project. Second, can you tell me why, after two months, I have not received either a telephone call or a letter from the Department of Transportation on this matter?

Answer. The FHWA was aware of the Senate report, as well as language in the Conference report stating that "[t]he conference agreement deletes the Senate references of priority designations and set-asides within the Federal Highway Administration's discretionary grant programs;" see p.45, Report 104–785, to accompany H.R. 3675. Based on the later direction from the Conference report, all candidates for discretionary ferry funding were treated equally. In choosing among the many worthwhile candidates submitted, there was insufficient funding to allocate discretionary funds to many excellent candidates, including the Clinton ferry terminal project. The formal response to your letter is under review and should be sent soon.

QUESTIONS SUBMITTED BY SENATOR STEVENS

FEDERAL LANDS HIGHWAYS

Question. Alaska, as you may know, has significant lands held by Native Corporations, some of the largest and most visited national parks in the county, has more public lands than any other state, and the largest forests in the United States. However, I'm told by my staff that last year Alaska received next to nothing under these programs. Can you explain this to me?

Answer. In fiscal year 1996, several items impacted the amount of funds which were provided for transportation projects under the Federal Lands Highway Program. These included a $32.1 million reduction required by Section 1003(c) of the Intermodal Surface Transportation Efficiency Act of 1991 and a $0.32 million reduction required by Section 31002 of the Omnibus Consolidated Recision and Appropriations Act of 1996. Also, the State of Alaska decided not to request any Public Lands Highway Discretionary funds in fiscal year 1996. The following amounts of Federal Lands Highway Program funding by category was provided for transportation projects in Alaska. A total of $28.5 million was allocated for projects in State of Alaska. This amounted to 7.5 percent of the program and is one of the largest percentage of Federal Lands Highway Program funds allocated for projects in any one State:

Federal Lands Highway Program Funding Category	*Fiscal year 1996 Allocation*
Indian Reservation Roads	$16,500,000
Forest Highways	12,200,000
Park Roads & Parkways	200,000

Federal Lands Highway Program Funding Category	*Fiscal year 1996 Allocation*
Public Lands Highway Discretionary	.....
Total	28,500,000

FERRIES

Question. In NEXTEA, the Administration has deleted the ferry discretionary program, know as Section 1064 of ISTEA. This program provided tremendous benefit to Alaska and other States, whose communities rely on ferries as their only form of transportation between communities. In Alaska alone, the public ferry system provides services to twenty percent of Alaska's population, with its eight ships stopping at 35 ports. There are 3,700 route miles, including 1,911 that are designated National Highway System miles. The ferry system also provides jobs for marine and shore-side labor, marine engineers and employees in shipbuilding industry. These jobs are in and outside of Alaska. What was the rationale behind deleting this critical program?

Answer. Under NEXTEA, no new authorizations would be provided for several discretionary programs, including the ferry discretionary program. This reflects input received during the outreach and focus group meetings held by the FHWA during the development of the NEXTEA proposal, where it was recommended that discretionary programs be eliminated or significantly reduced in number. One major concern is that funding of discretionary programs reduces funding available for core programs shared in by all States. In the case of ferry boats and ferry terminals, these are activities that a State can fund using Surface Transportation Program funds, National Highway System funds, or Congestion Mitigation and Air Quality Improvement Program funds, as appropriate. Accordingly, even if the ferry discretionary program is no longer funded, the State of Alaska can use its regular Federal-aid highway funds for improvements to its ferry system.

HIGHWAY FORMULA

Question. In the Administration's NEXTEA proposal, the highway funding formula is structured so that States without a large population, high traffic count, or high road mileage are put in a hold harmless situation. It appears that the highway funding formula seems to favor States with developed highway infrastructure because much of the apportionment is based on the amount each State pays into the Highway Trust Fund. Have you considered including in the funding formula base factors such as: 1) predominance of Federal lands; or 2) underdeveloped highway infrastructure as compared to other States?

Answer. In arriving at our formula proposal, we considered a large number of factors in the context of the program elements contained in our NEXTEA proposal, and the criticisms of the ISTEA formula factors identified in the General Accounting Office (GAO) 1995 report, "Highway Funding: Alternatives to Distributing Federal Funds." This report criticized many aspects of the ISTEA formulas as being archaic, obscure and irrelevant.

For land area, in particular, the GAO report pointed out that this factor, while once felt to be an adequate proxy for potential highway development, no longer bears a close relationship to future highway needs, namely the need for new construction, since the highway system is no longer growing rapidly throughout the country. Consideration of development needs is another possible factor, and, while this might be done by developing some measure of "highway underdevelopment," we felt that targeting funds to meeting defined national highway program goals would best serve for the economic development needs of the Nation.

In recognizing the need to replace outdated and outmoded apportionment factors, we have proposed Highway Trust Fund apportionment formulas that we believe are fair to all States, yet relate well to the objectives of the basic program elements and satisfy the overall goal of the Federal-aid program to meet the Nation's need for the safe, efficient, and environmentally sound movement of people and goods. While we believe we have a strong formula proposal, one that takes into consideration the needs of both donor and donee States, while providing protection from rapid disruptions in program apportionments, we fully understand that there is no one "right answer" to the question of apportionment formulas, and we will be working with the Congress to develop apportionment formulas that will best meet all competing demands.

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

NEXTEA FORMULA CHANGES

Question. The Administration created a great deal of nervousness when it was revealed that you would be proposing formula changes in your NEXTEA proposal. New Jersey will receive the same percentage of the total program under your proposal but this is certainly not the case for every State. Given the controversy surrounding the ISTEA formulas, what criteria did you bring to bear in developing your new formula proposal?

Answer. While recognizing the need to replace outdated and outmoded apportionment factors, we have proposed apportionment formulas which we believe are fair to all States, yet relate well to the objectives of the basic program elements and satisfy the overall goal of the Federal-aid program to meet the Nation's need for the safe, efficient, and environmentally sound movement of people and goods.

In developing the proposed apportionment factors, we attempted to choose factors that would satisfy individual program goals, such as maintaining and improving the NHS, as well as overall Federal-aid program goals such as maintaining and improving human and natural environments and conserving energy. Additionally, we considered such questions as, "Is the data for these factors current, readily updated, dependable, and easily understood by those affected?" As such, many factors were considered, both system-related such as lane miles and VMT, as well as broader economic and demographic factors such as population, in attempting to satisfy these many, competing goals. We believe that the factors contained in the our formula proposal, while individually not meeting all the varied goals and criteria set forth in our effort, do collectively, as part of the overall program structure, effectively address the multiple goals of the Federal-aid highway program.

Also, we recognize that a sudden change to new formula factors could be disruptive to State programs, and therefore, have proposed certain equity adjustments to ease the transition to a more sound, logical basis for the apportionment of Federal highway dollars. Specifically, three different equity adjustments have been included in our proposal. The first adjustment, similar to the current Minimum Allocation program, is based on 90 percent of a State's percent contributions to the Highway Account of the Highway Trust Fund. The second adjustment is based on 90 percent of a State's prior year apportionments. The third is a final adjustment designed to protect State's from too rapid a disruption in apportionment dollars by ensuring that each State's share of NEXTEA annual apportionment dollars must equal at least 95 percent of its average ISTEA (fiscal year 1992–97) percent apportionments throughout all NEXTEA years. Since the equity calculations are done sequentially, each equity adjustment is affected by subsequent equity adjustments.

In presenting these factors for consideration, we understand that there is no one "right answer" to the question of apportionment formulas, and we look forward to working with the Congress to develop apportionment formulas that will best meet all competing demands.

Question. Given our need to conserve fossil fuels and the direct link between gas consumption and pollution, why did you choose to continue the practice of distribution of large sums of highway money to states based on their consumption of gasoline?

Answer. While we recognize that using factors such as VMT and Highway Account Contributions to the HTF may reward fuel consumption and thereby raise concerns about air quality and energy conservation, we believe there are several sound reasons for incorporating these factors into our proposed apportionment formulas. First, while these factors may appear inconsistent with national air quality and energy conservation goals, they do help to achieve other important Federal-aid program goals such as mobility enhancement and economic productivity. Additionally, these factors are effective in helping to achieve program-specific goals, such as maintaining and improving the Interstate and the NHS, by accounting for the use and extent of each respective system.

It should also be noted that these factors, while important, are only part of our complete formula proposal and the Administration's overall NEXTEA package. In addition to these factors, we are proposing the use of population as a factor in apportioning 30 percent of STP funds, because we believe this factor effectively represents the multi-modal goals of the STP program. Additionally, our Congestion Mitigation and Air Quality Improvement (CMAQ) program incorporates factors for newly-designated attainment areas, so that those jurisdictions recently achieving the national ambient air quality standards can continue receiving CMAQ funds and remain in attainment. Lastly, we have proposed increasing CMAQ funding by over 25 percent, increasing transportation enhancements spending by more than 25 per-

cent, and continuing funding for National Scenic Byways, recreational trails, bicycle transportation, and pedestrian walkways as part of our NEXTEA proposal.

In developing the proposed apportionment factors, we attempted to select factors that would satisfy as many of the competing goals as possible. While we believe that we have selected factors which effectively meet many of these goals, we also fully understand that there is no one "right answer" to the question of apportionment formulas, and we look forward to working with the Congress to develop apportionment formulas that will most effectively meet all competing demands.

Question. Doesn't this factor reward States that have high gasoline consumption and penalize those who choose to invest in energy efficient modes of travel, such as buses, commuter rail and carpooling?

Answer. While we recognize that using Highway Account Contributions to the HTF as a factor may reward fuel consumption, which is inconsistent with national air quality and energy conservation goals, we selected this factor because it helps to achieve other important Federal-aid program goals such as mobility enhancement and economic productivity. Additionally, this factor is effective in helping to achieve program-specific goals, such as maintaining and improving the Interstate and NHS, by accounting for the use and extent of each respective system. Also, the data for this factor is considered highly reliable, readily updated, and easily understood by those affected.

It should also be noted that this factor, while an important element of our formula package, is only part of the complete formula proposal and the Administration's overall NEXTEA package. In addition, we are proposing the use of population as a factor in apportioning 30 percent of STP funds, because we believe this factor effectively represents the multi-modal goals of the STP program. Additionally, our Congestion Mitigation and Air Quality Improvement (CMAQ) program incorporates factors for newly-designated attainment areas, so that those jurisdictions recently achieving the national ambient air quality standards can continue receiving CMAQ funds and remain in attainment. Lastly, we have proposed increasing CMAQ funding by over 25 percent, increasing transportation enhancements spending by more than 25 percent, and continuing funding for National Scenic Byways, recreational trails, bicycle transportation, and pedestrian walkways as part of our NEXTEA proposal.

We believe the formula factors we have proposed need to be reviewed within the context of our complete NEXTEA proposal, including the various environmental provisions contained in the package, as well as the increases in funding for environmental programs we propose. We believe our NEXTEA proposal does satisfy the national goals of mobility enhancement and environmental quality maintenance.

CHAFEE-BOND PROPOSAL

Question. My colleagues, Senators Chafee and Bond, have introduced legislation that would develop a new budgetary category for the Highway Trust Fund. Under their proposal, overall highway funding would automatically be set at the level equal to the receipts of the Highway Trust Fund for the prior year. Their proposal, however, does nothing to guarantee either mass transit or Amtrak the privileged status that would be granted to highways. Mr. Linton, if we follow the Administration's recommendation to fund mass transit entirely from the mass transit account of the trust fund, what would be the impact if we gave transit the identical treatment that is granted highways under the Chafee-Bond proposal?

Answer. If the Chafee-Bond proposal was applicable to Federal Transit funding there would be significant short-falls in comparison to the proposed NEXTEA budget authority. Beginning in fiscal year 1998 FTA proposes to fund all of the transit programs from the Mass Transit Account at the proposed appropriation and obligation limitation level of $4.4 billion. The fiscal year 1997 estimated revenue into the Mass Transit Account is $3.2 billion. Therefore, in fiscal year 1998 alone there would be a shortfall of over $1 billion under the Chafee-Bond proposal.

Our authorizing legislation, NEXTEA, proposes a total of $30.8 billion for transit, while estimated revenues from Treasury are about $3.0 billion a year straight-lined into the future. Therefore, over six years only about $18.6 billion can be supported by yearly revenues into the Mass Transit Account. This would create a shortfall of over $12 billion that would not be available for transit programs.

Question. Wouldn't highway funding see a substantial increase while transit funding endured a significant cut?

Answer. Yes, this is true. The Federal transit funding would be cut by over $1.2 billion a year compared to the current fiscal year 1997 funding level of $4.4 billion. As for highways, revenue estimates are over $22 billion a year. This amount is over $4 billion higher than the fiscal year 1997 obligation limitation placed on the Fed-

eral highway programs. In addition, the Chafee-Bond bill does not address funding for Amtrak for which our authorization proposes to fund at approximately $800 million a year from the highway account of the Highway Trust Fund.

CMAQ

Ms. Garvey, we have both heard assertions that the congestion mitigation air quality program has not really served its purpose of minimizing congestion and bringing about a decrease in the pollutants put into our environment.

Question. What hard evidence do you have that the CMAQ program has succeeded in minimizing congestion and pollution?

Answer. The CMAQ program has two requirements that other ISTEA programs do not have—air quality analysis of projects funded under the program and annual reports which document the emission benefits of funded projects. The most recently available annual report prepared jointly by FHWA and FTA indicates that about 75 percent of the reported CMAQ funded projects included quantitative data on air quality benefits; 1995 CMAQ Annual Summary of Activities. Generally, reported data on the air quality benefits of projects funded under the CMAQ program show that the benefits are commensurate with the size of the projects funded. Some projects, such as educational and outreach programs, marketing and advertising programs, do not lend themselves to quantitative analysis, and there are no hard data available for these projects.

It is important to recognize that transportation and air quality improvement projects are continuing and long-term efforts, and resulting emissions reductions may take years to materialize. CMAQ funded projects are important components in the challenge to improve the nations' air quality. While projects and programs funded under CMAQ will not solve the nation air quality or congestion problems, FHWA believes that many of these projects will make long-term contributions to cleaning up the nations' air through innovative programs; for example, inspection and maintenance programs which can yield more that 20 tons per day in emission reductions.

Question. Do you have hard data as to the amount of pollutants that have not been released into our atmosphere as a result of the transportation projects funded through the CMAQ program.

Answer. The CMAQ program has a requirement that projects which receive funding under the program provide an air quality analysis and supporting data which document its emission benefits. The air quality analysis allows FHWA and FTA to track and compile data on the emission reduction benefits of the CMAQ program. The information contained in these reports include: the distribution of funding among project types, an assessment of emissions reductions analyses as required under the program guidance including estimated emission reduction benefits data in kilograms/per day for volatile organic compounds (VOC), nitrogen oxides (NO_X), carbon monoxide (CO) and particulate matter PM–10) for each project, and comments on the reported data trends.

In 1995 alone, CMAQ funded projects accounted for reductions in carbon monoxide of 431 tons per day, in volatile organic compounds of 170 tons per day, and in oxides of nitrogen of 113 tons per day. These benefits will continue for the life of the project.

While most CMAQ-funded projects are small relative to the size of the transportation infrastructure and yield benefits commensurate with that size, some projects yield considerably greater benefits. Inspection and maintenance programs have been funded under CMAQ programs in at least 5 States yielding between 2 tons per day to more than 20 tons per day.

CMAQ-funded projects are also critical for some nonattainment areas to demonstrate conformity of their transportation plans and programs, thus allowing States and local areas to continue their federally funded programs. In these and other areas, CMAQ funding also has been necessary to ensure funding for transportation control measures contained in the State air quality implementation plan, or SIP.

Finally, the benefits of CMAQ funded projects should not be restricted only to air quality benefits when evaluating this program. Transportation projects usually meet multiple objectives, and this is true of CMAQ projects as well. In addition to air quality benefits, these projects have served to help provide congestion relief, environmental mitigation, economic development, and have assisted in meeting other environmental goals and objectives.

Some project-level information is available on the congestion relief benefits of CMAQ funded projects, for example:

—Region wide signal-timing in Denver, CO reduced 34,000 hours of delay and 13,500 gallons of fuel;

—Vanpooling in San Diego eliminated 1,000 vehicles per day from the road network;
—Parking management in Glendale, CA eliminated 140,000 car trips annually;
—Freeway Service Patrol in San Francisco, CA reduced delays by 90,000 hours Region wide; and
—NYC/NJ Barge removed 54,000 truck trips annually.

INTELLIGENT TRANSPORTATION SYSTEMS

Up through fiscal year 1997, we have provided almost $1.3 billion in funding to explore and apply new Intelligent Transportation System (ITS) technologies. These technologies are expected to improve the performance of roads and transit systems and increase capacity and safety.

Question. Based on your recent evaluations of this program, what concrete benefits has the nation and the taxpayers received from this investment?

Answer. Several DOT reports have shown how ITS technologies can favorably impact transportation efficiency, productivity, safety, user satisfaction, and the environment. The following tables document the findings of eleven of the most recent major studies sponsored or performed by DOT. Research on the public benefits of ITS establish compelling national interest in deploying ITS technologies and infrastructure. Below are highlights of ITS benefits documented by DOT:

ITS Provides Better Traffic Management

Abilene, Texas replaced outdated signals with a computer-based traffic signal system and realized $8–11 in benefits from travel time savings, delay reduction and increases travel speed for each dollar invested.

The Automated Traffic Surveillance and Control (ATSAC) program controls traffic flow between freeway and parallel arterial streets in Los Angeles, California and surrounding areas. The program has reduced fuel usage by 12.5 percent, hydrocarbon emissions by 10 percent, and carbon monoxide emissions by 10 percent.

ITS Benefits Transit Agencies

Four hundred New Jersey Transit buses are able to alter their routes and stay on schedule using real-time information they receive about traffic conditions.

Baltimore, Maryland and Portland, Oregon cut travel time by 10–18 percent, using vehicle locating technology to re-route buses and dispatch additional vehicle buses to keep their services on schedule.

Kansas City, Missouri was able to eliminate 7 buses from its fleet of 280 by implementing advanced transit fleet management systems.

ITS Reduces the Costs of Toll Collecting

The Oklahoma Turnpike Authority saves about $160,000 annually by switching from a manual to electronic toll lane. The Authority incurred an annual cost of $176,000 to operate an attended toll lane vs. $15,800 to operate an automated electronic toll lane.

ITS Can Improve Safety

Just three crash avoidance systems alone could eliminate more than 17,500 fatalities, prevent 1.2 million accidents, and save $26 billion each year. (By comparison, seatbelts and airbags save 10,500 lives per year.)

Incident management programs could prevent 50 to 60 percent of the accidents precipitated by traffic delays and congestion.

ITS Increases Traveler Convenience

As part of the Los Angeles Smart Traveler project, information kiosks were located in office lobbies and shopping plazas. Between 20 and 100 users accessed these kiosks daily, with more than half requesting freeway maps and bus and train information.

Given traveler information, almost 50 percent of those surveyed in Seattle and Boston indicated that they changed their travel route and time of travel. Five to 10 percent indicated that they changed travel mode. Even if only 30 percent of travelers change travel plans daily, harmful emissions of carbon monoxide, volatile organic compounds, and nitrogen oxides would be reduced by 33, 25, and 1.5 percent, respectively.

Question. What is the ratio of cost per benefit from these systems?

Answer. While our level of knowledge is growing rapidly as more and more projects are implemented, ITS has already received more cost-benefit and cost-effectiveness analysis than almost any other public program. This effort is important both to provide guidance for state and local agencies as they implement ITS and for national policy regarding investment decisions. A recent comprehensive study by

ITS America and U. S. DOT of the potential benefit cost of deploying ITS infrastructure in the nearly 300 metropolitan areas in the U. S. found an overall benefit cost ratio of 5.7:1. In the 75 largest metropolitan areas, the ratio was 8.8:1.

It is particularly interesting to note the composition of the benefits in this study. Conventional transportation capacity investments, such as lane widening, result in benefits dominated by congestion reduction—an average of 90 percent of all investment benefits. ITS investments, on the other hand, yield a more balanced outcome by both reducing congestion and increasing safety. These systems do so by reducing accidents, smoothing traffic flow, and reducing emergency response time. Thus, beyond being more cost-effective than traditional capital-only solutions, ITS projects increase safety. Some examples of benefit-cost ratios for individual ITS deployments which reflect the variation of local costs and local benefits are presented below.

Synopsis of Selected Benefit-Cost Ratios for ITS Deployments:

The Maryland CHART program is in the process of expanding to more automated surveillance with lane sensors and video cameras. The evaluation of the initial operation of the program shows a benefit/cost ratio of 5.6:1, with most of the benefits resulting from a 5 percent (2 million vehicle-hours per year) decrease in delay associated with non-recurrent congestion.[1]

The City of Abilene, Texas, installed a closed-loop computerized signal system. Their report[2] indicates an overall decrease in travel time of 14 percent, a decrease in delay of 37 percent, and an increase in travel speed of 22 percent. Phase I of a Texas state program called Traffic Light Synchronization (TLS) involving 44 cities, has installed arterial and network signal system projects affecting 2,243 of the approximately 13,000 traffic signals in the state. An additional 73 systems were installed in phase II. TLS analysis shows a benefit/cost ratio of 62:1,[3] with a majority of the benefits being travel time reduction. ITE estimates of reduction in travel time from traffic signal improvements range from 8 percent to 25 percent.[4]

The HELP/Crescent Project on the West Coast and Southern border states represented the final stage of the HELP program that evaluated the applicability of four technologies to services including roadside dimension and weight compliance screening, pre-screening of vehicles with proper documents, government audit of carrier records, government processing of commercial vehicle operator documents, government planning, and industry administration of vehicles and drivers. The technologies included automatic vehicle identification, weigh-in-motion, automatic vehicle classification, and integrated communications systems and database. The benefits data are developed as a projection of experience from the project and from other databases rather than direct measurement by the project.[5] Impact of hazardous material incidents could be reduced $1.7 million annually per state. Estimates of reductions in tax evasion range from $0.5 to $1.8 million annually per state. Overweight loads could be reduced by 5 percent leading to a savings of $5.6 million annually. Operating costs of a weigh station could be reduced up to $160,000, with credentials checking adding $4.3 to $8.6 million and automated safety inspection adding $156,000 to $781,000 in savings due to avoided accidents annually per state. A full implementation of services examined in the Crescent project would yield a benefit/cost ratio of 4.8 for state government over a 20-year period. Less complete implementations range in benefit/cost ratio from 0 up to 12:1 for the government. The COVE Study[6] estimates a benefit/cost ratio to the government of 7.2 for electronic clearance, 7.9 for one-stop/no-stop shopping, and 5.4 for automated roadside inspections. Another study finds that administrative compliance costs for Massachusetts carriers could be reduced by $2.4 million annually using ITS techniques.[7]

An extensive benefit/cost analysis of CVO user services effects on regulatory compliance cost of motor carriers predicted a range of benefits. The study segmented the motor carrier industry into small firms (1–10 power units), medium-sized firms

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[1] COMSIS Corporation, "CHART Incident Response Evaluation Final Report," Silver Spring, MD, May 1996.

[2] Orcutt Associates, "Evaluation Study, Buffalo Gap Road, Abilene Signal System," prepared for the City of Abilene, Texas, 1994.

[3] Benefits of the Texas Traffic Light Synchronization Grant Program I; Volume I, TxDOT/TTI Report #0258–1, Texas Department of Transportation, Austin, Texas, October 1992.

[4] Meyer, M., ed., A Toolbox for Alleviating Traffic Congestion, Institute of Transportation Engineers, Washington, DC, 1989.

[5] The Crescent Project: An Evaluation of an Element of the HELP Program, The Crescent Evaluation Team, Executive Summary and Appendix A, February 1994.

[6] Study of Commercial Vehicle Operations and Institutional Barriers, Appendix F, Booz, Allen & Hamilton, McLean, VA, November 1994.

[7] Kiley, K., Massachusetts Metro Transportation Association, Presentation at the ITS America Sixth Annual Meeting, April 1996.

(11–99 power units), and large firms (100 or more power units) and analyzed each user service from the perspective of each market segment. The predicted benefit cost ratios are generally larger for larger firms. The benefit/cost ratio for commercial vehicle administrative processes range from 19.8:1 to 1.0:1. For electronic screening the benefit/cost ratio ranges from 6.5:1 to 1.9:1. The benefit/cost ratio for automated roadside safety inspection ranged from 1.3:1 to 1.4:1. The benefit/cost ratio for on-board safety monitoring ranged from 0.49:1 to 0.02:1. For hazardous materials incident response, the benefit/cost ratio ranged from 2.5:1 to 0.3:1.[8] The narrow definition of benefits examined in this study indicate that these benefit estimates are conservative.

Electronic Information Exchange for fare payment and screening of commercial vehicles represent areas of high benefit potential. The Detroit, Michigan, to Windsor, Ontario, Canada, area experiences about 22 million border crossings annually, with roughly 75 percent of the crossings being made by daily crossers.[9] The NAFTA and development of local attractions such as the Windsor Casino are likely to cause significant increases in demand. Implementation of Automated Vehicle Identification (AVI) for use with Electronic Toll Collection and Customs and Immigration automation has the potential to benefit both the toll authorities and the Customs offices with payback on electronic equipment investment in less than five years for toll authorities and less than ten years for customs. If potential economic development is included, government payback is in one year. For auto users, delay costs would repay investment in about 2 years. Commercial vehicles would get a benefit/cost ratio of over 4:1 in a single year, again primarily due to delay reductions. Additional benefits would accrue in ability to defer infrastructure investment, with benefit/cost ratio estimated at between 25:1 and 34:1 depending on estimate of traffic growth.[10] The Minnesota Highway Helper Program[11] reduces the duration of a stall (the most frequent type of incident representing 84 percent of service calls) by 8 minutes. Based upon representative numbers, annual benefits through reduced delay total $1.4 million for a program that costs $600,000 to operate. This represents a benefit/cost ratio of 2.3:1.

ITS implementation is expected to improve the safety record of motor carriers. Electronic screening and improved inspection procedures will help to eliminate major causes of accidents through better use of communications and information technology. Evidence of future success is indicated by ongoing motor carrier safety programs including the Motor Carrier Safety Assistance Program (MCSAP) and federal safety audits. The benefit/cost ratio of these programs has been estimated as 2.5 while yielding a reduction of 2,500 3,500 accidents annually.[12]

Question. What obstacles lie ahead before these ITS improvements can be more widely implemented? How does DOT plan to overcome these obstacles?

Answer. The primary obstacles to broader ITS deployment are the lack of expertise among State and local officials, cost/benefit data, available funds, and standards. Overall, the ITS section of NEXTEA addresses these obstacles. In addition, we have gathered an impressive array of cost-benefit data, described below. Specifically:

—Training. We have requested annual authorization of $96 million in ITS Research, Training, and Technology Transfer funding. A significant portion of that will go to a five year professional capacity building effort aimed at our own staff, as well as our state and local partners. Deployment of ITS is not unlike the transition FAA went through when it went from a civil engineering organization that oversaw the building of airports to one that dealt with management of assets and airspace. We have developed a five-year strategic plan that is now being translated into a business plan and have asked for significant funds—some $10 million in fiscal year 1998. Recently, we launched the first of 70 overview seminars that will be given to our staff and partners across the United States in the coming months.

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[8] "Assessment of Intelligent Transportation Systems/Commercial Vehicle Operations Users Services: ITS/CVO Qualitative Benefit/Cost Analysis—Executive Summary," American Trucking Associations Foundation, Inc., Alexandria, VA, 1996.

[9] Study of Institutional Impacts of New Technology Applications: St. Clair and Detroit Rivers Highway Border Crossings, Marshall Macklin Monaghan Limited with KPMG, JHK, & Constance Consultants, May 1994.

[10] Zavergiu, R., Intelligent Transportation Systems—An Approach to Benefit-Cost Studies, TP12695E, prepared for Transportation Development Centre, Transport Canada, May 1996.

[11] Minnesota Department of Transportation, "Highway Helper Summary Report—Twin Cities Metro Area," Report #TMC 07450–0394, July 1994.

[12] Moses, L. and Savage, I., "A Cost-Benefit Analysis of the Federal Motor Carrier Safety Programs, 3rd Version," Department of Economics and the Transportation Center, Northwestern University, Evanston, IL, 1993.

—Standards. A significant portion of this authorization would be devoted to facilitating development of industry consensus on well over 100 standards. While the process will take some five years, we expect draft standards critical to integration to be available within the next two years. None have been completed, four more draft standards will be done by the end of the year. In addition, we will probably have agreement on one of the most critical standards that underlies the tag and reader technology in automatic toll collection before the end of the summer.

Cost-Benefit Data. In addition, we have provided to Congress and the nation at large an impressive quantity of cost benefit data:

—Savings of 35 percent nationally in the cost of providing future capacity to our nation's surface system.

—Potential savings of 17 percent in accidents from intelligent vehicles.

—A study by the FTA suggests that ITS can save transit authorities between $4 billion and $7 billion over the next decade.

—Savings in government costs related to toll collection, truck regulation, and transit operations.

The benefits are there. What is not available to local officials are the analytic tools necessary to demonstrate those benefits, because to date all of our analytic tools have focused on capital decisions with long range horizons. We are in the process of developing those tools now for use by States and metropolitan areas across the country.

Finally, our proposal to provide an incentive to those metropolitan areas and states willing to deploy integrated ITS infrastructure, takes a scalpel approach to the funding issues, in this era of constrained resources. For this six year period of time only, we would offer a small incentive to states and metropolitan areas to go the extra mile to integrate ITS components, consistent with the National Architecture and national standards. By the end of that period we will have the standards program complete and will mainstream the ITS infrastructure program into existing funding categories, linking the use of federal funds to adopted standards. We have also made ITS infrastructure an eligible element in virtually every category of Federal-aid funding.

ELIMINATION OF TRANSIT OPERATING ASSISTANCE

Question. New Jersey relies heavily on mass transit to provide essential transportation service to a great number of our citizens. Under transit formula grants, your NEXTEA proposal calls for Transit Operating Assistance to be virtually eliminated while funding for capital assistance would increase. Your proposal also calls for the permissible uses of transit capital assistance to be expanded to include regular maintenance activities.

Since your budget calls for transit formula assistance to be essentially frozen, what is the rationale for eliminating operating assistance and expanding the purposes of capital assistance?

Answer. We seek to replace the concept of operating assistance with a redefinition of capital which would include preventive maintenance as an eligible expense. Operating expenses would no longer be eligible for Federal reimbursement for areas over 200,000 in population.

The changes in the reauthorization proposal provide flexibility and consistency that will benefit the transit industry. This change would bring consistency between the Federal highways and transit definitions of capital. That is, both capital definitions would now include preventive maintenance. At present, painting a bus is considered operating assistance under the transit program, but painting a bridge is considered capital under the highway program.

The NEXTEA approach increases flexibility of grantees and simplifies the management of their programs. Operating assistance will no longer have to be tracked separately on grant applications and reports and more expenses can be considered within the one category of capital.

Further, much debate takes place each appropriations and authorization cycle on the Federal role in funding operating assistance. The NEXTEA proposal will help us focus on capital needs and the funds necessary to protect those assets.

Question. Two years ago, you requested a sizable cut in transit operating assistance and you asked us to expand the uses of capital assistance to include certain bus maintenance activities. At the time, you testified that the change in uses of capital assistance would eliminate the impacts of your proposed cut in operating assistance. Almost no one in the transit industry agreed with you, however. Can you assure me that this new proposed change in the use of transit capital assistance will completely mitigate the elimination of operating assistance?

Answer. FTA analysis indicates that virtually all areas over 200,000 in population will benefit from the proposed changes. These areas are currently reporting a level of maintenance expenses that, when reimbursed at the 80 percent capital rate, will exceed their current operating assistance caps. Likewise, areas under 200,000 in population will also benefit. These smaller operators will have total discretion in using their Federal assistance for capital, planning, and operating assistance, without having to manage within a specific cap on operating expenses.

HIGHWAY SAFETY AND DRUNK DRIVING MEASURES

Question. In 1984, President Reagan signed into law my bill establishing a national 21 minimum drinking age, which imposed sanctions on states that did not adopt the law. In 1995, President Clinton signed into law the NHS bill which contained Senator Byrd's provision imposing sanctions on states that did not adopt "zero-tolerance" legislation for underage drinking and driving. Do you believe that these sanctions have been effective in changing state policies for the better?

Answer. State laws setting age 21 as the minimum drinking age and establishing "zero tolerance" for underage drinking and driving clearly are effective, life-saving policies. Minimum drinking age laws have reduced alcohol-related traffic fatalities among teenagers by 13 percent. NHTSA estimates that minimum drinking age laws saved 15,667 from 1975–1995. A NHTSA evaluation of Maryland's "zero tolerance" (.02) law showed an 11 percent decrease in the number of drivers under age 21 involved in crashes who police reported as "had been drinking." A recent study of 12 states that enacted "zero tolerance" laws found a 16 percent reduction in single vehicle nighttime fatal crashes that involved young drivers, compared to a 1 percent increase in 12 comparison states.

As a result of the National Minimum Drinking Age Law enacted in 1984, all states and the District of Columbia now have laws establishing 21 years old as the minimum drinking age. When the NHS bill was enacted in November 1995, imposing sanctions on states that did not adopt "zero-tolerance" legislation for underage drinking and driving, 27 states and the District of Columbia had "zero tolerance" laws; since then, 12 states have enacted such laws. The remaining states are working to have .02 laws before the sanction provisions take effect at the beginning of fiscal year 1999 (October 1, 1998).

Question. The NHS bill repealed the federal sanctions requiring states to adopt laws requiring motorcycle helmets. Since that time, several states have moved to repeal existing helmet laws because the sanction has been lifted. Dr. Martinez, why does your NEXTEA proposal only use financial incentives to strengthen state drunk driving laws rather than the imposition of sanctions?

Answer. NHTSA's alcohol incentive grant program builds upon the successes gained from the Section 410 program. In addition, the States and safety interest groups support incentive grant programs as evidenced at the Department of Transportation reauthorization hearings. Given the present rate of progress of states enacting .08 BAC laws, the Department did not see it necessary at this time to adopt measures other the incentive program that we have proposed Incentive programs provide States with the utmost flexibility. States have the option to apply for these grants or not. If a State chooses to pursue a grant, the State may choose which legal and program criteria to implement. The alcohol incentive grant program proposed in NEXTEA is modeled on current and past successful incentive grant programs—most notably the Section 410 alcohol incentive grant program. The Department has learned that incentive grants are effective in encouraging states to pass critical laws to reduce drunk driving. Administrative license revocation (ALR), .08 BAC, and .02 BAC laws are criteria for Section 410 basic grants. Since the passage of the amended Section 410 program in ISTEA in December 1991:

—9 states have enacted .08 BAC laws. [A total of 14 states have .08 laws.]

—36 states plus DC have enacted .02 BAC laws for drivers under age 21. [A total of 39 states and DC have .02 laws for drivers under 21.]

—10 states have enacted ALR laws. [A total of 39 states and DC have adopted some form of ALR.]

Question. As you know, I have introduced legislation that would establish a national drunk driving limit of .08 Blood Alcohol Concentration—BAC. Both laboratory

and real world testing have proven that the vast majority of drivers, even experienced drivers, are significantly impaired at .08 with regard to the critical factors in vehicle control-braking, steering, turning and overall judgment. Thus far, only thirteen states have adopted the .08 BAC as law. But these states have experienced a significant reduction in alcohol related fatalities. Given that NHTSA, the insurance industry, highway safety advocates and highway safety users support lowering the limit to 0.08, why are so many states dragging their feet in enacting 0.08 BAC as law?

Answer. There have been active efforts to pass 0.08 laws in several states this year, and Idaho has already enacted its 0.08 law. Opponents of 0.08 laws say that these new laws divert attention from the "real" drunk drivers at 0.15 and above, while attempting to penalize social drinkers who are not impaired. However, states that have passed 0.08 laws have seen reductions in alcohol-related fatalities at all BAC levels. In addition, performance on driving-related tasks decreases substantially at 0.08, and crash-risk increases substantially at 0.08. Also, there is organized opposition to passage of these laws from some members of the alcohol and hospitality industries.

Question. Given the states' slow pace in adopting .08, why do you think that financial incentives will be more effective than sanctions in getting the states to move?

Answer. Given the present rate of progress of states enacting .08 BAC laws, the Department did not see it necessary at this time to adopt measures other the incentive program that we have proposed. Through the Section 410 alcohol incentive grant program, the Department has learned that incentive grants are effective in encouraging states to pass critical laws to reduce drunk driving. Since the passage of the amended Section 410 program in ISTEA in December 1991:

—9 states have enacted .08 BAC laws. [A total of 14 states have .08 laws.]

—36 states plus DC have enacted .02 BAC laws for drivers under age 21. [A total of 39 states and DC have .02 laws for drivers under 21.]

—10 states have enacted administrative license revocation (ALR) laws. [A total of 39 states and DC have adopted some form of ALR.]

The new alcohol incentive grant proposal contained in NEXTEA places more emphasis than the current Section 410 program on adoption of 0.08 BAC laws as a means to receive funds. Under the current program, States can qualify for grant funds by implementing 5 out of 7 laws or programs designed to reduce drunk driving. One of the 7 requirements calls for a 0.10 per se law, and only after 3 years of grants, is a 0.08 per se law required; therefore, states had many other options and several years of funding before considering passage of 0.08 laws as a route to receive incentive funds. Under the new proposal, there are three options for a state to qualify for funding—one option is by implementing 4 out of 5 specified laws and programs, the second is demonstrating specific performance, and the third is by enacting only two key laws (1) administrative license revocation and (2) 0.08 BAC. States can qualify for funding under one, two, or all three options. However, this third option more clearly focuses state attention on 0.08 BAC laws as a means to qualify than the old Section 410 approach.

Question. I understand the Administration will soon send up a separate safety title as part of your NEXTEA proposal. When will that come up?

Answer. The Secretary submitted the Administration's "Surface Transportation Safety Act of 1997" on April 17, 1997.

Question. I understand the Administration will soon send up a separate safety title as part of your NEXTEA proposal. Will it include any sanction programs, perhaps for seatbelts, or will it only provide more incentive programs?

Answer. The Administration's "Surface Transportation Safety Act of 1997" would establish a date certain by which all States would be required either to have enacted a primary safety belt use law or to have achieved a statewide seat belt use rate of 85 percent or higher. In fiscal year 2003, a State that had failed to enact such a law or to achieve such a seat belt use rate would have 1.5 percent of its highway construction funds transferred to its section 402 occupant protection program. The amount transferred would increase to 3 percent for later years.

NEW WELFARE TO WORK INCENTIVE

Question. Given the millions of welfare recipients across our nation that we are trying to move into paying jobs, how will this $100 million initiative be targeted to assist those individuals that are most in need?

Answer. We recognize that this $600 million initiative, which makes available to states and localities $100 million annually, cannot fill all the transportation gaps that exist in meeting the transportation needs of those who will be transitioning

from welfare to work. This number is estimated at 2 million persons over the next five years. However, the criteria for selection spell out several indicators that will help us address the most severe transportation needs. The project selection criteria include: (1) the severity of the welfare transportation problem, (2) the need for additional services to transport economically disadvantaged persons to specified jobs, training and other support services, and the extent to which proposed services will address these needs, and (3) the extent to which the applicant's program addresses a comprehensive assessment of access to work transportation needs.

Question. What will be the requirements for the states to participate in this initiative? Will they have to match any of the federal funds?

Answer. We anticipate that states will act as applicants for areas with populations of 200,000 or below. This is consistent with current procedures for other Federal transit programs. In areas above 200,000, the lead agency will be chosen through the metropolitan planning process by the stakeholders involved. Applications submitted by states will be subject to the same selection criteria as other applicants. States and other applicants must match Federal funds made available by the Access to Jobs program. However, Federal funds flowing to state and local agencies from Federal programs funded by DHHS, DOL, HUD and other agencies can be used as part of the local match. In fact, one criterion for award is the extent to which the local share demonstrates a financial partnership with human resource agencies. These partnerships are an essential element of the Access to Jobs program.

Question. Do you expect this to be a one-time initiative, or a continuing part of the DOT budget for the next several years?

Answer. The Access for Jobs & Training is proposed to be available at $100 million annually over the life of the reauthorization, anticipated to be six years.

Question. Is this initiative going to be limited to mass transit, or will there be steps taken to recognize that many welfare recipients do not have access to adequate transit opportunities?

Answer. The intent of this legislative proposal is to develop additional public transportation services to meet gaps where there is not adequate transit service available. Service strategies may be broad based, including ridesharing program, employer-provided services, human service transportation, private paratransit service, and community-based transportation arrangements as well as services directly provided by the transit agency. Since transit agencies have the infrastructure and experience with the Federal Transit Administration grant programs, it is likely that they may serve as the lead local agencies in are as above 200,000.

INSUFFICIENT FUNDING FOR NEW STARTS

Question. What should each of these transit systems conclude about the Federal Government's commitment to completing these major transit projects?

Answer. The Federal government is committed to fully funding the new fixed guideway systems that are currently under, or proposed for, Full Funding Grant Agreements (FFGA's). FTA's budget provides $634 million for Major Capital Investments. This amount reflects budgetary pressures, and while this is not the annual amount for fiscal year 1998 in the current FFGA's signed by FTA, our proposed out-year funding is sufficient to cover funding requirements for these 15 projects, and our reauthorization proposal includes a higher level of contract authority that could become available dependent upon future Federal budget decisions.

Question. If you could do it over again, would you have signed fewer full funding grant agreements?

Answer. Given the large number of worthy projects which were seeking federal funds, I would, without hesitation, proceed on the same path that I chose over the last four years. These meritorious projects will result in a wide spectrum of benefits to users and non-users alike.

Question. Are you sure that your cuts in this area will not result in construction delays, making the total cost of the project more expensive than it would otherwise be?

Answer. The budget request reflects current budget pressures. Nevertheless, it will allow these projects to initiate and continue scheduled start-up and/or construction activities without incurring any consequential delays. Localities have a variety of mechanisms which can successfully address any short term funding shortfall which might occur. These reductions, when viewed on a project-by-project amount, on average, to only 1.7 percent of the total project cost.

QUESTIONS SUBMITTED BY SENATOR KOHL

STREAMLINED AND STRENGTHENED PLANNING PROCESS

Question. In what ways does NEXTEA streamline and strengthen the planning process?

Answer. ISTEA continued the basic State and local decisionmaking framework for transportation planning adopted in the early 1970's. ISTEA strengthened the transportation planning process by putting increased emphasis on public involvement and fiscal constraint which have made the decision process more open and inclusive and financially realistic. ISTEA also strengthened the role of State and local officials in the decisionmaking process. NEXTEA would continue this same basic framework and supports the decision making efforts of State and local officials in the accomplishment of challenging investment trade-offs.

ISTEA called for greater involvement by more interested stakeholders earlier in the transportation investment decision making process. This earlier and more meaningful involvement in both the statewide and metropolitan transportation planning processes should ultimately pay-off in reduced time for project level implementation efforts where delays have often occurred. NEXTEA would continue the philosophy that involving folks early in a meaningful way results in resolving troublesome issues early thereby accelerating the overall time frame for successfully implementing a transportation project.

Simplification of the planning process was behind the effort in NEXTEA to replace the transportation planning factors (16 metropolitan and 23 Statewide) in ISTEA with seven goals which states and metropolitan areas should consider as they develop their own goals and objectives around which their own transportation planning process will be structured. The FHWA and FTA remain committed to the continued identification and implementation of streamlining opportunities.

BRIDGE REPLACEMENT PROGRAM

NEXTEA generally maintains the Bridge Replacement Program in the current form. Naturally, we all agree with the wisdom and necessity of replacing unsafe and unstable bridges across the country. On the other hand, transportation officials in my State have raised concerns that the ISTEA bridge formula actually provided a disincentive for States to invest in bridge repair. They argue that we worked at cross purposes by distributing bridge replacement program funding based on need, but then allowing States to transfer those needs-based funds to other non-bridge uses.

Question. Does the NEXTEA modify the Bridge program in any way to ensure that Bridge replacement funds are used to meet the needs for which they have been distributed, rather than transferred to other accounts?

Answer. Yes. While the NEXTEA proposal continues the flexibility for the States to transfer 50 percent of the Highway Bridge Replacement and Rehabilitation Program funds to the NHS or STP, it would required that funds transferred out of the bridge program in fiscal year 1998 through fiscal year 2002 must be restored by the State to their bridge apportionment by the end of fiscal year 2002. Any amounts not restored would be deducted from the total cost of deficient bridges for that State in fiscal year 2003, thus reducing that State's fiscal year 2003 bridge apportionment.

NONDEPARTMENTAL WITNESSES

STATEMENT OF DARREL RENSINK, DIRECTOR, IOWA DEPARTMENT OF TRANSPORTATION, PRESIDENT, AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS

INTRODUCTION OF WITNESSES

Senator SHELBY. The subcommittee will come back to order.

The second panel. We have with us the surface transportation user groups. Darrel Rensink. Is that correct?

Mr. RENSINK. That is correct.

Senator SHELBY. Iowa Department of Transportation, president, also of the American Association State Highway Transportation Officials; Mr. William D. Fay, president and CEO, American Highway Users Alliance; Mr. John Collins, senior vice president, government affairs, American Trucking Association; Mr. Frederick Gruel, president and CEO, AAA New Jersey Automobile Club, American Automobile Association; Mr. William W. Millar, president, American Public Transit Association; and Harry Blunt, Jr., president, Concord Trailways New Hampshire, vice chairman of the American Bus Association.

Welcome, gentlemen. I know you waited a while. It was a longer panel than usual, a lot of interest in the first one.

All of your written statements will be made part of the record in their entirety, and if you will just take a few minutes, because there are other meetings going on, and sum up what you are going to tell us for the record. Then I will keep the record open for a lot of questions for the record that the staff and other members, including the chairman, will be wanting to ask you. We will try to expedite this as much as possible.

Mr. Rensink.

STATEMENT OF DARREL RENSINK

Mr. RENSINK. Mr. Chairman, thank you very much.

I am Darrel Rensink, president of the American Association of State Highway and Transportation Officials and also director of the Iowa Department of Transportation.

On behalf of AASHTO, I am pleased to accept your invitation to testify on issues regarding reauthorization of the Federal surface transportation programs.

Mr. Chairman, the fact that you are conducting this hearing demonstrates that you and others on the committee are well aware of both the benefits from and the need for transportation as we head into the 21st century. The appropriations bill you will be considering is vitally important to the people of America. As members of the Appropriations Committee, you are faced with a difficult task of directing Federal resources among programs which directly

affect all Americans, decisions which will please some and upset others.

No other Federal investment has such far-reaching implications. The influence on the quality of our lives by our transportation systems is significant. The intermodal network serves all our citizens daily as they travel to their jobs, day care, and the market. It provides a way to move goods to wholesale and retail outlets. We are able to pursue recreation, education, and community activities.

America's transportation network has played a major role in our Nation's economic success. Just as in our Nation's past, the future is greatly dependent on how well we support our transportation system. Most importantly, transportation is the backbone of our State, national, and international trade economies. Transportation is our Nation's economic engine and a key component to our global competitiveness. Industry, relying heavily nowadays on just-in-time delivery of raw materials, must have an effective and efficient transportation system.

Central to the debate on reauthorization will be the level of funding and the funding formulas which distribute funds among the States. As the debate begins, we must remember that without modern transportation, our quality of life would suffer, economic development would slow, and our future would look rather bleak.

I often hear that to compete in the global economy, we need a good transportation system, and I included that concept in my formal testimony submitted to your committee. However, merely competing in the world economy is not good enough. As in sports, we can compete and still lose. We cannot afford to lose when it comes to our transportation systems. This Nation must be the leader and to lead we must have a transportation system that is the very best. To be in the forefront, we must invest in our transportation systems.

Mr. Chairman, the need for investments to adequately support the Nation's surface transportation system is well documented and far exceeds the current investment level. AASHTO analyzed the investment requirements of our transportation systems based on the information received from the U.S. DOT. This analysis is detailed in our report, "The Bottom Line: Transportation Investment Needs 1998–2002." Copies have been provided to the committee.

To briefly summarize the report, total highway investment over the next 5 years to maintain current conditions and performance capabilities is $264 billion. An additional investment of $94 billion is needed to improve the condition and performance of this essential system, for a total investment of $358 billion; transit needs identified as $39 billion to maintain and $33 billion to improve service, for a total of $72 billion over 5 years.

While the estimated amounts to improve and maintain our highway and transit system are daunting, significantly more funding is being collected from highway users that is not available for transportation. If we could use all the funds flowing into the highway trust fund and the 4.3 cents per gallon now supporting general fund programs, we could at least maintain the current conditions of our surface transportation system. AASHTO and the National Governors Association share this recommendation to fully place highway user fees on transportation purposes.

Mr. Chairman, we know the budget resolution will impact the amount of transportation appropriations you can approve. We hope the budget level will reach levels I have discussed. Beyond that, we encourage this subcommittee to recommend that all funding is released without obligation ceilings to help meet our transportation needs.

With regards to the administration's transportation reauthorization proposal, an AASHTO task force is currently analyzing the bill and comparing it to AASHTO's adopted policies.

Our major issue of concern to AASHTO is the inadequate level of funding. The proposal has been described as providing $175 billion for surface transportation, an increase over ISTEA, but when the differences between the proposed authorization and proposed spending levels are analyzed, actual investment would be substantially less than the $175 billion. On the positive side, many ISTEA provisions which improved our ability to provide better transportation are continued in the administration's transportation reauthorization proposal.

Mr. Chairman, I see my time is about up, so in conclusion as president of AASHTO, I am eager for Americans to see transportation's potential to make a positive impact over the next 5 years. I have initiated discussions between AASHTO and the National Governors Association to convene a national transportation summit this spring or summer. Our goal is clear: to bring together State, Federal, and local officials, along with the users of transportation to highlight transportation in the future and the future of this Nation.

PREPARED STATEMENT

Mr. Chairman, that concludes my remarks, and we thank you very much for the invitation to present our views. I would be pleased to answer any questions or respond in writing. Thank you.

Senator SHELBY. Thank you.

[The statement follows:]

PREPARED STATEMENT OF DARREL RENSINK

Mr. Chairman, my name is Darrel Rensink. I am President of the American Association of State Highway and Transportation Officials, and Director of the Iowa Department of Transportation. On behalf of AASHTO, I am pleased to accept your invitation to testify concerning reauthorization of the Intermodal Surface Transportation Efficiency Act (ISTEA), and the Administration's proposal, which is titled the National Economic Crossroads Transportation Efficiency Act of 1997 (NEXTEA).

Mr. Chairman, we commend you and the Subcommittee for looking at the appropriations needed for our surface transportation program. We have provided to the Subcommittee copies of the documents that AASHTO has prepared outlining our policy on many of the issues that we will be addressing. In my comments today I will summarize the Association's views and respond to any questions that you may have.

AASHTO'S REAUTHORIZATION RECOMMENDATIONS

AASHTO has been working on ISTEA reauthorization issues since 1994 through its Reauthorization Steering Committee, on which all states as well as the District of Columbia and Puerto Rico are represented. With respect to our recommendations for reauthorization, I want to refer you to our Transportation for a Competitive America report, copies of which have been provided to the Subcommittee. This report details our recommendations, which are summarized in four key recommendations:

—The maintenance needs of the nations's highways and transit systems outstrip the funds currently available. The 4.3 cents per gallon in user taxes collected from motorists should be deposited in the Highway Trust Fund and be spent on system maintenance, rather than diverted to the General Fund.
—State and local governments should be given more flexibility in determining how, when, and where transportation resources are spent, to maximize the benefit to mobility, safety, and the environment.
—Many of the key concepts of ISTEA, such as State and local cooperation, intermodal planning, and public participation, should be retained.
—Burdensome and unnecessary provisions imposed by ISTEA and earlier laws should be eliminated or reduced. The National Highway System Designation Act was a first, and major, step in this direction.

To further explain AASHTO's position on issues in reauthorization of the Federal highway and transit programs, we refer you to the attached one-page document "Summary of AASHTO Recommendations on the Reauthorization of the Federal-aid Highway and Transit Programs," which was included in a brochure we recently sent to all members of the Congress.

Mr. Chairman, for the record I want to state that AASHTO is making no recommendations as to funding formulas, leaving this to the Congress.

Turning to our recommendations, the first of the four overall recommendations just cited is perhaps the most important, since it addresses the funding levels needed to adequately support our nations's surface transportation program.

HIGHWAY AND TRANSIT FUNDING

AASHTO has comprehensively analyzed the investment requirements of our transportation systems, based on information received from the U.S. Department of Transportation, including its 1995 report titled "The Status of the Nation's Surface Transportation System: Condition and Performance". This analysis is detailed in the AASHTO report titled The Bottom Line: Transportation Investment Needs 1998–2002, copies of which have also been provided to the Subcommittee.

To summarize the AASHTO report, over the next five years, total highway investment requirements just to maintain the current condition and performance of the system are $264 billion. An additional investment of $94 billion is required to improve the condition and performance of this essential system, for a total investment requirement of $358 billion over five years. Transit investment requirements to maintain and improve are identified as $39 billion and $33 billion, respectively, for a total of $72 billion over five years.

Simply stated, our need for investments to adequately support the nation's surface transportation system far exceeds current investment levels.

Attached are three pages from the folder AASHTO recently sent to members of Congress, titled "Our Transportation Needs." They provide more details on our findings, with the third page displaying the summary information in graphic form.

While the estimated amounts to maintain and improve our highway and transit systems are daunting, the situation is made troublesome because significantly more funding is being collected by the Federal government from highway users than is being made available for transportation. If we could fully utilize the funds already going to the Highway Trust Fund, it would improve the situation. If we could also add to this the 4.3 cents per gallon now used to support general fund programs, as shown on the attached bar graph we would then just have enough funding to maintain current highway and transit conditions.

Highway users who are paying fuel and other taxes into the Highway Trust Fund ask, why we do not have access to all the funding that is being collected, when our transportation investment needs far exceed current funding levels? If we could simply have access to all the funding flowing into the Highway Trust Fund and the revenue from the 4.3 cent tax, we could at least maintain current conditions.

AASHTO commends Senators John Warner and Max Baucus and the many Senators, some of whom are on this Subcommittee, who joined them in writing to Senator Pete Domenici, Chairman of the Senate Budget Committee, seeking a highway program level of $26 billion, which has been demonstrated to be sustainable by the Highway Trust Fund. We also commend Senators Alfonse D'Amato and Daniel Patrick Moynihan for their similar letter, which also urges a transit program of $5 billion.

AASHTO hopes that these funding levels will be approved, and that the revenue from the 4.3 cent fuel tax will be placed in the Highway Trust Fund and utilized to meet our highway and transit investment requirements.

Mr. Chairman, we know that the budget resolution will impact on the amount of transportation appropriations you can approve, and we hope that the budget level

will reach or at least approach the levels I have discussed. Beyond that, we hope that this Subcommittee will recommend that all of that funding, whatever the amount, is released without obligation ceilings, to help meet our transportation needs.

AASHTO AND THE GOVERNORS AGREE

AASHTO's member departments are not alone in making this plea from the States. The nation's Governors have also spoken out about the need to increase funding for surface transportation, and to fully utilize all available funding.

When the nation's Governor's met in Washington in February, they addressed the transportation funding situation and adopted resolution EDC–21, "Surface Transportation Financing." It included the following paragraphs, and a full copy of EDC–21 is attached:

> "Growing Highway Trust Fund revenues will permit significantly higher federal spending for transportation programs over the next five years. A much greater share of Highway Trust Fund revenues can and should be spent for transportation investments than is implied in recent Congressional and Administration budget proposals. Governors are aware of and support the movement in Congress for increased transportation spending."
>
> "Governors are aware that Federal fiscal circumstances require prudence in setting spending priorities and continue to support efforts to balance the budget. However, reducing federal transportation investment and allowing our nation's transportation infrastructure to fall further into disrepair will result in lost profits, jobs, and productivity, and ultimately lower tax revenues to the federal government."

The NGA resolution then goes on to urge that the Federal government:

> "Reinstate the nation's long-standing policy of dedicating federal transportation-related motor fuel taxes and excise taxes exclusively for transportation purposes. If the 4.3 cents per gallon of fuel tax that is currently being used for General Fund purposes continues to be assessed, it should be deposited in the Highway Trust Fund and used for transportation purposes.
>
> "Restore the integrity of the dedicated trust fund. All dedicated user fees and the interest accrued on trust fund balances should be promptly distributed for their intended purposes."

Testimony by representatives of the National Governors' Association (NGA) to a joint House and Senate Budget Hearing on March 12, 1997 indicates that "steadily growing user-tax revenues can support significant and much-needed increases in federal transportation investment. In highways alone, the annual dedicated revenues could support a funding level of $26 billion per year through the year 2002; and an additional $5 billion for mass transit programs could be supported by these growing revenues." AASHTO joins the nation's governors in their call for setting annual highway and transit funding and spending levels as high as possible.

THE BENEFITS OF TRANSPORTATION INVESTMENTS

As members of the Transportation Appropriation Subcommittee, you are well aware of both the benefits and needs of transportation funding into the 21st century, so what I am about to say will come as no surprise. However, the importance of transportation for a competitive America and for the nation's future requires that we continue to focus our attention on transportation funding.

America's transportation network has played a major role in our nation's economic success. Just as in the past, the future of America will depend to a great extent on how we support our transportation system. The appropriations bill you will be considering is therefore of great importance to the people of America as we approach the 21st century.

Perhaps no other federal investment has such far-reaching implications on every aspect of our quality of life. Transportation serves all of our citizens daily in traveling to their jobs, day care centers and markets; in providing goods to wholesale and retail outlets; in traveling to recreational activities; and in a variety of other activities in which we all participate. Welfare reform will only succeed when wage-earners have access to places of employment. Quality health care depends upon the ability of the patient and the care-giver to come together.

Most important, transportation is the backbone for our State, national and international economies. Transportation is our nation's economic engine which is built on an efficient transportation system, a key component to our global competitiveness. Industry, much of which now relies on "just in time" delivery of raw materials,

must have an effective and efficient transportation system. Such a system requires funding to the levels I have discussed.

THE ADMINISTRATION'S TRANSPORTATION REAUTHORIZATION PROPOSAL

With regard to the Administration's transportation reauthorization proposal, Mr. Chairman, one major issue that concerns AASHTO is its inadequate level of funding. The proposal has been described as providing $175 billion for surface transportation. But if the differences between proposed authorization and their proposed spending levels is analyzed, actual funding under would be substantially less than $175 billion. In addition, some of the $175 billion would be spent on programs that are not now funded out of the Highway Trust Fund, such as the Appalachian Highway Program and Amtrak, and for programs not directly related to meeting our transportation needs.

Even if a full $175 billion were to be provided in the legislation and expended on our identified highway and transit requirements, it would fall far short of the funding levels recommended in U.S. DOT's own investment requirement findings, its 1995 report titled "The Status of the Nation's Surface Transportation System: Condition and Performance".

Again, Mr. Chairman, AASHTO supports efforts to get annual transportation funding as high as possible. The Administration's transportation reauthorization proposal does not do this.

Spending down the balances in the Highway Trust Fund would permit an additional $4 billion annually in highway funding levels. Including the 4.3 cent per gallon tax in the Highway Trust Fund rather than using it for general fund purposes would add another $7 billion. AASHTO supports spending the Highway Trust Fund balances and efforts to deposit the 4.3 cent per gallon to Highway Trust Fund purposes.

With regard to other components of the Administration's transportation reauthorization proposal, a task force of the AASHTO Reauthorization Steering Committee is currently analyzing the Administration's bill and comparing it to AASHTO's adopted policies. This analysis will be provided to the Subcommittee in the near future. For now, let me address a few program areas of concern to AASHTO.

—AASHTO supports continued funding in the ISTEA reauthorization for safety, Intelligent Transportation Systems (ITS) and research, and we are pleased to see these programs contained in the Administration's proposal. Safety issues are of paramount importance to state transportation departments and should continue to be funded. Regarding ITS, AASHTO has joined with ITS America and the U.S. Department of Transportation and other public and private organizations in endorsing the "National Goal for Intelligent Transportation Systems," to complete deployment of basic ITS service for passenger and freight transportation across the nation by 2001 (PR–1–96).

—With regard to research, AASHTO continues to support the highway and transit research programs that are funded in ISTEA. Also, AASHTO supports federal funding for transportation data services, and therefore supports continued funding for the Bureau of Transportation Statistics in the ISTEA reauthorization (PR–12–96). These are also included in the Administration's transportation reauthorization proposal.

—With regard to the revenue side of transportation funding, AASHTO recognizes the success of the federal countermeasures to the theft of motor fuel excise taxes, and urges that FHWA's Joint Federal/State Motor Fuel Tax Compliance Project be reauthorized at least at its current funding level. Further, AASHTO urges that legislation be enacted that would allow a state transportation agency, at its option, to expend up to one-fourth of one percent of its federal-aid highway apportionments on motor fuel tax theft countermeasures.

—In addition, AASHTO supports legislation directing the Federal Highway Administration to expend no more that $15 million for the development of a computerized system to account for the import and refinery production of motor fuels to their deliveries in accordance with the needs of the Internal Revenue Service (PR–19–95).

The Administration's transportation reauthorization proposal recognizes the need for these programs.

Where I have referred to AASHTO resolutions, they are identified in parentheses, and copies of them are attached.

The enacted Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) was important legislation, and it improved our ability to provide better transportation in many ways. The planning and decision-making processes for surface transportation were changed by the ISTEA, to move more decision making to States and

localities and to encourage looking intermodally at the whole system. Greater flexibility in utilizing Federal funding was provided under the ISTEA, allowing States and localities to better target transportation facilities they and their citizens determine are priorities. And very importantly, the National Highway System sought by AASHTO's member departments was authorized in the ISTEA, and has been established by Congress with the enactment of the National Highway System Designation Act of 1995.

These concepts and features have increased our ability to address the nation's transportation needs, and AASHTO believes that the reauthorization legislation should continue to support them. At the same time, AASHTO believes there are a number of areas that can be improved as the Congress considers the reauthorization of ISTEA. These areas are described in the policy documents we have provided to the Subcommittee.

TRANSPORTATION TRENDS FOR AMERICA

Mr. Chairman, we believe strongly that the next reauthorization bill and the funding it provides must recognize and help meet the transportation trends we see, looking ahead into the start of the next century.

The most important of those transportation trends is that transportation will continue to play a major role in the well-being of this nation. This role is demonstrated by the growth we have seen in the number of drivers, vehicles and passengers on our highway and transit systems and the reliance of industry and economic development on the availability of efficient transportation.

Vehicle miles of travel on our highways increased 40 percent in the 1980's. If the 1990 to 1994 trend continues, total miles traveled may increase by more than 20 percent in the 1990's. At the present time over 6 billion miles of vehicle travel are logged on the nation's highways every day. The number of passengers utilizing transit services has also increased with over 6.8 million Americans using mass transit each day, with over 30 million people depending on it.

Just-in-time production is one of the most significant trends in U.S. manufacturing in recent years. This trend has allowed many businesses to sharply reduce or eliminate inventories. In 1990 just-in-time manufacturing accounted for 18 percent of U.S. production; by 1995 this percentage had increased to 28 percent. Just-in-time production and reduced inventories require dependable and efficient transportation facilities, and are major sources of increased productivity in our economy.

These trends are expected to continue, placing an ever increasing demand on our transportation systems.

Our highway system is suffering from increased congestion in many areas of the nation. The urbanization of America is creating new challenges for urban areas while at the same time rural transportation needs are continuing to increase. New demands are being placed upon the highway system by shifts in both the volume and direction of world trade. For example, the focus of our major highways are essentially east-west, in keeping with the movement of goods between the east and west coasts. However, the North American Free Trade Agreement (NAFTA) has required us to evaluate and improve our systems to accommodate an increasing number of north-south transportation patterns.

Our nation's transit systems remain vital in most areas of the nation. Today, a variety of passenger mobility needs, and efforts to solve our air quality problems across America, require transit to do even more.

In short, Mr. Chairman, while our nation still has the best transportation system in the world, current trends demonstrate that it is aging and is not keeping up with the mobility needs of our citizens, our commerce, our industries and our economy.

Throughout the history of our nation, transportation has been a key driving force in building and maintaining our economy. In recent years some have requested documentation of this statement, and in particular have asked whether or not our nation is receiving a fair return on its investment in our highway system. In response, AASHTO, through our National Cooperative Highway Research Program (NCHRP), the Federal Highway Administration, and other transportation agencies have sponsored many efforts to determine the economic value of transportation, and investments in our highway system.

A copy of Chapters I and II of a report prepared under AASHTO's sponsorship by the NCHRP entitled The Economic Importance of Transportation: Talking Points and References is attached, without the voluminous materials of Chapters III and IV. The following are a few of the significant findings in this report, all of which demonstrate the benefits of transportation to our economy:

—Reliable transportation is essential for America's businesses to achieve their objectives of reduced inventories and improved distribution systems. It is esti-

mated that logistics and transportation account for 20 to 25 percent of the value of a product on the shelf.

—Wal-Mart has become the largest retailer in the U.S. by demanding that manufactures deliver products reliably and ready for the selling floor. Wal-Mart has only about 10 percent of their square footage devoted to inventory compared to 25 percent for the average retailer.

—To remain competitive, American companies and businesses demand quick turnaround and are reducing the time it takes for products to reach their markets.

The NCHRP report refers to recent studies of the economic effects of highway investment conducted by Professor Ishaq Nadiri of New York University. Professor Nadiri's work indicates that investments in highways have a strong effect on productivity. He found that transportation improvements lower distribution costs, allow the shrinking of inventory that saves money, improves firms' access to labor, and lowers production costs. Overall, Professor Nadiri's studies show a 28 percent return per year between 1950–1989 for total highway capital.

In addition to the efficiency and production benefits for the manufacturing sector, investments in transportation are important for job creation. The Federal Highway Administration's most recent report on job generation for highway investment finds that every $1 billion of investment in the Federal highway program supports more than 42,000 full-time jobs.

Also, according to the U.S. Department of Transportation, every dollar invested in the highway system will return more than $2.60 in benefits to the economy.

As indicated in the few examples shown above, investing in the nation's transportation facilities is important to ensuring long-term economic growth. Americans have long believed this, and we are now finding through research work by several economists and other experts that what we intuitively believe is in fact true.

OTHER TRANSPORTATION ISSUES

Mr. Chairman, I would like to identify a few additional transportation funding issues of concern to AASHTO. These are beyond the ISTEA reauthorization legislation, but are important to our members and fall within the responsibilities of your Subcommittee.

AASHTO supports a multi-year reauthorization of the Airport Improvement Program (AIP) at a minimum of $2 billion (PR–2–96). However, AASHTO opposes the use of AIP funds to pay for airport security measures identified by the Gore Commission on Airport Security (PR–13–96).

AASHTO also supports continuation of the Essential Air Service Program (A–7), with reasonable subsidy limits and other appropriate criteria geared toward a more efficient and productive expenditure of federal funds.

AASHTO urges the Congress to permanently reauthorize and provide for an annual appropriation of funds to the Local Rail Freight Assistance program (PR–14–95).

The respective AASHTO resolutions are again shown in parentheses above, and copies of these resolutions are attached.

SUMMARY

In summary, AASHTO believes that there will be no more important legislation before this Congress for the future of America than the reauthorization and adequate funding of our surface transportation program.

We must either meet our investment needs, or face a decline in American mobility as we enter the 21st century.

We have provided you with AASHTO's recommendations for reauthorization and stand ready to provide any further information which would be of assistance as you move forward in the legislative process.

Mr. Chairman, this concludes my remarks. Again, thank you for the invitation to present our views and we will be pleased to respond to questions now or in writing.

[CLERK'S NOTE.—Due their length, the attachments referred to in Mr. Rensink's statement do not appear in the hearing record but are available for review in the subcommittee's files.]

STATEMENT OF WILLIAM D. FAY, PRESIDENT AND CEO, AMERICAN HIGHWAY USERS ALLIANCE

Senator SHELBY. Mr. Fay.

Mr. FAY. Mr. Chairman, thank you for inviting me to testify here today. My remarks will focus first on key issues and then on the administration's NEXTEA proposal.

The Highway Users is like a consumers group. Our members are motorists and truckers who, as you know, are driving now more than ever. Our members willingly pay taxes in proportion to their driving, but they expect that those taxes will be reinvested in safe and efficient roads and bridges.

If FHWA's needs report is correct—and that report found that 28 percent of our Nation's roads are in poor to mediocre condition, and 32 percent of our bridges are deficient—then these highway consumers are being ripped off.

You know, Senator Faircloth mentioned that the Interstate Highway System is complete. That may be so but let us not forget that the Interstate System was designed in the 1950's to meet the needs of a 1950's economy. Nonetheless, that Federal creation constitutes our Nation's safest and best roads.

The NHS, which was overwhelmingly enacted in 1995, is the Interstate Highway System of the 21st century. It bespeaks nationalism. Four percent of all roads bearing 40 percent of all traffic, 75 percent of commercial truck traffic, and 80 percent of tourist traffic. These are our most vital roads and they draw our Nation together, boost economic productivity and competitiveness, create jobs, and enhance our quality of life. Through the NHS, the Nation can meet the exploding economic and interstate commerce needs of the 21st century.

We strongly disagree with those who say that the Federal role should be ended and that we should go back to before 1956 when vision did not extend beyond a State's boundaries. But that said, we also believe that the Federal program must readdress itself to defining and then adequately funding national priorities.

America's highways are in the midst of a funding and safety crisis. The needs report that Mr. Rensink referred to documented roads and bridges crumbling from underinvestment. Forty percent of the NHS roads are still two lanes. They are bearing interstate traffic loads without the benefit of interstate safety design.

And our highway death toll has been on the rise since ISTEA took effect in 1992. Last year nearly 42,000 Americans lost their lives on our roads. The FHWA also reported that road design and conditions contributed to 30 percent of these fatal crashes.

So, our Government is saying, No. 1, our roads are bad, and No. 2, bad roads kill. Now, you would think that with those two studies alone, we would embark on an urgent improvements program, one that at least maintains the current conditions, but in spite of those very powerful reports, the administration's budget actually cuts highway investments.

These funding and safety problems are not the result of insufficient revenues. Only 58 cents of every dollar of highway taxes is actually returned to the States for roads and bridges. Our problems are the result of insufficient dedication and conviction.

Increased funding then has to be our top priority. Referring to the President's inadequate highway funding level, Senator Bob Graham of Florida recently said that "starvation brings out the worst in all of us." The formula debate will only be salved if we

first return a larger share of the money that each State's motorists pay in highway taxes.

Without additional funding, our Nation simply cannot meet our road and bridge needs. The needs report says that we have to invest $20 billion more each year just to maintain the current conditions of our roads and $40 billion more to improve them. If you bridge that gap in this committee by making the needed capital investments for our roads and bridges, the dividends will be evident from a stronger economy, more jobs, productivity gains, fewer fatalities, and a greater overall quality of life.

That is why we applaud the 59 Senators, including 8 members of this subcommittee, who asked the Budget Committee for a $6 billion increase in highway funding, bringing it to $26 billion which is the level the CBO says we can sustain with no additional tax revenues.

Next Monday Governors, labor, and industry will convene on Capitol Hill to hold a press conference urging you to maximize transportation funding.

In a nutshell, the Highway Users proposal will do basically four things.

The first is to deposit the 4.3 cents into the highway trust fund.

Second, we would fund the highway program at the maximum level the trust fund can support. Including the 4.3 cents, that could be as high as $34 billion a year.

Third, we would target 85 percent of the highway funds toward the NHS, bridges, safety, research and development, and roads on Federal lands, five programs that we think are truly national in scope.

And last, we would give State officials maximum flexibility by eliminating most Federal mandates and set-asides and distributing the remaining 15 percent of highway funds to the States under a streamlined STP account.

If you are looking for a plan that is the opposite of the proposal you just heard, you have NEXTEA. NEXTEA provides too little funding for too many Federal programs with too many strings attached. It is the opposite of a program that is focused on a few clear national priorities and on a commitment to invest in them. NEXTEA offers something for everyone with too little for anyone.

For example, the President authorizes only $22 billion a year, but he makes several new programs eligible for this money. But as you know, authorizations are like monopoly money. The President's budget actually cuts highway funding by one-half of a billion dollars, and under his plan the surplus in the trust fund will grow to a $48 billion level by 2002. In other words, motorists will continue to be taxed to support road and bridge repairs, but a substantial portion of their taxes will either sit in the trust fund or be diverted to pay for other Federal programs.

And the President would finance Amtrak out of the highway account. He would expand the list of eligible projects that highway funds could be used for. He would continue the Federal funding set-asides that limit flexibility. He would allow tolls on the interstates and he would make truckers and bus operators subsidize their competitors: freight, rail, and Amtrak.

PREPARED STATEMENT

Again, Mr. Chairman, I appreciate the opportunity to present the Highway Users views on NEXTEA and the reauthorization of the Federal program. We do need more money. As Mr. Rensink, we stand ready to assist you in any way that we can over the next little while.

Senator SHELBY. I agree with you we need more money and we are going to try to get it.

[The statement follows:]

PREPARED STATEMENT OF WILLIAM D. FAY

Mr. Chairman and members of the subcommittee, thank you for the invitation to appear before you today and the opportunity to present our views on S. 468, the Administration's proposed "National Economic Crossroads Transportation Efficiency Act" (NEXTEA), recently introduced by Senators Chafee and Moynihan.

I am Bill Fay, President and CEO of the American Highway Users Alliance. The Highway Users represents a broad cross-section of businesses and individuals who depend on safe and efficient highways to transport their families, customers, employees, and products. We support a strong federal role in transportation policy and the prudent investment of scarce highway use taxes in those programs that enhance our economic productivity, improve roadway safety, and contribute to the enviable quality of life Americans enjoy.

Our view of NEXTEA and the other major reauthorization proposals is based on an understanding of the appropriate federal role in transportation and what that role means with respect to highway funding and eligible uses of Highway Trust Fund dollars. I will begin today by outlining The Highway Users' perspective on these "big picture" issues and finish with our specific comments on NEXTEA.

FEDERAL TRANSPORTATION POLICY AT THE CROSSROADS

FEDERAL ROLE

Since 1956, the federal highway program has been largely focused on constructing the Dwight D. Eisenhower National System of Interstate and Defense Highways. Now that the Interstate System is virtually completed, some have questioned whether the federal government should continue to play a significant role in highway transportation policy. These same objections were raised two years ago by opponents of the National Highway System (NHS) legislation, and Congress answered them decisively with its overwhelming vote for final passage of the National Highway System Designation Act. With NHS designation, Congress recognized the federal government's continuing responsibility to foster interstate commerce and economic growth by ensuring that our most basic transportation infrastructure is maintained and improved.

Without the NHS, many U.S. businesses could not compete in national and international marketplaces, military readiness would be put at grave risk because of the inability to mobilize quickly, and the ability of individual Americans to travel where they want, when they want would be severely hampered. To put it another way, a strong federal role in the development and maintenance of highways and bridges is essential to support economic growth, to enhance individual freedom, and to sustain our quality of life. Few other federal programs can claim such a sweeping national impact.

But there is a lot of work ahead to make the promise of the NHS a reality. The nation will not only have to invest substantial financial resources, but invest them wisely, in order to ensure that this small but important network of highways becomes the engine for economic growth, greater personal freedom, and safer travel that we all hope it will be.

FUNDING

Funding, then, has to be the top priority issue. Members of this subcommittee understand the critical importance of increasing our nationwide investment in highways. As Congress works to reauthorize the federal highway program this year, the issue takes on even greater significance. First, returning to the states more of the money motorists pay in highway taxes will certainly help resolve many of the difficult issues involved in the formula debate. Second, and of equal importance, with-

out additional funding our nation cannot meet its documented need for increased road and bridge investments.

According to the U.S. Department of Transportation, 253,629 miles of Interstate and non-Interstate roads (29 percent of total pavement miles eligible for federal funds) are in poor to mediocre condition, and 186,559 bridges (32 percent of bridges over 20 feet) are deficient and in need of repair or replacement. We are presently investing $20 billion per year less than is needed just to maintain current conditions, and a staggering $40 billion per year less than is needed to leave a better network of highways for the next generation.

This startling gap between actual highway investments and the amount we should be spending has enormous implications for our economy, our travel safety, and our overall quality of life:

—*Economy*—A recent study commissioned by the Federal Highway Administration (FHWA) indicates that between 1950 and 1989, investments in non-local roads yielded production cost savings of 24 cents for each dollar spent. Amazingly, those road investments paid for themselves in just over four years because of the economic gains they made possible. If we fail to maintain those roads, however, the gains realized could soon disappear.

—*Safety*—Highway fatalities have been on the rise over the past four years, reversing the steady improvements of the prior four years. When ISTEA took effect in 1992, 39,250 Americans died on our highways. Since then, fatalities have climbed to 40,150 in 1993, 40,676 in 1994, and 41,798 in 1995. 1996 fatalities are projected to be about the same as 1995. Substandard road designs and poor road conditions are a factor in nearly 30 percent of fatal crashes, according to FHWA. Our failure to invest in better highways will only make travel more dangerous in coming years.

—*Quality of Life*—Underinvesting in highways will make it more difficult for working parents to get from the job site, to the day care, to the grocery store, to home; will make vacations more time consuming and expensive; and will make medical care less accessible for many rural Americans.

For the sake of our continued economic growth, the driving public's safety, and maintaining our standard of living, Congress must increase overall highway funding this year. That's why we applaud the 59 senators, including eight members of this subcommittee, who signed a letter to the Budget Committee requesting that the highway program be funded at $26 billion in fiscal year 1998, a $6 billion increase over this year's spending level. As the letter indicates, the highway account of the Highway Trust Fund could sustain a program funded at $26 billion through at least fiscal year 2002 with no additional taxes.

The nation's governors have amplified the call for increased federal investment in transportation. Testifying on behalf of the entire National Governors' Association at a recent joint meeting of the House and Senate Budget Committees, Governors Paul Patton of Kentucky and Ed Schafer of North Dakota expressed their strong support for the highway funding increase requested by a clear majority of the U.S. Senate. Next Monday, those two governors will be back on Capitol Hill, joined at a press conference by industry and labor representatives, to reiterate the consensus among state and local governments and the private sector that transportation funding must be a top priority in the federal budget.

America's motorists should be able to count on their highway taxes being used for road improvements. Highway users today are paying substantially more in taxes than the federal government is spending on highway and bridge investments. In 1996, motorists paid $31.5 billion in federal highway use excise taxes. Yet, highway funding for this year is set at just over $20 billion.

Of course, the major reason for this disparity between what highway users pay and what they receive from the federal government is that not all of the taxes collected from highway users are deposited in the Highway Trust Fund, much less in the highway account of the trust fund. Taking the 4.3 cents per gallon tax that currently goes to "deficit reduction"—which simply means the use of a regressive excise tax to fund general government programs—and depositing it in the Highway Trust Fund would go a long way towards keeping faith with the American driving public.

FOCUS THE FEDERAL PROGRAM

Just as we should increase overall highway funding this year, we must ensure that those limited resources are wisely invested in programs of vital national interest. Guided by two overriding national goals—improved interstate mobility and safer travel—The Highway Users recommends a simplified highway program that targets federal funds towards five program accounts. They are:

—*The National Highway System*—While the NHS constitutes only 4 percent of the nation's road mileage, it carries over 40 percent of all highway travel, 75 percent of commercial truck travel, and 80 percent of tourist travel. The NHS is the 215' Century successor to the Interstate System and has the potential to build dramatically on the national contributions made by the Interstates over the past 40 years. To maintain these vital interstate connectors, the FHWA estimates we should be investing $18 billion annually and $24 billion annually if we want to improve their condition. Yet the current federal highway program provides only $6.5 billion per year for NHS improvements.

—*Bridges*—Both on and off the NHS, bridges are high-cost, crucial links in our nationwide highway network. The FHWA reports the country would need to spend $5.1 billion annually to maintain current bridge conditions and $8.9 billion to improve them. The current federal highway program budgets only $2.8 billion per year for bridge work. If the Administration and Congress seriously wish to build a bridge to the 21st Century, they will have to provide more adequate funding.

—*Safety*—For reasons I have already discussed, we must make a renewed commitment to safety if we hope to curb the tide of rising highway deaths. The federal government currently invests $700 million annually in highway safety programs. As Americans continue to travel more miles than ever by highway, we must focus more attention and resources on safety improvements. It's a nationwide challenge requiring a greater financial commitment from the federal government.

—*Research and Development (R&D)*—The federal government currently invests approximately $400 million annually in R&D activities to develop new technologies, construction materials, and construction techniques that will ease congestion, make travel safer, and prolong the usable life of roads and bridges. By providing up-front financing, coordinating research activities at sites around the country, and transferring information and technologies among interested parties in the public and private sectors, FHWA programs reduce the cost and enhance the benefits of the nation's highway-related R&D activities.

—*Roads on Federal Lands*—The federal highway program provides approximately $500 million per year to improve roads on federal lands, such as national parks. This program is essential to provide public access to these areas and should be retained.

By targeting at least 85 percent of federal highway funds to the above five program accounts, The Highway Users believes the federal government would significantly improve both safety and interstate mobility. Such a federal highway program would ensure we make investments in projects of truly national significance.

STREAMLINED STP

While The Highway Users seeks to target federal highway funds on programs of national interest, we also advocate giving state and local officials the latitude to plan for their regional transportation needs and the flexibility to direct federal highway dollars towards the programs they identify as priorities. The Surface Transportation Program (STP) was established in ISTEA to provide state and local governments that flexibility. While ISTEA is more flexible in terms of expanding the opportunities to use federal highway funds on non-highway projects, two of the new funding accounts established in ISTEA—transportation enhancements and the Congestion Mitigation & Air Quality improvement program (CMAQ)—are quite inflexible in terms of the discretion granted to state and local officials to set their own transportation priorities.

Specifically, 10 percent of STP funds must be set-aside and used only for transportation enhancement activities, such as pedestrian or bicycle facilities, landscaping and beautification, rehabilitation and operation of historic buildings, or other non-highway projects. The CMAQ program directs highway money, $6 billion over six years, towards urban areas that do not meet Clean Air Act requirements. These funds generally cannot be used for highway construction and maintenance, except High-Occupancy Vehicle (HOV) lanes.

The Highway Users recommends that Congress continue the eligibility of CMAQ and transportation enhancement projects under a streamlined Surface Transportation Program account. The streamlined STP would allow state and local officials to weigh all transportation needs—air quality, highway capacity, historic preservation, mass transit capital, safety, etc.—and establish priorities without the current funding constraints of ISTEA. By continuing the eligibility of CMAQ and transportation enhancement projects but eliminating the specific funding categories, Con-

gress would allow those local projects to be funded in areas where they are truly a priority.

HIGHWAY USERS PROGRAM SUMMARY

Our proposal for the reauthorized federal highway program can be summarized as follows:

—Fund the highway program at the maximum level the Highway Trust Fund will support.
—Deposit the 4.3 cents per gallon federal fuel tax in the Highway Trust Fund.
—Target the bulk of federal highway funds toward the NHS, bridges, safety, R&D, and roads on federal lands.
—Distribute the remaining federal highway funds to the states under a streamlined STP account in which state and local officials would be allowed to establish their own local transportation priorities without the constraints of ISTEA's multiple funding categories.

NEXTEA

How does the Administration's proposal rate when measured against our reauthorization priorities? In a word: poorly. NEXTEA provides too little funding for too many federal programs with too many strings attached. Where we were hoping for a program focused on a few, clear national priorities and a commitment to invest in them, NEXTEA offers something for everyone with money enough for no one.

NEXTEA: FUNDING

"Show me the money." That line from a popular movie might also be the headline for a review of NEXTEA. Despite the fact that many in Congress and all of the nation's governors are calling for a $26 billion per year highway program, NEXTEA authorizes only $22.7 billion, on average, including funding for several new programs not previously financed out of the Highway Trust Fund.

And as members of this subcommittee certainly know, authorizations are akin to "Monopoly" money. You can't spend an authorization. The real money for NEXTEA is in the President's budget, which was transmitted to Congress in February.

The President's budget actually cuts highway spending (i.e., obligation authority) by $500 million from this year's $20.3 billion level. While annual tax deposits (not including interest) to the highway account are roughly $22 billion and growing, the Administration proposes to hold highway funding well below that level. And of course, Administration officials have publicly stated the President's opposition to depositing revenues from the 4.3 cents per gallon motor fuel tax into the Highway Trust Fund.

If highway funding is limited to the level recommended in the President's budget, the cash balance in the highway account of the Highway Trust Fund would rise from the current $13 billion to more than $35 billion in five years. Motorists would continue to be taxed to support road and bridge repairs, but a substantial portion of their taxes would actually be diverted to pay for other federal programs.

As outrageous an abuse of the taxpayers' trust as that is, the cash balance sitting in the highway account five years from now would be even larger if the President were not also proposing to finance Amtrak entirely out of the highway account. The unprecedented proposal to pay the full $4.8 billion, six-year subsidy to Amtrak out of the Highway Trust Fund helps the Administration keep the trust fund's total projected cash balance below the $50 billion mark at the end of 2002. The Highway Users strongly opposes subsidizing Amtrak with highway taxes that are desperately needed to improve roads and bridges.

NEXTEA: FOCUS THE FEDERAL PROGRAM

What does NEXTEA do to focus the federal highway program on clear national priorities? The legislation would continue funding for the NHS, bridges, safety, research and development, and roads on federal lands. Less than 60 percent of the highway funds authorized in NEXTEA, however, are dedicated to these top priority programs.

In addition to targeting too small a portion of highway funds toward these five important program areas, the Administration also proposes to greatly expand the list of eligible projects for which these limited highway funds can be used. Both Amtrak and certain freight rail facilities would become eligible for funds that should be reserved for badly needed road safety, maintenance, and capacity projects, particularly on NHS routes.

NEXTEA: STREAMLINED STP

With respect to our third priority—a streamlined Surface Transportation Program—the Administration simply does not propose to give state and local officials greater authority to establish their own transportation priorities. Instead, NEXTEA would continue the funding set-asides for CMAQ and transportation enhancement activities which, in both cases, limit the potential use of these funds primarily to non-highway projects. Again, we recommend instead that Congress continue the eligibility of CMAQ and transportation enhancement projects under a streamlined STP account, thus allowing state and local officials to weigh all their transportation needs when making funding decisions.

In addition, we have two specific recommendations about CMAQ and transportation enhancement eligibility requirements. First, the CMAQ program to date is focused almost exclusively on air quality projects with very little emphasis laid on congestion mitigation. Federal highway funds certainly ought to be available to improve freeway interchanges and other traffic bottlenecks and for simple projects such as lane widening or shoulder improvements that can substantially improve traffic flow and reduce congestion. We urge Congress to allow the states to more fully utilize their federal highway funds for congestion mitigation projects.

Second, the transportation enhancement eligibility requirements have been written and interpreted so broadly that many projects funded to date have no transportation elements or connection. We think these eligibility standards should be tightened considerably. We hope to have completed a report in April that will highlight the extent to which transportation enhancement funds have been spent on non-transportation projects. We will deliver the report to members of this subcommittee as soon as it is available.

NEXTEA: OTHER SPECIFIC ISSUES

I can summarize our comments and concerns with other specific elements of NEXTEA, as follows:

—*Safety*—As I indicated previously, highway fatalities have increased in recent years, and highway accidents result in millions of injuries annually. Those traffic crashes also drain over $150 billion per year from our economy, primarily by increasing medical costs and lowering productivity.

The Roadway Safety Foundation (RSF), chartered by the American Highway Users Alliance to reduce the frequency and severity of crashes by improving the safety of roadways, recently released a report on roadway safety problems and potential solutions. The report cites four major roadway safety problems, including run-off-the-road crashes made more severe by roadside hazards, poor quality pavements, narrow lanes and shoulders, and narrow bridges.

Those problems can be mitigated in a variety of ways—widening lanes and adding or widening shoulders; ensuring that bridge widths are commensurate with the width of approach lanes; better pavement marking, traffic signs, and reflective devices; creating open space adjacent to the roadway (clear zones) that will allow motorists to regain control of their vehicles. Some of these safety improvements are relatively simple; others are more complex. All of them require a commitment of financial and human resources.

Unfortunately, the Administration's proposal would allow states to shift up to 100 percent of their Hazard Elimination funds away from these life-saving roadway improvements into Section 402 public education and information safety programs instead. (The Administration does not propose allowing states to shift funds for the "soft safety" education programs into the "hard safety" hazard elimination projects.)

All safety programs are important, and The Highway Users supports a substantial increase in overall funding for highway safety. The Administration's proposal, however, would take money away from projects for correcting road hazards that today contribute to more than 12,000 highway fatalities per year. We believe that is bad public policy, and we urge Congress to retain existing programs to fund both rail/highway grade crossing improvements and hazard elimination projects.

We are pleased that the Administration proposes funding for data collection in Section 402(n), State Highway Safety Data Improvements. Currently, law enforcement officers at the scene of a crash are sometimes unable to identify the precise location or the presence of roadside obstacles or other roadway dangers such as sharp curves. This makes it difficult for states and localities to identify roadway dangers and eliminate them.

The $12 million authorized for data collection in NEXTEA, however, is simply not enough to do the job. In addition to higher funding, this section should in-

clude language specifically identifying roadway-related data as a priority for collection. The data should include a precise description of the crash location, the type of crash—rollover or collision with roadside obstacles—and the presence of other roadway hazards such as sharp curves.

—*Tolls*—NEXTEA would eliminate the long-standing prohibition against tolls on existing toll-free Interstate highways. We strongly oppose this provision of NEXTEA. Taxes paid by motorists built the Interstates and continue to fund improvements to Interstate routes. The Administration's proposal is akin to asking a person to pay rent on a home she already owns. Administration officials say this is just one more tool to help states raise funds for road improvements. We think the federal government should fully utilize the taxes already being collected from motorists before anyone starts talking seriously about additional tax raising schemes.

—*Amtrak and Freight Rail Subsidies*—I've already indicated our opposition to the Administration's proposed direct subsidies to Amtrak out of the Highway Trust Fund. We also strongly oppose making Amtrak and freight rail facilities eligible for NHS or other highway funds. Bus operators and truckers should not be required to subsidize their competitors.

CONCLUSION

Again Mr. Chairman, I appreciate this opportunity to present The Highway Users' views on NEXTEA and reauthorization of the federal highway program. Obviously, we think the Administration's proposal falls short of the mark in several key areas. Whatever one's point of view may be with respect to the policy issues I have addressed, it is clear that this subcommittee can do a lot to help smooth the reauthorization process by providing an adequate amount of funding for the highway program. We look forward to working with you and members of the full committee toward that important end.

[CLERK'S NOTE.—The Final Report—Improving Roadway Safety: Current Issues will not appear in the hearing record, but is available for review in the subcommittee's files.]

STATEMENT OF JOHN J. COLLINS, SENIOR VICE PRESIDENT, GOVERNMENT AFFAIRS, AMERICAN TRUCKING ASSOCIATIONS, INC.

Senator SHELBY. Mr. Collins.

Mr. COLLINS. Mr. Chairman, thanks very much for the opportunity to be here. My name is John Collins. I am senior vice president for government affairs of the American Trucking Associations.

ATA represents the Nation's trucking industries. We employ about 9 million people. We pay about 43 percent of the total amount of money that goes into the Federal highway trust fund. We have only about 10 percent of the vehicles. So, we are big payers in. We are not the largest users of the system out there. Those are really the auto users.

Mr. Chairman, the American Trucking Associations and our industry believe that the current level of funding for roads, bridges, and highways is inadequate and that the administration's NEXTEA proposal is really a next toll proposal. It asks for more money in the way of tolls, while not really spending the amount of money we are already putting into the system.

I would like to thank the members of the subcommittee who have joined in calling for a $26 billion per year program. Senator Bond is leading a separate effort to increase available funds for highways, and Senator Byrd is leading an effort to bring 4.3 cents back into the highway trust fund. I think those represent a growing consensus that there is a need for more money, as you just said, Mr. Chairman, to go into the highway program and there is also a will to get it done.

The ATA proposal is very similar to the Highway Users proposal. We would go straight out for a $34 billion annual program which could be supported with the existing tax structure without any tax increases. With that program, we would see basically a two-part program. There would be a core program that would target money at those interstate facilities that are most important for moving people and moving freight, and then there would be a block grant proposal that would be turned back to States dollar for dollar for their other transportation needs. The vast majority of the funds would be dedicated to the core highway program.

The trucking industry is very skeptical of the administration's reauthorization proposal. Their proposal and their fiscal year 1998 spending level would propose $11 billion less than the level that could be supported out of a fully funded highway trust fund program.

Basically the highway program has been moving along at $20 billion per year. They, in 1998, would propose to cut that $500 million to $19.8 billion, but in fact the overall highway program that could be maintained would be about a $34 billion level.

We strongly oppose—and Senator Faircloth I think said this very eloquently about the problems of putting tolls on the Interstate Highway System. To charge a toll for something we have already paid for is absolutely a travesty.

I would like to talk to you about three things that concern us, and that is safety, jobs, and international competitiveness.

Safety. Nearly 42,000 people die on the Nation's highways each year, and the trucking industry takes little comfort in the fact that in 88 percent of those, there is not a truck anywhere nearby. So, this is not a problem caused by the trucking industry, but we are concerned obviously with safety on the Nation's highway.

We are spending billions of dollars to make our trucks safer, to make our drivers safer, and we need Congress' help to make the roads safer. We have all been on the highway where we have been driving down the road and suddenly the person in front of us swerves irrationally and it turns out they swerved to avoid a pothole. That is the kind of thing that creates havoc with the truck-driver who is trying to drive straight down the road and safely. We have got to put the money back into the infrastructure to take those kinds of problems away from us.

We think about this is as a shopping list. For each $1 billion that Congress can put into the highway system, that could upgrade 1,300 miles of rural roads into interstate quality roads, roads in Alabama where you could cut the fatality rate in half by making that kind of improvement.

You could resurface interstate highways and rural roads, and by resurfacing them and getting rid of the potholes, you could reduce accidents by 20 or 25 percent.

An important issue—and you certainly see it in Alabama—is the relationship of highways to jobs. You need good highways to get good jobs. Seventy-seven percent of the communities across America have their freight moved only over highways. The airplane does not land at the plant. The rail is an important asset but it does not bring the cargo directly to the person who needs it.

And it is fashionable in some quarters to say that the Interstate System is built, we can pull back the Federal commitment to highways. But that is like saying our schools have been built and the textbooks have been bought and we do not need anything new.

Every year in this country we add about 2.3 million people to our population, and by the year 2004, we will add 8 million more cars to our highways and rack up 30 percent more miles in demand for services from trucks. So, our surface transportation system needs every bit of money we can put into it for modernization.

In international competitiveness, the FHWA has said that every $1 billion invested in the NHS, the National Highway System, creates a $240 million reduction in manufacturing production costs per year. So, there is a real payoff between the investment and the payoff back.

PREPARED STATEMENT

It involves safety, jobs, and competitiveness, and really the challenge is to this Congress and to this committee through its appropriations efforts to make that money available. This Congress has a wonderful opportunity to earn a legacy as builders, builders of a better, safer, and more prosperous America, and I urge you to provide the funding to make that a reality.

Thank you.

[The statement follows:]

PREPARED STATEMENT OF JOHN J. COLLINS

I. INTRODUCTION

ATA Represents the Trucking Industry

The American Trucking Associations, Inc. (ATA) is the national trade association of the trucking industry. ATA's membership includes affiliated associations in every state, and 13 specialized national associations. ATA represents every type and class of motor carrier in the country. We are a federation of over 36,000 member companies and represent an industry that employs over nine million people, providing one out of every fourteen civilian jobs. We are a highly diverse industry, but we can all agree that a good system of roads is crucial both to our bottom line and to the safety of all drivers, including millions of truck drivers who deliver to all Americans their food, clothing, finished products, raw materials, and every other item imaginable. Actions that affect the trucking industry's ability to perform these services have significant consequences for Americans to do their job well and to enjoy a high quality of life.

Current Spending Levels Cannot Support a Safe and Efficient Highway System

The trucking industry contributes over $11 billion each year to the Federal Highway Trust Fund, about 43 percent of total receipts. As such, we expect a return on our investment. The user fees that we contribute to the trust fund should be invested in a manner that makes our highways both safer and more efficient.

Investing all revenues collected is especially important given the tremendous pressures our highways and bridges will face in the future, when population and economic growth will spur tremendous increases in the demand for freight transportation. In 1994 the revenue generated by the trucking industry was $362 billion and is projected to reach $437 billion in 2004. By this same date, the total volume of freight carried by trucks will reach 6.5 billion tons, 19 percent more than in 1994. Both the total number of miles driven and the total volume of ton-miles will grow 29 percent. Over the same period, more than half a million more trucks will be needed to meet these increased demands. This assumes that we will be successful in increasing intermodal business substantially to $12.9 billion-a 150 percent increase over today's levels. The safety and efficiency of the freight industry will depend in no small measure on the actions of this committee and the 105th Congress.

II. CURRENT FUNDING LEVELS ARE INSUFFICIENT

There are numerous Congressional initiatives underway to significantly increase investment in our nation's transportation systems. These efforts indicate both a recognition of the severe investment shortfall facing our transportation infrastructure and the emergence of broad consensus that something can and should be done to correct this situation. According to the Congressional Budget Office, spending all highway user fee revenues and drawing down the balance in the Highway Trust Fund, could support an annual program of $34 billion, without increasing taxes.

Current Spending will not Sustain Highway Infrastructure

The trucking industry is prepared for the tremendous challenges posed by ever increasing demands for more efficient freight service to facilitate our nation's growing population and economy. However, if under-investment in our highways continues, it may be impossible for the industry to meet these challenges. The resulting productivity losses will take a severe human toll as stiff competition from abroad wipes out existing jobs and reduces the ability of our economy to create new jobs for an expanding population. To simply maintain conditions and performance on the 162,000-mile National Highway System (NHS), an annual Federal investment of $15.6 billion is needed. The NHS carries 40 percent of all traffic and 75 percent of truck traffic. Yet the Federal government makes just $9 billion available annually for funding of these most important highways. This is only 58 percent of the Federal investment necessary just to maintain the status quo.

This dismal level of spending has contributed to the situation now faced by users of the system. The NHS has been allowed to deteriorate to the point where nearly half of urban Interstate miles are congested during peak periods. Forty percent of travel on urban NHS routes takes place under such congested conditions that even a minor incident can cause severe traffic flow disruptions and extensive queuing.[1] Congestion on urban Interstates increased from about 55 percent of peak hour travel in 1983 to approximately 70 percent in 1989, remaining relatively constant since then.[2] Travel delays in the nation's fifty largest urban areas as a result of increased congestion costs society an estimated $50 billion every year.[3] Congestion increases the risk of accidents and interferes with our ability to serve our customers' "just-in-time" delivery needs.

Highway Investment Saves Lives

Adequate highway funding allows states to make roadway improvements that increase safety. Improved roadway characteristics such as 12-foot lanes and ample shoulders, gentler curves, and improved median and median barriers, can significantly reduce the number and severity of accidents.[4] One 1995 study estimated that full funding for the NHS over a 10-year period would prevent 720 fatal crashes, 55,000 personal injury crashes, and 120,000 property damage crashes on the NHS alone.[5] The report estimated average annual societal savings of $800 million as a result of the accident prevention. Additional funding for other roads would increase these savings even more.

It is important to keep in mind that 43 percent of the NHS includes two-lane roads. These roads often have no median separation to prevent head-on collisions. Although lanes, shoulders and clear zones can provide motorists with the critical space to recover if they lose control of their vehicles, these features are inadequate or nonexistent on many NHS routes. These two-lane roads may have very tight curves with few warning signs and poor visibility to alert motorists before it is too late to adjust. FHWA crash statistics confirm the danger posed by the hazardous conditions on these narrow roads. While the Interstate System has the lowest fatality rate per 100 million vehicle miles traveled, NHS routes not on the Interstate have a death rate twice that of Interstates.[6] Other Federal aid highways not on the NHS take an even higher toll.

Additional funding will allow us to make needed highway safety improvements. Illustratively, consider what just $1 billion dollars in additional highway construction investment could achieve:

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[1] FHWA 1995 *Conditions and Performance Report,* pp. 105–109

[2] *Ibid,* p. 110.

[3] *Urban Roadway Congestion—1982–1993, Vol. 1: Annual Report,* David Shrank and Timothy Lomax, Texas Transportation Institute, Texas A&M University, Aug. 1996, p. 62.

[4] McGee, H.W., W.E. Hughes, K. Daily, *Effects of Highway Standards on Safety,* Final Report to National Cooperative Research Program, Project 17–9, Bellomo-McGee, Inc., Dec. 1994.

[5] *Safety Effects Resulting from Approval of the National Highway System.* AAA Foundation for Traffic Safety. Bellomo-McGee, Inc., July 1995.

[6] FHWA, *Highway Statistics,* 1994.

—upgrade 1,300 lane-miles of off-interstate rural principle arterials to interstate standard,[7] potentially cutting the fatal accident rate on these roads in half; or
—add 500 new lane-miles to existing urban freeways, or 3,300 new lane-miles to existing rural interstates,[8] relieving congestion and reducing accidents; or
—resurface 9,800 lane-miles of rural interstate or 5,900 lane-miles of urban freeway,[9] reducing accidents on these roads by 20 to 25 percent; or
—build 170 new truck safety inspection stations, helping to get unsafe vehicles off the highway; or
—add 50,000 truck parking spaces at highway rest areas, allowing truck drivers to pull over to a safe place when they get tired.[10]

We cannot afford to become complacent. In 1995, 41,798 people died on our nation's highways. The vast majority of these fatal crashes involved cars, motorcycles, and pickup trucks. This is equivalent to a Valuejet crash every single day! Safety must be given the highest priority, and the Federal commitment must be demonstrated through adequate funding and strong leadership.

Highway Investments are the Key to Economic Development and Employment Growth

According to a Federal Highway Administration (FHWA) report, investment in the nation's highways stimulates job growth.[11] The report states that for each $1 billion in highway investment, 42,100 full-time jobs are created and supported.

United States productivity improvements are the key to global competitiveness, rising standards of living, and economic growth. Investing in the NHS results in significant, nationwide improvements in productivity.[12] In fact, every billion dollars invested in the NHS results in a $240 million reduction in overall production costs for U.S. manufacturing. These productivity improvements allow U.S. industry to sell more goods and services at lower prices both at home and abroad. More people can be employed at higher wages. Since salary increases are firmly tied to the increase in the amount of goods and services each worker produces, living standards are improved. In addition, these real wage increases result in elevated tax revenues.

Through new innovations such as just-in-time delivery, the trucking industry has played a vital role in improving U.S. productivity. This would have been difficult, if not impossible, to achieve without an efficient network of good roads that connects markets, centers of industry, and multi-modal transportation facilities. A 1994 study of five diverse U.S. companies demonstrates the importance of transportation to American businesses' daily operations.[13] For instance, a reliable system of roads allows Saturn Corporation, which has its manufacturing and assembly plant in Spring Hill, TN, to utilize a just-in-time strategy. Saturn's just-in-time approach to its inventory control system, combined with the company's advanced communications system and a safe, well-functioning highway network, has allowed the company to reduce order cycle times and inventory costs by holding down in-plant inventory to an average of two days' stock.

A Minimum of $34 Billion Annually Can and Should be Available for Investment

Although the fees paid into the Highway Trust Fund are sufficient to improve conditions and performance on the National Highway System and related roads, not enough of the funds are being spent to even maintain the status quo, the status quo itself is unacceptable. If all funds coming into the Highway Trust Fund are spent in a timely manner, a $26 billion program could be sustained. A slow drawdown of the existing balances in the trust fund would increase revenues by approximately $2 billion annually, allowing a $28 billion program. Ensuring that all highway user fees are dedicated to transportation improvements, including the 4.3 cents now deposited in the General Fund, would make a $34 billion annual program possible. This level of investment would stop the deterioration of our highways and bridges, allowing our nation's economy to move forward, renewing our commitment to safer, more efficient, and less congested highways, and improving our quality of life. Another important benefit of a higher funding level is that it would diminish the con-

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[7] FHWA, *Highway Performance Monitoring System Database,* 1993
[8] *Ibid.*
[9] *Ibid.*
[10] ATA Foundation, Inc. *No Room at the Inn,* May 1996.
[11] Federal Highway Administration. *Highway Infrastructure and Job Generation: A Look at the Positive Employment Impacts of Highway Investment,* 1996.
[12] Nadiri, M. Ishad and Theofanis Mamuneous. *Highway Capital and Productivity Growth,* June 1996.
[13] Apogee Research, Inc. *The Economic Importance of the National Highway System,* Feb. 1994.

tentious and divisive debate over funding formulas. We all support a better surface transportation system, and this issue is a barrier to achieving our common goals.

Given the tremendous economic and social benefits of highway investment, it is illogical to fail to spend the highway user fees collected to correct the many deficiencies of our highways and bridges. By the end of the 1997 fiscal year, the unspent balances in the Highway Trust Fund may exceed $22 billion. Extending the Administration's budget proposal for fiscal year 1998, that figure could reach nearly $50 billion in just five more years. For many years the trucking industry has been a steadfast supporter of the user fee system. However, support for that system and the Federal program will erode if the balances in the Trust Fund continue to rise or if user fees are not invested in highways in a timely manner. We urge the committee to restore trust in the Highway Trust Fund by investing the maximum amount available with a minimum of diversions.

III. THE ADMINISTRATION'S PROPOSAL IS INADEQUATE AND UNACCEPTABLE

During recent testimony, Secretary Slater declared that ISTEA's successor must be judged by how it affects "the lives of our people, the health of our economy, and the welfare of our Nation . . ." I am sorry to say that the Administration's proposal for reauthorization, which is called NEXTEA, will fall far short of meeting these laudatory criteria.

The Administration's fiscal year 1998 $22.8 billion budget authority for the Highway Account falls over $3 billion short of where it could be under current revenue circumstances and is $1 1 billion short of where it would be if the Administration made changes that restored the honesty and integrity of the user fee system. In addition, any potential for reducing highway infrastructure deterioration is obliterated by programmatic changes that further dilute highway investment. Instead of targeting limited funds where they can most effectively address national highway needs, NEXTEA diverts an additional 25 percent of user fees to programs, such as the Congestion Mitigation and Air Quality Program (CMAQ) and Transportation Enhancements Program (TEP), that will not reduce highway fatalities.

NEXTEA also includes funding for passenger and freight rail facilities and operations. ATA opposes funding Amtrak operations out of the Highway Account because Amtrak expenditures do not measurably help reduce highway fatalities or reduce congestion. Moreover, Federal decisions to allocate funds to Amtrak create a new class of donors and donees—with most of the states being losers.

Some short line railroads are proposing to fund private rail freight projects out of the highway account. The trucking industry has to pay for our vehicles, terminals and operating costs out of our pockets. Our competitors should not have their private costs paid out of the highway account. This is especially true since truckers typically earn two cents on the revenue dollar while some railroads often earn 15 cents or more. If the railroads want public funding, they also should pay a reasonable fuels tax and create a railroad trust fund account. Each one cent would raise around $30 million dollars.

Finally, the administration has proposed turning its back on 40 years of history by allowing tolls on the Interstate Highway System. Charging highway users to rent what we have already bought is a travesty. We are already paying more in highway taxes than we get back. Moreover, putting tolls on free Interstate Highways will force cars to slow from freeway speed, adding to safety, congestion, air pollution, and noise problems.

IV. ATA'S PROPOSAL FOR HIGHWAY REAUTHORIZATION

ATA's proposal is a comprehensive plan which ensures that the national interest in a safe and efficient system of highways is preserved. We propose an annual $34 billion total funding level, which includes $25 billion for a Core Highway Program and $9 billion for a highly flexible State Block Grant Program (See appendix). We propose to invest highway user fees in a targeted set of programs which serve important national needs. Our proposal creates a flexible state Block Grant Program and ensures that the Trust Fund balances are spent down.

The Core Highway Program would include the NHS, a Bridge Program, a Federal Lands Program, a national highway safety program, and a Research & Technology Activity program. Investment in these areas ensures the preservation and improvement of a seamless national highway network that benefits all Americans. Funding distribution, therefore, would be based on national need, rather than on contributions to the Trust Fund.

Concentrating funds on a Core Highway Program ensures that projects with national significance are given priority. The current program's structure fails to meet this test. For instance, the state of Alabama received an estimated apportionment

of $270 million in fiscal year 1996. Eighty-eight million dollars, a third of Alabama's total apportionment, was subject to suballocation under the Surface Transportation Program (STP). Of that, $11 million was suballocated to large urban areas. At the end of fiscal year 1996, however, $13 million in this category remained unobligated, a full 121. percent of the fiscal year 1996 funding to that category (some carries over from previous years). Prohibitions against apportionment transfers within the STP program mean that Alabama may not be able to use $13 million of its Federal-aid highway dollars.

ATA's proposed Block Grant Program gives states and localities the flexibility to select and fund highway and transit capital projects, as well as congestion mitigation and air quality projects. This flexibility allows them to address their unique needs in a manner best suited to their circumstances. Funds now available for suballocation would continue in the same proportion. Funds in the block grant would be distributed to states in exactly the same proportion as the dollars are collected from the states, so that there would not be any donors or donees.

V. OTHER REFORMS WILL INCREASE SAFETY AND PRODUCTIVITY

Several other important issues are likely to be subjects for discussion during reauthorization, and I will touch on them briefly.

—The freight planning process which ISTEA set in motion needs to be improved.

—Many Metropolitan Planning Organizations have not fully addressed the essential freight planning needs that are important to freight mobility both in their own communities and as a link in the national supply chain.

—Current hours of service regulations, many of which have been on the books since the 1930's, are too are flexible and outdated. While we are not sure at this point whether a legislative or regulatory approach is preferable, a new option should be developed that improves highway safety, as well as industry productivity and efficiency.

—Truck drivers suffered inequitably from the cutback in the meal deduction, and this should be corrected.

—States should be given more flexibility to determine the most appropriate regulations governing the size and weight of trucks on highways within their jurisdiction.

Recent research revealed a nationwide shortfall of 28,500 truck parking spaces in public rest areas.[14] When truck stops are full, truck drivers have little choice but to either park illegally—which can create a severely hazardous situation—or to continue driving, possibly breaking hours-of-service laws or becoming so fatigued that they put themselves and other motorists at risk of an accident. Neither choice is acceptable. The total nationwide cost to develop the necessary parking spaces is estimated to be $489 million to $629 million. We will request funding eligibility for rest area construction, expansion, improvement, and access under all major categories of the Federal-aid highway program.

ATA will also request funding eligibility under all major categories for state enforcement of Federal truck size and weight regulations at weigh stations, including construction of safety inspection and weight enforcement facilities. In addition, we will request the same eligibility for states' procurement and operation of portable weigh scales. These investments are essential to states' ability to ensure that unsafe and illegal trucks are taken off the.

Finally, ATA plans to work with the U.S. Department of Transportation to develop a multi-year highway safety program designed to further promote the safe operation of commercial motor carriers and maintenance of equipment through education, research & development, and technology transfer activities. This program also will require Federal funding.

VI. CONCLUSION

A few weeks ago, Deputy Transportation Secretary Mort Downey testified that, given current investment levels and travel growth projections, 9,500 more people will die on our nation's highways in 2005 than in 1996. In the face of such a grim statistic, the Administration offers a proposal that would decrease funding for investment in highways and increase diversion of highway user fee revenues to nonhighway purposes, further straining the highway system's ability to safely transport people and goods. This, despite the fact that sufficient revenue is readily available. ATA's proposal makes targeted, nationally significant investments which would both improve highway safety and spur economic growth It also gives states and localities

[14] The ATA Foundation.Inc. *No Room at the Inn,* May 1996.

unprecedented resources and flexibility to address their unique surface transportation needs in the most creative and effective manner possible.

I look forward to working with the members of this committee as you strive to meet the many challenges ahead. I hope ATA's proposal can serve as a basis for discussion during reauthorization of the highway program. Thank you.

APPENDIX

April 7, 1997

Funding Comparison
ISTEA vs ATA PROPOSAL

	ISTEA (billions)		NEXTEA (billions)		ATA PROPOSAL (billions)	
CORE Program:						
NHS and Interstate Maintenance	6.5		8.8		19	
Bridge	2.8	**10.9**	2.7	**13.4**	4	**25**
Federal Lands	.5		.5		.5	
Safety	.7		1.1		1	
R&D	.4		.28		.5	
State Block Grant Elements:						
STP (non-NHS)	2.5[15]		5.8[16]			
Transit Section 3 and 9 Capital	3.56[17]	**6.06**	4.6	**10.4**		**9**
Other Programs:						
CMAQ	1.029		1.3		Folded into the State Block Grant	
STP (NHS), State-built Interstates, Demonstration Projects, Funding Equity, miscellaneous small accounts.	5.959	**6.988**	2.6	**4.7**		
Total	FY 1997 Program Level	**23.948**	Annual Program Level	**27.3**	Annual Program Level	**34**

[15] $1.69 billion in STP funding was obligated to be spent on the NHS in FY 1995 and $4.09 billion was authorized. In FY 1997, it is assumed the same proportion of the FY 95 authorization will be obligated to the NHS.

[16] Total STP.

[17] FY 1997 Appropriations Act, liquidation of Highway Trust Fund contract authority only.

STATEMENT OF FREDERICK L. GRUEL, PRESIDENT AND CEO, AAA NEW JERSEY AUTOMOBILE CLUB

Senator SHELBY. Mr. Gruel.

Mr. GRUEL. Thank you, Mr. Chairman. I appreciate the opportunity to testify today. I am Fred Gruel, president and chief execu-

tive officer of the AAA New Jersey Automobile Club and vice chair of AAA's Public and Government Relations Committee. Today I bring you the views of the entire American Automobile Association, a federation of 99 independent clubs across North America with nearly 40 million members.

I want to briefly review AAA's position on the reauthorization of ISTEA with a focus on the tolling provisions in the administration's NEXTEA proposal.

First, AAA strongly believes funding levels for highways and bridges should be significantly increased.

AAA also believes that a strong but responsible Federal role in transportation policy and financing should be maintained. The preservation of a national transportation system is in everyone's interest. That is why we have serious concerns about proposals to turn back or devolve Federal taxing authority to the States.

Safety is another key component that should be improved in the next ISTEA. We urge you to consider an increase in overall safety investments.

In addition, the majority of AAA members oppose any congressional change in the size and weight of trucks and support the continued freeze on longer combination vehicles.

This leads me to a final issue that is of concern to AAA during ISTEA reauthorization and that is tolls.

One of the most controversial provisions of NEXTEA would allow a State to finance the reconstruction of a previously free interstate highway with tolls. The interstates were built with highway user gas taxes. Now the administration is asking these users to pay again with a toll even though there is $20 billion sitting unused in the highway trust fund.

AAA opposes toll roads as a general principle, believing that to the maximum extent possible, all highway facilities should be toll free. This position is not a new one. In 1936, AAA's bill of rights for motorists referenced tolls. It said we must have roads suitable and adequate for the movement of modern motor traffic with safety. They must be free and not toll roads. As early as 1940, AAA policy vigorously opposed the levying of tolls on existing free highways.

AAA policy remains the same today: The use of tolls results in the double taxation of motorists, once in the form of gasoline taxes and again when motorists drive on a toll road.

For over 80 years, the underlying principle of the Federal-State highway program has been developing and preserving this Nation's vast network of quality, toll-free highways. Proposals to toll existing Federal-aid highways, including the Interstate System, represent a major change in course. Instead of a pay-as-you-go highway network based on fuel taxes already collected from motorists, responsibility for funding highway maintenance and construction would be loaded onto future trips of highway users—build now, pay now, and pay later.

AAA has some specific concerns about the use of tolls and toll roads. I will outline them for you briefly.

They are expensive.

They represent a breach of trust.

They are inefficient.

They are inconvenient.

They delay the movement of people and goods.

And they offer little choice to the consumer as to available services.

AAA believes that if Congress adopts the administration's toll proposal for interstates, it could destroy the user fee structure that has brought our Nation the best and safest highway system in the world.

AAA believes most Americans consider their freedom of mobility as a constitutional right. Telling Americans that they have to pay tolls on interstates they have already paid for does not meet their idea of freedom of mobility. In fact, AAA surveys consistently find more than 70 percent of drivers oppose tolling.

AAA would like to propose an alternative to tolls. Take the highway trust fund off budget and transfer the 4.3 cents per gallon to the highway trust fund. If these two steps were taken, we would not need to toll our interstates.

A total of 59 Senators, 8 from this subcommittee, have signed the Warner-Baucus letter to the Budget Committee Chairman Domenici requesting an annual investment of $26 billion in highways. That is the minimum required to fix our Nation's highways and bridges to make them safer. Taking the highway trust fund off budget and transferring the 4.3 cents per gallon gas tax to the trust fund could provide more than $30 billion annually.

PREPARED STATEMENT

Rather than asking AAA members and all motorists for more money in tolls, AAA asks you to invest the money we have already paid on what you told it would be used for. Fix our highways and bridges and invest our gas taxes in safety.

Thank you, Mr. Chairman.

[The statement follows:]

PREPARED STATEMENT OF FREDERICK L. GRUEL

Mr. Chairman and members of the Committee, I am Fred Gruel, president and chief executive of ricer of the AAA New Jersey Automobile Club and Vice Chair of AAA's Public & Government Relations Committee. Today I bring you the views of the entire American Automobile Association. AAA is a federation of 99 independent clubs across North America with nearly 40 million members.

I want to briefly review AAA's positions on the reauthorization of the Intermodal Surface Transportation Efficiency Act (ISTEA) with a focus on the tolling provisions in the Administration's NEXTEA proposal.

First, AAA strongly believes funding levels for highways and bridges should be significantly increased. An increase in funding could be facilitated by taking the Highway Trust Fund "off-budget," as Congressman Shuster's bill H.R. 4 would do; by investing the unspent balance in the Fund on transportation; and by redirecting to the Highway Trust Fund the 4.3 cents per gallon motor fuels tax now going to deficit reduction.

AAA also believes that a strong but responsible federal role in transportation policy and financing should be maintained. The preservation of a national transportation system is in everyone's interest. That's why we have serious concerns about proposals to "turn back" or "devolve" federal taxing authority to the states.

Safety is another key component that should be improved in the next ISTEA. We urge you to consider an increase in overall safety investments.

In addition, the majority of AAA members oppose any Congressional change in the size and weight of trucks and support the continued freeze on longer combination vehicles (LCV's).

This leads me to a final issue that is of concern to AAA during ISTEA reauthorization—and that is tolls.

One of the most controversial provisions of NEXTEA would allow a state to finance the reconstruction of a previously free Interstate highway with tolls. The Interstates were built with highway user gas taxes. Now, the Administration is asking these users to pay again with a toll. Even though there is $20 billion sitting unused in the Highway Trust Fund.

AAA opposes toll roads as a general principle, believing that to the maximum extent possible, all highway facilities should be toll-free. This position is not a new one. In 1936 AAA developed a "Bill of Rights" for motorists that included a reference to tolls. It said, "We must have roads suitable and adequate for the movement of modern motor traffic with safety. There must be multiple-lane highways with opposing traffic streams divided. They must be free and not toll roads. . . ." As early as 1940, AAA policy . . . "vigorously oppose(d) the levying of tolls on existing free highways . . . privately-owned toll roads, and transcontinental toll superhighways. . . ." AAA policy remains the same today: The use of tolls results in the double taxation of motorists, once in the form of gasoline taxes, and again when motorists drive on a toll road.

For over 80 years, the underlying principle of the federal-state highway program has been developing and preserving this nation's vast network of quality, toll-free highways. Proposals to toll existing federal-aid highways—including the Interstate System—represent a major change in course. Instead of a pay-as-you-go highway network based on fuel taxes already collected from motorists, responsibility for funding highway maintenance and construction would be loaded onto future trips of highway users—"build now, pay now, and pay later!"

AAA has some specific concerns about the use of tolls and toll roads. I will outline them for you briefly:

—They are expensive: Toll road construction will probably cost as much as three to four times as much as free roads because of bond interest charges and toll collection costs.

—They represent a breach of trust: Highway users have already paid hundreds of billions of dollars to construct one of the world's finest highway networks. Why should they, and their children, now be charged to use it?

—They are inefficient: About fifteen percent of toll revenues are needed for the collection process while only about one percent of motor fuel taxes are devoted to that purpose.

—They are inconvenient: Toll roads often provide few entrances and exits in order to minimize the number and thereby the costs of toll personnel. Users are limited to those on or off ramps which may not be near where they want to go.

—They delay the movement of people and goods in two ways: First, by slowing the flow of traffic, leading to aggravation and possible safety hazards, and second, by causing congestion at toll plazas.

—They offer little choice to the consumer: Toll roads are often locked into higher-priced service stations, food establishments and other services. The highway user has little choice among concessionaires and prices.

—They can be self-perpetuating: It's rare that tolls are ended after the debt service is retired.

AAA believes that if Congress adopts the Administration's toll proposal for Interstates, it could destroy the user fee structure that has brought our nation the best and safest highway system in the world.

AAA believes most Americans consider their freedom of mobility as a "constitutional right." Telling Americans that they have to pay tolls on Interstates they have already paid for doesn't meet their idea of freedom of mobility. You may be interested to know that AAA surveys consistently find more than 70 percent of drivers oppose tolling.

AAA would like to propose an alternative to tolls: Take the Highway Trust Fund off-budget and transfer the 4.3 cents per gallon to the Highway Trust Fund. If these two steps were taken, we wouldn't need to toll our Interstates.

Fifty-seven Senators—eight from this subcommittee—have signed the Warner/Baucus letter to Budget Committee Chairman Domenici requesting an annual investment of $26 billion in highways. That is the minimum required to fix our nation's highways and bridges to make them safer. Taking the Highway Trust Fund off-budget, and transferring the 4.3 cent per gallon gas tax to the trust fund, could provide more than $30 billion annually.

Rather than asking AAA members and all motorists for more money—in tolls—AAA asks you to invest the money we have already paid what you told us it would be used for. Fix our highways and bridges and invest our gas taxes in safety.

Thank you Mr. Chairman.

STATEMENT OF WILLIAM W. MILLAR, PRESIDENT, AMERICAN PUBLIC TRANSIT ASSOCIATION

Senator SHELBY. Mr. Millar.

Mr. MILLAR. Thank you, Mr. Chairman and I am very pleased to be with you today. I am William Millar. I am the president of the American Public Transit Association, and I appear here today on behalf of our 1,100 member organizations from throughout the United States and Canada.

We believe very strongly that there needs to be a continued strong Federal role in a balanced transportation system for all Americans.

We believe, as my colleagues have spoken here today, that we simply have to have an increased investment in our surface transportation system, that the money we are spending now is simply not enough for our Nation.

And finally, we believe that proper investment in the infrastructure will allow for a growing economy and to meet the variety of Federal objectives that the Congress has set out for us over the years.

You invited us here today to comment on the administration's NEXTEA proposal, and I want to describe to you the criterion we have used in evaluating their proposal and that we would use in evaluating any other proposals.

First, we believe that ISTEA has worked well and, therefore, we consider the preservation of the general program structure, including giving States and localities flexibility in how they spend their funding, to be an essential part of any new legislation.

Second, we believe that any new legislation, as you said, Mr. Chairman, has to include adequate funding levels for both transit formula, transit discretionary programs, and flexible funds.

Third, we believe there has to be fair and equitable treatment for transit agencies and communities of all sizes as we look at the distribution of funds.

Let us take these principles, apply them to the administration's NEXTEA proposal, and see how we measure up.

On the first principle with regard to program structure and flexibility, we believe generally their proposal does a good job in adhering to this principle. We think it recognizes that there are strong Federal reasons through strong national objectives to keeping Federal involvement in surface transportation, and we believe that their proposal retains some of the planning requirements and some of the decisionmaking processes and State allocations that have been useful and have been used in innovative ways. So, in general, on the first set of criterion, we believe that the administration's proposal does pretty well.

However, the second set of principles that relate to the need for additional investment in surface transportation we believe the NEXTEA proposal falls far short of this. It simply does not provide for even the minimum levels of funding the administration's own studies show. I would agree with Mr. Rensink's determination and the information he put in the record about the need for additional investment. The administration proposal does not even measure up to that, and their measurements are very, very conservative indeed.

While the administration proposal could conceivably make at least a little bit of money more available for highways, it in fact, as one of the earlier comments from one of the earlier Senators had said, would decrease the funding for public transit if you look at the authorized levels. We think that is not fair. We think that is not appropriate.

Finally, although the administration claims that NEXTEA would increase formula capital funds, for example, once you take certain proposals of theirs off the top, for example, the access to jobs, which we generally support, and the fixed guideway modernization programs that are moved over into a new category—once you—you may take apples and oranges and now make them apples and apples. There really is not any increase of any significance in funding for public transit. So, we think that on this second basis, the administration's proposal fails rather miserably, to be honest about it.

We do strongly support the administration's proposal to switch from a Rostenkowski test to a Byrd solvency test as far as public transit money goes. We think that is important in the mass transit account and speaks to equity between highways and transit. We would like to see that the revenues that are collected, as my colleagues have said, from the American people for surface transportation be spent on surface transportation.

We would strongly support the effort to bring the 4.3 cents over from deficit reduction and put it in the highway trust fund and allocate it to the various accounts as would be appropriate under the traditional relationships.

And we support efforts to move the trust fund off budget so that we can get on with the business of measuring infrastructure in multiyear segments as the capital improvements that they really represent. So, we think that that is pretty important to do.

With regard to our third principle of fair and equitable treatment of transit agencies, large and small, we think the NEXTEA proposal has a mixed record in that regard. We oppose the elimination of the bus discretionary program. It is particularly important to smaller communities that they have the opportunity to, let us say, have a sufficient amount of money for a major bus purchase or a major facility improvement that they would not get through a formula.

We oppose the folding of the fixed guideway formula into the traditional urban formula. We think that makes an unwarranted shift from bus to rail investment and throws a number of the relationships in the bill out of kilter, so to speak, on that.

And we are particularly concerned about rural transit providers. We think the NEXTEA proposal may put their customers at risk simply by reduced authorizing levels, as well as a lower percentage of the formulas that are going to be there, and then finally, it would take away certain guarantees that rural communities now have. So, we are very concerned about that.

As I conclude, I must say on the positive side, we agree strongly with the administration's proposal on expanding the definition of capital when dealing with the operating assistance issues. We agree strongly with the research proposal that is there. We agree strongly with further investment in an intelligent transportation system and the State infrastructure bank program.

PREPARED STATEMENT

We believe that it is the basis for a good discussion, but it is a bill that should not be passed in its entirety at the moment. We look forward to working with you and the committee and everyone in Congress in making improvements to that proposal so we can get a good reauthorization of the ISTEA legislation.

Thank you, Mr. Chairman.

Senator SHELBY. Thank you.

[The statement follows:]

PREPARED STATEMENT OF WILLIAM W. MILLAR

The American Public Transit Association (APTA) appreciates the opportunity to testify on the Administration's ISTEA reauthorization proposal, the National Economic Crossroads Transportation Efficiency Act (NEXTEA). But first, Mr. Chairman, we want to commend you for your leadership in holding this hearing. Because the Congress is likely to pass the fiscal year 1998 Transportation Appropriations Act before it finishes action on legislation to reauthorize ISTEA, it is particularly important that you now gather views on that important legislation.

OVERVIEW

APTA supports ISTEA. We supported its enactment in 1991 and over the last six years our experience has demonstrated that it provides the benefits we had hoped for. Toward this end, APTA has adopted a comprehensive ISTEA reauthorization working proposal that would preserve and build on the ISTEA and transit program structures, expand opportunities for flexible funding—both highway to transit and transit to highway—and support ISTEA's planning provisions and transit research and development.

At the same time, we oppose efforts to repeal federal gas taxes that support investment in the nation's transportation infrastructure, or to eliminate the existing federal partnership with state and local governments. We are not opposed to efforts to modify the highway funding formula, but we believe that a fair distribution of highway funds can be accomplished within the current ISTEA program structure. We also strongly support the "level playing field" provisions between highway and transit investments established under ISTEA, including the roughly four to one funding ratio. Without these provisions, modal balance—an important ISTEA hallmark—will be jeopardized.

NEXTEA: AN ASSESSMENT

There are three primary principles that APTA uses to evaluate the merits of NEXTEA and other reauthorization proposals. They are: 1) preservation of ISTEA's program structure and flexible funding provisions, 2) provision of adequate funding levels for transit formula and discretionary programs, and 3) provision of fair and equitable treatment for transit agencies of all sizes.

NEXTEA Preserves the ISTEA Structure and Flexible Funding Program

The first principle is important because ISTEA's program structure and flexible funding provisions promote balanced investment among modes and require a coordinated approach to major transportation investments. APTA firmly believes that federal interests are best served by a balanced transportation system. ISTEA's program structure and flexible funding provisions allow federal, state, and local resources to be used on a range of transportation alternatives, which permits state and local authorities to choose alternatives that best meet their particular objectives. This structure also allows transportation policy to address national and local needs while recognizing that transportation is linked to other factors that affect each community's economy and quality of life.

NEXTEA generally does a good job adhering to the first principle. It retains a strong federal role in surface transportation and in assuring minimum investment levels for all transportation modes by maintaining most of the current ISTEA program structure and requirements. It retains current flexible funding programs, the existing planning and decision-making process, and current metropolitan suballocations. Furthermore, NEXTEA would expand the size of the flexible Surface Transportation Program (STP) and Congestion Mitigation and Air Quality (CMAQ) programs, and make intercity passenger rail service an eligible expense under surface transportation programs. In addition, the federal share of most transit capital ex-

penditures would remain at 80 percent and at 90 percent for Clean Air Act and Americans with Disabilities Act (ADA) compliance efforts.

NEXTEA's Transit Funding Levels Fall Short of ISTEA Levels

The second principle is critical because additional investment in the nation's surface transportation network is necessary to provide a solid foundation for economic growth. For instance, in Paul Weyrich's recent analysis of mass transit, he notes that transit investment has generated substantial economic benefits, including increased tax revenues, jobs, and related development. An adequate federal commitment, along with efficient management and state and local participation is the key to these results.

NEXTEA falls short in addressing this second principle. The problem is underinvestment in our nation's transportation infrastructure. The U.S. Department of Transportation (DOT) estimates that more than $400 billion in capital funding is needed over six years just to maintain the current systems. The Administration's response is to provide flat funding. The NEXTEA proposal would authorize $166 billion to meet highway and transit needs over six years.

Additionally, NEXTEA authorizes $30.5 billion for transit, a three percent drop from ISTEA's six-year total of $31.5 billion. In contrast, the highway program would receive $135.8 billion over six years, up 10 percent from ISTEA's $123.3 billion.

APTA's reauthorization proposal would respond to these needs by providing increased resources. Our proposal deposits revenues from the "deficit reduction" 4.3 cents gas tax into the Highway Trust Fund and calls for the use of existing balances in the MTA to meet these needs. It also maintains some general fund support for transit activities.

Formula funding under NEXTEA would appear to increase as a share of total transit program funding, but several caveats are in order. First, each year, $100 million would be taken off the top for a new Access to Jobs and Training Program. Second, the Fixed Guideway Modernization (FGM) Program would be funded at the same level as the New Start program, but would be shifted to the formula program. Formula funding would be distributed under the current formula. It should also be noted that the current discretionary bus/bus facilities grant program (funded at $360 million in fiscal year 1997) is eliminated and funding that previously went to that program is apportioned under the urban formula program. In short, funding for the current urban formula program would barely change. ISTEA authorized $17.46 billion in formula funds over six years; NEXTEA would authorize $17.55 billion in formula funds over six years once the Access to Jobs and FGM funds are taken off the top. If the discretionary bus program were not incorporated into the formula program, formula funding would actually decline.

We strongly support the Administration's proposal to switch from the Rostenkowski Highway Trust Fund solvency test to the Byrd solvency test for gauging the commitments from the Mass Transit Account (MTA) of the Highway Trust Fund. This change would apply the same spending test to the Mass Transit and Highway Accounts and permit additional spending from the MTA. We have some concerns about the proposal to fund the entire transit program from the Mass Transit Account, because the revenues now deposited in the MTA would not sustain current program levels—let alone increases—for the transit program. While APTA also supports the use of existing balances in the MTA, these balances could be spent down quickly and current revenues dedicated to the MTA cannot meet the long-term funding needs of the federal transit program. More funding must be placed in the MTA.

NEXTEA Would Modify the Transit Program Structure

NEXTEA does a mixed job of meeting the third principle, provision of fair and equitable treatment for transit agencies in large, medium-sized, and small urbanized and in rural areas. APTA fully supports the existing funding ratios within the ISTEA transit program. First, we support the current ratio of $1.36 in formula funding for every $1 in discretionary funding. This provides an equitable distribution among all transit needs. In addition, APTA urges Congress to retain the existing distribution of funds within the discretionary capital program. Current law dictates that 40 percent of this program goes to new rail starts, 40 percent goes to rail modernization, and 20 percent goes to the bus/bus facilities.

We oppose the proposal to eliminate the Bus Discretionary program and to fold the Fixed Guideway Modernization program into the formula program. Moving the Bus and Fixed Guideway Modernization programs into the formula program would upset the current relationship among new starts, rail modernization, and bus under the current discretionary capital program. These programs address special needs, have worked extremely well in their current form, and do not need to be changed. Also shifting the rail modernization program to the formula program would change

the allocation of funds between bus and rail, increasing the latter at the expense of the former.

On the positive side for urbanized areas of all sizes, NEXTEA would expand the definition of eligible capital expenditures to be more consistent with permissible expenditures in the highway program, including preventive maintenance. These changes, along with certain changes that would permit the use of capital funds to meet ADA costs, would allow elimination of operating assistance for areas of 200,000 or more in population.

APTA also strongly supports the provision to permit urbanized areas (UZA's) with less than 200,000 in population to have the flexibility to use formula funds for capital or operating purposes at their discretion.

For rural transit providers the NEXTEA proposal reduces authorized funding and places service to customers at risk. The Non-urban program (formerly section 18) would receive 3.75 percent of an expanded formula program—a lower percentage than the current 5.5 percent of the combined total for urban and rural formula funds. Of the total, 4 percent would go to the Rural Transportation Assistance Program, which is now funded through the Research program. The elimination of the Bus Discretionary Program would take away a guaranteed 5.5 percent share of that program for rural communities.

Other NEXTEA Provisions

The NEXTEA proposal includes a $100 million per year Access to Jobs and Training Initiative. In general we support this program, but oppose taking the funding as a takedown from the existing formula program. Such an important national priority deserves new resources. We also support NEXTEA's Intelligent Transportation System provisions and proposed expansion of the State Infrastructure Bank (SIB) program that would allow all states to participate, although we do note that flexible highway funds placed in the SIB can only be used initially for highway projects, which is inconsistent with the "level playing field" principles of ISTEA. In addition, we support the creation of a new Infrastructure Credit Enhancement Program to encourage public-private partnerships to speed the completion of major highway, bridge, transit, and rail projects.

THE APTA PROPOSAL

We have previously submitted to you APTA's reauthorization proposal and we are pleased to note that many of APTA's recommendations, including elimination of the operating cap for small urbanized areas and inclusion of an expanded definition of what constitutes a capital expenditure, are included in the NEXTEA proposal. We would be pleased to provide you with additional copies of our detailed proposal.

Expand Opportunities for Flexible Funding

The APTA proposal also calls for an increase in the authorized funding level for the Surface Transportation Program using resources from the Highway Trust Funds's Highway Account (HA) and Mass Transit Account (MTA). After the transit core program has been funded at our recommended level of $6.25 billion in fiscal year 1998, additional MTA funds would go to a new STP-transit program. For each $1.00 of MTA funds that go to the STP-transit program, an additional $2.00 in Highway Account funds would go to the STP-highway program. Funding for each program would be apportioned in the same manner as the existing STP program, would include metropolitan area suballocations, and would be subject to the same planning standards.

4.3 Cents/Gallon Revenue

Additional resources for the expanded STP program would be provided by depositing revenue from the 4.3 cents per gallon "deficit reduction" motor fuels tax into the Highway Trust Fund and by applying the Byrd rule solvency test to the Mass Transit Account of the Highway Trust Fund. APTA's proposal would allocate one-half-cent of the 4.3 cents per gallon gas tax revenue for a new intercity passenger rail account and the revenue from 20 percent of the remaining 3.8 cents to the Mass Transit Account.

Fixed Guideway Modernization Program Recommendations

APTA's proposal calls for a modification of the existing Fixed Guideway Modernization formula. The Fixed Guideway Modernization program should be retained as a distinct program within the Major Capital Grant program (formerly Section 3). This program addresses a specific need to modernize aging fixed guideway systems. Funding levels for the New Starts, Fixed Guideway Modernization, and Bus/Bus Fa-

cilities programs should be funded on the current 40/40/20 basis, with funding for the Fixed Guideway Modernization program set at $1 billion in fiscal year 1998.

With regard to the distribution of Fixed Guideway Modernization funds we have a detailed proposal that would largely retain the current formula distribution, with some modifications, up to the current funding level of $760 million, but would increase the share of modernization funds that goes to areas with newer fixed guideway systems as funding rises above the current level. We will submit to the Committee under separate cover copies of our Fixed Guideway Modernization proposal.

CONCLUSION

Mr. Chairman, APTA strongly supports a continued federal role in funding surface transportation. ISTEA has worked well and must be continued. While we recognize the need to control spending and reduce the deficit, increased investment in the transportation infrastructure is needed to facilitate economic growth, international competitiveness, successful welfare reform, and other national goals. Putting off necessary investment will only increase federal costs in the long run. We urge this Committee to support authorization levels that reflect these important policy goals by appropriating federal user taxes the American people are already paying. The Administration's NEXTEA proposal is a good start, but does not include adequate funding levels for surface transportation in general and public transportation in particular.

STATEMENT OF HARRY W. BLUNT, JR., PRESIDENT, CONCORD COACH LINES, INC., VICE CHAIRMAN, AMERICAN BUS ASSOCIATION

Senator SHELBY. Mr. Blunt.

Mr. BLUNT. Thank you, Senator. On behalf of the American Bus Association, I think we can address the core issues of ISTEA reauthorization quite quickly.

We support the administration's proposal on the National Highway System Program. Two years ago we were active in the passage of the NHS legislation. For the first time the focus was on connectability in our transportation system. The bus industry fought to get our terminals onto the NHS system map. The administration proposal under NEXTEA will now make funding available for intermodal terminal facilities. We think that is very important.

Second, we support the administration's proposal in the surface transportation program to make capital funds available to bus companies to acquire vehicles and to enhance public transportation over the highway network.

Third, ABA opposes the administration plan to eliminate the rural intercity bus program contained in section 18(i) of the Federal Transit Act. Our industry is beginning to work with many States to help provide essential ground transportation to small rural communities through 18(i) funding. This is a very small piece of the overall funding. Yet, the administration has chosen to take it out. We think this is wrong. If this funding is lost, communities in small rural America will lose all connection to any public transportation.

Fourth, ABA supports removing the highway trust fund from the unified budget and believes that all funds that are collected should be used as promised to the American taxpayer for highway transportation systems. We oppose the diversion of highway trust fund revenues to nonhighway users.

ABA supports the repeal of 4.3 cents per gallon Federal fuel tax that presently goes to the general fund for deficit reduction. However, if these funds were placed in the highway trust fund, we would support that. We just do not believe that the highway trust fund should be used for budget balancing.

We support a continued role in highway planning and funding on behalf of the Federal Government. Our highway system is a national system with regional and national interests that must play a role in its operation.

ABA takes no position on the various proposals to amend the current formula funding for distribution of Federal highway funds to the States. Our concern is to increase the overall level of funding in the program and to address the deteriorating infrastructure of our National Highway System.

In closing, let me speak for a minute about a positive. I arose this morning at 4:20 a.m. in New London, NH, a city that is over 500 miles from here. I took a quick shower, grabbed a cup of coffee, and jumped in my car. In 5 minutes I was in a park-and-ride lot where I got on a bus that took me directly to Manchester Airport. I was in Washington at quarter of 8 and in center city Washington by 10 after 8. In just under 4 hours, I was from the shower to the Senate, an amazing feat in this Nation.

PREPARED STATEMENT

We are the envy of the world in our transportation system, and I strongly urge you to continue to support that and fully fund it.

Thank you, Senator.

[The statement follows:]

PREPARED STATEMENT OF HARRY W. BLUNT, JR.

Mr. Chairman and Members of the Subcommittee: My name is Harry Blunt. I am the President of Concord Coach Lines, Inc., of Concord, New Hampshire. I also serve as the Vice Chairman of the Board of Directors for the American Bus Association (ABA), and I am here today to present ABA's views on reauthorization of the federal aid highway and highway safety programs as proposed in the Administration's National Economic Crossroads Transportation Efficiency Act of 1997 (NEXTEA).

ABA is the national trade association of the intercity bus industry. We have about 3,000 members, some 700 of whom are bus operators. They offer a variety of bus services:

—regular route intercity service between fixed points on set schedules;
—charter service, where a group of passengers (such as a church or organization) purchases all of the seats on a bus for exclusive use on a particular trip;
—tour service, which usually includes stops for sightseeing and recreational purposes;
—commuter bus services, generally from the suburbs into urban areas; and
—special operations, which is scheduled service to enhance public transportation systems (such as bus service from a city to an airport), or may be connected with a special event or attraction at the destination.

The rest of ABA's members include representatives of the travel and tourism industry, and the manufacturers and suppliers of products and services used by the bus industry.

Intercity bus service is the primary system of low cost intercity passenger transportation in this country. In rural areas, bus service is virtually the only transportation network available to the public. Yet public policy as set out in the federal-aid highway and mass transit programs over the years has not reflected the overriding importance of the bus industry in passenger transportation, and in fact, has discouraged low cost bus transportation in favor of higher cost alternatives. This must change; Congress must give the intercity bus industry a more central role in providing essential intercity public transportation.

ABA's positions on the core funding issues in the reauthorizing debate can be summarized as follows:

1. ABA supports removing the Highway Trust Fund from the unified budget as a mechanism to ensure that monies collected for highway construction, maintenance and repair, and highway safety programs are spent as promised.

2. ABA supports increased funding for highway programs to address the deteriorating infrastructure of our national highway system.

3. ABA supports the Administration's proposal in the National Highway System Program to make funds available for capital investments in publicly-owned intercity bus or intermodal terminals.

4. ABA also supports the Administration's proposal in the Surface Transportation Program to make capital funds available for privately-owned intercity bus companies to acquire vehicles and facilities.

5. ABA opposes the Administration's proposal to eliminate the rural intercity bus program contained in section 18(i) of the Federal Transit Act as amended by the 1991 Intermodal surface Transportation Efficiency Act (ISTEA) (49 U.S.C. 5311(f)).

6. ABA supports repeal of the 4.3 cents per gallon diesel fuel tax that presently goes into the general fund. Alternatively, ABA would support placing these revenues in the Highway Trust Fund to be spent on highway programs.

7. ABA opposes the diversion of any Highway Trust Fund revenues for non-highway purposes.

8. ABA supports continued federal role in highway planning and funding, and opposes efforts to return the federal-aid highway system to the states.

9. ABA takes no position on the various proposals to amend the current funding formulas for distribution of federal highway funds to the states—our concern is to increase the overall level of funding in the program.

Several salient statistics underscore the obvious importance of bus travel in the national transportation network when compared to transportation by Amtrak or commercial airlines, its two modal competitors for intercity public transportation of passengers.

Intercity buses serve many more points than either Amtrak or airlines.—Table 1 shows, on a state by state basis, the number of communities served by the intercity bus industry as compared with Amtrak and commercial airlines. In every state, the bus industry serves many more cities and towns than the competing modes. In my home state of New Hampshire, for instance, Amtrak serves one point and the airlines serve three points, while the bus industry serves 33 communities with scheduled service. In your home state of Alabama, Mr. Chairman, Amtrak serves ten points, the airlines serve nine points, and the bus industry serves 110 communities with daily service.

Figure 1 is a bar graph showing the number of communities served nationwide by Amtrak, the airlines, and the bus industry. Cumulatively, Amtrak serves 511 communities, the airlines serve 758 communities, and the intercity bus industry serves 4,274 communities on a daily basis with scheduled regular route service.[1] (This bus figure does not include "flag stops," at which a passenger may flag down a bus to stop for embarking passengers even though no stop is scheduled at that point.)

Intercity bus service is much more frequent than Amtrak or airline service.—Generally, buses not only serve more points than their competitors, but where the modes do compete the bus service is much more frequent than either Amtrak or airline service.

Intercity bus service is the most affordable transportation.—Bus service is also generally less expensive than Amtrak or the airlines. Even with discount fares, Amtrak and the airlines cannot compete on price with intercity bus service, which remains the most economical method of transportation. For example, on the Birmingham-Atlanta route, Delta Airlines quotes an unrestricted round trip fare of $550.00, and Amtrak's regular round trip fare is $78.00, while Greyhound's regular round trip fare is $47.00.

Low cost service is why buses are the mode of choice for the elderly, students, members of the military, and those at the lower end of the income spectrum. Greyhound Lines, Inc. has discovered through surveys that some 44 percent of its passengers have annual incomes of less than $15,000.

In other words, buses are the only mode that take you where you want to go, when you want to go, and at a price you can afford.

Notwithstanding the essential nature of the bus industry compared to other modes, and the fact that buses carry the old, the young, the poor, and those in rural America, federal transportation programs have ignored the bus industry while heavily subsidizing our competitors. The bus industry receives no direct operating subsidies, and very little federal support of any kind.

Robert R. Nathan Associates Inc. has conducted an exhaustive study of the total federal subsidies, net of user fees, received by each passenger transportation mode from 1960 through 1993.[2] This study aggregated outlays from federal funds and

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[1] Sources: Amtrak Schedule, Official Airlines Guide for North America, and Russell's Guide.

[2] *The Impact of Higher Motor Fuel Taxes on the Intercity Bus Industry,* Robert R. Nathan Associates, Arlington, Va. (July 1995). This was an update of an earlier work, *Federal Subsidies*

trust funds for each major passenger transportation system—air, highway, intercity rail, and mass transit, according to the cost responsibility of each mode. In addition, the study attributed receipts into the Airport and Airways Trust Fund and the Highway Trust Fund paid by airlines and the bus industry, respectively, and into the general fund by all modes. Subsidies were then measured by subtracting the allocated receipts from the allocated federal outlays for each mode.

The results are striking. As shown in Figure 1, from 1960 to 1993, measured in constant 1993 dollars, mass transit has received a net subsidy of $91.2 billion, aviation has received a net subsidy of $104.5 billion,[3] and Amtrak has received a net subsidy of $24.6 billion. The intercity bus industry, in marked contrast, from 1960 through 1993 received a net subsidy of only $600 million. While Amtrak and the commercial airlines combined received more than $79 billion in net subsidies from the federal government, the bus industry received less than one percent of that amount. Yet the bus industry is expected to compete on an equal footing with air and rail transportation.

The disparity in federal subsidies by mode is even more outrageous when viewed per passenger trip. Figure 2 shows that commercial airline passengers have received a net subsidy of $6.38 per trip, mass transit passengers have received a net subsidy of $0.33 per trip, Amtrak passengers received a net subsidy of $54.88 per trip, and intercity bus passengers received a net subsidy of five cents per trip. Bus passengers get a nickel from the federal government while Amtrak passengers get $54.88 from the federal government for every trip they take.[4]

This is public policy at its worst. The federal government should not pick and choose winners in the passenger transportation industry any more than it should determine winners and losers in any other markets. Yet by heavily subsidizing Amtrak and commercial airline passengers, but not bus passengers, federal policy has created an atmosphere so financially skewed that bus operators find it extremely difficult to compete effectively with other modes.

Reauthorization of ISTEA presents an opportunity to level the playing field for passenger transportation. ISTEA as enacted in 1991 began this process. The intercity bus industry made considerable gains as a result of that legislation, but they represent only a start. The Administration's NEXTEA proposal builds on this beginning by expanding the scope of intercity bus projects eligible for federal funding.

INTERMODAL TRANSPORTATION CENTERS AND ROLLING STOCK ACQUISITION

The intercity bus industry's greatest need, and the most promising area for public policy successes, is the continued development and funding of intermodal transportation centers. ISTEA contained several provisions that allow states to fund intermodal transportation centers. Section 133 of title 23, United States Code currently permits states to obligate funds apportioned under the Surface Transportation Program for capital costs for "publicly owned intracity or intercity bus terminals or facilities." Additionally, section 134 of title 23 directs metropolitan planning organizations to develop plans and programs to provide for facilities that will function as an "intermodal transportation system" for the state.

There have been some success stories as a result of these provisions. South Station in Boston shows the promise of becoming a highly efficient intermodal transportation facility. The station serves Amtrak as well as my bus company, Concord Trailways, along with Greyhound Lines, Peter Pan Trailways, Bonanza Bus Lines, and Plymouth & Brockton Street Railway Company (another bus carrier). The bus portion of the terminal opened on November 1, 1995, and the bus carriers now provide connecting service to the Amtrak schedules, and vice versa. In addition, there is a subway stop on the MBTA line at the station, and the station is also a terminal for intracity transit buses.

When the Central Artery project in Boston is completed, there will also be a direct shuttle bus service from South Station to Logan Airport, using a new tunnel under Boston Harbor.

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for Passenger Transportation. 1960–1988: Winners, Losers, and Implications for the Future, Robert R. Nathan Associates, Inc., Arlington, Va. (1989).

[3] Of this total, $52.3 billion of the net subsidy went to commercial air carriers and $52.2 billion of the subsidy went to general aviation.

[4] A recent study by the Cato Institute estimates an even higher per passenger subsidy for Amtrak riders. According to Jean Love, Wendell Cox, and Stephen Moore, "Amtrak at Twenty-Five, End of the Line for Taxpayer Subsidies," Cato Institute, Policy Analysis No. 266, Washington, D.C. (December 19, 1996), the average taxpayer subsidy per Amtrak rider is $100, or 40 percent of the total per passenger cost. On some of the long-distance routes, such as Los Angeles to New York, the study found that the per passenger subsidy exceeds $1,000.

At present, the South Station is a tremendous improvement over the prior connections. Previously, bus carriers had to park vehicles and discharge passengers across the street from the train station. When the South Station is completed, bus passengers will be carried on a people mover to the train portion of the station, for easier connections without going out into the elements.

South Station is also a success because of the federal-state partnership that funded and developed the project. In addition, the fact that the station is operated by the Massachusetts Bay Transportation Authority eliminates the competitive concerns about terminal access and rent that plague carrier-owned and operated stations where competitors rent space and services from other carriers. Multi-purpose stations, run by state or local government entities, with access for all modes, in a favorable location close to highway, rail and air connections, are the best possible method of achieving the goal to facilitate intermodal passenger transportation as set out in ISTEA. The reauthorizing bill should continue this approach.

These facilities are win-win-win scenarios. The public sector wins, because the carriers pay rent to fund the capital investment necessary to build the structures. The private sector wins, because the carriers do not need to generate the substantial amounts of construction capital. And the passengers win, because they benefit from improved service and streamlined connections.

The only problem with South Station is that there are not more examples of this facility built as a result of ISTEA funding and directives. Under § 1003(a)(4) of the Administration's NEXTEA proposal, "publicly owned . . . intercity passenger rail or bus terminals" would be eligible for capital funding in the National Highway System program. ABA supports this proposal, but encourages Congress to do more to ensure that a portion of state funds allocated under this program be used to construct, maintain and operate intermodal passenger facilities. The metropolitan planning organizations need some incentives or directives to include intermodal facilities in their plans, and Congress should plainly provide that federal funds are to be used for such projects.

Moreover, the National Highway System funds should be available for privately owned and operated terminals as long as the operator grants access to all carriers, whether or not competitors, without discrimination, as allowed by space constraints. The private sector can effectively leverage federal funds to construct, maintain and operate intercity passenger terminals for bus and rail transportation. With adequate federal supervision, there is no compelling policy reason to exclude privately-owned facilities from receiving funds under this program as well.

ABA further supports the Administration's proposal in § 1014(a) of NEXTEA to expand the funding eligibility in the Surface Transportation Program to include privately-owned intercity bus companies to acquire vehicles and facilities on the same basis as capital projects under the current 49 U.S.C. § 5302(a)(1). This will encourage private sector intercity bus companies to develop additional service in conjunction with rail and intracity passenger transportation providers.

SECTION 18(I) INTERCITY BUS TRANSPORTATION FUNDING

Section 18(i) of the Federal Transit Act, as amended in ISTEA, directs states to spend 15 percent of their rural transit funds each year to "develop and support intercity bus transportation." *See* 49 U.S.C. § 5311(f). This was the first time that states were actually directed by Congress to expend highway funds to promote intercity bus service. Under that provision, however, a state need not spend these funds on bus transportation, if the Governor of the state certifies to the Secretary of Transportation that "the intercity bus service needs of the State are being adequately met" in that particular fiscal year.

ABA does not believe that there are any states in which there are no unmet intercity bus service needs. Nevertheless, in the first few years under ISTEA many states routinely certified that there were no unmet intercity bus service needs, and therefore avoided using the section 18(i) funds for intercity bus purposes. ABA member companies have begun an educational process in many states to discuss their rural transportation needs, and the results are encouraging.

In Texas, for example, the Governor certified for several years that there were no unmet intercity bus service needs, even though Texas has one of the largest populations of rural, poor bus passengers in the country. A couple of years ago, Kerrville Bus Company in Kerrville, Texas began meeting with the Texas Department of Transportation to explore ways to use the section 18(i) funds as Congress intended. As a result of those meetings, three new bus terminals are either operating or under construction in rural areas.

The Brazos Valley Transit Authority used a section 18(i) grant to purchase a property and building in Lufkin, Texas and converted it into a combination transit

and intercity bus terminal. Similarly, the City of Del Rio, Texas used state funds under section 18(i) to construct a combination bus terminal. The City of Fredricksburg, Texas is also using section 18(i) funds to build a combination terminal, and Kerrville Bus Company is contributing $20,000 of its own capital towards the construction costs. Of course, Kerrville will also pay rent to use these facilities, and the bus passengers in rural Texas have three new terminals for intercity service.

ABA strongly supports continuation of the section 18(i) set aside program in the reauthorization legislation. Some $17 million was appropriated by Congress for fiscal year 1997, which is *de minimis* in the context of the entire transit appropriation, but tremendously important to those passengers who depend on intercity bus transportation.

The Administration has proposed to eliminate the section 18(i) set aside program, citing the expanded eligibility for facility and vehicle funding under the National Highway System and Surface Transportation Programs as an adequate replacement.

Without a specific set aside, intercity bus carriers in many states will not be able to beat competing interests for these funds, and the needs of rural passenger transportation will not be met. Although the Administration's bill does expand the types of projects eligible for federal funds, there is no assurance that these projects will actually be funded. The section 18(i) set aside was the only program that directed states to spend money on rural intercity bus transportation, and, as outlined above, many states have avoided funding intercity bus projects even under that program. ABA urges Congress to retain the section 18(i) program.

HIGHWAY TRUST FUND ISSUES

ABA supports congressional efforts to take the Highway Trust Fund off the unified budget so that the annual trust fund surplus is not used to mask the size of the federal budget deficit. The Highway Trust Fund taxes were not intended to serve as general fund taxes that might be raised or lowered according to overall spending needs. Rather, the Highway Trust Fund taxes were intended to support a federal-aid highway and bridge program that benefits all highway users and serves as a catalyst for national economic growth.

Since the inception of the Interstate Highway System in 1956, all federal fuel taxes were paid into the Highway Trust Fund and then disbursed to the states for highways and bridges. Highway users, including the intercity bus industry, were willing to pay their federal fuel taxes as an investment in the nation's infrastructure. This trust fund system has provided a nationwide highway system that has played a critical role in the economic development of this country and contributed dramatically to the mobility of Americans.

By refusing to spend some of the trust fund revenues, Congress and the Administration have transformed the Trust Fund into a general fund, to be spent or not spent as other federal budget priorities dictate. This breaks the faith with all highway users who pay into the Trust Fund, only to see their tax dollars spent on projects other than the highway program. ABA urges Congress to restore the Trust Fund concept by removing the Fund from the unified federal budget, and allowing all highway tax revenues to be spent for highway purposes.

ABA also strongly opposes continuing the 4.3 cents per gallon tax on diesel fuel if the revenue flows into the general fund for deficit reduction purposes. The intercity bus industry pays approximately $7.4 million per year in additional taxes because of the 4.3 cents per gallon surtax.[5] This money is not being used for highway purposes.

The trust fund concept was again breached in 1993 by the Omnibus Budget Reconciliation Act (OBRA), which imposed the 4.3 cents per gallon federal fuel tax but diverted the revenue to the general fund to reduce the size of the federal budget deficit.

If the highway system were in adequate repair, this diversion might not present such a critical issue to the intercity bus industry and other highway users. But by any measure, the infrastructure of highways and bridges in this country are deteriorating, and the trust fund spending is falling farther behind investment needs each year.

ABA believes that all revenues from federal fuel taxes on highway vehicles should go into the Highway Trust Fund to ensure that the investment in the nation's highway system does not fall prey to short term attempts to reduce the federal deficit.

[5] The intercity bus industry operates approximately 945 million bus miles and consumes about 172 million gallons of diesel fuel per year. The number of gallons multiplied by 4.3 cents per gallon yields an annual tax revenue of $7.4 million.

Moreover, Congress and the Administration have failed to spend the full amount of highway tax revenues collected in the Highway Trust Fund, thereby generating a substantial surplus in the Trust Fund. It makes no sense to impose a 4.3 cents per gallon surtax on highway users when the other highway tax revenues are not fully allocated for their intended purpose each year. For these reasons, ABA supports repealing the 4.3 cents per gallon fuel tax for deficit reduction. As an alternative, ABA would support placing the revenues from this 4.3 cents surtax into the Highway Trust Fund.

Finally, ABA strongly opposes the Administration's proposal for operating grants to Amtrak out of the Highway Trust Fund. The Administration proposes a grant of $344 million in fiscal year 1998 alone, and total grants of $1.354 billion in operating subsidies over the six-year life of the program. In addition, the Administration proposes capital investment grants for Amtrak out of the Highway Trust Fund in the amount of $423,450,000 per year for six years, and supplemental capital investment grants totalling $874 million over the life of the program.

As discussed in detail above, the intercity bus industry competes directly with Amtrak for passengers on all routes and in all corridors. Over its 25-year history, Amtrak has received an extraordinary federal subsidy for both capital and operating costs. Now the Administration is proposing a further capital and operating subsidy for Amtrak out of Highway Trust Fund revenues. If this provision were enacted, a portion of the intercity bus industry's federal highway use taxes would be used to subsidize a competitor instead of being spent, as intended initially, on highway construction, repair and maintenance.

ABA opposes funding Amtrak out of Highway Trust Fund revenues, and at the very least recommends that the intercity bus industry be exempted from paying taxes that would be used to support competition from Amtrak. Alternatively, ABA supports a dedicated source of funding for Amtrak only through a Surface Transportation Trust Fund in which the intercity bus industry is eligible for similar types of capital and operating grants. Further, any monies expended for Amtrak should be subject to annual appropriations, and not the contract authority envisioned in the Administration's bill.

In addition to Amtrak, the intercity bus industry must also compete with commercial airline service that has been subsidized under the Essential Air Service program for almost 20 years. In the Federal Aviation Authorization Act of 1996, Congress directed that $50 million be set aside and made available to carry out the EAS program for fiscal year 1997.

FUNDING FORMULA ISSUES

ABA takes no position on the various proposals for changing the allocation formulas under which states receive federal-aid highway money. As stated above, ABA's primary concern is that the amount of money expended on highways increases to keep pace with infrastructure needs.

ABA does, however, believe that there is a need for a fundamental federal role in the highway program, and that the entire authorization and taxation program should not be merely turned back to the states as a means of avoiding the allocation debate.

The federal government has played a guiding role in establishing a national infrastructure of highways and bridges. There is no guarantee that states would cooperate sufficiently to maintain such a system. Nor is there any assurance that if the federal highway taxes were repealed or reduced that the states would be able to raise their state taxes correspondingly to account for the revenue shortfall. The federal-aid highway program has a long history of success that should not be ignored merely because of issues regarding the proper allocation formulas.

I appreciate the opportunity to testify on this legislation, and I will attempt to answer any questions you might have or supply you with any additional information you might need.

TABLE 1.—NUMBER OF COMMUNITIES SERVED, BY MODE, BY STATE, 1996

State	Intercity bus	Amtrak	Commercial airlines
Alabama	110	10	9
Alaska	n/a		236
Arizona	77	10	15
Arkansas	82	6	9
California	277	128	32

TABLE 1.—NUMBER OF COMMUNITIES SERVED, BY MODE, BY STATE, 1996—Continued

State	Intercity bus	Amtrak	Commercial airlines
Colorado	80	11	15
Connecticut	25	9	5
Delaware	16	1	.....
Florida	131	37	22
Georgia	111	5	10
Hawaii	n/a	.....	12
Idaho	47	7	6
Illinois	65	34	19
Indiana	64	11	9
Iowa	44	6	10
Kansas	88	7	11
Kentucky	32	4	4
Louisiana	107	4	4
Maine	34	.....	8
Maryland	27	6	4
Massachusetts	77	7	7
Michigan	137	23	20
Minnesota	141	7	15
Mississippi	99	14	9
Missouri	77	14	9
Montana	90	13	14
Nebraska	38	5	11
Nevada	42	9	6
New Hampshire	33	1	3
New Jersey	90	5	4
New Mexico	76	8	12
New York	361	31	24
North Carolina	121	17	13
North Dakota	47	7	8
Ohio	58	8	8
Oklahoma	71	.....	5
Oregon	116	14	7
Pennsylvania	234	18	17
Rhode Island	5	1	3
South Carolina	53	11	6
South Dakota	41	.....	9
Tennessee	60	3	6
Texas	440	20	28
Utah	30	6	7
Vermont	50	10	2
Virginia	73	15	7
Washington	57	21	23
West Virginia	16	11	8
Wisconsin	94	10	12
Wyoming	30	8	10
Total	4,274	[1] 619	[2] 758

Sources: Russell's Guide, 1996; Amtrak Summer Schedule, 1996; and Official Airline Guide, North American Ed., May 1, 1996.

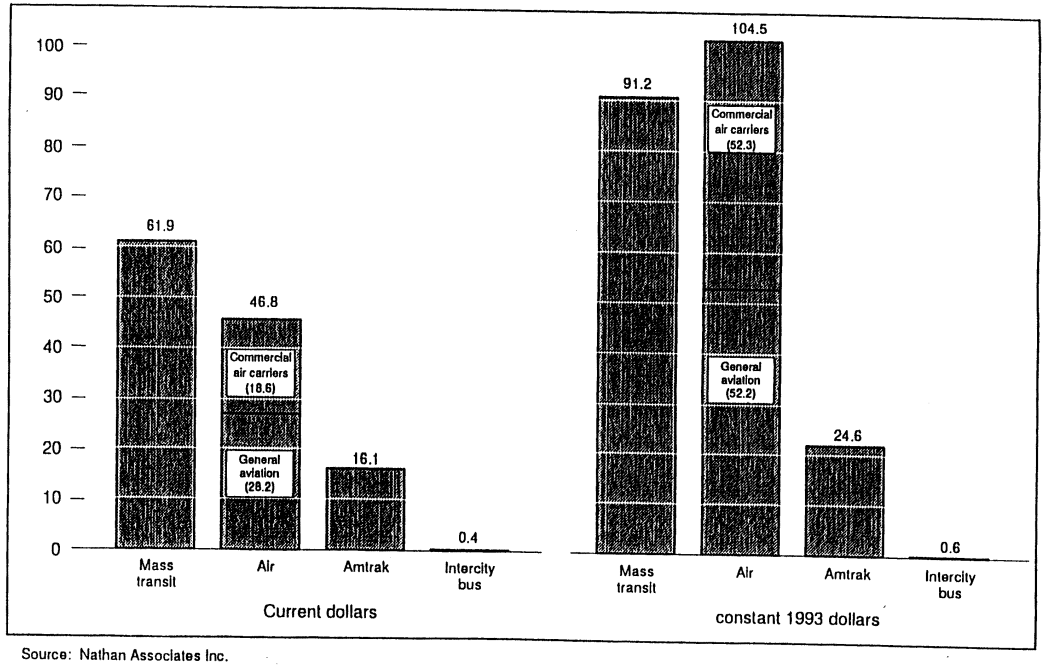
[1] Includes 108 points served by Amtrak contract bus service.

[2] Includes the two airports serving the District of Columbia.

Figure 1

Total Federal Subsidies, Net of User Fees, to Passenger Transportation Systems and Modes, 1960-1993

(Billions of dollars)

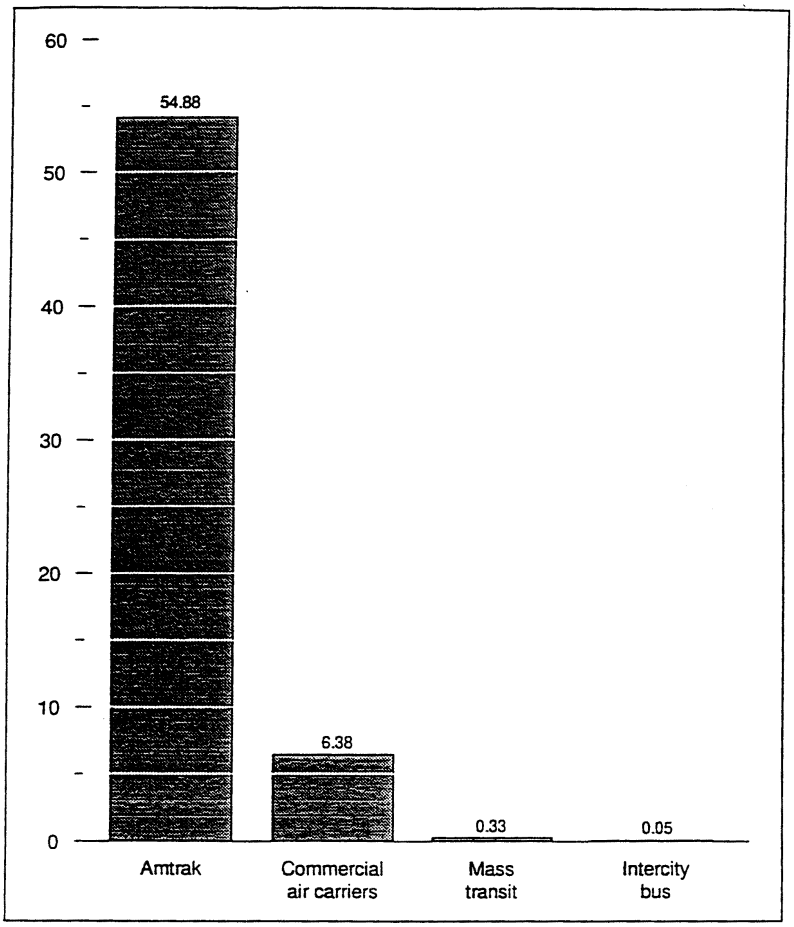


Source: Nathan Associates Inc.

Figure 2

Total Federal Subsidies Per Passenger Trip, Net of User Fees, to Passenger Transportation Systems and Modes, 1960-1993

(1993 Dollars)



Source: Nathan Associates Inc.

NATIONAL CENTER FOR MISSING AND EXPLOITED CHILDREN

Senator SHELBY. That is an amazing morning. [Laughter.]

Mr. Gruel, Senator Lautenberg wanted me to tell you that he very much—he was here earlier, as you will recall—wanted to be here for your testimony, but he is required to be—he is a senior member of the Budget Committee—in some meetings with the White House. He wanted to say this to you.

Mr. GRUEL. Thank you, Mr. Chairman.

Senator SHELBY. I have got a statement.

And I am going to keep the record open because I have a number of questions to all of you for the record and I know Senator Byrd, Senator Lautenberg, and others would too. And we will move on with the panel from there.

The six of you here represent a significant portion of the surface transportation industry in America, and I want to take this opportunity to draw to your attention an effort that I would encourage all of you to explore and see if there is a way that your groups might get involved. A lot of you are probably already involved.

And the effort is the National Center for Missing and Exploited Children, and they are people who place the pictures of missing children on milk cartons, on the flyers you receive in the mail—we are all aware of this—on the kiosks, and some of our transportation hubs. And it is working. It is working for parents. It is working for children. It is working for all America.

Transportation, as you know from being here today, can play a significant role in identifying and recovering missing children. Transportation touches virtually every American's life on an almost daily basis, and if we, through the transportation system that you represent, can encourage people not to forget these missing and exploited children, we might be able to find more of those lost children.

I know you would join me in this effort because you together can make a difference and are probably already making a difference collectively. I know a number of your organizations and member companies are already participating in this effort, and I want to commend you for it, congratulate you for it. But if there are ways to take advantage of the communication channels that you already utilize to your membership, to your passengers, to your customers, it is really worth looking into because all Americans will benefit from this. I think it is a very worthy project, and you have seen the results from it.

If you have, I commend you. If you will consider it, I congratulate you because it will make a difference in families' lives and children's lives if we can do it.

I appreciate all of you coming here. I am sorry that this went on so long this morning.

SUBCOMMITTEE RECESS

This hearing of the Subcommittee on Transportation is now recessed. The next subcommittee hearing will be held on Wednesday, April 16, at 10 o'clock in Dirksen 124. The topic of the hearing will be aviation safety and security.

Thank you, gentlemen.

[Whereupon, at 12:48 p.m., Thursday, April 10, the subcommittee was recessed, to reconvene at 10:01 a.m., Wednesday, April 16.]

MATERIAL SUBMITTED SUBSEQUENT TO CONCLUSION OF HEARING

[CLERK'S NOTE.—The following material was not presented at the hearing, but was submitted to the subcommittee for inclusion in the record subsequent to the hearing:]

ASSOCIATION OF AMERICAN RAILROADS

PREPARED STATEMENT OF KAREN BORLAUG PHILLIPS, SENIOR VICE PRESIDENT

INTRODUCTION

Mr. Chairman and members of the Subcommittee, my name is Karen Phillips. I am Senior Vice President of the Association of American Railroads (AAR).[1] I appreciate the opportunity to present this statement to the Subcommittee concerning AAR's views on the reauthorization of the Intermodal Surface Transportation Assistance Act (ISTEA).

I would like to discuss four particular issues of significant concern to the railroad industry. The first of these issues is one of overriding interest to all of us—transportation safety, and in this instance safety at highway-rail grade crossings. The second issue involves an essential element in any serious effort to continue to improve the movement of freight in this country and in the global marketplace—intermodalism, and specifically the important connections between different transportation modes. Third, I would like to address the roles of States and MPO's in effective transportation planning, and, finally, I will briefly discuss the important issue of federal truck size and weight standards.

HIGHWAY-RAIL GRADE CROSSINGS

There has been an extremely successful partnership among federal and state governments, the railroad industry, and other transportation safety interests for many years. This partnership has resulted in a reduction in annual public grade crossing accidents of over 65 percent since the early 1970's. This success has been accomplished primarily as a result of engineering improvements carried out under the federal Section 130 Program, and the driver education/public information and traffic law enforcement efforts of the Operation Lifesaver Program. In fact, the Federal Highway Administration estimates that the Section 130 Program and Operation Lifesaver efforts have prevented over 8,500 fatalities and 38,900 serious injuries since 1974.

Despite the impressive safety improvement, the record of 3,697 accidents and 432 fatalities at public grade crossings in 1996 is unacceptable. More must be done to eliminate these tragic accidents, and the partnership among the involved interests must be strengthened. AAR is proposing four initiatives which it believes will result in a significant improvement in highway-rail grade crossing safety:

1. *The federal government should continue and increase funding for the Section 130 Grade Crossing Improvement Program.*—The historic Highway Safety Act of 1973 created and funded a national highway safety program specifically dedicated to enhanced safety at highway-rail crossings by providing for needed engineering and warning device improvements (Section 130 Program). In fiscal year 1997, approximately $150 million in highway user revenues was apportioned to the states to carry out this important program. As mentioned earlier, as a direct result of the earmarked federal funding for highway-rail crossing improvements, the annual crossing accident rate has been reduced by over 65 percent. This substantial reduc-

[1] AAR is a trade association whose members account for 75 percent of total rail line-haul mileage, produce 93 percent of total rail freight revenues, and employ 91 percent of the freight railway work force.

tion in accidents has occurred despite significant increases in both highway and rail traffic.

Without funding dedicated or earmarked for the Section 130 Program, crossing projects rarely compete successfully with more traditional highway needs, such as highway capacity improvements and highway maintenance. In fact, this problem was the primary reason a separate crossing improvement program was established in 1973. Despite the proven success of the Section 130 Program, however, many states continue to assign an extremely low priority to crossing improvement projects. Through the end of 1996, over $227 million of Section 130 Program funds remained unspent by the states, and approximately $230 million had been transferred to other federal-aid highway program categories.

Earmarked funding for the Section 130 Program should be continued, and the annual funding level should be increased to at least $185 million. The "Rail-Highway Crossing Study" completed by the U.S. Department of Transportation in 1989 found that:

> "For warning systems, an estimated annual investment of $185 million in improvements is necessary to maintain current overall safety performance. . . . An initiative to cost effectively reduce current accident levels would require another $30 million annually."

Additionally, in order to increase state priority for Section 130 Program projects and assure crossing improvement spending, the authority to transfer Section 130 Program funds to other federal-aid highway program categories should be restricted and obligation authority should be specifically reserved for the Section 130 Program.

2. *The federal government should establish a national mandate and a uniform process for closing unnecessary public grade crossings.*—Highway and rail safety officials have long advocated the closure of a large proportion of the public highway-rail grade crossings in the United States. Many grade crossings are redundant, serve no significant transportation mobility or access purpose, and continue to constitute a rail and highway safety hazard.

However, closing grade crossings is often not an objective transportation safety decision because the issue causes local emotional/political confrontations. The railroads support the establishment by Congress of a federal crossing closing program implemented through a uniform nationwide process. Such a process should require state transportation agencies to identify and evaluate candidate crossings for closure, utilizing uniform criteria established by the U.S. Secretary of Transportation, and to develop and implement a statewide crossing closing plan. Active participation in this National Grade Crossing Closure Program should be required of all states. DOT should also develop guidelines which states would be required to follow in deciding whether to permit the opening or creation of any new grade crossings.

3. *The federal government should finance a multi-year national grade crossing safety education and public awareness campaign to be conducted by Operation Lifesaver. Inc.*—Since motorists frequently are unaware of the grave dangers of their behavior, government should take responsibility for a major, multi-year public awareness campaign designed to illustrate the life-or-death consequences of motorists' behavior at grade crossings. ISTEA authorized $300,000 annually for the National Operation Lifesaver Program to increase public awareness of the grade crossing safety problem. Additional funds to support Operation Lifesaver are generally included in annual Federal Railroad Administration appropriations. However, a substantially increased commitment of resources is required to ensure the broadest understanding of the inherent danger of highway-rail grade crossings and the critical responsibility of motorists and the public to exercise appropriate care.

This expanded national Operation Lifesaver campaign must garner the same universal recognition and acceptance that Mothers Against Drunk Driving (MADD), for example, enjoys for its attack on drunk driving. The need to "Look, Listen . . . and Live" at grade crossings must be as familiar to the general public as "Friends Don't Let Friends Drive Drunk".

As an example of a possible component of such a national campaign, Operation Lifesaver—joined by FRA and various state agencies—is sponsoring a national campaign called "Highway or Dieways." AAR is giving significant support to this campaign. This is a very graphic and hard-hitting public service advertising campaign promoting highway-rail grade crossing safety. The campaign consists of television and radio spots, print advertising, and billboards. The strategy is to introduce the campaign in every state through Operation Lifesaver state coordinators. Begun in 1996, it has been introduced in five states, Texas, Georgia, South Carolina, Alabama, and Missouri, and has received significant media interest. The campaign will also will begin this month in Ohio and California.

4. *The federal government should create a national grade crossing warning device problem alert system.*—Despite regular and thorough grade crossing warning device testing, inspection, and maintenance conducted by railroad personnel, the industry has occasionally experienced problems in receiving timely and accurate notification when warning device problems occur. To address this problem, in 1982, the Texas legislature created the Texas 1–800 Number Rail-Highway Crossing Notification Program. Texas has installed signs at public crossings encouraging the public to call the 1–800 telephone number in the event of a crossing warning device problem. The calls are received by the Texas State Police, which in turn alert the appropriate railroad personnel.

The railroad experience with the Texas 1–800 System has been generally positive. Although occasional "crank" calls are received and the public's perception of a warning device problem may be inaccurate, the system continues to provide valuable and timely information concerning warning device problems to appropriate railroad maintenance personnel.

The railroad industry supports the creation of a publicly funded, nationwide grade crossing warning device problem alert system operated by appropriate state agencies. The federal government should evaluate the feasibility of a variety of possible nationwide alert systems, and adopt and implement an effective system.

These four grade crossing safety initiatives will significantly enhance safety at highway-rail grade crossings and strengthen the essential partnership between the railroad industry and government. I urge the Congress to include these recommendations in ISTEA reauthorization legislation.

INTERMODAL CONNECTORS

I would now like to discuss briefly the second issue of concern to the railroad industry—intermodalism and intermodal connector highways.

In ISTEA, Congress declared that:

It is the policy of the United States to develop a National Intermodal Transportation System . . . The National Intermodal Transportation System shall consist of all forms of transportation in a unified, interconnected manner . . .

In an effort to achieve that important objective, the Congress established the National Highway System, and determined that:

> The purpose of the National Highway System is to provide an interconnected system of principal arterial routes which will serve major population centers, international border crossings, ports, airports, public transportation facilities, and other intermodal transportation facilities . . .

The importance of the interconnectivity of our transportation modes and systems was subsequently underscored by the National Commission on Intermodal Transportation when it found that:

> Barriers to safe and efficient movement of freight occur at connections between modes . . . For example, inadequate roadway access to freight terminals is a barrier to the intermodal freight system and a major contributor to urban congestion. The lack of adequate connectors between the interstate highway system and the Nation's port, rail, airport, and truck terminals results in urban congestion, air pollution, negative impacts on adjacent neighborhoods, and delivery delays for shippers.

On May 24, 1996, then-Transportation Secretary Peña sent to the Congress a recommended list of highway connectors to major intermodal freight and passenger terminals. In his letter of transmittal, Secretary Peña observed:

> The Congress, in creating the NHS, recognized that the Nation's transportation infrastructure must be viewed as a single system with each mode complementing the others. With the NHS and its connections to major intermodal terminals as the united force, our national transportation network will sustain economic growth, increase our competitiveness in the international marketplace of the 21st century, and enhance the personal mobility of every American.

Representing our major freight railroads, I can assure you that these observations and findings concerning intermodal highway connectors are absolutely correct. These essential highways are the glue that holds much of this country's intermodal transportation system together. Without first rate connections, trains, trucks, barges, and planes are condemned to operate separately and inefficiently. Government and America's private transportation companies can provide the finest transportation systems and services in the world—and that is occurring—but a completely efficient intermodal transportation system can never be realized without quality connections.

During ISTEA reauthorization these important intermodal connectors are to be considered for inclusion on the National Highway System (NHS). AAR enthusiastically supports improvement of intermodal connectors and urges their addition to the NHS.

TRANSPORTATION PLANNING

ISTEA attempted to establish a new approach to transportation throughout the country, by striving to break out of traditional, but limiting, perspectives. Transportation after ISTEA would no longer suffer from historic compartmentalization. The interests and concerns of both public and private providers of transportation facilities and services would be considered jointly and cooperatively. Passenger and freight transportation needs would both receive adequate attention and an appropriate allocation of resources. State, local, and metropolitan transportation interests would each have an appropriate and important role in planning and resource allocation. These goals of ISTEA have not yet been achieved, but that should in no way tarnish the vision or diminish our efforts.

Private railroads are working closer than ever, and more successfully, with states and MPO's to develop effective transportation plans and programs. It has been an evolutionary process, primarily because all participants have had a great deal to learn about each other and about just how to integrate our respective interests and needs into a truly comprehensive transportation planning process. But the learning and improving is happening, and transportation in this country is winning as a result.

TRUCK SIZE AND WEIGHT

AAR supports the status quo on truck size and weight limits. Of particular concern are any efforts which may be made to thaw or otherwise modify the freeze on the expanded use of longer combination vehicles (LCV's)[2] that was included in ISTEA.

The railroad industry has, of course, a vital stake in truck size and weight policy. Larger, heavier trucks—especially LCV's—would cause serious traffic and revenue losses to the U.S. railroad industry. This is obviously a grave concern for the railroad industry. This vital interest extends not just to the rail companies themselves, but also to the 213,000 rail employees, rail shippers, and the railroad supply industry. Additionally, there is strong evidence that heavy trucks pay user charges far less than the costs they impose on our highways and our society. This underpayment enables them to reduce rates and divert traffic from railroads. In the absence of full cost recovery, the further diversion from rail that will result from expanded use of LCV's is likely to mean a significant net economic loss not only to railroads, but also to society.

The public strongly supports federal truck weight standards. Sixty-eight percent of Americans endorse a federal weight freeze on trucks, according to a April, 1995, nationwide poll conducted by The Tarrance Group. Further, by exercising control over the nation's infrastructure through continuation of current truck size and weight standards and the LCV freeze, Congress can prevent highway infrastructure damage and congestion, increased highway safety problems, and exacerbated harm to the environment.

Advocates of increased LCV use are now proposing a "State Option" regime in place of the current federal LCV freeze. Under "State Option", States without LCV's would come under intense pressure to allow bigger trucks as they spread to neighboring jurisdictions. Stopping this "upward ratchetting" of truck size and weight limits was the reason for the 1991 LCV freeze. Ending the current freeze through such a "State Option" approach would mean a rapid spread of LCV's throughout the United States.

The truck size and weight status quo—including the LCV freeze—is also threatened by the negotiations on standardizing truck size and weight limits which are being held with our NAFTA partners, Canada and Mexico. Last summer, 57 members of the Senate and 232 House members signed a letter to then-DOT Secretary Peña, urging him not to allow the NAFTA negotiations to be a vehicle for truck size and weight increases in the United States. AAR commends those members who signed the letter to the Secretary and the railroad industry hopes that Congress will

[2] Longer combination vehicles, or LCV's, include three main truck types: triple 28 foot trailer combinations or triples; twin 48′ or 53′ tractor trailer combinations, also knows as long or turnpike doubles; and Rocky Mountain Doubles, combinations with one long and one short trailer. The 1991 ISTEA defines LCV's as combinations with two or more trailers operating at weights above 80,000 pounds.

continue to oppose larger and heavier trucks not just in NAFTA negotiations, but also in the ISTEA reauthorization.

In conclusion, ISTEA is working, because all parties are truly working together. AAR is convinced that America must continue the progressive agenda established by the Intermodal Surface Transportation Efficiency Act into the 21st Century.

Thank you for allowing me to present the AAR's views on ISTEA reauthorization.

NATIONAL ASSOCIATION OF INDEPENDENT INSURERS

PREPARED STATEMENT OF GERALD W. BELL, DIRECTOR, COMMERCIAL AND PROPERTY LINES

The National Association of Independent Insurers is the nation's leading property casualty insurance company trade association with more than 560 member companies which write about one-third of the private passenger and commercial automobile insurance in the country. NAII is an active member of the American Highway Users Alliance and Roadway Safety Foundation, and we endorse the AHUA testimony supporting reauthorization of the federal highway program with increased funding for highway building, roadway maintenance, and safety programs. NAII is submitting this additional written statement to highlight the need for adequate funding to assist border states for infrastructure and inspection systems to assure highway safety once Mexican and Canadian trucks are permitted to operate fully in this country as a result of NAFTA.

The NAII is greatly concerned that unless the Congress approves, at a bare minimum, 100 percent of the appropriation proposed by NEXTEA under Title IV—Motor Carrier Safety, the economic downside to the nation will be even more costly for Americans.

Increased Motor Carrier Safety Assistance Program (MCSAP) funding must be provided so that officials can recruit, train, and deploy greatly increased numbers of motor carrier safety enforcement personnel to the United States-Mexican border states of California, Arizona, New Mexico, and Texas. The number of vehicle inspections possible with current physical and manpower resources is insufficient to act as a deterrent to those who would scoff at current statutes and regulations. It is essential that vehicles entering the United States commercial zone are in full compliance with all applicable vehicle and driver safety requirements before any serious thought can be given to lifting the moratorium and allowing non-complying vehicles ever farther into the U.S. interior.

NAII supports the Preamble and Objectives (Part One, Chapter One, Article 102) of the NAFTA. Nonetheless, our Association is greatly concerned that the current reality falls alarmingly short of these stated ideals . . . short enough, in fact, to conclude that it would be irresponsible to lift the moratorium at this time. The threats to life safety, the environment, and the infrastructure are simply too great.

The NAFTA requires the parties to work together to enhance the level of safety and of protection of human, animal and plant life and health, the environment and consumers (Article 906.1). Compatibility of standards is to be achieved to the greatest extent possible, without reducing the level of safety (Article 906.2.). In other words, as The Honorable Ileana Ros-Lehtinen, Chair, House Subcommittee on International Economic Policy and Trade said in her March 5th statement before her Subcommittee, "[T]he minimum requirement of NAFTA, and of any other trade agreement that the U.S. enters into, is that it 'do no harm'—that is, even if the U.S. does not benefit from it, at least it should not suffer for it." Unfortunately, without greatly augmented U.S. border resources Americans will be harmed.

Parties to the Land Transportation Standards Subcommittee and to its Technical Advisory Groups have worked diligently to negotiate agreements and to achieve compatibility on many issues. That is laudable. However, the reality is that the level of safety has not been significantly enhanced since the NAFTA went into effect three years ago.

The United States General Accounting Office testified on March 6th before the House Subcommittee on Transportation, Committee on Appropriations that, "[F]rom January through November 1996, federal and state officials carried out more than 20,000 inspections of trucks entering from Mexico resulting in about 45 percent of the vehicles being placed out of service for serious safety violations. Our ongoing work shows that, while the number of truck inspectors at major southern border crossings has increased and two large permanent inspection facilities have been opened, the results of increased inspections do not show a clear trend that Mexican trucks are becoming safer."

Let's look at some facts:

Over 11,000 trucks enter the United States border zone each day. They cross at any of 28 highway points of entry. More than 4,000 of those trucks enter at Laredo, Texas, the busiest point. Concern about the potential environmental impact of a hazardous material spill from incoming Mexican trucks is so great in Laredo, Texas, that the local television stations run frequent public service videos warning residents about the threat.

The United States Department of Transportation has once again entered into agreement with Mexican officials to provide training for Mexican enforcement personnel regarding U.S. motor carrier standards for vehicles and operators. A February 1996 General Accounting Office report advises that since 1993 U.S. officials trained 285 Mexican personnel to inspect trucks. Those personnel were to have become the trainers in Mexico, but most have left the program according to Mexican officials. Why should we believe that this new effort will bear a different result?

The Governors of the four U.S. border states have widely proclaimed that their states are ready for the moratorium to be lifted and that unsafe Mexican trucks will be weeded out, but we are not convinced that effective systems are in place yet to assure safety. None of the border states appear to have the requisite number of enforcement personnel to assure that even the majority of unsafe Mexican trucks will be weeded out.

—If the four border state governors are correct about their collective resources to assure motor carrier safety then why did 201 bipartisan House lawmakers (34 Republicans, 167 Democrats) send a letter to President Clinton on March 21st warning him not to open the U.S. border until a stronger safety regime is in place?

—More than 20,000 inspections of trucks entering from Mexico resulted in about 45 percent of the vehicles being placed out of service for serious safety violations. This compares unfavorably to the 28 percent out-of-service rate for U.S. trucks inspected in the United States. This begs the question: if the December 18, 1996 joint letter from Governors Bush (TX), Johnson (NM), Wilson (CA), and Symington (AZ) is correct in claiming "that there is no reason for further delay in lifting the moratorium," why doesn't the data show that incoming trucks are becoming safer?

—Texas Attorney General Dan Morales reported in early 1996 that of the 5,000 commercial vehicles entering Texas each day that only about 150 are stopped and inspected by Texas Department of Public Safety troopers.

—Karen Hughes, a spokesperson for the Governor, is quoted in the November 30, 1996, Fort Worth Star Telegram as saying, "The Texas Department of Public Safety is fully prepared to make sure that all the trucks meet safety standards." Ms. Hughes remark seems inconsistent with a comment by the Governor on January 28th that 109 additional troopers will be added to the Public Safety Department in order to enforce safety and weight laws.

Even Mexican business community spokespersons are having second thoughts about the NAFTA.

—On February 3rd, Alfredo Cardenas, Vice President of Mexico's National Chamber of Cargo Transport was quoted by Reuters News Service as saying, "I believe it will be negative to open the border because the economic conditions between the countries are very different."

—The news service also quoted Cardenas, speaking in his capacity as director of Mexico's fourth-largest trucking company, as saying, "It will damage Mexicans because no Mexican can compete with the Americans. It should wait until our economy recovers in three to five years more."

—Bernardo Lijtzain Bimstein, President of the Mexican national trucking association known as CANACAR, was quoted by the Journal of Commerce as saying, "We are not in a position to compete with the Americans. The longer the opening is put off, the more time we have to prepare."

The true economic impact of the NAFTA must take into consideration the costs expended by the federal and state governments to enforce vehicle and driver safety standards.

—The state of California constructed new Highway Patrol Inspection facilities at Otay Mesa and at Calexico at a cost of $30 million.

—Texas is adding 109 State Troopers at a cost estimated to exceed $4 million.

—The United States Customs Service has installed the world's largest (and presumably among the most expensive) X-ray machines at its Otay Mesa facility, capable of X-raying an entire 53 foot semi-trailer at one time.

—Texas has constructed a new roadside enforcement facility at El Paso at an estimated cost of $700 thousand.

—New Mexico has constructed a new inspection facility at Anthony at an approximate cost of $9 million.

The NAFTA provides that each party will comply with the laws of its tri-lateral trading partners. These include laws relating to commercial motor vehicle, drivers, and the environment. The reality however is that Mexican trucks and their operators enter the U.S. out of compliance with applicable statutes and regulations with relative impunity. While the training and proficiency of U.S. and state enforcement personnel is high they are dangerously understaffed. Only a minuscule number of Mexican trucks can be inspected each day—too small a percentage to serve as a deterrent to those who see the chance of their getting caught to be minimal.

—The maximum legal weight limit for a truck engaged in interstate commerce is 80,000 pounds. Rob Harrison, associate director of the transport research center at the University of Texas is quoted in the January 17, 1997, Journal of Commerce as saying, "Some loads entering the border zone approach 150,000 pounds." It has long been reported that Mexican officials have not aggressively enforced weight limits. Roadside scales are virtually nonexistent.

—Mexican environmental law provides for a maximum sulfur content in diesel fuel. The national oil company, Pemex, produces diesel containing 50 percent more sulfur content than permitted by Mexican law (300 percent more than permitted by U.S. standards). Pemex is the sole source of diesel fuel in Mexico. Trucks incoming from Mexico will be belching their hazardous fumes into the U.S. environment, thus exacerbating existing acid rain, respiratory, and other health concerns.

—The Otay Mesa port of entry is the busiest in California. From the seven month period December 1, 1995, through June 30, 1996, 250,613 Mexican trucks passed through the California Highway Patrol Inspection Facility. All vehicles passed over the scales. However, only 5,744 trucks (2.3 percent) were physically inspected. Of these 5,744 inspections, 3,567 (62 percent) resulted in citations for one or more violations. 1,412 (25 percent) of the inspected vehicles were placed out-of-service on the spot.

—At the Calexico, California, port of entry the percentage of inspected commercial vehicles placed out-of-service is 30 percent according to Vince Calderon, a California Highway Patrol inspection officer.

Were the NAII to issue a NAFTA report card, these would be the grades: 'A' for good intentions, desires, determinations, resolutions, agreements, alliances, accords, assurances, and promises. 'F' for significant results that currently reduce the quadruple threats . . . life safety, environment, infrastructure, insurance cost escalation.

In conclusion, NAII urges Congress to closely monitor the implementation of NAFTA to assure safety is not compromised. We also urge Congress to assist the states financially as they seek to build the necessary infrastructure and safety inspection teams for border crossings so we can be certain that Mexican trucks coming into the U.S. will pose no greater threat to safety than U.S. trucks.

AMERICAN ASSOCIATION OF PORT AUTHORITIES

PREPARED STATEMENT KURT J. NAGLE, PRESIDENT

Please accept this statement for the record for the Subcommittee's April 10 hearing on fiscal year 1998 Transportation Appropriations. The American Association of Port Authorities was founded in 1912 and today represents more than 140 public port authorities in the United States, Canada, the Caribbean and Latin America. The following represents the views of our U.S. members.

U.S. public port authorities have for years expressed concerns that critical transportation infrastructure needs have not been adequately recognized through federal transportation funding. Although the authorization of Intermodal Surface Transportation Efficiency Act of 1991 initiated for the first time transportation planning that includes planning for goods movement in addition to people movement, in reality, ISTEA had many shortcomings in meeting the needs of the freight community. A copy of AAPA's Platform on ISTEA is enclosed.

The reauthorization legislation for ISTEA should improve upon the positive policy changes made in the first ISTEA, but should also seek to address ISTEA's shortcomings in meeting the needs of America's freight community, which provides great economic benefit to the country and its consumers. Following the unveiling of the Administration's proposal to reauthorize ISTEA (NEXTEA), U.S. members of the American Association of Port Authorities (AAPA) indicated strong support for provisions designed to maintain the intermodal focus of the bill and expand eligibility and funding opportunities for port access and freight mobility projects. AAPA is encouraged that the Department of Transportation has cited specific ideas to improve the transportation planning process.

U.S. ports are particularly pleased with several features in NEXTEA,including (1) designation of intermodal connectors as part of the National Highway System (NHS), (2) NHS eligibility for publicly-owned intermodal surface freight transfer facilities, including publicly-owned rail access lines or roads to a seaport, (3) Surface Transportation Program Fund eligibility for publicly-owned rail freight facilities, (4) expansion of the State Infrastructure flank program, and (5) creation of a Transportation Infrastructure Credit Enhancement Program to benefit large, capital-intensive projects.

Under the proposal, state and metropolitan transportation planning would consider the economic viability of the state or metropolitan area, especially global competitiveness, productivity and efficiency, as well as how to enhance the integration and connectivity of transportation across and between modes for people and freight. It specifically provides that state transportation plans be developed in consultation with freight shippers as well as other interested parties.

Although AAPA agrees with these policy changes, public ports do not feel that the Administration's proposal for the reauthorization of ISTEA is sufficiently funded. AAPA supports legislation to take the four transportation trust funds off budget, providing much needed funding for harbor maintenance as well as surface transportation for port access. The U.S. lags far behind its trading partners in infrastructure investment, and as such, AAPA supports legislation to provide for full funding of transportation programs.

Thank you for your consideration of the views of the public port industry regarding this important issue. We look forward to working with you toward the development of a national transportation bill that effectively addresses the nation's needs.

AAPA PLATFORM ON ISTEA

U.S. public ports strongly supported the provisions of ISTEA that recognize the need to expand the scope of U.S. transportation planning and funding to include the needs of intermodal freight transportation as incorporated in the goals and provisions of ISTEA. Economic growth and quality of life are dependent upon a transportation system that moves people and goods efficiently. Public ports provide the nation with its highways to the world, linking every community in the U.S. to the world market. In 1994, ports and port users generated 15.9 million jobs, contributed $783 billion to the Gross Domestic Product, and provided $210 billion in taxes at all levels of government. Ports provided these benefits in 1994 while themselves investing over $929.6 million in new and modernized terminal facilities to better serve businesses and consumers in the global marketplace. Planning for landside access to U.S. ports is a key component of the nation's ability to compete globally and ultimately provides for maximum trade and economic growth.

Yet with ISTEA up for reauthorization in 1997, ports are finding that freight projects, particularly those meeting regional or national transportation needs, still are not competing well for a fair allocation of ISTEA funding. A recent General Accounting Office report identified that freight projects received less than 1 percent of the total highway and nontransit infrastructure money apportioned to states during the first 4 years of ISTEA. (Intermodal Freight Transportation; Projects and Planning Issues, GAO/NSIAD–96–159.)

The need to increase the focus on freight and afford it the priority it deserves was clearly voiced in Department of Transportation outreach meetings on ISTEA held last year as well as in 1993. A March 1994 report issued by DOT summarizing the first round of ISTEA outreach meetings states that "[t]hroughout the country, the message was clear: freight movement must be given a higher priority in the planning and funding allocation process under ISTEA."

AAPA will support continuation of the structure envisioned by ISTEA, with decisionmaking authority primarily at the local level, if changes are made to permit freight projects to fairly compete for funding. It must be recognized that local decisionmaking favors passenger needs, and that freight projects, particularly those meeting regional or national needs, have difficulty obtaining finding. The National Commission on Intermodal Transportation's 1994 report found that "ISTEA's emphasis on local and State decisionmaking means that projects of national significance, which sometimes largely provide benefits beyond local or State jurisdictions, may not receive appropriate funding priority."

AAPA strongly supports full funding of ISTEA and investigating new funding sources to increase available resources, as well as taking trust funds off budget in order to ensure that transportation user fees are used for infrastructure, not deficit reduction. Providing funding for adequate transportation infrastructure investment protects the nation's competitive position in the global marketplace and provides a

local economic return on investment. To maintain a modern and competitive transportation system, Congress should:

—Provide full funding to transportation legislation, including ISTEA's successor.

—Take Transportation Trust Funds off-budget so that funding may be allocated in a way which provides the greatest economic benefit for the investment.

There is clearly a vital role for USDOT in freight projects that cross multiple jurisdictions and that meet regional and national needs. To reinforce the national interest in such projects, the next generation of ISTEA should accomplish the following:

—Enhance the ability of the Federal government to provide innovative financing for projects of regional and national significance, including highway corridors of national significance under section 1105 or other major freight projects.

—Break down the Administration's modal walls and create an Intermodal Transportation Administration with a specific goods movement of rice. At a minimum, the role of the Office of Intermodalism should be enhanced to include advocacy for freight needs.

ISTEA should provide for goods movement to be an integrated component of transportation system planning. Despite public participation provisions, freight interests are not at the table and project selection criteria often do not take freight mobility into account. In order to ensure that effective transportation planning be conducted, ISTEA's successor should:

—Specify that project selection criteria to be used by States and MPO's must fairly consider freight projects and must include direct and indirect economic benefits, job creation, congestion reduction, and enhancement of freight mobility.

—Require MPO's to develop a 5-year capital improvement plan to identify high priority freight mobility projects, including an implementation schedule, within two years after ISTEA is reauthorized. Plans would have to be approved by the USDOT, and USDOT would have to report back to Congress on the progress in this area. Plans must be developed in conjunction with local freight interests and must include a market analysis as the basis for determining the need for improvements. Corridors of national significance should be included. If a plan is not submitted as of the statutory deadline, states should lose a portion of their funding. The capital improvement plan must be updated every year.

—Stress that transportation planning at the state and local level should consider waterside access as an integral portion of the system to be connected.

—Require metropolitan planning organizations (MPO), or appropriate transportation funding agencies, if not the NIPO, with a public port authority within their boundaries to include the port agency as a voting member of the MPO, as are numerous other state and local public agencies.

—Require MPO's to have freight interests of all modes represented on their policy and technical committees, and encourage the creation of goods movement task forces. Stress the need for MPO's to actively seek public participation by freight interests and to educate themselves about goods movement.

AAPA supports policy changes in ISTEA reauthorization that provide for the selection of the best mode of transportation for the most efficient movement of goods. AAPA also supports the objectives of environmental and sound economic development. In line with increased flexibility of funding, ISTEA's successor should accomplish the following:

—Expand the eligibility and flexibility of ISTEA funding to include rail freight and other intermodal projects which reduce congestion and create economic benefits.

—Enhance flexible funding for port infrastructure projects by expanding the use by public agencies of tax exempt bond authority for cargo transportation purposes. Proposals in 1996 included H.R. 1790 (Hoary, R-CA) and S. 1199 (Boxer, D-CA), legislation to amend the Internal Revenue Code to permit the use of private activity bonds to finance trackage and rail facilities, in addition to docks and wharves, in [united circumstances.

Founded in 1912, the American Association of Port Authorities (AAPA) represents virtually every U.S. public port agency as well as the major port agencies in Canada, Latin America and the Caribbean. This policy paper reflects the views of the AAPA's United States delegation.

NATIONAL ASSOCIATION OF RAILROAD PASSENGERS

PREPARED STATEMENT OF ROSS B. CAPON, EXECUTIVE DIRECTOR

Our non-partisan association—whose members are individuals—has worked since 1967 towards development of a modern rail passenger network in the U.S. We appreciate this opportunity to provide our views for the record. The subcommittee has heard oral testimony from some organizations strongly opposed to federal funding for Amtrak. We request a similar opportunity to testify at the earliest possible opportunity.

We support NEXTEA's overall general approach to transportation. We applaud giving states the right to use flexible gasoline-tax funds for intercity passenger rail. We support creation of a dedicated funding source for Amtrak, such as through S. 436 (including the earmarking of 1 percent of the funds for states with no Amtrak service). We think the public wants the enhanced travel choices and balanced transportation system such legislation would promote. Section IV (pages 4–6) lists benefits of intercity passenger rail. Finally, we endorse Amtrak's appropriations request.

I. POLL BY BRUSKIN GOLDRING RESEARCH

On May 19–21, 1995, in a national probability sample of 1,006 adults (524 women, 482 men), age 18 and over—by telephone—Bruskin Goldring Research, Inc., of Edison, New Jersey, found:

—63 percent support for earmarking a full penny of existing federal gasoline tax "to create a trust fund to pay for long-term Amtrak improvements"; and

—63 percent support for letting states "use, for intercity rail passenger service, a portion of their federal transportation funds now restricted to highways, mass transit and recreational trails."

(See Appendix I for the full text of the poll questions.)

It is noteworthy that:

—"Yes" responses were the majority in all geographical sections of the nation, even where Amtrak service is sparse. The "yes" showing ranged from 58–59 percent (penny/flexibility) in the South to 70–67 percent in the Northeast.

—For both questions, only 10 percent of women and 16 percent of men were "strongly" opposed.

The poll suggests to us that the public does not view gasoline purchases strictly as votes for more roads. America is in love with travel, not with the automobile. In spite of a woefully inadequate advertising budget, and competition from airlines whose huge ad budgets are mutually reinforcing, modern passenger trains of all types are well used in most places where they exist.

Americans often ask why "we can't have a train network as good as they have in Europe." One answer: you get what your leaders buy. The U.S. spends far more of its gas taxes on roads than do many other countries. Netherlands and Great Britain spend about 25 percent—most other European countries about 33 percent—of road taxes on roads (National Transportation Strategic Planning Study, U.S. Department of Transportation, March 1990). At the same time, intercity passenger rail investment is tiny and has been declining, both in absolute terms and as a share of federal transportation spending (see appendices).

II. THE PUBLIC VOTES WITH ITS FEET

The traveling public generally responds positively whenever modern intercity passenger rail is provided (see table on next page). The most up-to-date statistics also are encouraging. Compared with the year-earlier months, during the first six months of Fiscal 1997 (October-March), travel is up 3 percent systemwide and 5 percent at the Intercity unit (which operates most long-distance trains and all Chicago-based corridors). [The percentage changes are of passenger-miles. A passenger-mile is one passenger traveling one mile.]

Much has been made of Amtrak's small share of total intercity travel. However, this should not obscure the critical role that Amtrak plays where it operates and the fact that this role will become even more critical in the future (see #1, section IV). Amtrak handles about 44 percent of air-plus-rail traffic in the New York-Washington city-pair market; this figure rises to about 70 percent if we include intermediate points—such as Philadelphia, Baltimore and Wilmington. However, Amtrak's share is impressive even as a per cent of total travel: Amtrak has 23 percent of all Philadelphia-Washington travel, 16 percent of New York-Washington and 13 percent of New York-Albany, the latter despite an average speed of just 58 mph (vs. 76 and 66 mph, respectively, on most New York-Washington Metroliners and conventional trains). The auto market share is 70 percent in the two shorter markets, 50 percent

New York-Washington. Investments under way will bring similar benefits to the Boston-New York corridor. Currently, Amtrak has only 7 percent of all travel in the New York-Boston city-pair market; today's average speeds range from 45 to 54 mph.

AMTRAK USAGE—RIDERSHIP ON SELECTED CORRIDOR SERVICES

Route	1982	1996	Change (percent)
Pacific Northwest	73,670	303,700	+312.2
San Joaquin Valley	181,074	567,400	+213.4
Chicago-Milwaukee	142,350	320,200	+124.9
Metroliners (New York-Washington)	1,060,098	2,011,200	+89.7
San Diego-Los Angeles (-Santa Barbara)	1,190,287	1,565,700	+31.5
New York-Albany-Buffalo	768,071	978,900	+27.4

PASSENGER-MILES

[Billions]

Segment	1982	1996	Change (percent)
Nationwide	4.2	5.1	+21
Long-Distance Trains Only	2.5	2.8	+13

Prepared by National Association of Railroad Passengers, 2/97.

III. THE HALF CENT: HIGHER RIDERSHIP, LOWER FEDERAL OPERATING GRANT

The half cent and the ability to spend it would enable Amtrak to improve service quality and to provide more service. New rolling stock, improved maintenance facilities and stations, more track capacity (a new siding on the single-track Los Angeles-San Diego line, for example) and completion of the Boston-Washington high speed project would directly benefit passengers and increase ridership. Rehabilitation of the New York-Washington electrification is necessary to retain existing ridership. New mail-and-express facilities also would enhance Amtrak's efforts to meet its zero-operating-grant-by-2002 goal.

IV. BENEFITS OF AMTRAK

1. In crowded corridors, passenger trains represent vital people-moving capacity and help relieve air and road congestion. This benefit will grow over time as travel demand continues to grow while airport and highway construction face more intense local opposition and ever-tighter limits on funding and sheer availability of land.

2. Amtrak is far safer than auto travel.

3. During inclement weather, Amtrak is safer and usually more reliable than airplanes and buses.

4. Amtrak is 45 percent more energy-efficient than domestic commercial airline service (2,351 BTU's per passenger-mile v. 4,304.2) and 76 percent more energy-efficient than general aviation (9,825 BTU's per passenger-mile). Source: Oak Ridge National Laboratory's *Transportation Energy Data Book Edition 16,* July 1996. This 1994 data understates Amtrak's efficiency because it:

—reflect operation of a large fleet of old, relatively energy-intensive cars, almost all of which Amtrak has since retired.

—do not reflect Amtrak's positive impact on energy-efficient downtown development and mass transit (see #6, below).

[Note: Earlier Oak Ridge reports included Northeast Corridor electricity consumed by Maryland, SEPTA and New Jersey Transit commuter trains using Amtrak-owned tracks but excluded the passenger-miles those trains generated. This partly explains Amtrak's relative improvement from, say, 1992, when Amtrak was "only" 42 percent and 70 percent more energy-efficient than commercial and general aviation, respectively.]

5. Amtrak is much less polluting than airplanes. (Energy efficiency is a good proxy for air pollution—see #4, above.)

6. In most cities, Amtrak helps mass transit, downtown areas and transit-dependent people by serving—and increasing the visibility and economic viability of—transit-accessible downtown locations. Amtrak feeds connecting passengers to transit.

Amtrak shares costs with transit at joint-use terminals and on joint-use tracks. Positive impacts have been observed even in small cities with minimal Amtrak service. Mayor John Robert Smith of Meridian, Mississippi—on Amtrak's New York-Atlanta-New Orleans run, with but one train per day in each direction—says property values have tripled in recent years around the railroad station, where a new intermodal terminal is under construction.

By contrast, new airports intensify energy-inefficient suburban sprawl and stimulate auto-dependent development. This leads to the social costs of getting transit-dependent people to work, or the need to address the consequences of their not working.

7. Amtrak serves many communities where alternative transportation either does not exist, is not affordable or only serves different destinations. Trains can make intermediate stops at smaller cities at minimum cost in energy and time. This is apparent in corridors—where benefits go to such cities as Jefferson City, Lancaster, Trenton, Kalamazoo, Wilmington, Bloomington/Normal and Tacoma. It also means, for example, that the *Empire Builder* can stop at eight small cities in Washington (plus Seattle and Spokane), 12 in Montana and seven in North Dakota without compromising the train's appeal to those riding between Chicago or Minneapolis and Seattle or Portland. Similarly, the *California Zephyr* serves five Colorado points (plus Denver) and five points each in Iowa and Nebraska. Also, Amtrak serves 14 North Carolina points.

Here is one example of long-distance travel that I encountered on the *Southwest Chief* in March, 1995: a mother and her 14-month-old child rode from Garden City, Kansas, to Barstow, California. The family was moving to California; the husband was driving the U-Haul; the wife and child were on the train "so the move would not be so traumatic" for the child. They did not consider the plane because they felt it would be too cramped for the child. Also, the Garden City-Ontario, California air fare was $450 round-trip with a change of planes in Denver; the train was $188 round-trip (in coach) and went direct.

8. Amtrak is important to those who cannot fly due to temporary or permanent medical problems, and to those for whom physical and financial considerations rule out driving long distances, for example, seniors and students. (The editor of *Frequent Flier,* forced by doctor's orders to take the train to Florida, wrote a favorable column about the trip.) Nonetheless, a large proportion of Amtrak riders do own cars or could fly but instead chose the train.

9. Thanks to a growing array of connecting buses available with train travel in a single ticket transaction, *Amtrak puts people on intercity buses who would not otherwise have considered using them.* This trend first developed in a big way in California, where the state underwrites an impressive network of dedicated, feeder buses. (The Winter 1996–97 *Bus World* cover article, "Amtrak California's Buses," reports: "Currently, there are contracts with six independent bus operators operating 16 routes. . . . About half of the San Joaquin train riders use a bus for part of their journey.")

However, for a growing number of bus connections across the nation, the private bus companies bear any financial risks themselves. These companies highly value their Amtrak-related revenues. Another article in the same *Bus World,* "Training Greyhound," states: "Former antagonists—Greyhound and Amtrak—are cooperating to combat the real competitor, the private automobile." The article says "six significant bus enhancements to the Amtrak timetable" took effect November 10, linking Amtrak to such places as Cocoa and Melbourne, Florida; Macon, Georgia; Louisville, Kentucky; Columbus, Ohio; and Laredo, Texas. A link to Key West was added earlier last year.

10. Amtrak is part carrier (like United and Greyhound) and part infrastructure. Thus Amtrak provides important passenger-moving capacity, unlike airlines and bus companies. In much of the Northeast Corridor and a few other places, Amtrak is the rail equivalent of the air traffic control system, airport authorities and airlines. (Among the "other places": the Chicago terminal, part of the Chicago-Detroit line and the track between Albany, New York, and the Massachusetts state line.) Elsewhere, Amtrak is the only carrier with legal access to freight railroads' tracks—a quid pro quo for relieving the railroads of their passenger-train obligations in 1971.

11. Amtrak over much of its network enables one to enjoy gorgeous scenery in total comfort. Some examples: the Connecticut and California coastlines, the Hudson River in New York, the Colorado Rockies, the mountains of Vermont and northern New Mexico, Glacier Park in Montana and West Virginia's New River Gorge.

12. Amtrak's long-distance trains are transportation "melting pots." The majority of passengers on these trains ride coach. Surveys have indicated that, for 30 percent of coach passengers traveling over 12 hours, average income is less than $20,000

(for 11 percent, it is less than $10,000). Obviously, most standard- and deluxe-room sleeping car passengers have considerably higher incomes and pay much higher fares. Nonetheless, anyone who characterizes these trains as land versions of cruise ships should try walking the coaches, especially at night.

13. Trains, especially on longer trips, offer a form of social contact almost lost in this country today—the opportunity to meet and relax with total strangers that one may or may not ever see again.

V. OF TRUST FUNDS AND SUBSIDIES

Today's transportation system is largely a function of the policies of years past. Some salient parts of that history follow:

1. Railroad passengers paid $2.0 billion (not inflation-adjusted) in federal ticket taxes from 1942 to 1962, money that simply went to the U. S. Treasury (general revenues). The Doyle Report to the Senate Commerce Committee (National Transportation Policy, June 26, 1961) cited this tax as "one of the factors under Federal control which favors the growth of private transportation and makes the preservation of public service more difficult." Had this rail passenger tax been earmarked for rail passenger improvements, it is unlikely that the business would have fallen to the depths it reached by the time Amtrak began operating in 1971.

2. Federal aviation subsidies through mid-1988 totaled $32.8 billion, as follows:

—"Airport and airway development costs incurred prior to the assessment of user charges in 1971 have been treated as sunk costs, none of which have been or will be paid for by air carriers and other system users . . . these sunk costs total $15.8 billion." Source: *Study of Federal Aid to Rail Transportation,* U.S. Department of Transportation, under President Ford's Secretary Coleman, January 1977.

—From the time aviation user charges were imposed (1971) through mid-1988, private-sector air system users "received a general fund subsidy of $17 billion, which is equal to the difference between the private-sector share of FAA spending and aviation-related excise taxes since the start of the trust fund." Source: *The Status of the Airport and Airway Trust Fund,* Congressional Budget Office special study, December 1988.

3. Federal transportation taxes are mode-specific, except that—in recent years—certain highway taxes have gone to mass transit and, since 1991, to recreational trails. Intercity passenger rail has been completed excluded, although the original, Senate-passed ISTEA in 1991 would have corrected this. The selective imposition of mode-specific taxes biases policy makers *at all levels of government* in favor of more roads and airports. Road and aviation investment goes forward absent analysis of the merits of intercity passenger rail improvements and the impact they might have on road and air needs.

4. Federal matches are at 80 percent plus for most highway and aviation projects. State and local officials are eager to maximize federal aid. There is no serious accounting of the huge external costs of air and especially highway transportation. The result is an overwhelming incentive for states and cities to invest in aviation and highways, *regardless of the merits of intercity passenger rail.* That so many states nevertheless make some rail investments is encouraging, but such investments generally will be aimed only at projects or routes where the benefits are largely or exclusively within one state.

In short, today's transportation system reflects the manipulation of free market forces almost to the point of strangling the passenger train. The half cent and full funding of Amtrak's appropriations request would help offset this manipulation.

Thank you for considering this statement. I would be pleased to provide any further information the committee might request.

APPENDIX I

POLL BY BRUSKIN GOLDRING RESEARCH

Question one: Amtrak was created by Congress to provide intercity rail passenger service. Amtrak currently receives passenger fares and federal grants. You currently pay a federal fuel tax, most of which goes to the Highway Trust Fund to be spent on roads and mass transit. The need for a more stable funding source for Amtrak—comparable to the highway and aviation trust funds—has prompted a proposal that one penny of the fuel tax be used to create a trust fund to pay for long-term Amtrak improvements. This would not result in your paying any additional taxes, but would reallocate a small percentage of the total funds to Amtrak. Please tell me which of the following best describes your feelings about this proposal.

	Percent
Support	63
Oppose	26
No opinion	11

Question two: It also has been suggested that states be allowed to use, for intercity rail passenger service, a portion of their federal transportation funds now restricted to highways, mass transit and recreational trails.

	Percent
Support	63
Oppose	27
No opinion	10

APPENDIX II

APPROPRIATIONS AND OBLIGATION LIMITATIONS IN FEDERAL APPROPRIATIONS ACTS

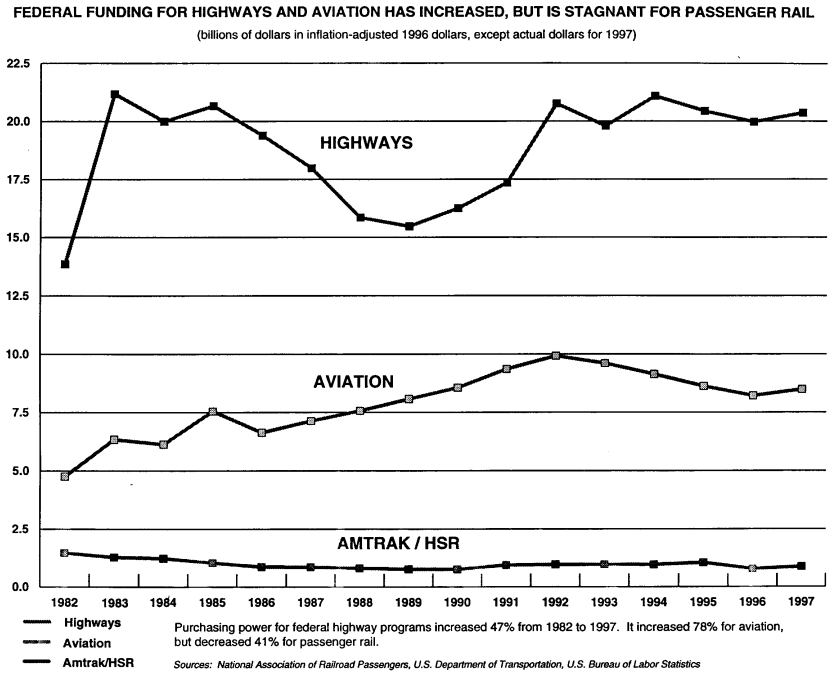
[Dollars in billions]

	Highways	Aviation	Amtrak/H.S.R.	Rail as percent of road-air-rail total
1997	$20.365	$8.489	$0.867	2.9
1996	19.970	8.216	.774	2.7
(In 1996 dollars)	(319.970)	(8.216)	(.774)	
1995	19.879	8.392	1.017	3.4
(In 1996 dollars)	(20.440)	(8.629)	(1.046)	
1994	19.938	8.645	.912	3.1
(In 1996 dollars)	(21.082)	(9.141)	(.964)	
1993	18.254	8.862	.896	3.2
(In 1996 dollars)	(19.795)	(9.610)	(.972)	
1992	18.585	8.887	.860	3.0
(In 1996 dollars)	(20.757)	(9.926)	(.961)	
1991	15.088	8.137	.815	3.4
(In 1996 dollars)	(17.359)	(9.362)	(.938)	
1990	13.560	7.141	.629	2.9
(In 1996 dollars)	(16.257)	(8.562)	(.754)	
1989	12.242	6.390	.604	3.1
(In 1996 dollars)	(15.470)	(8.075)	(.763)	
1988	11.967	5.714	.609	3.3
(In 1996 dollars)	(15.851)	(7.569)	(.807)	
1987	13.035	5.170	.619	3.3
(In 1996 dollars)	(17.980)	(7.132)	(.854)	
1986	13.562	4.640	.603	3.2
(In 1996 dollars)	(19.390)	(6.634)	(.862)	
1985	14.189	5.184	.712	3.5
(In 1996 dollars)	(20.663)	(7.550)	(1.037)	
1984	13.259	4.065	.816	4.5
(In 1996 dollars)	(19.997)	(6.131)	(1.231)	
1983	13.465	4.031	.815	4.5
(In 1996 dollars)	(21.184)	(6.342)	(1.282)	
1982	8.533	2.930	.905	7.3
(In 1996 dollars)	(13.856)	(4.758)	(1.470)	
Change 1982–97, current dollars (percent)	+138.7	+189.7	−4.2	
Change 1982–97, in 1996 dollars—a reflection of purchasing power (percent)	+47.0	+78.4	−41.0	

NOTE: For each year shown, first line is for current year dollar amounts. Second (in parentheses) line is the same amount in 1996 dollars.

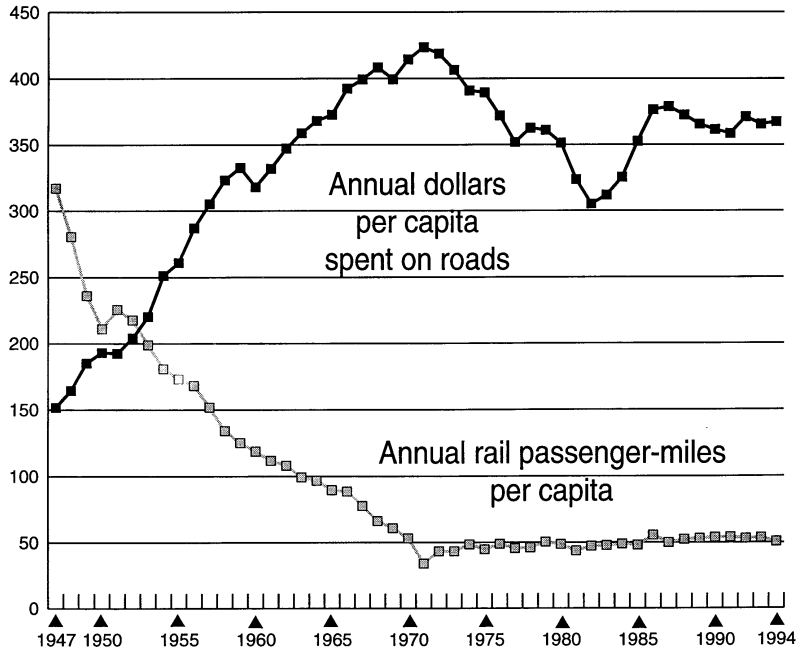
Sources: U.S. Department of Transportation Budgets in Brief, 1982–96. Prepared by the National Association of Railroad Passengers.

APPENDIX III



APPENDIX IV

Passenger rail usage did not decline mid-century just because people suddenly "decided" trains were passé, and other modes were better. Government policy played a tremendous role in travelers' decisions. This chart shows that as road spending (annual dollars per capita, all levels of government, adjusted for inflation) grew, so did—not coincidentally—passenger rail (intercity and commuter) passenger-miles per capital decline.



Sources—Federal Highway Administration annual statistics, Bureau of Labor Statistics, Information Please Almanac. Prepared by National Association of Railroad Passengers, April 1997.

APPENDIX V

World Mainline Rail Capital Spending Per Capita

[Selected Countries, U.S. Dollars, 1994 Spending by Central Governments and/or Public Sector Railways] [1]

Switzerland	$228.29
Sweden	146.55
Austria	132.03
Germany	110.84
Netherlands	84.97
Denmark	79.97
Norway	58.27
Finland	51.85
France	51.48
Portugal	40.34
South Korea	31.36
Belarus	25.96
Greece	24.23
Hungary	24.19
Botswana	22.65
Ireland	18.38
Britain	13.74
Slovakia	13.61
New Zealand	6.23
Latvia	5.93
Belgium	4.89
Bulgaria	4.62
Venezuela	4.20
Indonesia	4.00
Iran	4.00
Namibia	3.71

South Africa	3.58
Colombia	3.38
Mexico	3.24
Myanmar	2.53
India	2.27
Thailand	2.07
Guinea	1.80
Bolivia	1.75
United States	1.64
Turkey	1.43
Canada	1.16
Malawi	1.02
Romania	.88
Zimbabwe	.88
Albania	.45
Bangladesh	.45
Pakistan	.30
Phillipines	.29

[1] Does not include private sector spending, which is more important in the United States and Canada than elsewhere.

Sources: National Association of Railroad Passengers, International Railway Journal.

PREPARED STATEMENT OF THE INSTITUTE OF TRANSPORTATION ENGINEERS

The Institute of Transportation Engineers (ITE) is an organization of over 15,000 transportation professionals in some 80 countries. On a day-to-day basis ITE's 11,500 U.S. members are responsible for keeping the nation's surface transportation systems operating in the safe, efficient, and reliable fashion which our mobile society demands.

ITE members plan, design, operate, maintain, and build the infrastructure that supports 17 percent of America's gross national product. The Institute has members working for virtually every state Department of Transportation, almost 600 municipalities, over 175 counties, and some 100 metropolitan planning organizations. In addition, ITE members are employed by hundreds of consulting firms, universities, and equipment manufacturers and suppliers throughout the United States.

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 has been a success, and it should be reauthorized without radical changes to its existing programs. Enhancement of ISTEA programs can be achieved by moving away from a system that is driven by process to one that is driven by results. Transportation programs should not be judged on how they are carried out, but rather on what they accomplish and contribute toward a national intermodal transportation system that is safe, economically efficient, and environmentally sound.

ITE believes that the Administration's National Economic Crossroads Transportation Efficiency Act (NEXTEA) is a solid step towards a reauthorization bill that will effectively carry the nation's transportation system into the 21st Century. However, while the Institute was generally pleased with the overall structure of the Administration's reauthorization proposal, it was disappointed with the overall funding level included in the proposal.

The Institute believes that NEXTEA should set a highway trust fund spending level of at least $26 billion. ITE believes that this funding level will help provide transportation professionals with resources necessary to meet the nation's future transportation needs.

The critical importance of transportation should not be lost as Congress and the Administration struggle to balance the federal budget. With NAFTA passed and a western hemisphere free trade agreement in the works, the U.S. transportation system will be even more vital to the delivery of goods and services. The European Commission is taking an increasingly stronger role in ensuring a seamless and more efficient transportation system throughout Europe. The U.S. can do no less.

ITE encourages Congress and the Administration to recognize that money spent on our nation's transportation systems is in fact an investment in the American economy. This investment not only directly puts people to work, but through improving the efficiency and safety of moving our workers and our products, it enhances the productivity and competitiveness of America's businesses. The resulting economic vitality creates a positive return on investment to the federal government and its citizenry.

About $57 billion should be invested annually in roads, bridges, and transit capital just to keep the systems performing at their current level of service. Unfortu-

nately, the United States is actually investing less than $41 billion each year, only two-thirds of the nation's needs. As a result, the transportation infrastructure is not able to keep up with demand. Cutting transportation funding will not cut transportation needs. Providing funding levels to maintain current conditions should be the minimum goal for lawmakers.

To ensure an adequate and predictable revenue stream for transportation investment, Congress should consider:

—Funding ISTEA 2 programs entirely from transportation user fees.
—Shifting the 4.3 cents per gallon motor fuel tax currently going to deficit reduction to the highway trust fund.
—Removing the highway Oust fund from the unified federal budget.
—Adopting a federal capital budget and/or other measures to achieve this objective.
—Expanding efforts to combat motor fuel tax evasion.
—Giving state and local agencies increased flexibility to implement innovative financing mechanisms.
—Requiring that any revenue from tolls on any highway facility be used solely for surface transportation purposes.
—Eliminating the practice of specifying funding for specific projects in federal transportation legislation.

In addition to increasing the overall funding level available for transportation investment, lawmakers must find ways to make those investment more productive.

The Administration's NEXTEA expands the eligible uses of transportation funding to include operations and maintenance costs that were not included under ISTEA. ITE supports these efforts. Transportation efficiencies cannot be realized if transportation facilities and equipment are not properly operated and maintained.

The Administration's proposal to reauthorize the Intelligent Transportation System (ITS) program is a good next step in a program that holds significant benefits for the nation's transportation system. With some changes, ITE recommends that the Administration's ITS proposal contained in NEXTEA be accepted by Congress. However, while ITE generally supports the structure of the ITS program as developed by the Administration, the Institute believes that annual funding of the program at $250 million is not sufficient considering the benefits the program has to offer. Therefore, ITE recommends that the committee increase funding for the Administration's ITS proposal to $400 million per year.

In addition, ITE recommends that Congress not accept limitations on the federal match for ITS projects that the Administration would set at no greater than 80 percent. The U.S. DOT estimates that, over the next 20 years, ITS will be able to meet two-thirds of the nation's highway capacity needs at one-fifth the cost of building additional capacity. One way that the federal government can encourage swift implementation of ITS is by allowing ITS projects to be eligible for 100 percent federal funding. This incentive is needed in order to help level the playing field for ITS projects as they compete for funds with more visible construction projects.

Transportation efficiencies are also impacted by safety. The Institute supports reauthorization of the current 10 percent set-aside of the Surface Transportation Program (STP); however, the Administration has chosen to replace this program with a set $3.2 billion Infrastructure Safety Program.

During fiscal year 1997, states will receive a total of some $601 million in safety set-aside apportionments. NEXTEA is a retreat on current funding levels under this program. In addition, removal of safety funding as a percentage of the STP program eliminates the possibility of future funding growth for safety in the event of increased out-year transportation investments. For instance, over the last five years, annual safety set-aside apportionments have increased $180 million.

This funding reduction could be exacerbated if states are allowed to shift funding out of the new highway infrastructure safety program to the extent that the number of rail crossing collisions are reduced. The shifting of safety funds away from safety initiatives should not be allowed. While safety improvements are somewhat invisible compared to most capital projects, their impacts are significant and extremely cost effective.

Finally, ITE opposes NEXTEA provisions that would allow the use of safety funds for uses beyond those allowed under the existing STP safety set-aside program. Every transportation project has an element of safety involved. Current guidelines discourage the use of safety funding for these normal activities and encourage safety enhancement activities that might not have been undertaken without the STP safety set-aside incentive. Using highway safety funds for non-traditional purposes, such as structural repairs to bridges, may improve the structural safety of these facilities, but it does not have a direct bearing on highway safety.

The Institute supports the creative financing provisions in NEXTEA and notes the efforts that this committee has taken in the past to promote creative financing proposals. ITE hopes that support will continue.

The Institute of Transportation Engineers appreciates the opportunity to submit these comments to the committee as it examines the funding requirements for reauthorization of the nation's surface transportation system. While Americans do want streamlined and better government, they do not want crumbling highways and bridges, broken down buses, or more accidents. Americans expect that their government will provide proper levels of investment in capital, operations, and maintenance programs, as well as encourage and promote ways to expand existing resources and protect the driving public.

Along with this testimony, the Institute has provided the committee with copies of "Recommendations for ISTEA 2." This document outlines in detail all the Institute of Transportation Engineers' recommendations for reauthorization of the nation's surface transportation programs. It is provided for the committee's information, and it is not necessary to be published in the record.

The Institute appreciates the opportunity to provide this testimony to the committee. Questions relating to this testimony should be directed to Mr. Thomas W. Brahms, Executive Director of the Institute of Transportation Engineers at 202–554–8050 ext. 111 or to Russell Houston, ITE's Government Relations Associate at ext. 144.

NATSO, Inc.

Prepared Statement of W. Dewey Clower, President and CEO

On behalf of the 1,100 NATSO member travel plazas and truckstops nationwide, I respectfully request this correspondence be submitted for the April 10, 1997, hearing record on fiscal year 1998 transportation appropriations.

During the hearing before your subcommittee, John Collins, Senior Vice President, Government Affairs, American Trucking Associations, testified that there is a nationwide truck parking space shortage. As the largest provider of truck parking in the country, NATSO believes our industry's perspective is valuable to any discussion of this issue.

First, there is no nationwide parking shortage. Mr. Collins testified there is a 28,500-space shortfall, as estimated by a 1996 federally-funded report entitled "Commercial Driver Rest & Parking Requirements: Making Space for Safety," prepared by the American Trucking Association's Trucking Research Institute. The report counted the number of rest area parking spaces available for trucks, but did not consider even one of the private sector spaces when formulating the rest area parking demand model.

Using the "American Trucker's Guide to Truckstops," published by Interstate America, NATSO estimates that truckstops provide nearly 220,000 truck parking spaces nationwide. ATA acknowledges private truckstops plan to increase their parking by 28,000 spaces over the next three years. Why should the federal government pay to build these spaces when the private sector, according to the ATA's own research, plans to increase parking by that same amount?

There may be parking problems in certain areas of the country, especially near metropolitan areas, where drivers of all types of vehicles experience difficulty finding a place to park. Contributing to this problem is the trucking industry's need for a place to "stage" trucks, since many companies require truck drivers to make their deliveries within a narrow time frame. This practice requires a truck driver who arrives near his destination (often an urban area) to wait hours or days before making his delivery. While this may be a dilemma for the trucking industry, we do not feel it justifies federally funded parking lots.

Second, no link has been established between truck parking and fatigue-related accidents. The Trucking Research Institute's study identified the number of parking spaces available at public rest areas; it did not study the causes of fatigue-related truck accidents. There is absolutely no evidence to suggest that parking has any effect whatsoever on these accidents. In fact, a National Transportation Safety Board (NTSB) report (NTSB/SS–95/01) on 113 heavy truck accidents never once cited a lack of parking as a contributing factor in fatigue-related accidents. The NTSB's comprehensive list of suggested solutions does not include increasing truck parking. The NTSB stated that while they commend efforts such as this truck parking study, "the Safety Board believes that the results of this study [the NTSB study] of actual accidents provides concrete evidence of the measures that affect fatigue in the accident environment."

ATA further maintains that public safety is compromised when truck drivers seek parking along highway shoulders and exit ramps. However, the report's direct observation of a 200-mile segment of I–81 contradicts this conclusion. The parking study found that Large numbers of trucks parked illegally on shoulders and ramps of rest areas. This often occurred before the corridor [I–81] reached capacity and even when legal parking spaces were available at a rest areas This suggests there could be convenience-based reasons for a driver choosing to park on a shoulder at an exit ramp.

Third, the overwhelming majority of truck drivers have no interest in using public rest areas for anything but a quick nap, so more money for rest area parking will be a waste of valuable transportation dollars. Perhaps the most sensible reason for not building more truck parking is that drivers simply won't use them. The Trucking Research Institute's rest area study found that 85 percent of drivers prefer truckstops to meet their long-term rest needs over public rest areas. Only 15 percent of these drivers expressed a preference to rest or sleep long-term at public rest areas.

NATSO believes that investing in more truck parking at rest areas is a colossal waste of money that will do nothing to increase public safety. In this era of fewer dollars, there are many other projects that are more deserving of federal funding.

DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1998

WEDNESDAY, APRIL 16, 1997

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:01 a.m., in room SD–124, Dirksen Senate Office Building, Hon. Richard C. Shelby (chairman) presiding.

Present: Senators Shelby, Gorton, Bennett, Lautenberg, and Byrd.

NATIONAL TRANSPORTATION SAFETY BOARD

STATEMENT OF JAMES EVAN HALL, CHAIRMAN

ACCOMPANIED BY:

VERNON ELLINGSTADT, OFFICE OF RESEARCH AND ENGINEERING
TOM HAUETER, OFFICE OF AVIATION SAFETY

OPENING REMARKS

Senator SHELBY. The subcommittee will come to order.

In 1996 we saw the highest fatality rate for commercial air passengers in the last 15 years. Two of the worst air crashes in aviation history occurred. First the ValuJet crash into the Florida Everglades on May 11 where 110 people were killed, and then the TWA Flight 800 explosion on July 17, which left 230 dead in the Atlantic Ocean off Long Island.

In response to these tragedies the White House Commission on Aviation Safety and Security, chaired by Vice President Gore, was chartered in August 1996 to conduct an extensive inquiry into civil aviation safety, security, and air traffic control modernization. Twenty commissioners and staff from a broad range of aviation specialties, Federal agencies, consumer groups, and the industry, worked to form a set of recommendations to improve the safety and the security of the Nation's air transportation system.

The Gore Commission agreed on 53 recommendations in four areas: One, improving aviation safety; two, making air traffic control safer and more efficient; three, improving security for travelers; and four, responding to aviation disasters. About one-half of the recommendations are solely within the FAA's area of responsibility. The rest of the Gore Commission's recommendations are either jointly shared with other departments which include Defense, Justice, Energy, NASA, Treasury, or industry. Or these rec-

ommendations are tasked to non-DOT agencies such as the FBI, Postal Service, Customs Service, or NTSB. Very few of the recommendations require new legislation.

We are pleased to welcome Mr. Carl Vogt, who with short notice, has made time in his busy schedule to join us here today. Mr. Vogt served as Commissioner on the White House Commission on Aviation Safety and Security. From 1992–94 Mr. Vogt was Chairman of the National Transportation Safety Board. Filling out our first panel we are joined by the current NTSB Chairman, Mr. Jim Hall. I want to thank you both for being here today.

Between the two aviation safety experts, I expect that the first part of today's hearing will provide a clear picture of the status of safety and security on America's air transportation system. I hope that both Mr. Vogt and Mr. Hall will tell the subcommittee what they view as the most pressing improvements that need to be made.

The second panel is made of Federal Aviation Administration officials, all of whose jobs relate in some way to ensuring safety. We will discuss with the six FAA witnesses the contributions toward improved safety and security that are made by each of the offices represented. Specifically, we will talk about how the recommendations of the Gore Commission and the NTSB's most wanted safety recommendations are being implemented in each of these offices, how these initiatives affect the way FAA does its job, and how much it will cost to do that job.

The agency is undergoing many changes, both in its organization and personnel. Most dramatically, FAA has been without an Administrator since November 8, 1996. This committee's job is to make sure that FAA is given the funding it needs in order to run a sound and effective aviation management system.

But money alone does not buy good management, nor does money necessarily buy safety. That takes an organized systemic approach, with clear goals and benchmarks along the way. It is the agency's job to show Congress that the funds requested by the administration will go forward toward this kind of successful organization.

Safety is an integral part of the jobs of all the panelists we will hear from today. Mr. Hall is tasked with investigating the failures of our transportation system and suggesting measures to improve it. Mr. Vogt most recently served on the Gore Commission, which was tasked with looking at changing security threats to air passenger safety, examining changes in the aviation industry, and looking at the technological changes coming to air traffic control, with an eye to improving aviation safety and security.

The FAA offices represented by the panel we will hear from today deal with safety in complementary and interdependent ways. If we lack sufficient resource commitment for any of these offices, airport security, research and acquisition, or regulation and certification, the entire system is compromised. All these areas are vital to ensuring the long-term safety of the system.

This now brings me to user fees. The subcommittee will be holding a separate hearing on May 7 regarding transportation infrastructure financing, including the many user fee proposals contained in the President's fiscal year 1998 DOT budget request. New

FAA user fees are projected to offset $300 million of the agency's cost of operations. Now, this subcommittee has had a little experience with FAA user fees, since we included the $75 million FAA operations user fees in the 1997 transportation appropriations bill for foreign carrier overflights of U.S. traffic control space. This user fee requested by the FAA was signed into law September 30, 1996.

According to FAA, the overflight fee will be instituted on May 19. FAA will not be able to collect anywhere near $75 million in the reigning 4.5 months of fiscal 1996. Now FAA is asking for the authority to collect $300 million in new user fees. What are these fees? We do not know. We will not know until later this summer at the earliest, if the National Civil Aviation Review Commission completes a draft proposal for long-term financing of FAA operations and modernization by that time.

These new fees would then be subject to authorization. At what point during fiscal year 1998 will these fees be authorized and instituted by the FAA? How much of the $300 million projected will the agency actually be able to collect? And I will not even mention that the administration's 5-year budget plan suggests by the year 2002 FAA will completely fund its entire $8 billion-plus budget from user fees. As chairman of this subcommittee I will be taking a long, hard look at the FAA's budget request to ensure that important safety initiatives and the funds to implement these initiatives are included in that budget in a systematic and logical way.

PREPARED STATEMENT

I look forward to hearing your testimony, and having a frank and candid exchange of views here. We must always keep in mind, I believe, that the aim of every witness and member present today is ensuring the very highest level of safety and security for the American citizen traveling by air.

[The statement follows:]

PREPARED STATEMENT OF SENATOR SHELBY

Good morning. This hearing will now come to order.

In 1996, we saw the highest fatality rate for commercial air passengers in the last fifteen years. Two of the worst air crashes in aviation history occurred—first, the ValuJet crash into the Florida Everglades on May 11, where 110 people were killed, and then the TWA flight 800 explosion on July 17, which left 230 dead in the Atlantic Ocean off Long Island. In response to these tragedies, the White House Commission on Aviation Safety and Security, chaired by Vice President Gore, was chartered in August 1996 to conduct an extensive inquiry into civil aviation safety, security, and air traffic control modernization. Twenty commissioners and staff from a broad range of aviation specialties, federal agencies, consumer groups, and industry worked to form a set of recommendations to improve the safety and security of the nation's air transportation system. The Gore Commission agreed on 53 recommendations, in four areas: (1) improving aviation safety; (2) making air traffic control safer and more efficient; (3) improving security for travelers; and (4) responding to aviation disasters.

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Which brings me to user fees. The subcommittee will be holding a separate hearing on May 7th regarding transportation infrastructure financing, including the many user fee proposals contained in the President's fiscal year 1998 DOT budget request. New FAA user fees are projected to offset $300 million of the agency's cost of operations. Now, this subcommittee has had a little experience with FAA user fees, since we included a $75 million FAA operations user fee in the fiscal year 1997 transportation appropriations bill for foreign carrier overflights of U.S. air traffic controlled space. This one user fee, requested by the FAA, was signed into law September 30, 1996. According to the FAA, the overflights fee will be instituted on May 19, 1997. FAA won't be able to collect anywhere near $75 million in the remaining four and a half months of fiscal 1997.

Now, FAA is asking for the authority to collect $300 million in new user fees. What are these fees? We won't know until later this summer at the earliest, if the National Civil Aviation Review Commission completes a draft proposal for long-term financing of FAA operations and modernization by that time. These new fees would then be subject to authorization. At what point during fiscal year 1998 will these fees be authorized and instituted by the FAA? How much of the $300 million projected will the agency actually be able to collect? And I won't even mention that the administration's 5-year budget plan suggests that by the year 2002, FAA will completely fund its entire $8 billion plus budget from user fees.

As chairman of this subcommittee, I will be taking a long, hard look at FAA's budget request, to ensure that important safety initiatives—and the funds to implement these initiatives—are included in that budget in a systematic and logical way. I look forward to hearing your testimony, and having a frank and candid exchange of ideas. We must always keep in mind the aim of every witness and member present here today—ensuring the very highest level of safety and security for the American citizens traveling by air.

Senator Lautenberg, do you have an opening statement you'd like to make?

STATEMENT OF SENATOR LAUTENBERG

Senator SHELBY. Senator Lautenberg.

Senator LAUTENBERG. Thank you very much, Mr. Chairman, and I commend you for getting this subcommittee hearing going, because a primary subject for us and the entire country has to be our

progress in aviation safety. And this is an oversight responsibility that is important and worth the subcommittee's time and effort.

The Federal Aviation Administration has provided us with the safest air transport system in the world. But there are still, as we say, holes in the safety net. The tragic, highly publicized aviation accidents of the last year sparked considered scrutiny by the administration, Congress, industry, and academia on how FAA does business and the steps necessary to strengthen the safety net.

The FAA concluded a 90-day safety review following the ValuJet crash, which was supplemented by reports from the GAO, the inspector general, Coopers & Lybrand, and the National Transportation Safety Board, among others. In wake of the TWA 800 tragedy, Vice President Gore's Aviation Safety and Security Commission provided further momentum for aviation safety enhancements. And I was very supportive of the Commission's mandate, and pleased that the President accepted every one of the recommendations of the Gore Commission.

Since serving on the Aviation Security Commission after Pan Am 103, I have sought to ensure that adequate attention and funding were focused on aviation security. Unfortunately, it took the tragedy of TWA 800 to once again bring these concerns to the forefront. Between the recommendations of the NTSB, the Gore Commission, the Administrator's 90-day safety review panel, and other studies, we are knee-deep in suggestions on how to improve our aviation system. And this subcommittee, Mr. Chairman, has been aggressive in following up.

Even after we completed action on the fiscal year 1997 transportation appropriations bill last year, this subcommittee added more than $225 million to the CR, to the continuing resolution, to fund recommended enhancements for aviation safety and security. This funding provided for additional inspectors, explosives detection equipment, aviation security specialists, and individual airport threat assessment. It was added on top of increased funding in the regular appropriations bill for additional air traffic controllers.

Mr. Chairman, the FAA has been given significant resources to enhance safety, and it is now up to the FAA and the industry to implement improvements in the shortest possible time. In this regard, I am disappointed that FAA is still without permanent leadership, either at the Administrator or Deputy Administrator level. And I want to add that those folks, Mr. Valentine and others, who are filling in at these posts are doing an excellent job. The question is what do we do in terms of fulfilling our long-term policy commitment to aviation safety and development of this very important department? I hope that the President will act expeditiously to select nominees, get them to the Hill as soon as possible.

And, Mr. Chairman, I want to commend you also for having Mr. Hall and Mr. Vogt here. These are two very experienced people, and we are pleased to see them as witnesses.

Thank you.

Senator SHELBY. Senator Bennett.

Senator BENNETT. Thank you, Mr. Chairman. I have no opening statement.

Senator SHELBY. Senator Byrd.

STATEMENT OF SENATOR BYRD

Senator BYRD. Thank you, Mr. Chairman, Senator Lautenberg.

Thank you for convening this very important hearing on the safety of our aviation system. In West Virginia we have always faced natural challenges in maintaining the highest levels of safety, challenges such as unpredictable weather, where fog and freezing rain can roll in taking a pilot's visibility down to zero with little or no warning. We face the natural challenges posed by our mountainous terrain. In order to build one of the principal airports in our State we were required to level off several mountains and dump the earth into the adjacent valleys, simply to create a sufficient stretch of land for the runway.

But these natural challenges to safety may have been exacerbated over the last decade or so by the changes in the quality and the mix of aviation services in my State. Over the last 10 years the Nation has seen air passenger traffic increase almost 50 percent. When one looks at the components of this increase, one will see that emplanements on major airliners have gone up roughly 39 percent, while emplanements on commuter aircraft has grown by over 150 percent.

Over the last 10 years, total emplanements in West Virginia have actually declined over 6 percent, and this decrease is comprised of an almost 50 percent cut in the number of passengers traveling on larger airplanes, while the number of passengers required to fly on smaller commuter aircraft has grown by over 100 percent.

Looked at in another way, the forces of the market in an unregulated aviation industry have resulted in my constituents being increasingly relegated to smaller commuter aircraft. And it is for that reason that I was pleased with the initiative of the Clinton administration to finally require one level of safety on the part of all passenger aircraft. I doubt that the average passenger on a 20-seat commuter aircraft appreciated the fact that that aircraft was being held to a lesser standard of safety by the FAA than the standard applying to a larger aircraft, perhaps 37-seat aircraft.

The FAA's requirement for a single level of safety was implemented in the wake of some notable commuter aircraft accidents. When the initiative was announced at the end of 1995, the commuter aircraft industry was given a period of time to come into full compliance with the more stringent safety standard. The deadline for full compliance by the commuter airline came less than a month ago. So now is the time to ask our Federal officials whether we have seen the full benefits of one level of safety, whether we have seen a lesser number of incidents and accidents involving commuter aircraft. Perhaps we have not had enough time pass.

Based on the FAA's own assessment of its deficiencies issued in the wake of the ValuJet tragedy, I think it is appropriate to ask whether our inspection system is adequate to determine whether all commuter operators are indeed in full compliance. Are the FAA's inspections of these aircraft diligent and thorough, or do they take the form of just another paperwork exercise that masks the true problem? Is the safety oversight of the commuter industry within the FAA adequately financed?

When we speak of the importance that critical spending by the FAA is within our budget, many individuals talk of the investments of hundreds of millions of dollars in new high technology air traffic control equipment or the construction or expansion of airports like Denver International and Dallas-Fort Worth. When I talk of critical aviation spending, I am talking about inspectors, weather forecasting capabilities, and small capital improvements at airports with names like Greenbriar Valley, Wood County, Beckley, Bluefield-Princeton, Elkins, Clarksburg, Huntington, and Morgantown, and so I am especially glad that we will hear testimony this morning from the chairman of the National Transportation Safety Board, Mr. Jim Hall.

The Safety Board is charged with evaluating the FAA's performance and regulations with single criterion in mind—safety. So I look forward to hearing his views on the safety of the commuter aviation industry, as well as the views of our representatives from the Federal Aviation Administration this morning.

Thank you, Mr. Chairman.

Senator SHELBY. Mr. Hall.

STATEMENT OF JAMES EVAN HALL

Mr. HALL. Good morning, Mr. Chairman, Senator Lautenberg, Senator Bennett, Senator Byrd. It is a pleasure to have the opportunity to appear before you today. Joining me in the audience are two individuals from the Safety Board, Dr. Vernon Ellingstadt, who is the head of our Office of Research and Engineering, and Mr. Tom Haueter, who is Deputy of our Office of Aviation Safety. I may ask them to join me at the table if I find that they can provide a more complete answer than I can to any of the questions that the committee may present.

Senator, let me say how much I have appreciated working with the staff of this committee, particularly since TWA 800, on the very difficult situation regarding extraordinary costs associated with that accident. Your staff has been most cooperative, and most interested in this investigation, and I would like to extend to the members of this committee an invitation for any of you that would choose to do so to please come to Calverton and visit the reconstruction that is presently underway. We would be glad to make that arrangement at any time.

It goes without saying, Mr. Chairman, that last year, as you referred, was dominated by catastrophic transportation accidents that have required extraordinary efforts by the Safety Board and have strained the agency's resources more than any time in history. I just might add that in addition to the high-profile aviation accidents that the committee is probably well familiar with, we had a number of major transportation accidents in rail, marine, and pipeline last year, as well.

The TWA Flight 800 investigation has been the Safety Board's most costly and complex in terms of dollars spent for wreckage search and recovery and the level of investigative staff work. Mr. Chairman, the TWA investigation, I believe, provides dramatic testimony to the wisdom of Congress 30 years ago when it established a multidisciplined, independent accident investigation agency which was initially affiliated with the Department of Transpor-

tation with the mission to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations. And of course, as you are aware, Mr. Chairman, we were made totally independent from the Department of Transportation under the Independent Safety Board Act of 1974.

The independence of the Safety Board and its clear mandate to conduct indepth objective investigations, draw conclusions from its findings, and make recommendations to improve safety without bias or undue influence from industry or other Government agencies is essential to maintaining the safety of the American traveling public. It is not unusual for the Safety Board to address safety issues that are controversial or that may be critical of Government or industry standards or operations. Since the Safety Board started investigating accidents it has made more than 10,000 safety recommendations to prevent accidents, save lives, and reduce injuries. While every recommendation from the Board is developed to help improve safety and prevent accidents, some have a greater potential to save lives than others.

As you know, Mr. Chairman, it is the responsibility of the NTSB to formulate recommendations to those parties that can effect improvements in transportation safety. But it is a responsibility of the FAA and other agencies to determine how best to implement those changes. In the last 5 years the FAA has adopted 84 percent of our recommendations. We harbor no illusions that the FAA should adopt all of our recommendations, nor do we seek to have our recommendations mandatory. Frankly, Mr. Chairman, if the FAA adopted all of our recommendations, then we would not be asking for enough.

There are bound to be some areas where the regulatory agency honestly believes that a recommended change is not cost effective. Remember, the FAA must conduct cost-benefit analysis of any proposed changes, or that a better alternative can be found. That is not to say that we do not strongly disagree with some of their actions or inaction, and that, of course, is what the most wanted list is designed to at least partially address. I would like to point out, by the way, that the Gore Commission on which I was proud to serve recommended that cost benefit analysis, while useful, should not be the driving force in determining the value of proposed safety improvements.

MOST WANTED

In order to identify those recommendations with the greatest potential to improve transportation safety that have not yet been acted on, the Board adopted its most wanted program. Recommendations added to that list will receive more intensive follow-up activity in order to encourage Government agencies and industry to act on the recommendations as quickly as possible.

Currently on the Safety Board's most wanted list are five aviation-related issues that include: First, requiring the installation of expanded flight data recorders with an increased number of parameters; second, installing airport runway incursion avoidance systems; third, reviewing safe separation distances between larger and smaller following aircraft; fourth, installing Mode C instrument

alert systems for airport terminals; and fifth, sharing pilot background information between airlines. All of these recommendations are the fruits of years of research by investigators of the NTSB, an Agency that makes its mark felt to a far greater degree than its size. I never hesitate to point out that we are just 360 employees. At a cost of just 15 cents a citizen I think the Safety Board is one of the best buys in Government.

TWA FLIGHT 800

As I mentioned to you, the investigation of TWA Flight 800 is the most extensive and costly in the Safety Board's history, and I might ask if Paul could show a couple of charts for the committee while I continue my testimony.

On July 17, 1996, TWA Flight 800 tragically crashed into the Atlantic off the coast of Long Island. Wreckage was located at a depth of over 120 feet, and the thousands of pieces were spread over 5 square miles. Based on the condition of the wreckage from the center forward section of the plane, including the center wing tank, our investigators have determined that a fuel air explosion took place. The origin of that explosion is not known. However, with over 90 percent of the plane recovered, there is no physical evidence of a bomb or a missile.

Based on the examination of the wreckage and other evidence, on December 13, 1996, the Safety Board issued four safety recommendations to the FAA aimed at reducing the flammability of the ullage in the airliner's center wing tanks, with specific emphasis on the Boeing 747 center wing tank.

SUPPLEMENTAL REQUEST

Mr. Chairman, let me briefly address some financial issues that are important to the Safety Board. As you know, the 1997 enacted appropriation level for the Safety Board is $42.4 million and 370 FTE's. Not included in this amount is the $6 million supplemental earmarked primarily for reimbursement to the U.S. Navy for TWA Flight 800 recovery costs. In the spring of 1997, we requested an additional TWA 800-related supplemental of $23.2 million. This would have covered investigative expenditures through the end of the fiscal year, as well as allowing us to start our family assistance efforts. OMB approved $20.2 million.

I realize, Mr. Chairman, this is not a budget hearing, but I do want a chance to make our case. Our $1 million emergency fund is used to pay for extraordinary recovery and investigative tasks. OMB has approved expanding the fund next year to $2 million. The simple truth is this fund does not begin to cover the extraordinary costs of our investigations.

Aircraft tragedy investigative costs are usually borne by both the Federal Government and the carrier through its insurance underwriters. If the aircraft crashes on the land, the carrier is generally responsible for wreckage recovery and removal. If we deem that the wreckage is vital to our investigation we see that the critical parts or all of the wreckage are removed to a secure sight for examination. In general, payment for this is made by the insurance underwriters.

In accidents occurring over water or where the probable cause may be criminal in nature, the responsibilities are not so clear. For example, in the TWA Flight 800 investigation I asked for the early financial participation of the carrier, manufacturers, and engine suppliers. All of them declined. The Federal Government has, in fact, borne all of the extraordinary costs in this investigation outside of the party's participation.

I would also be remiss if I did not finally mention the outstanding work of the State and of local authorities and agencies at the accident scenes. In New York, Florida, and in Michigan, costs have been incurred because of the accidents that are currently being borne by the States and localities. They are not insignificant, and I believe that a system or process needs to be put in place to address the legitimate local costs associated with aircraft disasters.

Mr. Chairman, that concludes my testimony, and I will be glad to answer any questions at the appropriate time.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Hall. We have your complete statement, and it will be made part of the record.

[The statement follows:]

PREPARED STATEMENT OF JAMES EVAN HALL

Good morning, Mr. Chairman and Members of the Committee. It is a pleasure to be here today to represent the National Transportation Safety Board.

It goes without saying that the past year was dominated by catastrophic transportation accidents that have required extraordinary efforts by the Safety Board and have strained the agency's resources more than any time in its history. It is well established that the TWA flight 800 Boeing 747 investigation has been the most costly and complex in the Safety Board's history, in terms of dollars spent for wreckage search and recovery, and the level of investigative staff work.

Moreover, as a multi-modal agency, the Safety Board has an important responsibility for the investigation of surface transportation accidents. Our workload in that area has also been unprecedented in the past year. Many of our laboratory specialists support our multi-modal mission. For example, the metallurgists working on TWA flight 800 are also working on surface accidents. Also, one of our key engineers responsible for surface transportation vehicle performance has been assigned full time for several weeks to supervise the 3-dimensional mockup of the TWA flight 800 wreckage.

Mr. Chairman, the TWA investigation provides dramatic testimony to the wisdom of Congress 30 years ago when it established a multi-discipline, independent accident investigation agency, initially affiliated with the Department of Transportation, "to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations." However, because the Congress recognized the need to make it totally independent from the Department of Transportation, the "Independent Safety Board Act of 1974" was passed.

The independence of the Safety Board and its clear mandate to conduct in depth objective investigation, draw conclusions from its findings, and to make recommendations to improve safety, without bias or undue influence from industry or other government agencies is essential to maintaining the safety of the American traveling public. It is not unusual for the Safety Board to address safety issues that are controversial or that may be critical of government or industry standards or operations.

The Safety Board is charged by Congress with investigating or causing to be investigated all civil aviation accidents in the U.S. In 1994, the Safety Board's authority was expanded to investigate government-operated aircraft as well, except those operating in military or intelligence missions. In addition, the Safety Board provides the U.S. Accredited Representatives to overseas investigations involving U.S.-registered, -certified, or -operated aircraft, and aircraft whose airframes, engines, and major components were manufactured in the U.S.

Since the Safety Board began investigating accidents, it has made more than 10,000 safety recommendations to prevent accidents, save lives, and reduce injuries.

While every recommendation from the Board is developed to help improve safety and prevent accidents, some have a greater potential to save lives than others.

As you know, Mr. Chairman, it is the responsibility of the NTSB to formulate recommendations to those parties that can effect improvements in transportation safety, but it is the responsibility of agencies like the FAA to determine how best to implement those changes. In the last 5 years, the FAA has adopted 84 percent of our recommendations.

We harbor no illusions that the FAA should adopt ALL of our recommendations, nor do we seek to have our recommendations mandatory. Frankly, Mr. Chairman, if the FAA adopted all of our recommendations, then we would not be asking for enough. There are bound to be some areas where the regulatory agency honestly believes that a recommended change is not cost-effective—remember, the FAA must conduct cost-benefit analyses of any proposed changes—or that a better alternative can be found. This is not to say that we don't strongly disagree with some of their actions, or inaction, and that is what the "Most Wanted" list is designed to at least partially address.

In order to identify those recommendations with the greatest potential to improve transportation safety that have not yet been acted on, the Safety Board in 1990 adopted a "Most Wanted" program. Recommendations placed on the program list will receive more intensive follow-up activity in order to encourage government agencies and industry to act on the recommendations as quickly as possible.

To be considered for the "Most Wanted" list, a recommendation must affect transportation safety on a national level, concern a safety issue of high visibility, or be of great interest to the public. Also considered is the previous loss of life or property as well as the potential for future losses, and the extent of the exposure of the public to risk by the safety problem. Previous action taken by the recipient is also taken into consideration.

Currently on the Safety Board's "Most Wanted" list are five aviation-related issues that include:

1. The requiring of the installation of expanded flight data recorders with an increased number of parameters.
2. The installation of airport runway incursion avoidance systems.
3. The review of safe separation distances between larger and smaller following aircraft.
4. The installation of mode C instrument alert systems for airport terminal areas.
5. The sharing of pilot background information between airlines.

Last year the Congress acted on the issue of pilot record sharing and the Safety Board will consider removing this issue from the "Most Wanted" list. Unfortunately the remaining four issues will remain. I would like to address two of these issues in more detail.

Flight Data Recorders.—Although not a new issue on the "Most Wanted" list, I would like to discuss the importance of enhanced flight data recorders (FDR). Almost two years have passed since the Safety Board issued its recommendations for enhanced FDR's, and the FAA has failed to enact any rulemaking on this important safety issue.

On July 16, 1996, the FAA issued the NPRM on enhanced FDR's, with a 30-day comment period. NTSB comments on the rule were generally favorable. However, the NPRM would not require FDR retrofits to begin for at least another two years. Further, no action was taken on the Board's urgent recommendation to expedite the retrofit of Boeing 737 airplanes.

We are aware that a rulemaking package was forwarded to the Office of the Secretary of Transportation on February 7, 1997. However, the DOT and Office of Management and Budget review process has been lengthy. How much longer must we wait before action is taken?

We believe that expanded flight data recorders are critical to accident and incident investigations. United Flight 585, which crashed in 1991 in Colorado Springs, Colorado, had a 5-parameter recorder and USAir 427, which crashed in 1994, had only 11 parameters. Vital information for investigators was simply unavailable and that is unacceptable.

Runway Incursions.—On March 25, 1997, a Gulfstream G–2 corporate airplane was cleared to land on runway 31 at LaGuardia Airport. About the time the G–2 was touching down on the runway, the tower controller advised its pilot to go-around. The G–2 was unable to execute a missed approach and it collided with an airport maintenance truck. The same tower controller had cleared the vehicle operator onto runway 31 about 40 minutes before the G–2 was cleared to land. The truck driver, his assistant, and the two G–2 pilots were not injured although the airplane and vehicle were substantially damaged.

Mr. Chairman, the circumstances of this accident could very easily have involved a commercial air carrier resulting in multiple fatalities. Although our investigation continues, we have learned that the controller, who cleared the maintenance truck and the incoming airplane, simply "forgot" about the truck he had approved out onto the runway.

Forgetting is a human factor routinely found in operational errors by air traffic controllers that cause incidents virtually every day in our nation's air traffic system. This type of human error has also been identified in past accidents. For example, on February 1, 1991, a USAir Boeing 737 collided with a Skywest Metroliner at the Los Angeles International Airport, killing 34 passengers and crew. This accident occurred, in part, because the air traffic controller cleared the USAir airplane to land about 3 minutes after she had cleared the Skywest airplane onto the same runway to hold for departure. She "forgot" the Skywest flight.

And I regret to say that operational errors and runway incursions have been increasing. Operational errors in the terminal environment have increased 14 percent from 1995 to 1996. Similarly, runway incursions have increased 19 percent from 1995 to 1996. These trends raise concerns about the progress being made by the FAA in addressing the risks associated with the potential for ground collisions.

Following several accidents and Safety Board recommendations, in 1991, the Federal Aviation Administration (FAA) established a Runway Incursion Action Plan to reduce surface errors at the nation's more than 570 airports. This plan was revised in 1995. The action plan focuses on reducing human error, improving ground communications, and developing and implementing technologies to increase airport surface guidance and surveillance, as well as improved ground traffic management procedures and equipment. One of the more important components of the FAA's efforts is the Airport Movement Area Safety System (AMASS).

AMASS, which is a system integrated into the new ASDE–3 ground radar system, automatically tracks all operations, compares each vehicle and aircraft movement, and provides visual and audio alerts of potential conflicts. This is a "real time" system for preventing runway accidents in a dynamic airport environment. AMASS would have provided the means to prevent accidents similar to the ground collisions that occurred February 1, 1991, at Los Angeles, November 22, 1994, at Bridgeton, Missouri, and March 25, 1997, at LaGuardia. Unfortunately, except for a prototype at San Francisco International Airport that is operating with a limited capability, AMASS installations are not yet in place.

In a February 28, 1995, safety recommendation letter to the FAA, the Safety Board expressed its concerns about delays in AMASS installations. In that letter we cited FAA testimony before Congress on March 6, 1990, in which the FAA stated that it had entered a contract for design and manufacture of AMASS that would be "fast tracked" with the project operational in 1992. In the February 28, 1995, letter, the Safety Board expressed its concerns that ". . . this important project [AMASS] has been effectively paralyzed as a result of a succession of changes. . . ."

The latest information published by the FAA on the status of AMASS is not encouraging. The prototype testing in San Francisco has been ongoing since May 1996. Under a contract awarded in June 1996, three full-scale AMASS systems are due to be installed in Detroit (September 1997), St. Louis (November 1997), and Atlanta (February 1998). Another 20 systems that are currently in initial production are scheduled to be delivered for installation between July 1998 and July 1999. There are options for 16 more AMASS systems; however, the funding is not available at present. We believe these are two important safety issues that must be addressed by the FAA.

TWA FLIGHT 800 INVESTIGATION

On July 17, 1996, TWA flight 800 tragically crashed into the Atlantic Ocean near East Moriches, New York, killing all 230 people on board. The aircraft wreckage in this accident was ten miles off the coast at a depth of 120 feet, making this investigation anything but typical.

To ensure the safety of the divers and to identify the location of the wreckage, the area had to be thoroughly mapped before the full-scale underwater recovery effort could begin. Heavy wreckage was not lifted from the ocean floor until early August. By the end of October, the divers had cleared the debris fields of all large pieces of wreckage. On November 3, scallop trawlers were brought in to drag the ocean floor. To date, an area of over 28 square miles has been trawled, with some areas having been gone over in excess of 20 times. A second pass is being made over the entire area: trawling will continue until substantial amounts of wreckage are no longer being recovered.

Based on the condition of the wreckage from the center forward section of the airplane and that surrounding the center wing tank, the investigators were particularly interested in this area and have created 3-dimensional mockups of this section. Three sets of scaffolding were erected on which this section of airplane was reassembled in order to give the investigators a better picture of what occurred. The fuselage surrounding the center wing tank was on one, the top and sides of the center wing tank on another, and the floor center wing tank was on the third. Following these initial efforts, it was decided to construct a full scale 3-dimensional mockup of a major portion of the airplane, including the fuselage skin. The mockup being constructed with the assistance of contractors to the Safety Board will be about 92 feet long, the largest in the world ever constructed. That work has been essentially completed.

It is apparent that an explosion occurred in the center wing tank, but the origin of the explosion is not yet known. To date, with over 90 percent of the airplane recovered, there is no physical evidence of a bomb or missile strike.

Based on the examination of the wreckage and other evidence, on December 13, 1996, the Safety Board issued four safety recommendations to the FAA aimed at reducing the flammability of the ullage in airliner center wing tanks, with specific emphasis on the Boeing 747 center wing tank. The recommendations urged the FAA to:

Require the development of and implementation of design or operational changes that will preclude the operation of transport-category airplanes with explosive fuel-air mixtures in the fuel tanks:

(a) Significant consideration should be given to the development of airplane design modifications, such as nitrogen-inerting systems and the addition of insulation between heat-generating equipment and fuel tanks. Appropriate modifications should apply to newly certificated airplanes and, where feasible, to existing airplanes. (A–96–174)

(b) Pending implementation of design modifications, require modifications in operational procedures to reduce the potential for explosive fuel-air moisture in the fuel tanks of transport-category aircraft. In the B–747, consideration should be given to refueling the center wing fuel tank (COOT) before flight whenever possible from cooler ground fuel tanks, proper monitoring and management of the CWT fuel temperature, and maintaining an appropriate minimum fuel quantity in the CWT. (A–96–175)

Require that the B–747 Flight Handbooks of TWA and other operators of B–747's and other aircraft in which fuel tank temperature cannot be determined by flightcrews be immediately revised to reflect the increases in CWT fuel temperatures found by flight tests, including operational procedures to reduce the potential for exceeding CWT temperature limitations. (A–96–176)

Require modification of the CWT of B–747 airplanes and the fuel tanks of other airplanes that are located near heat sources to incorporate temperature probes and cockpit fuel tank temperature displays to permit determination of fuel tank temperatures. (A–96–177)

The FAA responded to these recommendations on February 18, 1997. In general, the FAA's response stated that the recommendations propose major changes in the requirements for fuel tank design and fuel management of transport-category airplanes. The FAA stated, "the airworthiness standards of 14 CFR Part 25 assume that fuel vapor is flammable, and the design requirements dictate the elimination of ignition sources within the fuel tanks."

Because the FAA considered the control of flammability characteristics of fuel vapor in airplane fuel tanks as a "major change in design concept", it elected to evaluate the safety recommendations by means of soliciting information about the effectiveness and practicality of implementing the recommendations. The FAA stated that it would publish a public notice in the Federal Register within 30 days.

The September 8, 1994 accident involving USAir flight 427 near Pittsburgh, Pennsylvania, which killed all 132 people on board, continues to be one of our most complex investigations. It has been one of the most far-reaching investigations in the history of the Safety Board, with NTSB investigators and party participants working continually over 2½ years to try to understand the very complex circumstances of this tragic event. The investigation has involved tens of thousands of staff hours and numerous flight tests, resulting in 20 safety recommendations.

The Safety Board is aware that Boeing is actively engaged in a redesign of the main rudder power control unit for the existing Boeing 737 series at an estimated cost to Boeing of $120 million to $140 million. In January 1997, Boeing and the FAA announced that the primary and secondary slides of the PCU servo control valve would be redesigned to preclude the potential for reverse rudder operation. The FAA

plans to issue an airworthiness directive (AD) that would require the Boeing 737 fleet to be retrofitted with the new valve within two years.

We are encouraged by Boeing's commitment to move forward. We are concerned, however, that there may be a delay by the Federal Aviation Administration in issuing a final rule, or that the final rule might allow more than 2 years for operators to complete the installation of the new servo control valve. On February 20, 1997, the Safety Board issued three additional safety recommendations to the Federal Aviation Administration regarding the Boeing 737 aircraft. Those recommendations state:

Require the expeditions installation of a redesigned main rudder power control unit on Boeing 737 airplanes to preclude reverse operation of the rudder and to ensure that the airplanes comply with the intent of the certification requirements. (A–97–16)

Advise Boeing 737 pilots of the potential hazard for a jammed secondary servo control valve slide in the main rudder power control unit to cause a reverse rudder response when a full or high-rate input is applied to the rudder pedals. (A–97–17)

Require the Boeing Commercial Airplane Group to develop operational procedures for Boeing 737 flightcrews that effectively deal with a sudden uncommanded movement of the rudder to the limit of its travel for any given flight condition in the airplane's operational envelope, including specific initial and periodic training in the recognition of and recovery from unusual attitudes and upsets caused by reverse rudder response. Once the procedures are developed, require Boeing 737 operators to provide this training to their pilots. (A–97–18)

This investigation continues, and I am proud of the dedication of the investigative team. I believe these recommendations reflect, in part, the progress we are making. Safety Board staff hopes to have a final report regarding this accident before the Board for consideration this year. We will, of course, keep the Committee advised of developments.

I want to turn now to what has become a new responsibility for the Safety Board, assistance to family members of victims of air disasters.

Since the dawn of commercial aviation, the unpleasant duty of notifying next of kin after airline accidents has fallen upon the airline involved in the accident and that carrier often made arrangements for the transportation of family members to a location near the accident site and for the return of victims remains.

Whether or not this *modus operandi* was ever adequate to address the needs of victims' family members, it is clear that the way things used to be done is not adequate today. The world has changed and all of us involved in the events following major airline accidents have to change with it. The combination of a litigious society, expanded and aggressive 24-hour news coverage, and perhaps a mistrust of authority all have contributed to this new environment.

In September 1996, President Clinton issued a directive naming the Safety Board as the coordinator of federal services to families of victims of transportation accidents, and in October he signed legislation that gives us that responsibility for aviation disasters. The Safety Board did not seek this responsibility; in fact, I had hoped that it could be handled without federal intervention. But the families, the President and the Congress have entrusted us with these responsibilities and we will do the job.

Under this new authority:

—The Safety Board will coordinate the provisions of federal services to the families of victims

—These could include, but are not limited to, providing speedy and accurate information about the accident and recovery efforts, ensuring the families who wish to travel to the accident site receive all necessary assistance, and arranging opportunities for counseling and other support.

—The Safety Board will work with State and local authorities and with private relief organizations to ensure appropriate coordination of the services they provide with those of the Federal Government.

—The following federal agencies will cooperate fully with the Safety Board in these efforts; the Department of State, Defense, Justice, Health and Human Services, Transportation and FEMA.

Another provision of the Act calls on the Secretary of Transportation to appoint a task force composed of family members and representatives of government and private relief agencies. This task force will have quite a full plate before it. It is charged with developing a model plan to assist airlines in responding to aircraft accidents. The first meeting of the task force is scheduled for the end of this month.

Let me describe two recent experiences since passage of the Family Assistance Act. On November 19, 1996, a United Express Beech 1900C collided with a King

Air at intersecting runways in Quincy, Illinois. All 14 persons on both aircraft died in the accident.

Although this was a relatively low-fatality accident as major airline disasters go, it still had a significant impact on local resources and facilities. The coroner had no medical expertise, and no facilities or staff at his disposal. Under an agreement with the Department of Health and Human Services, we arranged for a mobile morgue that was fully equipped, supplied, and staffed. This service was set up inside the airport's vacant firehouse, and served as the mortuary.

Despite the fact that all 14 victims were badly burned, they all were identified and returned to their families within four days. This would not have been possible had local resources not been augmented.

Although most families did not come to the scene, those who did were taken to the accident site on the second full day. The city provided us with police escorted transportation for the family members. The families who were on scene were briefed by Safety Board and our Investigator In-Charge. Those family members who did not travel to Quincy were briefed by staff members by phone.

On January 9, 1997, a Comair EMB–120, a Brasilia, crashed on approach to Detroit, killing all 29 persons aboard. In this instance, nearly all families came to the scene. The Michigan State Police took care of security at the accident site, at the morgue, and at the hotel where the family members were staying.

The identification of victims began on the second full day following the accident—Saturday—and continued through Wednesday. All 29 victims were identified. This was an extremely difficult task because of the severe fragmentation of the remains and the extreme cold temperatures in the days following the accident (wind chills for many days after the accident were well below zero). A team of 125 people worked in the ad hoc morgue set up in a hangar for 20 hours a day. The mobile morgue was flown in the morning after the accident. Personal effects were recovered by teams of volunteers. The local Mental Health office provided counseling for family members and for rescue personnel.

What we have seen in these two accidents has been evident in many accidents in the past. Local jurisdictions are not prepared for the consequences of a once-in-a-lifetime event like a major airliner crash. This is no criticism of them. You cannot build an infrastructure to be prepared for such a rare event; it would deprive communities of resources needed elsewhere for more pressing community needs.

The Monroe County crash of the Comair commuter in January brought that county its highest death toll in a single event in more than 150 years. Any individual airline might go decades between fatal accidents; it is difficult for them, too, to be completely prepared for such an event.

The Safety Board deals with many major accidents every year. And we've been doing this for 30 years. That is why we were placed in charge of coordinating government services to the families, and that is why we are optimistic that once we have agreements in place with the many government and private agencies that can provide needed services, and once we have this program funded, we can fulfill the obligations given us by the American people though legislative directive.

I can say that both of the recent accidents taught us lessons, but they also demonstrated the benefits of our involvement; many who have participated in previous incidents commented on how far things had come and how much better off families were under this more-organized on-scene effort.

I would like to point out that we have structured our family assistance program to ensure that our new responsibilities and authorities do not interfere with or adversely affect the well-established process of managing major investigations.

Mr. Chairman, let me now address some financial issues that are important to the Safety Board. As you know, the 1997 enacted appropriation level for the Safety Board is $42.4 million and 370 FTE's. Not included in this amount is the $6 million 1996 supplemental earmarked primarily for reimbursement to the U.S. Navy for TWA Flight 800 recovery costs. In 1997 we requested approval for an additional TWA 800 related supplemental of $23.2 million. This would have covered investigative expenditures through the end of the fiscal year, as well as allowing us to start our family assistance efforts. OMB approved $20.2 million for inclusion in the President's Budget. I realize, Mr. Chairman, this is not a budget hearing but I did not want to miss a chance to make our case.

Our emergency fund, which has been funded at a $1 million level, is used to pay for extraordinary recovery and investigative tasks. OMB has approved expanding the fund next year to $2 million. The simple truth is that this fund does not begin to cover the extraordinary costs of our investigations. Aircraft tragedy investigative costs are usually born by both the Federal Government and by the carrier through its insurance underwriters. If the aircraft crashes on land, the carrier is generally responsible for wreckage recovery and removal. If we deem that the wreckage is

vital to our investigation, we see that the critical parts, or all of the wreckage, are removed to a secure location for examination. In general, payments for this is made by the insurance underwriters.

In accidents occurring over water, or where the probable cause may be criminal in nature, the responsibilities are not so clear. For example, in the TWA Flight 800 investigation, I asked for the early financial participation of the carrier, manufacturers, and engine supplier and all declined. The Federal Government has in fact borne all of the extraordinary costs in this investigation outside of the party's participation.

I would also be remiss if I did not mention the outstanding support of the state, and local authorities and agencies at the accident scenes. In New York, Florida, and in Michigan, costs have been incurred on behalf of the accident that are currently being borne by the states and localities. They are not insignificant and I believe that a system or process needs to be in place to address the legitimate local costs associated with aircraft disasters.

Mr. Chairman, this concludes my testimony and I will be happy to answer any questions.

INVESTIGATION FINANCING

Senator SHELBY. Mr. Hall, the National Transportation Safety Board is responsible for investigating significant transportation accidents of all kinds. NTSB immediately dispatches what they call a go team to an accident site, analyzes the evidence, and tries to determine the probable cause of the accident. NTSB often issues safety recommendations to help avoid future accidents.

Some investigations are very lengthy, such as the 1991 Colorado Springs crash of a United Airlines 737, cause undetermined; the 1994 Pittsburgh crash of a USAir 737, and the ongoing probe regarding TWA Flight 800, that you just mentioned. How, Mr. Hall, does NTSB finance safety investigations? Does your budget require enough flexibility?

Mr. HALL. Through appropriated funds. Mr. Chairman, obviously funding our agency is sometimes like funding the fire department—you are not exactly sure how many emergencies you are going to face in a particular year.

Senator SHELBY. Well, just like the TWA investigation has taken a long time, it has had to be very expensive.

Mr. HALL. Yes; but it is all appropriated dollars.

Senator SHELBY. It has taken a toll on your budget as well, has it not?

Mr. HALL. Yes, sir; definitely. And not just the budget, Mr. Chairman, but obviously I would be remiss if I did not say the toll it has taken on all the individual investigators.

INSURANCE COMPANY RESPONSIBILITIES

Senator SHELBY. Do insurance companies have a significant role in determining the course of an investigation, and if so, what role do they play?

Mr. HALL. The only role they have played traditionally in the past is the assistance in the wreckage and recovery costs. They do not really have any party status or other role in the investigation.

Senator SHELBY. Should DOT review the level of insurance coverage it requires of transportation providers, especially common carriers of passengers?

Mr. HALL. Yes, Mr. Chairman, I believe they should. And we have actively recommended to both OMB and to the Secretary that we ought to look at some type of emergency funding that would be

available to cover situations similar to TWA 800, and also the responsibility that a carrier may carry to some of the victims. At the present time my understanding is that most of the policies do not provide any funds for victim recovery.

Senator SHELBY. Mr. Vogt, did you have any opening statement? I was told you did not, but I wanted to clarify that.

Mr. VOGT. Mr. Chairman, I do not have a written opening statement.

Senator SHELBY. OK. Do you have any comments?

Mr. VOGT. I will share some comments with you.

Senator SHELBY. Please go ahead.

STATEMENT OF CARL VOGT, FULBRIGHT & JAWORSKI, AND MEMBER, WHITE HOUSE COMMISSION ON AVIATION SAFETY AND SECURITY

Mr. VOGT. Thank you for inviting me. I am pleased to be here. I am the only witness, I think, today who is not anticipating an appropriation from you, unless there is a rule I have missed.

Senator SHELBY. You have not missed it.

Mr. VOGT. Thank you, Senator Lautenberg also, Senator Byrd, Senator Bennett.

Just a few brief remarks.

I think it is very important to keep the perspective of historical context on where we are today in aviation safety. We recently, last week, celebrated the 50th anniversary of the Flight Safety Foundation, of which I am privileged to be a governor, and we honored the founder of the Flight Safety Foundation, a man named Jerry Lederer. Jerry was 6 months old when Orville Wright made his first flight. So all that we are talking about today and all that involves commercial aviation today has happened in the long lifetime of one individual.

We sometimes think that change which is occurring at any given time is unique, and this industry, in fact, has been characterized by change from the very beginning. Most often that change has been brought about by technological advances. Modern aviation, for example, in my judgment began with the introduction of turbine power in the late fifties and early sixties to commercial aviation. The microprocessor has had enormous impact, and today we are right on the threshold of a whole new era which is brought about by digital communications, global position satellite navigation, and so technologically today we find ourselves at the beginning of a very, very important era in aviation.

At the same time we are seeing an enormous expansion of the market for aviation services, an expansion of capacity, growth throughout the world in commercial flights. The Boeing Co. has predicted from a safety perspective that if we do not improve the accident rate we are going to have an accident a week worldwide within the next 20 years.

We also are at a point in time where I do not need to tell you that we are faced with reductions in government spending across the board. This is not only true in the United States, it is happening in Europe, as well. And so faced with an expansion of capacity in demand for aviation transportation services, on the threshold of a major technological innovation in change, we are in a position where we do not have the Federal resources available that we have

had historically to deal with the change that is coming about. And it is the juxtaposition of these things that creates some unique challenges at this point in time.

And to state the obvious, one of the challenges is that the Federal agencies involved are going to have to do more with less, and they are in the process of addressing that. The Challenge 2000 report that the FAA prepared is an innovative and thoughtful approach to this. There is a lot more to be done.

But as you review the recommendations of the Gore Commission you will see that some of the most important ones open the issue of increased funding. There is more money needed to comply with or accede to the recommendation, for example, that the modernization of our air traffic control system be expedited and be in place by the year 2000 rather than the year 2012—I am sorry, by 2005 rather than 2012.

We call for increased security measures to be funded with Federal funds. We toss the ball to the Civil Aviation Review Commission, which the Congress has established in most of these cases to find new ways to come up with money for these programs and others. But I believe that new efficiencies within the administration and new sources of money are the real challenges that are facing us today.

I would be happy to answer any of your questions.

Senator SHELBY. Senator Lautenberg.

Senator LAUTENBERG. Thank you, Mr. Chairman.

Mr. Vogt, you could not be more right in terms of the funding requirements. I am a senior on the Budget Committee and we spend every day talking about the problems that we have to solve that do require money in addition to attention. And this is one of them, and I think that we saw in TWA 800 what it is that people want to know, what we want to know about what took place.

And, Mr. Chairman, the suggestion that Mr. Hall made about visiting that site, the reconstruction of TWA 800, is something if you do have a chance you ought to see. I was there and I also saw Pan Am 103 when it was reconstructed, and it is just amazing what can be done, what science is now available to us, and we ought to pursue it as diligently as we can.

GORE COMMISSION RECOMMENDATIONS

Mr. Hall, the Gore Commission made several recommendations on how to improve aviation safety and security. In some quarters, however, it is being criticized as being long on advice and fairly short on how to accomplish some of these objectives. Both of you having been involved with it, are we seeing a situation where some of the harder to solve safety problems are deferred because we cannot get industry agreement or because they have made a hard, cold calculation about how much they can do, how much they ought to do with the funds that they have available?

Mr. HALL. Let me just briefly comment. Looking back, Senator Lautenberg, I want to commend former Administrator Hinson and Deputy Administrator Daschle. One of the things that Senator Byrd mentioned was a recommendation of the Board, one level of safety for regional aircraft is now a reality in this country. The pre-

vious administrator addressed the problem of the failed modernization of the air traffic control system and put that on track.

I think, referring to your earlier remarks, what we now need is leadership and direction. We have the Challenge 2000 program, we have the 90-day safety review, we have the Gore Commission recommendations which provide an overall direction. What we now have to talk about is the implementation of these recommendations. There are two things in that, having the direction and support of both the industry and the Government to make these things happen, and the second thing is who is going to pay.

NTSB SUPPLEMENTAL REQUEST

Senator LAUTENBERG. Well, that brings me to the next question, and that is the difference between that amount requested during the 1997 emergency supplemental, as well as the extraordinary costs associated with TWA 800, as well as the implementation of some of the Gore Commission recommendations. That is quite a package.

Now, the amount of funding, therefore, that you request of us does differ from the level formally requested by OMB. Where do you see the difference coming? Are they just saying to you we cannot handle it, or are they saying that you do not need it?

Mr. HALL. OMB did not provide us funds for the victims' assistance program that was directed by both the President and Congress for the NTSB to accomplish, and some additional positions that we felt were necessary.

I have had, Mr. Chairman, a number of my investigators that have been living for 9 months up at Calverton. If we had another aviation disaster that occurred in the near future, we would be in a very difficult situation to be able to provide the type of investigation that our agency wants to provide to the American people.

NAVY COSTS

Senator LAUTENBERG. Just questioning, the other costs that have been associated with this investigation are really significant. And I was out at Calverton twice, once a couple of days just after the airplane went down, and later on to see what the progress was, and it was an amazing task. I must tell you, your people and the FBI and the Navy and the divers and everybody that was involved gave it as good an effort as I think one could possibly see. But are you required to reimburse the Navy for any of the costs that they have incurred?

Mr. HALL. Yes, sir; we have a memorandum of understanding with the Supervisor of Salvage of the U.S. Navy to assist us in the recovery on a reimbursable basis. They work under contract to us, and are up there under our direction. It is our responsibility to fund the recovery.

Immediately after this event happened, I sent, as we have routinely done, and Peter, you might throw that other chart up, last year we had three——

Senator BYRD. Those charts are not of much assistance.

Senator LAUTENBERG. I would say.

Mr. HALL. They are hard to see, I am sorry.

Senator BYRD. I can see the chart, but I cannot read it. [Laughter.]

Senator SHELBY. That helps.

Senator LAUTENBERG. That helps. It blots out the whole audience.

Senator SHELBY. Just the press.

TWA 800 COSTS

Mr. HALL. If you would like, we could basically review for you the costs on Flight 800 to date.

VOICE. Mr. Chairman, this chart intends to show a number of things, primarily the extraordinary investigative costs relative to TWA 800. As you will notice in the center column here, $26.8 million is the total cost we now see as required to complete the investigation.

Senator LAUTENBERG. That is your share only?

VOICE. These are the total costs the NTSB expects to obtain through reimbursement of others.

Senator SHELBY. The whole thing.

VOICE. Out of 1996 we spent $766,000 out of our emergency fund. Congress provided $6 million at the beginning of fiscal 1997 in a supplemental appropriation, and we have requested a total of $23 million additional this fiscal year, $20.1 million for TWA 800, the bulk of that going for reimbursement to the Navy of victim wreckage recovery, also for the wreckage storage, the facility at Calverton. The Navy has asked for $5.6 million. And as you can see, there are other associated costs with the investigation. But the Navy portion is primarily victim wreckage search and recovery and wreckage storage. In addition, the trawling, which is ongoing, is $5.5 million all by itself.

Senator LAUTENBERG. Mr. Chairman, my time is up, but I just want to say that I have seen the NTSB in many situations, rail accidents, aviation review. Mr. Hall has been to my office several times and we have discussed things. I have got to say this is a department under Mr. Hall's leadership that has done very, very well. They work hard, they are conscientious, they are professional in every sense of the word, and I think that we run a risk if we shortchange some of these reviews because of the longer term implications, obviously, what it is you learn in one of these investigations.

Thanks very much.

Senator SHELBY. Senator Bennett.

Senator BENNETT. Thank you, Mr. Chairman.

If I may impose a little personal history, my service in the executive branch was at the Department of Transportation. And it was my responsibility and ultimately my pleasure to shepherd through the Congress the Airport Airways Act of 1969, that created the airport airways trust fund, and we assumed as a result of that action that we had secured funding for the FAA and its safety responsibility for all time. We were not aware of the fact that subsequent administrations, both Republican and Democrat, would treat trust funds, whether it is the highway trust fund or the airport airways trust fund, as simple accounting devices that had little or nothing to do with the amount of money that would actually be spent. And

as a consequence, fake balances were allowed to accumulate in the trust funds while serious needs were not met. And so I come to this committee with a little bit of that history behind me, and am concerned to hear you talk about the need for resources in this area relating to the safety of the FAA when I thought I had made a small contribution to making sure that those resources would always be there.

There is a story going around which I would like you to comment on, either confirm or deny, lay down. It makes great conversation. Someone said, and if I knew who the someone was I would tell you, I am not trying to be coy here, I am trying to get some information, that a study was made of the Federal Government's computer technology and capability, primarily from the point of view of trying to find out whether or not a hacker could get into the Government's computers and compromise them. The result was, according to the version I have heard of the study that every portion of the Government's computer system is indeed vulnerable to a hacker getting in and one way or the other compromising or taking information out of the system, with the exception of the FAA. The reason we need not worry about a hacker getting into the FAA is that the software and the hardware are so obsolete that no hacker currently existing has any technical capability to deal with it. Now, is that a true statement or an old wives' tale?

Mr. HALL. Senator, I do not know. Last year, because of concerns that came out of our Chicago regional office, we looked at the problems of the breakdowns of the air traffic control system at some of our major airports. Some of the equipment is so dated that there is a real concern about maintaining individuals on the FAA payroll to maintain that equipment till it can be replaced.

However, I think that there has been progress made in the modernization of the system. But I do not have the background and expertise to answer that question, but it is an old system.

Senator BENNETT. I trust the Acting Administrator might have an answer for that. I apologize that I am going to have to leave, and many of these questions are perhaps more appropriately addressed to the FAA Administrator.

The one other concern that I do have as we talk about resources and your obvious need for resources, is, of course, the controversy of Bay Area Rapid Transit System where BART wants to use money that might otherwise be available to the FAA or the NTSB to help defray the cost of their subway system. Senator McCain has been particularly outspoken on that, and I did not want to let the hearing pass without the opportunity of expressing myself in that regard.

Now, Mr. Chairman, I apologize, and apologize to the witnesses. My beeper is very insistent.

Senator SHELBY. We will leave the record open for any further questions you might have.

Senator BENNETT. I would appreciate that opportunity. Thank you, Mr. Chairman.

Senator SHELBY. Senator Byrd.

COMMUTER AIRLINE SAFETY

Senator BYRD. Mr. Hall, are you currently satisfied that the FAA's procedures for regulating and inspecting commuter aircraft are sufficient to detect the problems that may pose a safety risk?

Mr. HALL. As you pointed out, we now have one level of safety for both commuter airlines along with the major service. And last year was a good year in the commuter industry. However, 1 year is obviously not enough to see whether an effective job of oversight is being done.

Through ongoing accident investigations, we will look very closely at what the FAA is doing, as we do in all of our investigations, and how they are doing their job of safety oversight. Clearly the addition last year of a number of new safety investigators for the FAA should have a positive impact on their work in this area. Mr. Valentine would have to address how many of those individuals are now in place with the additional FTE's that have been allocated for those positions.

But this is an area of obvious ongoing concern, and is part of two investigations that we have presently underway.

Senator BYRD. What concerns do you have specifically regarding the commuter aviation industry?

Mr. HALL. Chairman Vogt was correct. We are seeing a great explosion in aviation and projected growth throughout the world. A lot of middle-sized and small communities in our country that are being left by the wayside, such as the interstate systems did years ago. In an era of deregulation, I think Congress is going to have to look at ways to ensure some service.

I know the essential air service program is there, but there are a number of communities now that are suffering. With transportation being 12 percent of our gross national product, we will be basically out of the equation for growth in the future unless that problem is addressed.

Senator BYRD. Do you have concerns with respect to the maintenance of commuter aircraft and with the experience of pilots who make these commuter runs? Do you along those lines?

Mr. HALL. Yes, sir; and I would like to ask Mr. Haueter, if he would, to come up here, because we have an investigation specifically in regard to pilot record-sharing that I would like him to briefly touch on, and what is being done in that area.

Senator BYRD. What is this gentleman's name?

Mr. HALL. This is Tom Haueter, and he is the head of our chief investigation unit for the NTSB.

Mr. HAUETER. Following the investigation of the Raleigh-Durham commuter accident the Safety Board issued a recommendation regarding pilot background checks. We found that the pilot had come from one airline to the accident airline. The previous airline had some negative findings, and those were not passed on to his new employer. We issued a recommendation to the FAA to require background checks that could be passed on from one employer to another. The FAA has been acting on that slower than we would like, but we will continue working in that area.

Senator BYRD. What are you doing to get the FAA to work faster?

Mr. HAUETER. Through our recommendation process we have a dialog back and forth, trying to help them push the system.

Senator BYRD. That sounds like in itself it is a pretty slow process.

Mr. HALL. I have, in addition, Senator, discussed this personally with Secretary Slater, our most wanted list. He is aware of those concerns and has met with Mr. Valentine and with other appropriate officials of the FAA to let them know of our interest in this area. And again, they are moving in this area. I think it is merely the speed at which they are moving that is of concern to us.

Senator BYRD. Mr. Chairman, is there anything the subcommittee can do to help to encourage an acceleration of the speed?

Senator SHELBY. I believe we could work together to get something done.

Senator BYRD. I hope we can.

Senator SHELBY. And your suggestions and your overall leadership and experience would certainly help the subcommittee. I will be willing to work with you, and I think the other members would. This is vitally important.

COMMUTER AIRLINE SAFETY

Senator BYRD. Do you have any suggestions as to how we might help? Could we request a monthly report on the progress?

Mr. HALL. Well, that would certainly be helpful, Senator.

Senator BYRD. Well, let us take that under advisement, Mr. Chairman.

Now, do you have concerns with reference to the maintenance of the commuter aircraft?

Mr. HAUETER. We saw a commuter accident in Eagle Lake, TX, where the mechanics had forgotten to put some screws back into the tail of the airplane. Subsequently, the tail came off or a portion of the leading edge came off on approach. We have looked into that. Obviously, commuters are quickly growing. Also, we are seeing the major airlines starting to need more pilots and more mechanics, and they are drawing these people out of the commuters. So in some cases the commuters are losing some of their better people to the major airlines.

I think that the FAA is going to be pressed with getting as many inspectors as they can to ensure that the training and standards are kept up. The one level of safety will definitely help in this area.

Senator BYRD. Do you have any indications of problems with drugs or alcohol on the part of any of these people who do the maintenance of the aircraft, or any of those who do the piloting?

Mr. HAUETER. Not that I have seen. We did have one case about 8 years ago or so, but I have not seen anything recently that would lead me to such a conclusion.

Senator BYRD. What have been your observations, Mr. Hall, regarding the FAA's efforts to apply the same standards of safety to the small commuter aircraft?

Mr. HALL. I think, Senator, that once the debate ended and the decision was made to move ahead with one level of safety, the Regional Airline Association and the people at the FAA have moved forward in a positive way to meet that mandate. So at this point in time I would give everybody good marks on that.

Like everything else in the safety area, you have to stay after it.

Senator BYRD. What other safety initiatives, if any, do you think would be appropriate for this segment of the aviation industry? My time is up.

Senator SHELBY. Go ahead and respond.

Senator BYRD. Perhaps you could respond briefly.

Mr. HALL. Obviously, that segment of the industry is impacted as well by the issues on our most wanted list; flight data recorders, ground separation, all the things that impact 121 also impact commuter aviation.

Senator BYRD. Thank you, Mr. Chairman.

Senator SHELBY. Senator Gorton.

Senator GORTON. I would like to paraphrase a couple of the points, at least, that I made in that opening statement. This is a vitally important subject, and it is a subject both for this subcommittee and for the Commerce Subcommittee on Aviation that I chair. We had many of these same people, all of these same institutions, in front of us to discuss the Gore Commission report some time ago, and the chairman of the full committee, John McCain, held a hearing last week on airplane accidents, the investigations, and the way in which the results of those investigations had come out. Each of these was a learning process, just as it is here today. Obviously we have got to encourage the greatest move toward safety that we possibly can. We are probably going to do that better cooperatively, in many cases at least, than with a lot of mandates.

One of the subjects I delved into during the Commerce Committee hearings was the sometimes rivalry between the FAA and the NTSB. Now, while there was a lot of criticism of that there, my own view was that there is some wisdom and some real value in having two organizations with a bit of overlapping jurisdiction. Certainly, what they talk about gets more publicity that way, and to have one checking on what the other does is probably pretty valuable. So these are really important issues because you control the money that we are dealing with, and the way in which we guide the deliberations and the actions of the Safety Board and of the Federal Aviation Administration are going to be very, very important for the future.

GORE COMMISSION RECOMMENDATIONS

With that, couple of questions. I guess, Mr. Vogt, I have really got two for you, and let me tell you an impression that I had in my own hearing on the Gore Commission report, not so much on the subjects that have been discussed, at least since I came to this hearing, on safety, but on the subject of security. Tell me whether this impression was wrong.

I got the impression that many of those recommendations, without an awful lot of examination of the cost, stemmed from the belief during the course of the summer and the fall that TWA Flight 800 was done in either by an outside attack or more likely by a bomb on board the aircraft. Now it seems much more likely than not that neither of those were the causes of that crash. But I and a number of other members of the committee just got the view that many of those recommendations were almost academic or outmoded by reason of that initial apprehension. Were we wrong?

Mr. VOGT. I am not sure whether you were totally wrong, but if you will recall, the initial mandate to the Commission was to investigate security matters, and a report was delivered within 45 days, I believe, and the members of the Commission at that point were predominantly public members, Mr. Peña, Mr. Deutsch, Mr. Freeh, and others. And it was only later that the rest of the commissioners were appointed, and that the mandate for the Commission was expanded to include air traffic control and safety.

So a number of recommendations, if you look at a copy of the report, were submitted before the full Commission actually convened, and then we reviewed those and they were included in our final report with, I think, four or five additional security recommendations. And there is a status report as of the time of our last meeting on each of the prior recommendations that was made.

I think that the issue of security is much broader, though, than the expectation initially that TWA 800 was a terrorist act, and I believe I speak for the Commission, the consensus of the commissioners is that this is a much broader issue. We were aware at that time that the focus was being directed elsewhere, so that it did not seem to be an accident-specific issue that was before us.

So these recommendations, while we have a vulnerability to terrorism in the United States, we have not as yet had a recognized threat except for one terrorist plan to blow up 12 U.S. airplanes over the Pacific Ocean. And we had not really anticipated a threat to Federal courthouses in the sense that we saw in Oklahoma City. So I think that there is much to be done here. We recognize the vulnerabilities. I think we have made some recommendations that address those vulnerabilities, and hopefully there will be implementation of many of these. Already, $160 million was appropriate, new equipment is being purchased, there is cooperation between the Customs and the FAA now—Customs Service.

There are a number of things that are ongoing. I think all of these are very positive, and most of them are not costly in a relative sense.

Senator GORTON. Thank you for that.

Another question for you but on a different subject: You have had a lot of wonderful experience with the Safety Board, as an attorney who has specialized in civil litigation, so you have had a lot of time to investigate and observe the investigation of aircraft accidents. Do you believe that the huge financial stakes involved in determining liability for accidents has hampered in any way the ability of investigators to gather and assess the information necessary to find cause and to reach objective conclusions?

Mr. VOGT. Well, I do not think the stakes are so much the issue as it bears on investigations. There are really two sets of investigations that go on. One is what the NTSB does, and I think the integrity of that process has proven itself over time, and it is very good and very impressive. And for the most part all of the parties to these investigations, in my judgment, offer good faith cooperation. Everyone wants to find the cause of the accident.

Then you get my brethren at the bar who are seeking to recover damages for families or manufacturers or all of the interests involved. And as you know, the probable cause determinations of the NTSB are not admissible in evidence, although the factual record

is available, and is used as a factual basis by attorneys in these liability cases. So I think the integrity of the governmental process is very sound.

I think the stakes are so high that the entities involved, whether they are airlines manufacturers, unions, any of the interested parties, the stakes are so high that it is my opinion that no one is deterred from finding the cause by the potential liability cost of a single accident, because most of the time what we are really concerned about is the generic application of what we find and safety precautions that come out of a given accident which would prevent future accidents.

Senator GORTON. In your view, should the NTSB conclusions be admissible?

Mr. VOGT. No, sir; they should not.

Senator GORTON. Why?

Mr. VOGT. Well, I believe that that would impact the integrity of that process. It puts it into the area of money and liability, and the NTSB—part of the reason for its effectiveness is that it has a very clear cut mission, which is safety, and that should not in any way be combined with money issues or liability issues. I think the system works well.

FLIGHT DATA RECORDERS

Senator GORTON. Mr. Hall, one for you, and, Mr. Chairman, if somebody has already asked this I apologize and you can correct me. When we were before the Commerce Committee you addressed the issue of expanded parameters for flight data recorders, and you really caused our ears to perk up when you said that a number of foreign flag airlines order far more significant data recorders than are often ordered in new aircraft manufactured by Boeing for domestic flag carriers. And there have been some real repercussions to that statement.

Some since then have told me that one of the reasons for that was that domestic carriers preferred uniformity, for example, that all of their aircraft have the same kind of flight data recorders for their purposes. I guess I need to emphasize your own point that this was not something that the manufacturers decided on, it is something the purchaser, the airline purchaser, decides on.

My basic question to you, is that an excuse? Is that a good reason for every new aircraft not being equipped by the purchaser with the most sophisticated flight data recorders?

Mr. HALL. No, Senator; that is kind of a creative excuse.

Senator GORTON. Thank you.

Thank you, Mr. Chairman.

Senator SHELBY. Good phrase—creative excuse.

Mr. Vogt, there seems to be a consensus among aviation experts that the FAA must fundamentally change the way it makes decisions, approaches personnel costs, and transitions from older technology to new technology. This subcommittee has tried to be responsive to the Department's request for increased flexibility in the personnel and procurement areas.

For example, in the fiscal 1996 transportation appropriations bill, FAA was given unprecedented personnel and procurement reform tools. But the Coopers & Lybrand independent study of FAA's

management practice points out that they have yet to effectively use these new tools. If we are to believe the Coopers & Lybrand study, there is every indication that FAA is having some difficulty managing itself. What kind of changes, from your perspective, do you think need to be made in the organization, and perhaps in the culture at FAA, to effectively keep safety as the agency's focus?

Mr. VOGT. Well, first of all, Senator, I think that the two innovations that you mentioned, procurement and personnel, are extremely important. I think it is still a little early for Coopers to reach a decision that they have not been effective. I know that some of the purchasing has been most effective, and the personnel regulations, my impression is that they are in the process of being implemented.

My concern is, as I stated initially, that we are at a crucial juxtaposition here of many changes, and it is obvious that the agency is going to have to be more efficient and effective in the way it does business, as are most Federal agencies.

Senator SHELBY. But in this particular agency, safety has got to be the real focus.

Mr. VOGT. Yes; that is correct. And if you look at the Challenge 2000, which was developed by the FAA, it is filled with terms like reinvention and cultural change. So I think there is an awareness there. What has been missing for the past few months is obviously new leadership in the agency, and I think that the changing of the way in which the agency makes decisions, and I believe there is within that agency an inbred reluctance to make decisions for some reasons which once you are there and see it are quite understandable within the culture, some of the most talented people in this Government are in that agency, and I think that if the talent is unleashed to find solutions to develop new and more effective ways to make decisions, that it will get done. And to incentivize through these new personnel regulations, reward people who do things in creative ways, there is tremendous potential there to effect these changes.

Senator SHELBY. You played a leading role in developing the safety recommendations contained in the Gore Commission report. Aviation safety has been a touchstone throughout your career, and I believe it should be. You are one of the experts on the subject. In your opinion, which of the 53 recommendations contained in the Gore Commission report are most important and need to be implemented in the shortest timeframe possible, and which of the most pressing, immediate needs currently in force are being implemented?

I know it is hard to just pinpoint which is the most important, but you have to go by priorities.

Mr. VOGT. Let me creatively try to duck your question a little bit.

Senator SHELBY. You do not want to duck the focus, though. The focus is safety.

Mr. VOGT. I am not going to duck the focus, but I do not want to make a statement that would detract from some of the issues there. But I think clearly the most weighty decisions there, first of all, is 1.1, which is to cut the accident rate fivefold within 10 years. And I think that is very doable if you take into account the fact that most accidents are caused by controlled flight in terrain today

worldwide and loss of control in flight. If we can see the implementation of advanced ground proximity warning systems, I think there is tremendous potential through new technology to reduce that accident rate.

Second, I think one of the most weighty recommendations was to implement our air traffic control system national airspace modernization by the year 2005 instead of 2012. That is a major, major task, and relevant to this committee's understanding, the $60 million need—or $60 billion need that the agency projected was verified, to a certain extent, by the Coopers report. And if OMB is going to cap those moneys at $47 million, you have got the gap that has been widely talked about. And yet, our recommendation is to do something that is extremely expensive from an infrastructure cost in far less time than the agency has projected. That is a very, very major undertaking, and I think a major recommendation.

Senator SHELBY. Would you save some money by implementing it sooner?

Mr. VOGT. Well, I do not know the figures on that. I think you probably can come to that conclusion. Some money would be saved, but you have got enormous capital costs that are going to have to be funded up front.

Senator SHELBY. Either way, have you not?

Mr. VOGT. Absolutely, and that is one of the reasons that we recommended that there be some new approaches to financing explored, and to try and leverage some of the money that flows into the FAA in the capital markets.

Senator SHELBY. What about spending some of the money that is already there and is currently used for other purposes?

Mr. VOGT. Well, you know the trust fund used to have a surplus. Right now it is pretty empty. I think it is very frustrating to everyone, as Senator Bennett said earlier, that when that trust fund does have a surplus that money is not used for its intended purpose. And there have been points in time where the use of that money could have made tremendous strides for this capital infrastructure I am talking about.

And finally, I would say that of our recommendations, the security recommendations, particularly on the recognition of security as a national problem, a terrorist problem, terrorist attacks are directed against the United States, not against an air carrier as such, just to give an example, and that new ways to fund increased expenditures for security should be explored, but that the responsibility is basically a Federal responsibility.

Those would be the recommendations I would say are the most weighty of our report.

Senator SHELBY. I think they are very important, and I concur.

Senator Lautenberg.

Senator LAUTENBERG. I have nothing more, Mr. Chairman.

Senator SHELBY. Senator Byrd.

Senator BYRD. No; nothing more, Mr. Chairman.

SUBMITTED QUESTIONS

Senator SHELBY. Gentlemen, I thank both of you for your appearance here today and for your candid testimony. We will submit additional questions to be answered for the record. Thank you.

[The following questions were not asked at the hearing, but were submitted to the agency for response subsequent to the hearing:]

QUESTION SUBMITTED BY SENATOR GORTON

Question. In testimony before the Commerce Committee, and in response to questions raised by Committee members, NTSB Chairman Hall addressed the issue of expanded parameters for flight data recorders. Chairman Hall mentioned that foreign carriers have ordered, and U.S. manufacturers have supplied, aircraft with more sophisticated flight data recorders than U.S. carriers are demanding. Chairman Hall intimated that cost was the only reason that domestic air carriers would continue to order aircraft with flight data recorders that meet only the minimum FAA standards. I understand, however, that carriers also have concerns about integrating aircraft with new systems into their fleets. For maintenance purposes, they want to maintain standardization within their fleets. Is this a valid concern on the part of U.S. carriers? Does the FAA believe that its proposal for the industry transition to flight data recorders with expanded parameters takes this concern into account?

Answer. It is a concern; however, there already is a great amount of diversity in FDR systems, more as a result of the unavoidable evolution in aircraft technology than as a result of government regulation. The age of U.S. air carrier aircraft varies greatly. It has been our experience that the older the aircraft, the more limited the number of FDR parameters available. As airplane systems have gotten more complex, airplane manufacturers (and government and airlines, too) want and need more information to determine how various aircraft systems performed after an accident or incident. The FDR itself is a very standardized unit that can operate on almost any aircraft type. Further, the Aviation Rulemaking Advisory Committee (ARAC) that helped develop the FAA's Notice of Proposed Rulemaking (NPRM) made every attempt to standardize across different airplane types and the different aircraft operating rules (i.e. Part 121, 135, 129). The airlines were well represented on the ARAC committee.

We would like to note that Southwest Airlines is retrofitting its fleet with state-of-the art flight data recorders. The carrier has not found it financially prohibitive to do so.

With regard to the FAA proposal for the industry's transition, based on our knowledge of the NPRM and how it was developed, we believe that FAA did take the industry's concerns about FDR system standardization into account.

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

NTSB'S VIEWS OF GORE COMMISSION RECOMMENDATIONS

Question. Mr. Hall, the Gore Commission report made numerous recommendations on how to improve aviation safety and security. It is criticized in some quarters as being long on advice and short on how to accomplish the objectives.

Do you believe that the Gore Commission report avoids some of the harder-to-solve safety issues in favor of accommodation with the aviation industry?

Answer. I believe that the Gore Commission report addressed all of the important aviation safety and security issues and it contained important recommendations for actions to improve the safety of our air transportation system. Some of the actions are well underway. For example, BNASA has organized a significant government/industry group (Aviation Safety Investment Strategy Team [ASIST]) to address the future research and development technological needs to reduce the accident rate five-fold over the next 10 years and ten-fold over the next 20 years. The Safety Board participated in much of the work of the ASIST project, which included a series of workshops to define an aviation safety investment strategy and delineate NASA programmatic investment options to improve aviation safety. Moreover, many initiatives in the aviation security area have already begun in response to the interim recommendations issued by the Gore Commission on September 9, 1996.

I do not believe that the Gore Commission report avoided the "hard-to-solve safety issues" to accommodate the aviation industry. However, I should point out that the industry did make certain announcements to voluntarily take certain actions within a specified time frame as a result of the issues debated during the Gore Commission meetings. For example, in December 1996, the Air Transport Association (ATA) announced that its member airlines would voluntarily install smoke detectors in Class D cargo compartments without FAA regulation.

The findings of the May 17, 1996, ValuJet accident in the Everglades highlighted the need for fire/smoke detection and suppression systems in passenger-carrying aircraft cargo compartments. The Gore Commission report did contain recommendations to the FAA for action on such systems. Last week, the FAA and ATA's member carriers announced their intention to move forward on this issue. We expect to see FAA rulemaking this summer, and Secretary Slater has committed to a final rule by the end of this year.

Question. Are there some recommendations with which the NTSB disagrees in whole or part? Are there additional recommendations that NTSB would like to see added?

Answer. As a member of the Gore Commission, I supported the Commission's final report. The Board has not formally reviewed the Gore Commission report or its recommendations.

Question. Mr. Hall, one of the Gore Commission recommendations was for the NTSB to develop a coordinated federal response plan to aviation disasters by April 1997.

What is the status of this recommendation? Have you had the full cooperation of the other agencies that would be involved in responding to a disaster?

Answer. The Safety Board has complied with the Gore Commission recommendation, and a Family Assistance Plan for Aviation Disasters is completed. Copies of the plan were forwarded to the Subcommittee on May 13, 1997. The Safety Board's plan was prepared in close cooperation with representatives from individual family members and the aviation industry, as well as legal, medical and emergency response experts. We have received excellent cooperation from other government agencies, and our plan also reflects memoranda of understanding, either in final or draft form, with six Federal agencies, including the Departments of Justice, Defense, State, Transportation, Health and Human Services, and the Federal Emergency Management Agency. These agencies, as well as the American Red Cross, are prepared to respond to an aviation disaster if needed.

NTSB'S EMERGENCY FUND REQUEST

Question. Mr. Hall, the NTSB has submitted an fiscal year 1997 Emergency Supplemental funding request to the Committee to cover the extraordinary costs associated with the TWA 800 costs as well as the implementation of some of the Gore Commission recommendations.

Why does the amount of funding you are requesting of us differ from the level formally requested by OMB?

Answer. The amount requested by the Safety Board for the supplemental appropriation reflects the amount required to accomplish the TWA flight 800 investigation, the new mandate to provide assistance to the families of the victims of transportation accidents, and other accident investigation activities.

Question. How much of the costs of the TWA 800 investigation have been borne by the Navy. Did you ask the Navy to absorb their costs out of their huge annual operating budget?

Answer. The U.S. Navy has not been reimbursed for $5.3 million for victim and wreckage recovery costs they have incurred, and they have not been reimbursed for any costs of the Calverton facility where the wreckage is stored and much of the investigation was conducted. For fiscal year 1997, the amount owed will be $5 million, for a total of $10.3 million. Since we have a reimbursable memorandum of understanding, we have not asked the Navy to absorb these costs. Also, it is our understanding that they cannot legally do so. We did ask the FBI to share in the costs of the investigation, but the Department of Justice declined.

Question. What specific activities will not get done if we approve the OMB request rather than your higher request?

Answer. If the full supplemental is not approved, we will be unable to fulfill our Congressional mandate to assist the families of the victims of recent transportation accident tragedies—including TWA flight 800—nor will we be able to avoid forcing our investigative staff to continue to take on inordinate workloads where we have only a few specialists in a given field. The real impact may take the form of diminished public confidence in the Board's work.

DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

STATEMENT OF BARRY VALENTINE, ACTING ADMINISTRATOR

ACCOMPANIED BY:

SUSAN KURLAND, ASSOCIATE ADMINISTRATOR, AIRPORTS
CATHAL L. FLYNN, ASSOCIATE ADMINISTRATOR, CIVIL AVIATION SECURITY
MONTE BELGER, ACTING DEPUTY ADMINISTRATOR
GEORGE DONOHUE, ASSOCIATE ADMINISTRATOR, RESEARCH AND ACQUISITIONS
GUY S. GARDNER, ASSOCIATE ADMINISTRATOR, REGULATION AND CERTIFICATION

INTRODUCTION OF WITNESSES

Senator SHELBY. In the second panel we will explore how the Federal Aviation Administration is addressing safety and security concerns. We will have Mr. Barry Valentine, Acting Administrator; Ms. Susan Kurland, Associate Administrator, Airports; Adm. Cathal Flynn, Associate Administrator, Civil Aviation Security; Mr. Monty Belger, Acting Deputy Administrator; Dr. George Donohue, Associate Administrator, Research and Acquisitions; and Mr. Guy Gardner, Associate Administrator, Regulation and Certification. Gentlemen, your written statements will be made part of the record in their entirety, without objection.

Well, that is good news. Senator Lautenberg and Wally were just telling me that we are only going to have Mr. Valentine to give testimony. Is that correct?

Mr. VALENTINE. That is correct.

Senator SHELBY. Mr. Valentine, you may proceed.

OPENING REMARKS

Mr. VALENTINE. Thank you, Mr. Chairman.

Mr. Chairman and members of the subcommittee, I welcome the opportunity to appear before you today on the Federal Aviation Administration's activities relating to aviation safety and security. I want to thank you and the other members of the subcommittee for your continued interest in and support of the FAA's activities and programs. With me today are the individuals that you just named, so I will not repeat the names and the positions. I would like to take this opportunity to mention some of the FAA's recent achievements and ongoing activities that enhance aviation safety and further ensure the security of the flying public.

WHITE HOUSE COMMISSION ON AVIATION SAFETY AND SECURITY

In February, the White House Commission on Aviation Safety and Security, led by Vice President Gore, issued its final report,

updating its initial report issued in September of last year. A key recommendation was to reduce the aviation fatal accident rate by a factor of five within 10 years. Another was to accelerate the modernization of the air traffic control system. We are ready to work with the White House, the Congress, and the aviation community to see that these recommendations are implemented as quickly as possible.

SECURITY EQUIPMENT INTEGRATED PRODUCT TEAM

The FAA formed an integrated product team of acquisition and security experts last October, to plan, purchase, and install explosive detection devices and other advanced security equipment at many of the busiest U.S. airports. As a result, we are purchasing and deploying additional FAA certified explosives detection systems, trace detection devices, and automated x-ray machines with installations already underway.

CANINE TEAMS

Also, with the help of the airport industry, we are increasing the number of canine teams at the Nation's busiest airports. In what I believe to be a model example of partnership, the FAA is entering into cooperative agreements with these airports to place more teams on the tarmac to perform highly qualified screening of suspect cargo and bags, and to clear airliners and terminals after bomb threats.

PASSENGER PROFILING

FAA has been using profiling of passengers for nearly 25 years, and views it as a significant element in the aviation security regime. Given the huge number of passengers and their bags moving through the U.S. air transportation system, profiling enables us to better focus application of the more rigorous measures. Since the airlines are responsible for the application of the profile and its results, I want to reassure the members of the subcommittee that there is no FAA data base or Federal system of records that will be generated in the process. The data that will be analyzed by the profiling program consists of information voluntarily provided by passengers to airlines in the course of commercial transactions, and the result will be automatically deleted shortly after the completion of the flight.

90-DAY SAFETY REVIEW

In June 1996, the then Deputy Administrator, Linda Daschle, led a task force to conduct a 90-day safety review examining immediate areas of concern to the agency, especially with respect to safety inspections. The centerpiece of the 90-day safety review was the formation of a team to assist local flight standards district offices in processing new air carrier certification. The new entrant airlines will now have a heightened level of inspection for at least the first 5 years of operation.

The 90-day safety review recommended the increase of funding to upgrade and accelerate the deployment of online aviation safety inspection systems to the aviation safety inspector work force by

fiscal year 1999. We wholeheartedly agree with and are moving toward implementing these recommendations.

AIRPORT IMPROVEMENT PROGRAM

As you know, the Office of Airports administers the airport improvement program [AIP]. The highest priority of the AIP is safety and security projects at airports. Typical projects for safety and security include the acquisition of aircraft rescue and firefighting equipment, runway and taxiway signs, runway incursion caution bars, runway and taxiway lighting, access control systems, and perimeter fencing, as well as lighting, marking, and removal of airport hazards. Much of the AIP is used each year to rehabilitate airport infrastructure.

Some current FAA airport standard projects that directly relate to safe aircraft operations involve improved airfield lighting to support low visibility operations and reduce runway incursions and runway pavement traction. For instance, we are working with the Port Authority of New York and New Jersey on a prototype aircraft arrestment system that can be placed in the safety areas at runway ends to bring aircraft that have overrun the pavement to a controlled stop.

MODERNIZING THE NATIONAL AIRSPACE SYSTEM

Today the United States has the safest and most efficient air traffic system in the world. However, as former FAA Administrator David Hinson warned, with projected increases in traffic, if today's accident rate remains constant, we can expect the equivalent of one major accident every 8 to 10 days worldwide by the year 2015. Therefore, the core issue is whether the FAA can continue to provide a high level of safety and service in light of the aviation industry's expected growth without modernizing the national airspace system. It is obvious that we cannot.

Without such features as digital radio communications and the decision support tools needed to increase controller productivity, the capability and capacity of the system will reach saturation by the years 2001 to 2002. If this occurs, we will have no alternative but to artificially constrain air traffic at major airports, which the FAA did after the 1981 controller strike. The consequences of such an action are obvious and severe.

One barrier to modernization is a human factors issue, a lack of experience with computer and human integration. We have conducted simulation tests and laboratory demonstrations of systems containing today's advances in technologies separately, but are designing a project to operate these systems together under real operating conditions. We currently intend to make a complete operational and systematic evaluation under real operational conditions prior to any commitment to systemwide acquisitions, training, and deployment.

In closing, Mr. Chairman, I would like to thank you and the members of this committee for the support you have provided to and for the FAA. I want to assure you of our willingness to work closely with you.

This completes my opening statement, and we would be pleased to answer any questions you have.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Valentine. We have your complete statement, and it will be made part of the record.

[The statement follows:]

PREPARED STATEMENT OF BARRY L. VALENTINE

Mr. Chairman and Members of the Subcommittee: I welcome the opportunity to appear before you today on the Federal Aviation Administration's budget request of $8.46 billion for fiscal year 1998. I want to thank you and the other members of the Subcommittee for your continued interest in and support for the FAA's activities and programs. With me today are Monte Belger, Acting Deputy Administrator; George Donohue, Associate Administrator for Research & Acquisitions; Irish Flynn, Associate Administrator for Civil Aviation Security; Susan Kurland, Associate Administrator for Airports; and Guy Gardner, Associate Administrator for Regulation & Certification. They are available to answer any questions you may have.

I would like to take this opportunity to highlight some of the FAA's recent achievements and on-going activities which enhance aviation safety and further ensure the security of the flying public. In February, the White House Commission on Aviation Safety and Security, led by Vice-President Gore, issued its final report, updating its initial report issued in September of last year. As you know, the Federal Aviation Reauthorization Act incorporated many of the White House Commission's initial recommendations dealing with aviation security and safety. Understandably then, we are focusing on implementing the provisions of the Reauthorization Act as well as those of the Omnibus Consolidated Appropriations Act of 1997, which funds the initial recommendations. As examples, we have published notices of proposed rulemaking on certification of screening companies and on extending background check regulations to include screeners. We are expanding our contract with the National Academy of Sciences to broaden our work on advanced security technologies, and have intensified our close working relationship with the FBI to refine airport risk assessment, and to conduct threat and vulnerability analyses. We have also instituted a bag match pilot program.

The FAA formed an Integrated Product Team of acquisition and security experts last October to plan, purchase and install explosives detection devices, and other advanced security equipment, at many of the busiest U.S. airports. In the spirit of partnership fostered by the Commission, representatives of airport and air carrier representatives are members of the team. As a result, we are purchasing and deploying additional FAA certified explosives detection systems, trace detection devices and automated X-ray machines with installations already underway.

Also, with the help of the airport industry, we are increasing the number of canine teams at the nation's busiest airports. In what I believe to be a model example of partnership, the FAA is entering into cooperative agreements with these airports to place more teams on the tarmac to perform high quality screening of suspect cargo and bags, and to clear airliners and terminals after bomb threats. Our classes for training the dogs and their handlers are well underway.

FAA has been using passenger profiling for nearly 25 years and views it as a significant element in the aviation security regime. Profiling permits leveraging of limited security resources. Some of the more time-consuming security measures cannot be applied universally with existing technology and space constraints while keeping the aviation system functioning near its current capacity. Profiling enables us to better focus application of the more rigorous measures, given the huge number of passengers and their bags moving through the U.S. air transportation system. Automation will make it possible to refine the process and make it less time-consuming for both passengers and airline agents.

The airlines will apply the profile and any additional screening that may occur as a result, which may delay some passengers in some cases. Since the airlines are responsible for the application of the profile and its results, there is no FAA "database" or federal system of records that will be generated in the process. The data that will be analyzed by the profiling program consists of information voluntarily provided by passengers to airlines in the course of commercial transactions. The analyzed result will be automatically deleted shortly after the completion of the flight. In addition, the Department of Transportation is proceeding with a White House Commission recommendation to have the Department of Transportation and the Department of Justice review the design and implementation of the prototype automated profiling system.

In June 1996, the then-Deputy Administrator, Linda Daschle, led a task force to conduct a 90-Day Safety Review examining immediate areas of concern to the agency, especially with respect to safety inspections. The centerpiece of the 90-Day Safety Review was the formation of a Certification, Standardization, and Evaluation Team (CSET). CSET is designed to assist local Flight Standards District Offices in processing new air carrier certification. Developing, testing, and prototyping of improved certification and surveillance procedures for new entrant carriers is scheduled to begin in the third quarter of fiscal year 1997, and will become fully functional by the end of the fiscal year. New entrant airlines will now have a heightened level of inspection for at least the first 5 years of operation.

Performance Enhancement System (PENS), also known as the On-line Aviation Safety Inspection System (OASIS), is an electronic performance system for Aviation Safety Inspectors which facilitates field data collection, information management, and on-line references. The 90-Day Safety Review recommended the increase of funding to upgrade and accelerate the deployment of OASIS to the aviation safety inspector work force by fiscal year 1999.

The 90-Day Safety Review identified a need for an increase in Flight Standards Aviation Safety Inspectors (ASI) and field support. The fiscal year 1998 budget requests an additional 326 positions including 288 Flight Safety field office personnel, 6 Aviation Safety Inspectors, 17 Aviation Safety Engineers, and 15 Technical Safety Positions, to carry out these duties.

The aviation safety record that the United States enjoys results in large part from the FAA's preventive efforts and ability to identify and solve potential safety problems before accidents happen. Despite the FAA's best efforts, accidents do occur. When they do, the FAA and the National Transportation Safety Board (NTSB) work closely together during an accident investigation to identify where and how the system failed. The FAA's Civil Aeromedical Institute in Oklahoma City is available to provide the NTSB with medical services such as pathological and toxicological testing, and funding for autopsies and other post mortem examinations. The FAA Technical Center in Atlantic City also provides investigation support through component testing and research. Of 3,123 NTSB recommendations that have been closed, 84 percent of the FAA's responses have been closed "acceptable" by the NTSB. The FAA's closed "acceptable" rate for the NTSB's urgent recommendations is 90 percent.

In response to the Gore Commission recommendation, the FAA is working in partnership with NASA in an endeavor to reduce the aviation fatal accident rate by a factor of 5 within 10 years. Current FAA/NASA cooperative research initiatives include aging aircraft studies and Advanced General Aviation Transport Experiments (AGATE).

As you know, the Office of Airports administers the Airport Improvement Program (AIP). The highest priority of the AIP is reserved for safety and security projects at airports. Airport sponsors are strongly encouraged to use their formula funds for projects to meet these requirements. Typical projects for safety include the acquisition of aircraft rescue and firefighting equipment, runway and taxiway signs and runway incursion caution bars, and runway and taxiway lighting, as well as lighting, marking or removal of airport hazards. Typical security projects include access control systems to prevent unauthorized entry onto the airport operations areas and perimeter fencing. Safety related work of equal priority, such as runway grooving, distance-to-go signs, and runway end identifier lights are generally incorporated as standard elements of many AIP funded airport development projects. Much of the AIP is used each year to rehabilitate airport infrastructure. In addition to keeping airports in serviceable condition, these projects foster safety by ensuring that deteriorated pavement or lighting, for example, not contribute to airfield accidents or incidents.

The Office of Airports also manages several key technical programs that promote airport safety and act to reduce the number of aircraft accidents on and near airports. In addition to regulatory certification, the Office of Airports establishes minimum standards and recommended practices for all aspects of the design, construction, and operation of airports. These standards must continually be reviewed and updated to reflect new technology.

Some current FAA airport standards projects that directly relate to safe aircraft operation involve improved airfield lighting to support low visibility operations and reduce runway incursions, runway pavement traction, and the minimum distance between a runway and bird attractants such as landfills. For instance, we are working with the Port Authority of New York and New Jersey on a prototype aircraft arrestment system that can be placed in the safety areas at runway ends to bring aircraft which have overrun the pavement to a controlled stop.

A modernized communications, navigation, surveillance and air traffic management system is one of the best long-term means of maximizing public safety benefits. Let me give you examples of what I mean by a public safety benefit. When we talk about modernizing the system, this means, among other things, putting state-of-the-art equipment in the cockpit to give pilots a much better picture of traffic and weather outside their cockpit window, and giving them the data needed to make real-time, informed decisions. This means giving air traffic controllers faster and more accurate decision support tools to separate aircraft. Some of this equipment uses satellite signals and digital data link capability to provide pilots with the equivalent of radar coverage no matter where they are flying in the system, worldwide, without the need for additional and costly ground-based radar.

Today, the U.S. has the safest and most efficient air traffic system in the world. However, as former FAA Administrator David Hinson has warned, if today's accident rate remains constant, statistics show that, with projected increases in traffic, we can expect the equivalent of one major accident every 8–10 days worldwide by the year 2015. Therefore, the core issue is whether the FAA can continue to provide a high level of safety and service in light of the aviation industry's expected growth without modernizing the National Airspace System. It is obvious we cannot.

Without such features as digital radio communications and the decision support tools needed to increase controller productivity, the capacity of the system will reach saturation by the years 2001–2002. If this occurs, we will have no alternative but to artificially constrain air traffic at major airport hubs, which the FAA did after the 1981 controller strike. The consequences of such an action are obvious and severe.

One barrier to modernization is a human factors issue—the lack of experience with computer and human integration. We have conducted simulation tests and laboratory demonstrations of systems containing today's advances in technologies separately, but have not operated these systems together, under real operating conditions. We must make such a complete operational and systemic evaluation under real operational conditions prior to any commitment to system-wide acquisitions, training, and deployment. We are attempting to develop such a plan that will help us accomplish such a large-scale evaluation. Our Flight 2000 project envisions such a set of conditions for a real-time demonstration and evaluation of new technologies, and their adaptability to system-wide adoption.

In closing, Mr. Chairman, we would like to thank you and the Members of this Committee for the support you have provided to, and for, the FAA, and to assure you of our willingness to work closely with you. This completes my prepared opening statement. We will be pleased to answer any questions you may have.

IMPLEMENTING SAFETY AND SECURITY RECOMMENDATIONS

Senator SHELBY. Senator Lautenberg.

Senator LAUTENBERG. Thank you, Mr. Chairman, for indulging my request to be able to ask my questions first.

Mr. Valentine, good to see you, and as I said, Mr. Chairman, in the capacity as Acting Administrator I think it is fair to say that the leadership has been diligent and good, and when we ask for a permanent resolution to that it is not intended to criticize but rather to have someone in place who is going to be there to see the long-term plans put into place and make the decisions that are long and complicated. So, Mr. Valentine, to you and your people my commendations for the hard work that does go into it.

Mr. VALENTINE. Thank you, Senator.

Senator LAUTENBERG. President Clinton, perhaps you know, before accepted virtually all of the safety and security recommendations of the Gore Commission. However, I am concerned that there is not an established timetable for the implementation of each of these recommendations. Can you give us a date by which time you expect all of the recommendations to be fully implemented?

Mr. VALENTINE. Senator, it would be difficult to give a date when all of them will be 100 percent implemented. We are still reviewing the cost implications of some of the recommendations, particularly in the security area, and because those recommendations may, in

fact, require additional appropriations funding from Congress. But of the 50-plus recommendations, a little over 30 of them were related to security, and most of the balance were related to safety. Some also relate to efficiency and response to disasters.

I would note that a number of the recommendations were gleaned from the Challenge 2000 report and from the 90-day safety review, and those recommendations represent activities that we already have underway. Some of them have been completed. We have assigned the rest of the tasks to all of the lines of business. As I mentioned in my opening remarks, we have a team established to provide agencywide oversight of all of the recommendations that we are undertaking.

We have a tracking system in place. I get briefings every couple of weeks from our staff letting me know and letting our senior managers know exactly where we are on each of those recommendations. My answer is that we will be pursuing them as expeditiously as we possibly can.

COST FACTORS—IMPLEMENTING SAFETY AND SECURITY RECOMMENDATIONS

Senator LAUTENBERG. You mentioned the appropriation and some of the cost factors that might be associated, and I quote here from the Gore Commission final recommendations: Cost alone should not become dispositive in deciding aviation safety and security rulemaking issues, and I would ask that if there are programs that have yet to be implemented that you kind of highlight those for us and let us know which of those require additional funding or what else we can do to move them along. And I would like to ask you also to look at which of the recommendations may take the longest time to implement. I will not ask you for an answer now, but I would ask that your staff supply that to the committee.

[The information follows:]

It is FAA's intent, working with agencies throughout the Federal Government, to implement all the recommendations of the White House Commission. A number of the recommendations, including some of the initial recommendations made by the Commission last September, have already been implemented. Among the recommendations we currently expect to implement this year are:

—Strengthen the emphasis that government and aviation safety research places on human factors and training,
—Require installation of enhanced ground proximity warning systems in all commercial and military aircraft,
—Strengthen the protections that airline crew members receive from passenger misconduct,
—Develop a revised NAS modernization plan that achieves modernization by 2005,
—Research innovative means to accelerate the installation of advanced avionics in general aviation aircraft,
—Identify FAA's frequency spectrum needs for the future,
—Implement a comprehensive plan to address security threats to cargo,
—Submit a resolution to ICAO to begin a program to verify and improve compliance with international security standards,
—Establish consortia at all commercial airports to implement enhancements to safety and security,
—Deploy existing checked and carry-on bag screening technology,
—Significantly expand the use of bomb-sniffing dogs, and
—Improve passenger screening, including improved passenger manifests, automated passenger profiling, and positive bag-passenger match.

Many recommendations, of course, are costly, and many will take time. Although funding for the initial White House Commission recommendations was provided in

Public Law 104–208, the Omnibus Consolidated Appropriations Act, 1997, the additional recommendations included in the final findings issued in February 1997 are not funded in fiscal year 1997. Except for an advance appropriation of $100 million requested for fiscal year 1999, funding is not included in the fiscal year 1998 budget submission since the budget was completed prior to the final recommendations being issued. Funding requirements for fiscal year 1999 and thereafter will be requested through the normal budget process. The final findings of the White House Commission are being reviewed to determine the details of implementation as well as the additional costs.

By far the most costly unfunded item is modernizing the National Airspace System (NAS) by 2005 instead of 2015, as the current architecture envisions. This will clearly add several billion dollars to FAA budget needs over the next several years. Other costly items include strengthening aviation human factors research, and accelerating GPS use in NAS modernization. The White House Commission expects the National Civil Aviation Review Commission to explore innovative federal financing approaches, such as user fees, to finance an accelerated modernization of the NAS and design a new financing system for the FAA that would ensure adequate availability of funding.

Many recommendations will also take time to complete. Modernizing the NAS by 2005 is an acceleration from FAA's existing schedule. Fully using GPS as a part of that modernization is also a long-term project. Many recommendations, such as targeting regulatory resources for the most impact, simplifying regulations, and keeping cost alone from being dispositive, are ongoing and continuous. Some additional recommendations that we see as taking over two years to implement include developing and applying higher standards for certification of aviation businesses; establishing a high level of protection for all aviation information systems; and requiring criminal background checks and FBI fingerprint checks for all screeners and all airport and airline employees with access to secure areas. In each case implementing the recommendation will require a long regulatory process, possibly preceded by the need to enact legislation and/or conduct research.

ACCESS TO SECURED AREAS

Senator LAUTENBERG. Admiral Flynn, they should not put that nameplate up there. Irish is Irish. Why would you call it anything else?

Anyway, it is good to see all of you, and you, Admiral Flynn, I know how hard you have worked on the security issue. There have been a number of well-publicized incidents, including one at Newark, where the media have with ease broken through airport security measures and gained access to vulnerable areas such as the tarmac and the ramps. The FAA Authorization Act included a provision that I authorized directing it to conduct unannounced aggressive testing of airport and airline security programs. What has changed over the last 6 months to tighten security for airport personnel to seal these vulnerable areas? Have we done enough? Are we at a point where you are satisfied?

Admiral FLYNN. I am satisfied that we are moving in the right direction. The additional resources, the additional inspectors that we are hiring, will help us carry out a comprehensive and aggressive program of testing the security measures at all of our airports.

We have made considerable progress in that area. We have changed our method of inspecting from formal announced inspections, that people know ahead of time will be occurring, to aggressive testing that is not announced, where the inspectors are seen to be members of the public or take on the role of people who are attempting to do aircraft damage. By doing that, we have discovered vulnerabilities and are in the process of repairing them.

I would say with the case with Newark in particular that that airport has taken considerable efforts to remedy the problems that they had. They are ahead of the rest of the Nation, for example,

in requiring an employment history check and criminal history check for their screeners. They are also ahead of the rule that the FAA will introduce.

I think we are on the right track to get truly secure airports.

Senator LAUTENBERG. How long do you think it might take to get it to the point where you are satisfied?

Admiral FLYNN. I think that it is a matter of months rather than years.

CERTIFICATION OF NEW ENTRANT AIRLINES

Senator LAUTENBERG. I hope so. We will watch with interest.

Mr. Gardner, good to see you. The Gore Commission recognized that FAA is sometimes too lenient when it comes to certifying airlines and contractors, especially when safety and inspection records have not been what they ought to be. The commission recommended that the FAA be more stringent in the certification of these airlines. Do you agree with this recommendation?

Mr. GARDNER. Yes, sir. Actually, the 90-day safety review which, as Mr. Valentine mentioned, a lot of recommendations are incorporated in the White House Commission report. These recommendations concern the way we do oversight and certification of new entrant airlines. We have tightened up the way we do our certification processes of the new airlines, and hold them to tougher standards than we have before, as well as increased the oversight of new entrant carriers. We define a new entrant as someone who has been in continuous business for less than 5 years.

Senator LAUTENBERG. So they are subject to more scrutiny than the existing long-time operators?

Mr. GARDNER. Yes, sir; they are not only subject to more scrutiny, but we are also refocusing the talent in our inspector corps. We have formed a new certification team to consist of our very best inspectors so that they can focus on the new entrant carriers.

VULNERABILITY OF OUT OF DATE EQUIPMENT

Senator LAUTENBERG. Mr. Chairman, I thank you. I just want to respond to something.

Senator SHELBY. You can go right ahead.

Senator LAUTENBERG. Senator Bennett asked before about the simplicity of the equipment making it less vulnerable. I come out of the computer business, and I think you have all heard the story about when my company wanted to give away equipment that FAA was not using, we wanted to give it to charity, to institutions that could use them to teach students. They would not take it because of the high maintenance costs. They could not get value of it. Simple equipment is simple to intrude on. The more complicated often is the more difficult. So just to register my 2 cents.

Thank you very much.

Senator SHELBY. Thank you.

Senator Byrd.

AUTOMATED SURFACE OBSERVATION SYSTEMS

Senator BYRD. Mr. Valentine, I spoke earlier concerning the difficult weather conditions that pilots often face in my State. Two

months ago I sent a letter to Secretary Slater passing along numerous complaints I had received from airports in my State regarding the poor performance of the automated surface observing systems [ASOS]. These automated weather observation systems which are being installed in nine West Virginia airports have been consistently reporting inaccurate weather conditions, especially during inclement weather. Have you specifically investigated the performance of these systems at the West Virginia airports?

Mr. VALENTINE. Senator Byrd, let me ask Mr. Belger if he would address that subject. He is quite familiar with that.

Mr. BELGER. Yes, sir; first, I have seen your letter and I can tell you that the final response back to you is in final coordination. The reason it was delayed will be I think somewhat clear in my answer.

We have had problems with ASOS at airports like those in West Virginia which you described. About a year ago we established some performance standards for the use of ASOS in a stand-alone mode, and when we did that we agreed that after a year we would go back and reassess how that was working. We are in the process of doing that now. I can tell you now that over the next month or 6 weeks or so we will be specifically addressing those issues at the four airports in West Virginia that you have referred to.

I decided several weeks ago that in the interim, while we are going through this period of reassessment, we will not alter the current weather collection or augmentation systems at any of the airports. In other words, we will not eliminate any of the contract weather observers while we are going through this review.

WEST VIRGINIA CONTRACT WEATHER OBSERVERS

Senator BYRD. Well, very well. You cut right through to my next question, and it was, and I will state it for the record even though you have already responded, can you assure me that you will not be removing any of the contract weather observers from these four West Virginia airports until you can certify that the ASOS systems are working at an optimum level without compromising safety.

Mr. BELGER. Yes, sir.

Senator BYRD. So the answer is yes.

Mr. Chairman, I ask unanimous consent that my letter of February 19, 1997, to Secretary Rodney Slater be included in the record.

Senator SHELBY. Without objection, it is so ordered.

[The information follows:]

LETTER FROM SENATOR BYRD

February 19, 1997.

Hon. RODNEY SLATER,
Secretary, U.S. Department of Transportation,
Washington, DC.

DEAR SECRETARY SLATER: Congratulations on your recent confirmation as Secretary of Transportation. I enjoyed very much our meeting on January 30, and I appreciate your taking the time to stop by and discuss issues of concern to me and my constituents.

I want to bring to your attention a matter of immediate concern regarding aviation safety in my State. Recently, I have been informed by several constituents that the Automated Surface Observing System (ASOS) installed at airports in West Virginia is not accurately performing its intended functions of weather reporting and forecasting. During inclement weather, the ASOS is consistently reporting inac-

curate measurements, requiring constant backup by human observers. Moreover, readings on wind conditions and visibility are commonly inaccurate, and sky sensors often report erroneous values during inclement weather. Indeed, there have been several instances in which snowfall has been indicated by the system when no such condition existed.

Of even greater concern is the fact that four of the airports in West Virginia (Bluefield, Elkins, Martinsburg, and Beckley) have been classified as "Level D" and are targeted to lose the contract weather observers that currently compensate for the inaccurate ASOS information. The Mercer County Airport in Bluefield, West Virginia, is of utmost concern, since the contract weather observers are scheduled for removal within the next few days. Therefore, I am writing to request that the transfer of human observers from these four "Level D" airports be suspended until the accuracy and reliability of the ASOS devices at *each* West Virginia airport can be certified. I would further appreciate your assurance that safety will not be compromised at these "Level D" airports once the human observers are removed.

Thank you in advance for your immediate attention to this matter.

With kind regards, I am

Sincerely yours,

ROBERT C. BYRD.

PAYING FOR CONTRACT WEATHER OBSERVERS

Senator BYRD. Now, with reference to the paying for weather observers, the FAA this past June published this policy for contract weather observers in the Federal Register, and in that policy statement you made reference to the opportunity for local airport operators to back up the ASOS systems with their own contract weather observers. However, the cost of these weather observers would have to be borne by the airport and not by the FAA. Do you think it is consistent with your initiative to provide a single level of safety for all passenger aviation operations to implement a policy where smaller airports are required to pay for the weather observers themselves while the FAA continues to compensate weather observers at other larger airports around the country?

Mr. BELGER. That is one of the things we are looking at in this annual review that I referred to. The standards that we established a year ago are broken out into four levels, and they were developed, quite frankly, with the industry, and the airports had representation in the development of those standards. At the large airports, we are going to continue to provide the human observer. The issues, as you described, are at the smaller airports, and the question becomes whether or not removing the human observer has an impact on safety and efficiency. That is what we are doing this review for right now.

There are a lot of innovative ways we are looking at in which the weather observations can be made without having to go through the FAA contracting activities, perhaps doing it on a local level. It could be that we will turn out in the end to reimburse for those costs, much like we do with the contract tower program.

CONTRACT WEATHER OBSERVERS AT SMALLER AIRPORTS

Senator BYRD. Well, I am glad to hear you say that in the end there may be some reimbursement.

Why will only the smaller airports be required to pay for contract weather observers? Why isn't that burden being passed on equally to all airports across the country?

Mr. BELGER. First of all, we have not made that decision. As I said, we are going through that review process. But the logic be-

hind that thought is that at the larger airports the human observer is absolutely required to meet the safety and the efficiency and the performance of the larger aircraft. In other words, they have to have that 24-hour capability and they have to have, quite frankly, some of the augmentation observations that ASOS does not provide.

At many of the smaller airports it might not be necessary to have that augmentation. And again, I want to reemphasize that is what we are reassessing in this review.

Senator BYRD. I hope that due regard will be given to the question in the review and the kind of terrain where I live. We have many problems with weather. I have flown in and out of West Virginia for a long time, and some of the roughest flights I have had, and I have been all over the world, Afghanistan, flown up the Kyber Pass, and these places, I think the roughest flights I have had have been over West Virginia. They do not seem to be as rough as they used to be, but this is mountainous terrain, the weather changes fast.

Mr. BELGER. Right. I can assure you that we are looking at that.

DEREGULATION

Senator BYRD. And in addition to that, the small airports, these rural airports, are socked with the increased costs of flying, far more-so than the big ones. We pay for these long trips at low prices. We in West Virginia pay for those long trips. It costs $664 for me to make a round trip to Charleston, WV. Now, I think I can also recall when that round trip probably cost $70, maybe even less. And so with deregulation the small airports in the rural counties and the rural States of this country started paying, and paying big-time.

The air carriers started pulling out almost as soon as deregulation went into effect. Big carriers moved out of West Virginia, and the prices went up. The airfares went up. And I voted for deregulation, and I have been kicking myself ever since. My former colleague, Senator Randolph voted against it, and he voted right. I voted wrong.

But that is just an aside from what we are talking about here. That is just one of the problems that we have in a State that has only small airports and very inconvenient service, and extremely costly service. So when we add to that this next specter that stands at the table, smaller airports being required to pay for contract weather observers, I hope that we will be mindful of the problems that these small airports have and that the traveling public have in flying out of those airports and into them.

I see that my red light is on, Mr. Chairman. I thank you.

CATEGORY X AIRPORTS

Senator SHELBY. Thank you.

Admiral Flynn, the administration's budget asks for $746 million for safety—I believe that is a 12-percent increase above current levels—and $97 million for security in 1998. The FAA categorizes airports by risk level. Category X airports, such as New York's Kennedy Airport, Chicago's O'Hare, San Francisco International Airport, I understand are at the greatest risk for safety and security

matters. Do you believe, Admiral, more money needs to be spent at category X airports to improve safety and security?

Admiral FLYNN. Mr. Chairman, with regard to risk, what makes the category X of greater concern is the complexity of the operations and the number of passenger embarkations. I want to hasten to say that they are not inherently more threatened by terrorists than other airports.

Senator SHELBY. But the traffic makes it so, is that correct?

Admiral FLYNN. Indeed, that is right. It is the complexity.

Senator SHELBY. But that is due to the traffic.

Admiral FLYNN. That is right, Senator. Yes, Senator. And we have sufficient operations resources to be able to perform all the FAA functions at all of the airports that we regulate. Those that are in the budget request are sufficient to give us the resources to perform all of our regulatory functions.

Then with regard to the security at those airports, the principal vulnerability is in the area of checked baggage. We are aware of that. We had recommended changes to that and had instituted changes to it prior to the White House Commission being formed. There is the funding above that $97 million that you have mentioned, that is the $100 million per year, being recommended to acquire screening equipment for check baggage and other security improvements.

COSTS FOR BETTER SAFETY AND SECURITY

Senator SHELBY. How much more money, if you would make a judgment, needs to be spent for better safety and security at a large category X airport to improve training for airport security employees who monitor explosive detection equipment, train canines, and so forth?

Admiral FLYNN. The costs over 10 years at any one of those big airports of the additional people, the upgrading of their training, paying people, good people, in order to retain them, the 10-year cost exceeds $100 million for one of those airports.

Senator SHELBY. About $10 million a year, more or less?

Admiral FLYNN. I can provide for the record more precise costs.

Senator SHELBY. Could you do that?

[The information follows:]

Based on the recommendations in the White House Commission's Report, the total ten-year cost to the Government, airport authorities, and airlines for security programs at the Category X airports will be close to $3 billion. The total includes capital costs for new equipment as well as added personnel and their training. This averages out to $154 million per Category X airport, or slightly over $15 million annually for the next ten years.

BAY AREA RAPID TRANSIT [BART]

Senator SHELBY. Mr. Valentine, Admiral Flynn has just informed us that San Francisco International Airport, or other category X airports, needs approximately $100 million over a 10-year period to meet its basic safety and security needs. The BART financing agreement, which FAA must approve, requires the airlines to pay, I understand, about $7.5 million per year to help build the transit project. Is this the best use of those airport revenues?

Mr. VALENTINE. I think the first part of the answer is that I do not know that it requires them to spend it. That was an agreement that was struck by the parties among themselves.

Senator SHELBY. Well, if they have an agreement that is going to be obligatory, is it not?

Mr. VALENTINE. What I am saying is they have an agreement. There are no AIP moneys or PFC moneys involved in this process. It is just moneys that the airport has earned, and our role in that has been principally to determine whether or not that is an appropriate use of airport revenues.

Senator SHELBY. Is this an unusual precedent?

Mr. VALENTINE. I think it is one of the first of this type, but it fits within the parameters that we use to identify whether or not money is being appropriately used. I do have Ms. Kurland here with me who is much more familiar with the details on this.

AIRPORT FUNDS FOR TRANSIT PROJECTS

Senator SHELBY. Ms. Kurland on that?

Ms. KURLAND. Yes, Mr. Chairman; I agree with what Barry Valentine has just said. I would also point out that in the AIP handbook, which has been published for quite some time, there is a recognition that transit facilities at airports can in fact be eligible, if they are on the airport and connecting to a rapid transit system and for the benefit and purpose of the airport. And as you know, the committee in the conference report directed the FAA to look at the proposal that up to $200 million of airport funds could be used for this project. What we did was look at the proposal that was provided to us, determine what parts of the proposal met the statutory criteria, set out the eligibility principles, and make it very clear that only actual costs could, in fact, be eligible.

Senator SHELBY. Is this the best and highest priority for airport revenues, in view of safety and other concerns?

Ms. KURLAND. Mr. Chairman, let me try and answer your question this way: The proposal which has been provided to us does not propose the use of either AIP or PFC funds. This is for revenues generated on the airport. The airports do have control, in conjunction with airlines, depending on what type of agreements they have with their airlines on how revenues at the airport will be used. Once it meets the eligibility criteria, this is a determination for the local airport.

Senator SHELBY. Does FAA policy require airports to prioritize their needs, and is this the best and most efficient use of the money in view of the safety concerns that we are all concerned about?

Ms. KURLAND. Let me just amplify on your statement a little. For airport revenue to be used, it has to be for an airport purpose. And when we at the FAA spend discretionary funds from the AIP fund, we in fact do have a priority system in terms of how we rank projects. Safety and security are always at the top of the list in terms of how we spend discretionary AIP funds.

BEST USE OF AIRPORT FUNDS

Senator SHELBY. Earlier, Senator Byrd was bringing up safety concerns in his own State, the same concerns we have all over

America. Would not the airport money be better spent for airport safety, and would not people feel better about it in America? Airport safety is very important.

Ms. KURLAND. Airport safety is our key mission at the FAA. And as I just stated, when we do have the flexibility to spend the discretionary funds, that is our top priority. The statutory criteria do allow airports, as long as it meets eligibility criteria, to determine, in conjunction with their airlines or based on whatever their way of governing their airports and their funds are, to make those local determinations.

Senator SHELBY. I know that several members of this subcommittee and other members of the Appropriation Committee have contacted me as the subcommittee chairman regarding the BART money, that this is a diversion of moneys that should be spent for airport safety and everything else, and I thought this issue should be raised here today.

Ms. KURLAND. Thank you, and we would be happy to provide you with whatever additional information you would like, or additional briefings.

Admiral FLYNN. Mr. Chairman?

AIRLINES COST FOR SECURITY

Senator SHELBY. Yes; go ahead, Admiral.

Admiral FLYNN. The cost that I gave for security at a major airport includes the cost that the airlines would bear.

Senator SHELBY. We understand that. But still, that is the overall cost. That was your judgment, was it not?

Admiral FLYNN. That was my judgment, but I would need to refine it for the record.

Senator SHELBY. Of course.

Senator Byrd.

SAFETY PERFORMANCE OF COMMUTER AIR CARRIERS

Senator BYRD. Thank you, Mr. Chairman.

Mr. Valentine, the implementation period for all commuter air carriers to come into compliance with your initiative to ensure one level of safety for larger and smaller aircraft ended roughly 3 weeks ago, on March 20. At this point, do we have any hard evidence that the safety performance by the commuter industry has improved as a result of this initiative?

Mr. VALENTINE. When we looked at that initiative originally, Senator, the premise on which we undertook that effort was that if the commuter industry followed the same rules and procedures as the large carriers, that they would ultimately enjoy the same safety record as the large carriers. That was based on the fact that historically the fatal accident rate among commuters was higher than that of the large carriers. So in pursuing that course of action we used that assumption. We did not say that this particular piece of what was really a 100 and some-odd part improvement would necessarily result in a specific measurable increase in safety but, in the aggregate, doing all of these things would elevate those operators to the same level as the large carriers.

I am pleased to report that 1996 was the safest year in the last 15 years in terms of operations of commuter airlines. And in fact,

candidly, 1996 was better than the large operators. I hope that we will see that trend continue and I think we can expect to.

Senator BYRD. Well, I feel a little better about flying to West Virginia and back.

Mr. VALENTINE. I understand. I am originally from a State not unlike West Virginia. I am from northern New England, and the terrain and the weather and access by only commuters is a feature of that area, as well. So I appreciate what you are saying.

INSPECTION AND OVERSIGHT METHODS

Senator BYRD. Thank you, Mr. Valentine.

Now, following the ValuJet crash, your agency conducted a 90-day safety review that revealed deficiencies in the way that your agency inspected and conducted oversight over new entrants into the aviation business. Given these findings, are you convinced that your current inspection and oversight methods are ideally structured to detect any deficiencies in the commuter airline industry?

Mr. VALENTINE. Mr. Gardner, a little earlier, addressed that subject to some extent, and I would just reiterate what he said. I think that we are on the right course of action to making sure that we have the right people in the right place to provide the right oversight for new entrant airlines.

Senator BYRD. So you are satisfied that you are detecting any and all safety lapses in this part of the industry?

Mr. VALENTINE. We are satisfied that, given our resources and our opportunities, we are doing the best we can in that area.

Senator BYRD. Mr. Chairman, I thank you. I thank Mr. Valentine and all those who have appeared as witnesses. I especially thank you for your indulgence of questions from other members of the committee.

COST OF ACCELERATED MODERNIZATION

Senator SHELBY. Thank you.

Dr. Donohue, I have another question here. How much would the accelerated modernization program outlined in the Gore Commission recommendations increase the funding levels needed in the facilities and equipment account in the years 1999 to the year 2000? Do you want to furnish that for the record, or do you have it now?

Dr. DONOHUE. Yes, sir; I think that is an excellent question. We are currently staffing that, and we are trying to make sure that we have at least the beginning of that represented in the 1999 budget. But that is actually a very difficult question to answer accurately, even probably in our timeframe for putting together the 1999 budget. But we will continue to supply you with all the information we get as we get it.

It really is, I think, a cashflow issue because up-front capital investment will decrease operations costs—a question that was asked earlier—but we have to find the availability within our cashflow constraints, through some innovative means, to do the capital investments to decrease out-year operations costs and increase safety.

SECURITY MEASURES FOR DOMESTIC AND FOREIGN CARRIERS

Senator SHELBY. Mr. Valentine, or perhaps Admiral Flynn too, in view of the clear instructions in the Terrorism Prevention Act of 1996 that the FAA require foreign airlines serving the United States to have the, quote, "identical security measures that United States airlines are required to have." Do you know why the FAA has been unwilling to implement this law?

Mr. VALENTINE. I would ask Admiral Flynn if he would address that.

Senator SHELBY. Admiral?

Admiral FLYNN. Mr. Chairman, we have not been unwilling.

Senator SHELBY. Have you been unable?

Admiral FLYNN. No; it requires a regulation to do that.

Senator SHELBY. All right.

Admiral FLYNN. And we are introducing a regulation.

Senator SHELBY. You are going to pursue it, then?

Admiral FLYNN. Oh, indeed. Indeed, yes, sir.

Senator SHELBY. Good. It is my understanding, Mr. Valentine, that about one-half of the U.S. citizens traveling internationally do so on foreign airlines. Should not our citizens receive the same level of security as a passenger of any nationality who travels on a U.S. airline? In other words, they travel on our airlines, we have high security; should we not insist on security for our own people traveling abroad?

Mr. VALENTINE. We do insist, and I will let Admiral Flynn address some of this, if he wishes. We do insist on certain levels of security regarding, for example, foreign carriers who travel to the United States and airlines operating out of airports that are the last point of departure for the United States. They have to undergo security procedures virtually identical to the ones that we have here in the United States.

BUDGET REQUEST FOR MODERNIZATION

Senator SHELBY. Mr. Valentine, I have read warnings from many experts on the aviation system that we cannot get much more capacity out of the current system without major modernization. This means we will require increased capacity, both in air traffic control systems and our ground capacity. If these modernizations and enhancements are not made, many believe that there will have to be a cap imposed on the system capacity. That would not be a popular alternative for American travelers and businesses.

However, the FAA budget for 1998 system modernization under facilities and equipment decreases by $58 million, and the fiscal 1998 request for airport improvement program plummets $460 million below the enacted level, from $1.46 billion to $1 billion. Could you explain, for the record, the apparent decrease in this administration's commitment to system modernization and capacity enhancement? I think it is very important to a growing economy, among other things.

Mr. VALENTINE. We recognize, and I think recently you have heard Secretary Slater say, that air transportation is absolutely integral to the soundness of the economic system of any country today throughout the world. And for us to experience economic

growth, we are going to have to have comparable capacity growth in our air transportation system. And we think that the budget we propose reflects a recognition of that. In putting the budget together we had to make some very tough decisions about where best to allocate those resources.

I think one of the most obvious areas that you notice when you look at the budget is the change in the AIP funding, because the emphasis was placed on the operational end. Particularly focusing on airspace capacity, we recognize that, with regard to airport capacity and particularly those capacity-constrained airports—which are our larger airports—they have the ability to secure resources from other means and, in fact, historically have secured most of their resources from means other than AIP funding.

So in making our decisions and setting our priorities, we placed our emphasis on airspace capacity issues, recognizing that there are alternatives for the land side of the capacity problem.

CTX–5000

Senator SHELBY. I suppose this next question would be directed to you, Admiral Flynn, or Dr. Donohue. The CTX–5000 is the only FAA-certified airport baggage screening system, and the agency is currently procuring 54 systems for U.S. airports. In the fiscal 1998 budget request there is no funding requested for the CTX–5000 procurement. Is 54 systems the right number of CTX–5000's for the United States? Are there other technologies that will be certified within the next fiscal year that may provide the FAA with an alternative to CTX–5000?

Admiral FLYNN. It is possible that some other machine will be certified within the timeframe you mentioned, but the 54 CTX–5000's represent a small fraction of the total that will be required.

Senator SHELBY. For everything else?

Admiral FLYNN. No; of all the certified machines, be they CTX or some other certified systems, that will be required for screening checked baggage at the 76 biggest airports in the United States, where the use of such machines is clearly practical.

So additional money was requested, and that money becomes available on October 1, 1998, if it is appropriated as requested, to continue the acquisition of CTX–5000 or some other certified equipment, if that should happen in time to use that money.

Senator SHELBY. Dr. Donohue, do you concur with that?

Dr. DONOHUE. Yes, I do. I think there are some issues of production rates and how fast we can reasonably expect these new equipments to be produced. So I think we are doing it in the most prudent way.

WIDE AREA AUGMENTATION SYSTEM

Senator SHELBY. Dr. Donohue, last year the Appropriations Committee expressed increasing concern about schedule and cost risk in the wide area augmentation system program. The General Accounting Office says that recent events have confirmed that the FAA schedule for augmenting global positioning system is at risk, and that the internal FAA documents point to the potential of substantial cost increases.

Industry and even former FAA officials are saying that eventual costs for the program, even with scaled back requirements, will vastly exceed the $475 million original contract cost. Do you know what is the current cost baseline for the WAAS program?

Dr. DONOHUE. Yes, Senator.

Senator SHELBY. And do you disagree with the General Accounting Office.

Dr. DONOHUE. To some extent yes, I disagree with the General Accounting Office. This is a very complex program, and you have to look very carefully into what part of the program one is talking about. Our program does not only develop the software and the hardware and does the deployment of the system, it also buys communication services from satellites, INMARSAT, and it is looking at total life cycle costs including out-year maintenance.

There are a number of different ways to provide the out-year maintenance costs. They cost different amounts, depending upon what we ultimately execute. Our communications satellite costs, over a 10- or 15-year period, can vary in out-years based upon ways in which we are looking to decrease those costs.

The current Hughes contract is on schedule. It is, in fact, in some places ahead of schedule. We feel very confident that the primary contract is, in fact, proceeding as we have said before. There are some technical issues that we are looking at as we collect data from our national satellite test bed. We are evaluating that data to try to see whether or not we need to modify our requirement. We have not decided that yet. We are holding to the original requirements. But they are under review right now. I am doing a full review to try to understand exactly what those costs might be and that we are doing everything we can to hold the line.

Senator SHELBY. Will you let us on the committee and the staff know the outcome of that review?

Dr. DONOHUE. Yes, Senator; as soon as I complete the review, and I hope to do that over the next month or 6 weeks. We will provide you with all the information that we get.

SUBMITTED QUESTIONS

Senator SHELBY. I appreciate all of you, Mr. Valentine and all of you, appearing here before us and having a good and frank exchange of views. We will submit additional questions to be answered for the record.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR DOMENICI

AIRLINE SAFETY IMPROVEMENT MEASURES

Question. Acting Administrator Valentine, the Gore Commission recommends that the FAA should actively include the aviation industry in improving safety by forming partnerships to work together in such areas as self-monitoring and certification. In fact, recent testimony by the General Accounting Office (GAO) highlighted several safety concerns which were identified by non-FAA sources which would not have been detected by relying solely on FAA surveillance. I believe an inclusive safety program involving various parties could present significant positive benefits in improving our nation's fleets. However, I believe such partnerships should be formed very carefully and only after the FAA has insured such as partnership would

not compromise the agencies principle role as the industries' regulator. Has the FAA begun to consider any safety program(s) which would form partnerships with various aviation industries? And if so, would you provide me with examples?

Answer. In recent years, the Federal Aviation Administration (FAA) and the air transportation industry have identified safety areas that were in need of improvement. In response to these safety needs, the FAA, in cooperation with industry, established several demonstration Partnership for Safety Programs in an effort to increase the flow of safety information to both the air carrier and FAA. Among these programs were the US Airways Altitude Awareness Program, the American Airlines Safety Action Program, and the Alaska Airlines Altitude Awareness Program.

At the Safety Conference held on January 9–10, 1995, the Secretary of Transportation and the FAA Administrator announced the standardized policy and procedures that would be provided for the use of these programs along with the expansion of these programs to include participation from aviation industry employee groups, such as flight attendants, dispatchers, and mechanics.

On January 8, 1997, the FAA published Advisory Circular (AC) 120–66, which provides guidance for establishing air transportation Aviation Safety Action Programs (ASAP), formerly known as Partnership Programs. These programs, which are entered into by the FAA and entities of the air transportation industry, are intended to generate safety information that may not otherwise be obtainable.

Under certain circumstances, ASAP provides a vehicle whereby employees of part 121 air carriers and major domestic repair station certificate holders (part 145) can identify and report safety issues to management and the FAA for resolution without fear of punitive legal enforcement action being taken against them. The elements of ASAP are set forth in a memorandum of understanding between the FAA, certificate holders, management, and employee groups or their representatives.

Apparent violations of the regulations by employees of a certificate holder disclosed through safety-related reports will ordinarily be addressed with administrative action, provided that the apparent violations do not involve deliberate misconduct, a substantial disregard for safety or security, criminal conduct, or conduct that demonstrates or raises a question of a lack of qualification. Such violations are specifically excluded from the program. With the issuance and completion of the ASAP AC, inspector bulletin, and the informational seminar, airlines are now eligible to apply for program approval.

Another area of significance within our agency is the Global Analysis and Information Network (GAIN), a proposed analysis and information sharing framework that is intended to identify emerging safety concerns and disseminate significant safety information to the aviation community world-wide. The GAIN concept would link various data sources, such as voluntary disclosure reporting, incident reporting, digital flight data, and air traffic control (ATC) radar data with analytical methods such as qualitative risk assessment, data mining, data visualization, and statistical methods. Further discussions on potential features of the proposed GAIN system can be found in the GAIN concept document that was issued by the FAA's Office of System Safety on May 9, 1996 (a copy of which may be found on the System Safety website at http://nasdac.faa.gov).

The GAIN concept is not intended to replace the aviation safety programs currently active in segments of the global aviation community but will complement and build upon those activities, perhaps using information from some of these programs as inputs while helping to bring a wider, "global" participation to many of the programs. In addition, while many existing safety data systems rely on the more serious events that must be reported by regulation, GAIN will emphasize proactive identification of safety concerns through collection of data about the less serious but more numerous occurrences that are currently under-reported in the aviation system.

GAIN would also go beyond many of the current safety data programs by incorporating analysis of empirical data, such as digital flight data and ACT system data. The two potential uses of this empirical are to validate the concerns raised in voluntary reports and to create measures that describe system operations. Monitoring National Airspace System day-to-day operations for deviations from these statistical norms should quickly heighten aviation operators' awareness of conditions or circumstances that may signal the onset of increasing safety risk.

Other distinguishing features of GAIN include its scope, data management, and ownership. The scope of GAIN is envisioned as incorporating all aviation systems—flight operations, surface operations, and air traffic control—and all of the worldwide aviation community. By accessing the experience of the entire aviation community, GAIN will vastly increase the capability for all to benefit.

The data management concept for GAIN is very flexible. For a number of reasons, including the large quantity of raw data available, little or no sharing of raw data

is expected. Instead, the information resulting from analysis of raw data will be shared. In addition, it is unlikely that data or resulting information would be stored in a centralized location. Raw data could reside with its owners while the information byproducts could be made available to users through networking, a dissemination concept commonly known as a "virtual database."

While the FAA is helping facilitate the creation of GAIN by informing potential participants about the concept and bringing potential participants together, FAA will not own or operate GAIN. It is hoped that the potential safety and economic benefits to be derived from GAIN would motivate the aviation community to step forward and fund its development and then to own and operate GAIN for the mutual benefit of many users. FAA would be one of those users, providing some of GAIN's data/information inputs and then using GAIN's analytical results and supporting data.

Question. Do you as Acting Administrator, believe the FAA could effectively increase the safety of our nation's air fleet through a self-monitoring and self-certification process?

Answer. The Federal Aviation Administration (FAA) has developed and implemented a voluntary disclosure policy for specific types of airlines and repair stations. This is a policy under which 14 Code of Federal Regulations Parts 121, 135, and 145 certificate and production approval holders may voluntarily report apparent violations of the regulations and develop corrective action satisfactory to the FAA to preclude their recurrence. Certificate holders who satisfy the elements of the voluntary disclosure policy, receive a letter of correction in lieu of civil penalty action. Voluntary disclosure reporting procedures are outlined in Advisory Circular (AC) 120–56, Air Carrier Voluntary Disclosure Report Procedures. *Although not presently required by the regulations, manufacturers have been encouraged to perform self-audits as a basis for future changes since the new Federal Aviation Regulations (FAR) Part 21 will require self-audits by manufacturers.*

Voluntary disclosures for air carriers, which result in administrative actions, account for an increasing percentage of total air carrier enforcement investigative reports, growing from 7 percent in calendar year 1990 (the first year of the program) to 25 percent in calendar year 1996. This program is only one of several tools that the FAA has to seek compliance with the safety regulations. When appropriate the FAA will continue to use suspension or revocation and civil penalty actions for more serious cases.

The FAA also believes that the certificate holder is in the best position to identify deficiencies and promptly correct them, and it should have in place a procedure whereby internal compliance audits are performed and top management is informed of its company's operations, compliance, and safety record. Such internal audits will improve the certificate holder's ability to identify and correct any safety problems before, rather than after, FAA inspections. Public safety is enhanced significantly if deficiencies are identified and corrected when they are discovered by the certificate holder, instead of when the FAA discovers the deficiencies, sometimes much later, in the course of an inspection or in the wake of an accident or incident.

In 1990, the FAA announced a policy (Compliance & Enforcement Bulletin No. 90–6) that was intended to serve as an incentive to institute and maintain a system of internal evaluation. The FAA believes that aviation safety is best served by incentives to certificate holders to identify and correct their own instances of noncompliance and invest more resources in efforts to preclude their recurrence, rather than paying penalties. Prompt and meaningful remedial action to prevent the same or similar sort of violation from happening again, more directly and substantially improves the safety of our national transportation system than the recovery of thousands of dollars in civil penalties.

In 1992, the FAA published AC 120–59, Air Carrier Internal Evaluation Programs. This AC provides information and guidance material that may be used by air carrier certificate holders, operating under FAR Parts 121 and 135, to design or develop an Internal Evaluation Program. The procedures and practices outlined in this document can be applied to maintenance, flight operations, and security aspects of an air carrier's organization.

The Internal Evaluation Program is a voluntary program. Participation is left solely to the discretion of each certificate holder. As a matter of policy, the FAA encourages certificate holders to identify, correct, and disclose instances of noncompliance. Therefore, the development and implementation of an Internal Evaluation Program will benefit both the certificate holder and the flying public.

In a joint venture between the FAA and industry, self-certification has been used to some extent for a number of years. These initiatives are Designated Alteration Stations (DAS) and Delegation Option Authorizations (DOA). In both of these initiatives, the function of self-certification is performed with limited oversight being per-

formed by the FAA. However, in both the DOA and DAS, the company must have exhibited extraordinary abilities to perform these functions.

Our experience to date with the various programs have produced positive results and the FAA is confident that airline safety will continue to benefit from this corrective action process.

AGING AIRCRAFT CENTER

Question. Acting Administrator Valentine, the overall safety of our commercial air fleet has been of interest to me for several years now. In fact, in my state of New Mexico, an exciting new technology is being developed to improve the safety of our aging air fleet at the Aging Aircraft Non-destructive Evaluation Center (AANC) in Albuquerque. This center has been supported by the FAA for the past six years and we are seeing substantial progress in developing new techniques to assess the structural integrity of our commercial air fleets.

In fact, in your own budget request, the Administration highlights this new technology by stating it will save our 700 man-hours per aircraft inspection over current methods. However, the Administration's budget proposes to reduce the level of funding for aging aircraft research from $13.9 million in fiscal year 1997 to $13 million in fiscal year 1998. I am puzzled by this Administration's policies regarding aviation safety. On one hand the President identifies commercial air safety as one of his top priorities, but on the other hand he produces a budget proposal that once again decreases funding for one of our most important aviation safety issues. Knowing that by the year 2000 more than 2500 commercial aircraft in the United States may be flying beyond their original design lives, I believe this is dangerous policy. Do you believe the Administration's current budget proposal is sufficient to continue our efforts in ensuring aircraft safety?

Answer. The fiscal year 1998 budget request does not represent a decrease in the aging aircraft program. Rather, it reflects an increase of $2.4 million in contract funds. The total dollar amount appropriated in fiscal year 1997 was $13.9 million, which included in-house costs. The fiscal year 1998 budget request of $13 million reflects contract funds only, as in-house costs are now part of a separate budget line item. The budget proposal is sufficient to continue our highest priority work in ensuring the safety of aging aircraft.

Question. What current activities will be sustained with these resources?

Answer. Our highest priority aging aircraft activities in structural integrity, and maintenance and inspection in testing, evaluation, demonstration, and validation will be conducted.

Question. What activities will be reduced or eliminated due to budget reductions?

Answer. No major activities will be reduced or eliminated at the proposed $200 million budget level.

Question. What is the Administration's proposed budget for the Aging Aircraft Non-destructive Evaluation Center in Albuquerque?

Answer. The budget requests approximately $3 million for inspection technology development and validation.

Question. Acting Administrator Valentine, the Gore Commission also identifies aging aircraft as a major concern for aviation safety. In fact, they recommend that we expand the current aging aircraft inspection program to include the effects of age on non-structural components of commercial aircraft. Does the FAA support this recommendation?

Answer. FAA currently is evaluating the Gore Commission recommendations regarding the effects of age on non-structural components of commercial aircraft. Where the results of the evaluation indicate a need, the FAA will expand the current aging aircraft safety program to include non-structural components.

Question. Understanding the limited amount of funding available under this program, how does the FAA propose to fund this extra work load?

Answer. The Gore Commission recommendations were received after the fiscal year 1998 budget was formulated. If a review of the Commission's recommendations indicates a need for increasing the scope of the current aging aircraft program to include non-structural system components, the FAA will identify the scope of the changes necessary along with funding requirements.

AIRCRAFT SAFETY RESEARCH

Question. One of the "Gore Commission" recommendations is to work in cooperation with the airlines and manufacturers to expand the FAA's Aging Aircraft program to cover non-structural systems. I believe this recommendation is on the mark based upon the innovative work being done at the FAA's Aging Aircraft Non-destructive Evaluation Center (AANC) in Albuquerque.

This Center has made significant and effective contributions to improvements in aircraft inspection and repair by transferring new technology from the laboratory to routine use by industry. AANC goes through a methodical process of testing, demonstrating and validating new techniques and provides support to industry to implement them. Their success is shown by contracts with other federal agencies, including the Coast Guard and Air Force, on aircraft inspection and repair issues.

It seems to me that the close collaboration with the FAA, AANC, and the industry ensures that the best inspection techniques are transferred to routine usage in the most expeditious fashion. AANC is also working closely with airlines and manufacturers to develop industry standards for composite structure inspection. NASA has stated its intention to devote a sizable share of its resources to improve aviation safety and security. What is the status of discussions between the FAA and NASA on how to proceed with policy?

Answer. Two years ago, in anticipation of the need for a closer working relationship, NASA and the FAA exchanged executive personnel for the sole purpose of enhancing aviation safety by developing cooperative programs of mutual interest to both agencies. During the early development stage of the NASA new initiative for aviation safety, FAA played a key role in its formulation and focus. The FAA and NASA maintain a continuing dialogue through quarterly meetings at the Associate Administrator level to ensure that policy matters are resolved at this highest level. These discussions will lead to a method of transition, coordinated programs, and integrated planning. Included in the discussion is the establishment of an appropriate management oversight team to ensure timely execution of newly formulated programs.

Question. What areas of expertise are most appropriate for the FAA to remain the lead agency in aviation safety and security?

Answer. FAA's primary mission is to provide a safe, secure, and efficient global aviation system that contributes to national security. Public confidence in the safety of both the aircraft used and the airspace system is paramount to the ultimate competitiveness of the U.S. aviation industry. The inherent safety of an aircraft is a function of its design integrity and its manufacturing quality administrated through a certification program to ensure compliance with prescribed standards. A key aspect, therefore, of the FAA's primary mission is to ensure the highest level of public safety while incorporating new technology. The FAA has areas of preeminent expertise, such as, fire safety, aeromedical research, and air traffic systems technology. The FAA is required to address research that examines limits, performance, and margins of safety provided by current and evolving equipment, products, and procedures. This category of research supports the FAA in identifying and evaluating deterioration of the safety systems. This research can also identify needed innovative product development. Through early participation in the research and product development cycle, the FAA can accelerate technology through the certification process.

The FAA established the National Resource Specialist (NRS) Program to maintain a cadre of highly specialized experts to provide technical leadership in the design development and application of regulatory policies and practices for certification of rapidly advancing technology. The NRS program influences the research agenda of U.S. and foreign aviation industries, military, academia, and other research institutions; and interacts with and assists other U.S. Government agencies and foreign civil aviation authorities in technology related issues.

NASA has a role to play in the orderly development and validation of this technology including one of providing information that may assist the FAA in determining certification criteria.

Question. Could you comment upon areas where NASA could make a unique contribution to aviation safety and security work?

Answer. NASA's primary mission lies in the early, higher technical risk phase of the technology research and development chain where aeronautical concepts are created, basic research conducted, and risk is reduced through concept verification and validation. These efforts are aimed at improving the usefulness, performance, speed, safety, and efficiency of aeronautical vehicles and at helping to ensure a safe and efficient airspace system. NASA also acts as a catalyst with industry and academia to preserve the role of the United States as a world leader in aeronautical science and technology. NASA, in cooperation with FAA, has recently embarked upon a new technology investment strategy over the next five years with aggressive goals to provide the technology to reduce accident rates by a factor of five within the next ten years. These new systems will include but are not limited to: improving situational awareness, improving flight crews interactions, detecting and displaying hazardous weather, preventing collisions, extending useful life of existing aircraft, and identifying problems before they become accidents. As the technology matures, NASA assumes a supporting role as user needs—including those of the industry, DOD, and

FAA—dictate the nature and pace of technology development, certification, and inspection.

Question. Do you believe there can be an effective "marriage" between the FAA and NASA research programs to advance aviation safety and security?

Answer. NASA and the FAA have worked together continually to leverage the limited research and development resources available to the aviation community for improving aviation safety. The two agencies closely coordinate their respective research programs through periodic reviews at both the working and the associate administrator levels. Each agency maintains its own research efforts focusing on the specific roles and responsibilities of each agency. Specific examples include the General Aviation Propulsion (GAP) Program to develop a coordinated series of activities to develop a certification basis for future low-cost general aviation light aircraft propulsion systems. Another example is the jointly supported Advanced General Aviation Transport Experiments (AGATE) program designed to develop new technologies in the years 1995–2000 for a new generation of safe, economically and environmentally compatible general aviation aircraft. The FAA and NASA have demonstrated that they can effectively enhance aviation safety through a coordinated effort between the two agencies.

Question. With constrained budgets, I am concerned about duplication of effort. Congress will want any research program to be well coordinated and avoid inefficiencies and duplication of FAA's research program. Are you confident that duplication of effort can be avoided within the Administration?

Answer. The FAA and NASA are redoubling their efforts to ensure that the current and planned research programs are complimentary and leverage each others expertise and unique facilities. Through continuous communications throughout the two agencies' work force, the FAA is confident that its research program is coordinated with NASA's research efforts and supports the needs of the aviation community within the resources available. The FAA and NASA will strive to improve the integrated planning and coordination of each others research programs, so that potential duplication and inefficiencies will not occur. The establishment of an oversight management team will ensure continuous review and accountability of the research dollars in a constrained budget environment.

MODERNIZATION OF AIR TRAFFIC CONTROL SYSTEM

Question. The Gore Commission also evaluated the FAA's progress on the modernization of the out dated Air Traffic Control System (ATC). I am very concerned with the FAA's inability to remain on schedule and produce a product which will significantly benefit the American air traveler. The Gore Commission recommends the FAA should develop a revised modernization plan and to have that system fully operational by the year 2005. Has the FAA began to develop a new strategic plan for the development and implementation for the modernization of the Air Traffic Control System? And if so, where specifically are you in that process.

Answer. The FAA has begun to develop a new strategic plan for modernization of the Air Traffic Control System. A first draft of this strategic plan for modernization is embodied in the proposed National Airspace System Architecture (Version 2.0), which was released for aviation community comments October 1996. The FAA and the aviation community, taking into account the comments received on Version 2.0 and the new Air Traffic Control System concept of operations, will collaboratively develop a baseline architecture (Version 3.0) by the end of 1997.

Question. Does the FAA believe it is possible to have the Air Traffic Control system completely modernized by the year 2005? And if so, how much additional funding would be necessary to complete the system on such a fast track?

Answer. The FAA has taken a preliminary look at modernizing the Air Traffic Control system by 2005, and is in the process of developing a comprehensive plan to include detailed cost and schedule milestones. Completion of the modernization plan is scheduled for August of this year.

USER FEES

Question. Mr. Valentine, the President's budget proposes that beginning in 1999, the current aviation excise tax will be replaced by a cost-based user fee system.

The proposal shows $27.2 billion being collected under this user fee proposal between 1999 and 2002.

What assumptions did the FAA use in determining the revenues that can be generated by a user fee proposal? Specifically, who would pay the user fee and how would it be collected? How would user fees be assessed on the traveling public?

Answer. Projected revenues were based on the recovery of costs for all FAA programs. Using 1998 as a baseline, future years reflect 3-percent annual growth ex-

cept for the Airport Improvement Program, which remains constant at $1 billion. Specific fees to be charged have not been determined and will be influenced by the recommendations of the National Civil Aviation Review Commission. How the user fees are assessed and collected will be based on several considerations, including whether the fees are paid before, after, or concurrent with the provision of services, the volume of payments to be made, and the size of individual payments.

Question. If the FAA has not finalized how these fees would be collected or imposed, how were these revenue figures generated?

Answer. Using 1998 as a baseline, a 3-percent inflation factor per year was applied to operations, facilities and equipment, and research. AIP was straight-lined at $1 billion. As the President formulates his budget each year, decisions will be made on a year-to-year basis to update these assumptions.

Question. Would it have been more advantageous for the FAA to wait until the final report of the National Civil Aviation Review Commission before making revenue projections for a cost-based user fee?

Answer. The Administration is assuming that the work of the Commission will be completed before the end of this fiscal year and recommendations provided to Congress and DOT. This will allow time to make any necessary changes in the proposal to establish and implement user fees.

Question. Mr. Valentine, the President's budget proposes that beginning in 1999, the aviation excise tax will be replaced with a cost-based user fee system.

However the President's budget does not show where these user fees will be spent within the FAA.

In what areas and in what amount will these new user fees be spent between 1999 and 2002?

Answer. User fees will provide funding for all FAA programs. As the budget is formulated each year by the President, assumptions will be updated and the estimates revised.

Question. If this information is not known, how did the FAA arrive at its budget request of $35.9 billion between 1999 and 2002?

Answer. Fiscal year 1998 was used as a baseline and a 3-percent inflation factor per year was applied to operations, facilities and equipment and research. AIP was straight-lined at $1 billion.

Question. What level of funding will the FAA recommend to the National Civil Aviation Review Commission for (a) FAA Operations, (b) FAA Facilities and Equipment, (c) FAA Research and Development, and (d) the Airport Improvement Program between 1999 and 2002?

Answer. As part of their independent assessment of the FAA's financial requirements, Coopers & Lybrand concluded that the FAA's projected needs of $59.8 billion for fiscal years 1997–2002 were reasonable in total assuming a "status quo operating environment." Coopers goes on to state that the "National Civil Aviation Review Commission and its Aviation Funding Task Force should use that basic premise as their starting point." An update of the $59.8 billion was provided to Coopers. This update of FAA's requirements to $61.9 billion reflects the fiscal year 1997 enacted level, the fiscal year 1998 request level, revised pay raise and inflation assumptions, a refined pricing model for Operations, and $500 million in needed staffing changes.

For the shorter period, fiscal year 1999 through 2002, the levels of funding provided to Coopers and Lybrand were as follows (in budget authority): Operations—$25.6 billion, Facilities and Equipment—$10.4 billion, Research, Engineering and Development—$1.7 billion, and Airport Improvement Program—$7.1 billion.

At this time the requirements level to be recommended to the National Civil Aviation Review Commission have not been determined. The requirements level may need to be updated to reflect the fiscal year 1999 budget submission to the Office of the Secretary of Transportation and the cost associated with the recommendations of the White House Commission on Aviation Safety and Security.

QUESTIONS SUBMITTED BY SENATOR GORTON

FLIGHT DATA RECORDERS

Question. In testimony before the Commerce Committee, and in response to questions raised by committee members, NTSB Chairman Hall addressed the issue of expanded parameters for flight data recorders. Chairman Hall mentioned that foreign carriers have ordered, and U.S. manufacturers have supplied, aircraft with more sophisticated flight data recorders than U.S. carriers are demanding. Chairman Hall intimated that cost was the only reason that domestic air carriers would continue to order aircraft with flight data recorders that meet only minimum FAA

standards. I understand, however, that carriers also have concerns about integrating aircraft with new systems into their fleets. For maintenance purposes, they want to maintain standardization within their fleets. Is this a valid concern on the part of the U.S. carriers? Does the FAA believe that its proposal for the industry transition to flight data recorders with expanded parameters takes this concern into account?

Answer. Yes, the proposed rule takes standardization of the fleet into account. The carriers would like to maintain a standardized equipage to minimize maintenance procedures, inventory, and to provide interchangeability of equipment between different types of aircraft. However, because all airplanes are not alike and later built airplanes have more functional capabilities with advanced technology, e.g. computers and data bases, the National Transportation Safety Board determined that the newer and more sophisticated airplanes can and should provide that information from those systems that automatically control more of the airplane operating functions.

EXPLOSIVES DETECTION EQUIPMENT DEPLOYMENT

Question. I understand that the Gore Commission and members of Congress have criticized the FAA for its heavy reliance on the CTX 5000 security equipment, to the exclusion of other advanced technologies. Since the bombing of Pan Am 103, Congress has consistently urged the interim deployment of commercially available explosive detection equipment, and has recognized the benefits of a mix of technologies. The FAA appears, however, to continue to spend the bulk of its appropriations on CTX technology. When does the FAA plan to make a significant purchase of advanced x-ray equipment to complement the deployment of CTX equipment? Do you think we can learn lessons from countries throughout the world that are spending millions of dollars on this type of equipment?

Answer. The Aviation Security Improvement Act of 1990 (Public Law 101–604) says that prior to a requirement for deployment of explosives detection systems (EDS), the FAA must certify that EDS performance meets standards based upon the amount and types of explosives that are likely to be used to cause catastrophic damage to commercial aircraft, derived from test results using independently developed test protocols. The Act further states that certified equipment must be able to detect such amounts under realistic air carrier operating conditions.

The FAA established a threat list of explosives and associated amounts that would cause catastrophic damage to an aircraft, in coordination with U.S. Government organizations, distinguished scientific bodies, and European Civil Aviation Conference member states and other key foreign governments. In November 1992, FAA issued the draft EDS standard in the Federal Register, and final certification test protocols were completed in May 1993 by the National Academy of Sciences. The FAA carefully developed and coordinated these standards with the scientific and intelligence communities, the aviation industry, and properly cleared manufacturers and vendors, then published the final unclassified portions in the Federal Register on September 10, 1993.

The InVision CTX 5000 was certified in December 1994. No other manufacturer has yet applied for certification testing. The FAA agrees with the results that the rigorous process mandated by law has produced, namely, the performance criteria and certification standards that both InVision Technologies models, the CTX 5000 and the CTX 5000SP, have met. The FAA and the Office of the Secretary of Transportation have encouraged other manufacturers to meet this standard, which has also been adopted as a goal by the European Civil Aviation Conference.

Other commercially available "less-than-certified" automated explosives detection equipment is being deployed in foreign airports. The FAA has assessed these devices and will continue to monitor the progress of these other deployments. The White House Commission on Aviation Safety and Security recommended that such equipment be deployed at U.S. airports and this will be done.

The FAA plans to award contracts for about 20 automated dual energy X-ray machines manufactured by Vivid Technologies of Woburn, Massachusetts; EG&G Astrophysics of Long Beach, California; and Heimann Systems of Wiesbaden, Germany, plus a quadrupole resonance device manufactured by Quantum Magnetics of San Diego, California.

Question. I believe that the FAA has requested $100 million in fiscal year 1999 and nothing in fiscal year 1998 for use in the enhancement of airport security at our nation's airports. How does the FAA plan to use these funds, as well as the remainder of the fiscal year 1997 funds available? How many explosive detection machines will be purchased with this money and how many airports will receive the

equipment? At the current time, how many airports have received explosives detection equipment and have it in use?

Answer. Using a portion of the $144 million for the purchase of equipment provided by the Omnibus Consolidated Appropriations Act of 1997, a contract was awarded to InVision Technologies in December 1996 for an initial delivery of 54 units that began in January 1997 for deployment at 25 airports. Newly purchased units are now in Chicago and New York airports and installations are underway in two other cities. InVision CTX 5000 airport demonstrations, arranged through grants to three air carriers that began in November 1995 in San Francisco, in Atlanta during the Olympics, and in Manila in September 1996, continue in parallel with these new acquisitions. The demonstrations were designed to validate cost models and gain real world operational data and experience on the deployment of EDS as envisioned by the Aviation Security Improvement Act of 1990. As these demonstrations are completed, the equipment will remain at those three airports.

An initial deployment of other types of advanced equipment began with the installation of trace explosives detection devices in Atlanta last year and continues today at Chicago, New York, and Washington area airports. The FAA plans to award contracts to purchase over 480 trace explosives detection devices, and about 20 automated dual energy X-ray machines manufactured by Vivid Technologies of Woburn, Massachusetts; EG&G Astrophysics of Long Beach, California; and Heimann Systems of Wiesbaden, Germany, plus a quadrupole resonance device manufactured by Quantum Magnetics of San Diego, California.

WIDE AREA AUGMENTATION SYSTEM (WAAS)

Question. A recent Flight Safety Foundation study concluded that the accident risk while flying a nonprecision approach was five times greater than that associated with flying a precision approach. I am told that nearly 70 regional carriers serve more than 150 airports with nonprecision approaches in the United States, including five airports in my home State of Washington (Friday Harbor, Lopez, Anacortes, Wenatchee and Pullman-Moscow). Both the Flight Safety Foundation and the Vice President's Commission on Aviation Safety and Security have identified augmented GPS navigation technology as key to improving aviation safety because it will make precision approaches possible at nearly every airport in the country. How committed is the FAA to implementation of augmented GPS navigation in the form of your Wide Area Augmentation Systems (WAAS)?

Answer. The FAA is fully committed to implementation of the WAAS. The FAA awarded a contract for $483.5 million to Hughes Aircraft Company, and is over one year into execution of that contract. The initial operational capability is due to be commissioned in 1999; full operational capability is due to be commissioned in 2001.

Question. This subcommittee has been told that one justification for the WAAS program is that it will allow the FAA to begin decommissioning ground-based navigation aids. What would be the effect on the FAA budget and user benefits if the WAAS program is not fully funded or the system implementation is delayed?

Answer. FAA policy, based upon a full WAAS capability in 2001, is to begin decommissioning ILS's and VOR/DME's in 2005 and to be complete by 2010. The cost avoidance from decommissioning ground-based navigation aids is approximately $150 million annually (1997 dollars) and is due to the elimination of operation and maintenance expenses. If WAAS full system implementation is delayed more than five years, more than $1 billion would be needed to upgrade or replace many of today's navigation aids.

User benefits from WAAS include the potential to remove other navigation avionics (e.g., VOR's, DME's, and NDB's) and the avoidance of the associated maintenance and training costs. The WAAS will also provide a precision approach capability at thousands of airports that today have no instrument approach or only a nonprecision approach. The accident risk while flying a nonprecision approach is estimated to be five times greater than that associated with flying a precision approach. WAAS implementation delays would delay these benefits and expose the users to the greater risks associated with nonprecision approaches for a longer time.

Question. Tony Broderick, former FAA Associate Administrator for Regulation and Certification, recently testified before the Aviation Subcommittee. He indicated that the original cost projections for the WAAS program were underestimated to the tune of approximately $300 million. Does the FAA plan to live up to its original commitment to deliver on the WAAS program with the capability that was envisioned at the time that its initial funding was requested? Specifically, will the system have adequate redundancy built in to be able to provide for "sole means" of navigation en route, in the terminal area, and for "near-Category 1" precision approaches and landings at any facility, without reliance on current ground-based navigation aids?

Will the system also provide for the use of Local Area Augmentation Systems (LAAS), which the airlines can use to land in extremely poor visibility conditions?

Answer. (a) Yes. FAA does plan to provide a WAAS with a full operational capability by 2001.

(b) Yes. The current performance requirements will support sole means of navigation for en route, terminal, non-precision approaches, and Category 1 precision approaches at qualified locations.

(c) The original WAAS cost estimate did not envision all costs related to safety certification and end-state technical complexities. The FAA is currently reviewing the total WAAS implementation strategy. Following that review, the agency will forward any proposed changes to the original baseline to Congress.

(d) The FAA WAAS is being developed independent of the LAAS. However, user equipment specifications are being developed to provide both WAAS and LAAS services from a single receiver. The FAA is also investigating future joint use of reference stations equipment at sites requiring both WAAS and LAAS data collection.

QUESTIONS SUBMITTED BY SENATOR FAIRCLOTH

AIR TRAFFIC CONTROL MODERNIZATION

Question. The Gore Commission recommended acceleration of the ATC modernization program. Why should we believe that FAA could manage an accelerated effort since it has struggled so mightily with achieving cost and schedule goals for its existing program?

Answer. With the accomplishment of acquisition reform, and the establishment of Integrated Product Teams, the FAA has significantly improved its capability to acquire and deploy systems. For example, for the following major system acquisitions, we have "delivered" 119/124 Airport Surface Radar-9's, 32/40 Airport Surface Detection Equipment-3, 42/47 Terminal Doppler Weather Radar, 38/41 Area Route Surveillance Radar-4, 142/149 Mode S, all Voice Switch Communication Systems, 143/183 Mark 20 Integrated Landing Systems, and other systems.

The Display Channel Complex Rehost (DCCR) program was initiated in 1995 to resolve unacceptable failure rates of Display Channel Complex (DCC) at 5 centers. The DCCR program began delivering equipment seven months ahead of schedule. Another major modernization effort, the Display System Replacement (DSR), which will replace air traffic controller displays in all of the Air Route Traffic Control Centers, is on schedule for initial deliveries in October 1998.

Question. One long-standing criticism of FAA's management of its ATC acquisitions is that the agency tried to develop overly complex, large projects. The Advanced Automation System is one often-cited example. In recognizing the validity of this criticism, FAA announced that it would begin to emphasize commercial off-the-shelf (COTS) acquisitions. One of FAA's largest and most visible acquisitions is the Standard Terminal Automation Replacement System (STARS). STARS was billed as mostly COTS technology, yet the agency's timetable for developing STARS stretches into the next century before FAA will be able to install a fully operational system. Please provide me with your definition of COTS.

Answer. The STARS concept is to enhance a commercially-available Air Traffic Control system to meet the FAA's operational requirements. The winning vendor proposed to supplement their existing design of 840 thousand lines of code with an additional 140 thousand lines to address the full complement of STARS requirements. The contract calls for delivery of an Initial System Capability for test in December 1997, and a Full System Capability in December 1998. Each of these releases will undergo approximately one year of testing before they become operational. The STARS hardware is configured using commercial products for all major system components.

Question. Our records indicate that the Congress appropriated over $3 billion for the Advanced Automation System acquisition before FAA restructured it in 1994. In light of the cancellation of the terminal and tower components of the acquisition and the scaling back of the en route component called the Display System Replacement, how many contract deliverables can be credited against the $3 billion? In other words, the balance was a loss to the taxpayers, isn't that correct?

Answer. The FAA spent $2.6 billion on the Advanced Automation System (AAS) program prior to its restructuring in 1994. While the FAA agrees that large amount of funding was invested in the AAS program, there were also many benefits derived from the program.

The Peripheral Adapter Module Replacement Item (PAMRI) was successfully completed with the installation of PAMRI in all 20 ARTCC's, the FAA Technical Center,

and the FAA Aeronautical Center. All efforts related to ARTCC Modernization, including expanding the control rooms, rehabilitating the ARTCC automation wing, and providing other upgrades to the facilities that were required to install ISSS remain a program requirement for DSR.

The Initial Sector Suite System (ISSS) was descoped and renamed the Display System Replacement (DSR) program. Over 40 percent of the ISSS developed software was transported and used for the DSR program. The common console design; the 20"x20" main display monitor (MDM) console, which was developed for AAS, has become a standard for Air Traffic Control displays; the monitor and control design; test support platforms at the FAA Technical Center and FAA Aeronautical Center; the Development and Demonstration Facility used for early user evaluations; the new centralized software support maintenance strategy; and the expansion of the FAA Technical Center test laboratory were all successes of the ISSS program and are being used today for the DSR program. The Oceanic program has reused a substantial amount of equipment that was procured for ISSS but not needed for DSR.

When the AAS program was restructured, the AERA segment of the program was nearing completion of development of the algorithms necessary to predict flight path conflicts in the future, which is the basis for the URET prototype systems that are presently being tested at two ARTCC's. The URET prototypes will transition to the Initial Conflict Probe program, which will implement operational systems at all ARTCC's. FAA has committed to full scale development of the Initial Conflict Probe.

The Tower Control Computer Complex (TCCC) segment of AAS was restructured to provide a modular approach to a full TCCC implementation. That program underwent subsequent restructuring based on the availability of F&E resources and FAA priorities. The contractor has completed all development required on that program and has a design that would provide a platform for Surface Movement Advisor (SMA). However, because of limited resources and other higher priority NAS Modernization programs, the TCCC program has been canceled.

Two segments of the AAS program, Area Control Computer Complex (ACCC) and Terminal Advanced Automation System (TAAS), were canceled at the time of the restructuring. A substantial amount of the hardware that was procured during the development phase of the ACCC and TAAS programs, including common consoles, MDM's, processors, and displays, has been reused by the Oceanic and other FAA automation programs. Additionally, some FAA test laboratories are making use of residual material.

In summary, the FAA has attempted to leverage hardware, software, and the sharing of lessons learned where appropriate to maximize the return on our investment and to minimize other program costs.

Question. Please prepare a detailed account of federal government efforts to recover the costs to the taxpayers of waste and mismanagement in the Advanced Automation System acquisition program from IBM and other parties.

Answer. When the AAS Program was terminated, there were multiple measures taken to ensure that the government's investment was protected. Full and independent audits were conducted of the prime contractor and every major subcontractor; all delivered equipment is being used in other FAA programs where appropriate or has been sent to the FAA Depot for reutilization and work-in-process inventory was identified and reintroduced back into the contractors inventory for use on continued FAA efforts. Approximately 95 percent of the equipment was reused and over 40 percent of the software was provided for use by other programs. These cost recovery measures resulted in cost avoidance or reductions in other program costs. Every effort was made to ensure that the governments investment was protected and that sunk cost were held to a minimum.

AIR TRAFFIC CONTROL MODERNIZATION

Question. Please prepare your best estimate of the costs to the taxpayers of waste and mismanagement in the Advanced Automation System acquisition program.

Answer. Approximately $514 million invested in AAS through fiscal year 1994 resulted in non-recoverable costs.

Non-Recoverable funding spent on AAS	$437,000,000
Sunk Cost on TCCC through fiscal year 1994	77,000,000
Total	514,000,000

Question. GAO reported in its 1996 report on FAA's culture that agency officials deliberately underestimated program costs and established unrealistic schedules to gain approval of funding for its projects. We have seen reports that the estimated costs of the Wide Area Augmentation System (WAAS) acquisition were underestimated for "convenience." Last month, GAO testified that it had evidence from sev-

eral sources that program cost estimates could climb significantly. What is the agency's position on the reliability of the original WAAS cost estimate. We also understand that the schedule is facing another slippage. Could you address any schedule baseline changes being considered or already decided on by FAA?

Answer. (a) The original WAAS cost estimate did not envision all costs related to safety certification and end-state technical complexities. The FAA is currently reviewing the total WAAS implementation strategy. Following that review, the agency will forward any proposed changes to the original baseline to Congress.

(b) The initial operational capability is planned to be commissioned in 1999, and the final operational capability is planned for November 2001. There will be some intermediate milestone changes that evolve because of the technical complexities, however, no end-state delivery changes are planned to the 2001 delivery date.

Question. GAO and others have pointed to weaknesses in contract oversight as an underlying cause for FAA's acquisition problems. Does FAA have the necessary talent to provide sufficient oversight of its major contracts? To what extent should FAA rely less on contractors to oversee contractors and more on its own staff?

Answer. We believe that FAA has a talented work force that over the years has been required to perform diverse functions including contract oversight. It has been recognized that this area of performance needs to be strengthened. Therefore, the FAA is conducting a pilot program to implement a competency-based learning system whose purpose is to develop a corps of acquisition professionals with the appropriate education, training, experience, skills, and attitudes to work successfully in a system with far fewer regulations that puts a premium on technical competence, judgment, creativity, and initiative. The plan is to hire, train, and retain individuals who can work as part of teams, who can operate with general guidelines where reason and common sense are more important than the ability to follow the rule book, and who have the specialized education and training to deal with some of the most sophisticated communications, navigation, and surveillance systems in the world. As a result, the FAA should be able to rely more on its work force and less on contractor support to perform oversight duties.

Question. GAO reported in March that the STARS acquisition was able to avoid a major increase in its F&E cost estimate only because FAA now projects its costs for STARS computer hardware to be 40 percent less than initially expected. Why would the estimate be so far off?

Answer. The commercial off-the-shelf (COTS) acquisition approach, seeking competition between various commercial applications, makes it far more difficult to accurately predict what hardware will be offered with the system, and how that hardware will be priced.

All three of the STARS offerors proposed some hardware evolution of the existing Air Traffic Control systems. Two of the vendors proposed a PC-based solution, while the third (the eventual winner) proposed a system based on more powerful workstations. The workstation solution uses more expensive hardware, but the FAA was offered a competitive price due to an agreement negotiated by the Prime Contractor with the workstation manufacturer.

The FAA estimate was based on a "nominal" system using a target number of processors and their catalog prices—the logic of the estimate is still valid. However, it is difficult to accurately predict vendors competitive strategies in system design and pricing, and incorporate that prediction into the estimate.

ASHEVILLE, NORTH CAROLINA AIRPORT

Question. I wrote to Secretary Peña November 13, 1996 to urge the FAA to approve the application of Asheville (NC) Airport for a $1.5 million AIP grant for an extended runway safety area. The current 450 foot safety area falls short of the 1000 foot area required for Group C–IV aircraft under FAA Advisory Circular 150/5300–13. As I noted, the Airport committed its entitlement monies to this project, and I am curious about the status of their application for discretionary funds. Please prepare a comprehensive answer to inform me of the status of this application and explain the basis for any decisions already made. I will also appreciate your efforts to keep my office updated of all developments in this matter.

Answer. The FAA has formulated a project, which includes Airport Improvement Program discretionary funds, to extend the runway safety area at Asheville (NC) Airport. You will be notified through the congressional notification process once coordination within the Department of Transportation has been completed.

SANFORD-LEE COUNTY AIRPORT

Question. The conference report that accompanied the 1997 transportation appropriations bill urged "expeditious consideration to accelerated construction of the new

Sanford-Lee County Airport in North Carolina in the hope that the project can be completed as quickly as possible." I sent a letter to Administrator Daschle on November 15, 1996, and I encouraged the FAA to act to accommodate this recommendation. The Administrator replied that this request is "being evaluated," and, as this was the last correspondence that I received about this project, I am quite eager to learn the result of this evaluation process. Please prepare a detailed answer to explain the status of this project and the basis for any decisions already made. I will also appreciate your efforts to keep my office updated of all developments in this matter.

Answer. The FAA has formulated a project under the AIP's State Block Grant Program (SBGP) for North Carolina, which will provide fiscal year 1997 discretionary funding for the new Sanford-Lee County Airport. You will be notified through the congressional notification process once coordination within the Department of Transportation has been completed. This project will supplement any AIP State apportionment funds which the State of North Carolina approves under the SBGP. The discretionary funding is in accordance with the funding schedule for fiscal year 1997 to meet the airport's target date for completion by mid-1999, based on future funds availability beyond fiscal year 1997.

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

FAA AND CERTIFICATION OF AIRLINES AND RELATED BUSINESSES

Question. The Gore Commission recognized that the FAA is sometimes too lenient when it comes to certifying airlines and contractors, especially when their safety and inspection records have been less than perfect. The Commission recommended that the FAA be more stringent in the certification of these aviation businesses. Do you agree with this recommendation? If so, what are you doing to change the way the FAA certifies these businesses?

Answer. The FAA is in the process of establishing a new organization to address concerns regarding the manner in which the FAA certificates air carriers. This Certification Standardization and Evaluation Team (CSET) will be dedicated to the standardization of original certification and follow up evaluation activities for all Federal Aviation Regulations Part 121 air carriers.

The CSET will change the way the FAA currently performs certification by providing a dedicated team of certification and inspection experts who have the specialized expertise and experience necessary to accomplish the objective of standardization. This team of experts will work in virtual offices facilitating a more flexible work environment capable of rapid response to certification and inspection issues. The CSET will establish evaluation guidelines and assist in the development and implementation of a comprehensive air carrier surveillance plan using statistical and scientific tools.

Question. Is the FAA contemplating adopting more strenuous inspection measures and increasing enforcement actions when you find sub-standard practices?

Answer. The ultimate goal of Flight Standards Service is to ensure the compliance of each air carrier with the Federal Aviation Regulations (FAR). If a certificated air carrier falls out of compliance in a particular area, the immediate concern is to correct the problem area and take measures to ensure that non-compliance does not happen again. As a result, it is felt that addressing the issues of certification requirements and targeted surveillance plans is a more responsive approach to continued compliance than simply applying more "strenuous" inspection measures and increased enforcement actions.

The FAA has several efforts underway that will change the way inspections of the FAR part 121 air carriers are conducted. In response to the FAA 90-Day Safety Review, the newly created Certification, Standardization, and Evaluation Team (CSET) will not only address standardizing the certification procedures for FAR part 121 air carriers, but also will follow up with a comprehensive surveillance plan tailored to each air carrier's specific operation. In addition, newly certificated air carriers will have a surveillance plan tailored to the specific needs of the air carrier based upon the circumstances encountered during the certification process. Surveillance plans will be based on analysis of historical safety data and targeted to the needs of the new air carrier. Air carriers that have been certificated within the last five years will have increased levels of surveillance based on the requirements in the National Work Program Guidelines.

Other changes include the Surveillance Improvement Project (SIP) work group that examines the methodology, the organization, and the conduct of existing surveillance procedures. The final report from the SIP should be available in June and

recommendations from the group may be incorporated into CSET. The FAA also has a new initiative to change the organizational structure of geographic surveillance to be more effective. The environmental inspections of each air carrier may be accomplished by inspectors who are trained experts in the procedures for that operator.

DE-EMPHASIZING COST-BENEFIT ANALYSIS IN PROMULGATING SAFETY REGULATIONS

Question. The Gore Commission recognized that critical safety reforms are not being implemented because they cannot pass the strict "cost-benefit" test which is required of all proposed regulations. The Commission recommended that, "Cost alone should not become dispositive in deciding aviation safety and security rulemaking issues." What is the FAA doing to carry out this recommendation?

Answer. The FAA agrees that cost alone should not be dispositive in deciding aviation safety and security rulemaking issues, and is preparing to issue a policy statement clarifying this principle. After coordinating with OST and OMB, the FAA plans to publish the statement this summer and will insure regulatory decisions fully comply with that policy.

Question. What specific pending rulemaking actions do you expect to be influenced by this change in policy?

Answer. The FAA expects that all current pending safety and security rulemaking actions will be evaluated in accordance with the Gore Commission recommendation. Several specific prominent rules that are publicly known to be forthcoming include the following:

—Revised Standards for Cargo or Baggage Compartments in Transport Category Airplanes (requirement for fire detection and suppression systems)
—Aging Aircraft Safety
—Identical Security Measures (U.S. and non-U.S. air carriers serving the U.S.)
—Certification of Security Screening Companies
—Criminal History Background Checks of Airport Security Passenger and Baggage Screening Personnel.

TIMETABLE FOR IMPLEMENTING GORE COMMISSION RECOMMENDATIONS

Question. President Clinton officially accepted ALL of the safety and security recommendations of the Gore Commission. However, I am concerned that there is not an established timetable for implementation of each of the recommendations. By what date do you expect to have all of the recommendations fully implemented? Which of the recommendations will take the longest time to implement and why?

Answer. FAA and the Department of Transportation, working with a number of Federal agencies that lead on specific recommendations, have developed plans and a timetable for implementing the White House Commission recommendations. One of the 57 recommendations has already been fully implemented, and we expect up to 12 to be completed this year. Our current timetable assumes timely and adequate funding of those recommendations.

The recommendation that will take the longest to achieve is also the most costly, to modernize the air traffic management system by the year 2005. The current NAS Architecture calls for modernization by the year 2015. Modernization can be done more quickly, but it will require compression of both the schedule and the costs, and therefore substantially increased budgets from fiscal years 1998 through 2005.

FUNDING REQUIREMENTS TO IMPLEMENT GORE COMMISSION RECOMMENDATIONS

Question. At the end of last year, we added more than $225 million to the Continuing Resolution specifically to implement many of the measures recommended by the Gore Commission. This included funding for explosive detection systems, K–9 teams, threat assessments and other measures. Which specific Gore Commission recommendations do you believe still require additional appropriations above the current level?

Answer. Many recommendations, of course, are costly and will take time to complete. The final findings of the White House Commission are being reviewed to determine the details of implementation as well as the additional costs. By far the most costly unfunded item is modernizing the National Airspace System (NAS) by 2005, an acceleration from FAA's existing schedule of 2015. Other costly items include strengthening aviation human factors research, accelerating GPS use in NAS modernization, deploying explosives detection equipment, and completing other security related initiatives.

The White House Commission expects the National Civil Aviation Review Commission to explore innovative federal financing approaches, such as user fees, to finance an accelerated modernization of the NAS and design a new financing system for the FAA that would ensure adequate availability of funding.

Question. Are the costs of implementing all of these recommendations contained in your 1998 budget request? If not, why not?

Answer. No; funding is not included in the fiscal year 1998 budget submission for all of the recommendations since the budget was completed prior to issuance of the final recommendations. Funding requirements for fiscal year 1999 and thereafter will be requested through the normal budget process.

PASSENGER SECURITY MEASURES AND CIVIL LIBERTIES

Question. There have been concerns raised that the FAA's passenger "profiling" methods will be overly intrusive and discriminatory. The Gore Commission recommended that an independent body monitor these security measures and make recommendations to ensure that no groups are inappropriately subjected to heightened security measures. When do you expect this independent body to be established?

Answer. The Department of Transportation is proceeding with the White House Commission recommendation by arranging for the Department of Justice to review the design and implementation of the prototype automated profiling system known as Computer Assisted Passenger Screening or CAPS, which FAA developed with Northwest Airlines. An organizational meeting with senior representatives of the Department of Justice has been held and others are planned.

FAA's profiling requirements do not differentiate among U.S. citizens on the basis of factors such as race, religion, ethnicity or national origin. While confident that FAA procedures do not infringe upon civil liberties, the review of profiling that is underway by the Department of Justice will ensure no illegal discrimination occurs.

Question. What course of action will be available to passengers who feel they have been subjected to discriminatory or overly intrusive security measures?

Answer. Passengers who have questions or complaints about overly intrusive actions should first speak with airline representatives. Those representatives may not, however, discuss with passengers the specifics of any security measure, since to do so could damage the measure's effectiveness. If this conversation does not resolve passenger's concerns, then the passenger may call the FAA at 1–800–322–7873 if the issue deals with safety or security. Complaints concerning possible discrimination should be registered by writing the Department of Transportation Aviation Consumer Protection Division (C–75) or calling that office at 202–366–2220.

Question. Will individual passengers be able to find out why he or she is being subjected to additional security measures?

Answer. No. Neither the FAA nor the air carriers should discuss with passengers the specifics of any security measure, since to do so could damage the measure's effectiveness. In addition, a certain amount of randomness is included in applying security measures, particularly those noticeable to the traveling public. Persons should not be able to determine if they were subjected to additional security measures through profiling, at random, or for some other reason.

CONSOLIDATION OF ATLANTIC CITY TECH CENTER

Question. The Hughes Technical Center in Pomona, New Jersey, is the nation's premier aviation testing facility for security technology and human factors research. The Coopers & Lybrand study included a recommendation that the FAA look into consolidating the Hughes Technical Center at Atlantic City, New Jersey into the Monroney facility in Oklahoma City. Does the facility in Oklahoma have the capability to conduct the same research and development as the Tech Center in New Jersey?

Answer. The facility in Oklahoma does not have the capability to conduct the same research and development as the Technical Center. The missions of the Technical Center and the Aeronautical Center are focused in different areas. They require specific and unique facilities to accomplish each of the divergent missions.

The Aeronautical Center is devoted to centralized training and central warehousing and supply, and provides certain automated data processing services for national and local programs.

The Technical Center is the national scientific research and development facility for FAA. Center activities involve research, system development and integration in the areas of air traffic control, communications, navigation, airports, aircraft safety, and security. In addition, tenant organizations located at the Technical Center are involved in NAS operations support; flight inspection; independent operation test and evaluation; and the prevention of international terrorism.

Many of the facilities required to accomplish the Technical Center's mission are unique and not available at the Aeronautical Center or, in some cases, anywhere else in the world. Also, the Technical Center's technological capabilities go beyond

technical facilities. The Technical Center employs highly technical and scientific personnel who possess specialized training and background in critical disciplines directly related to NAS development and support. The comprehensive integration of all NAS components can be accomplished only at the Technical Center because of the collocation of its skilled professionals and specialized infrastructure.

Question. How much would it cost to abandon the existing Tech Center and rebuild the same infrastructure in Oklahoma?

Answer. The cost to abandon the existing Technical Center is estimated at $24 million; the rebuilding of the same infrastructure in Oklahoma is estimated at $900 million.

The William J. Hughes Technical Center is comprised of 180 individual, specialized buildings and structures on its 5,059-acre site. These technical laboratories and facilities include Test and Evaluation, Research and Development, administrative and storage facilities as well as numerous project test sites. The capitalization value of the buildings and infrastructure (roads, exterior utilities, etc.) is estimated to be $200 million.

The cost to rebuild the required structures and infrastructure in Oklahoma is estimated to be over $750 million. This estimate includes space requirements of approximately 1.35 million square feet; infrastructure costs; and architectural and engineering design and construction management costs.

Moving the Technical Center's mainframe computers and special systems to Oklahoma involves planning and design, disassembling, crating, and shipping costs, and reassembling the equipment at its destination. The cost for accomplishing the equipment move is estimated to be $125 million.

The abandonment cost relates to the Technical Center's Superfund responsibility, which includes cleanup of hazardous sites on the Center as well as the replacement of aged underground storage tanks. The ramifications of this designation are that the site cannot be transferred to another owner until the completion of the cleanup operation, regardless of whether the Technical Center relocates.

In addition to the rebuilding costs, the relocation of the Technical Center's existing talent would be an added financial burden to the relocation proposal. Also, a relocation would result in a significant adverse impact to the delivery schedule of every National Airspace System modernization program. In addition, aviation safety and security initiatives would be seriously jeopardized.

Question. Coopers & Lybrand justified its recommendation on the value of the land that could be sold if the FAA left the Atlantic City facility. I am mystified by this recommendation because it is a known fact that the facility is a Superfund site. Moreover, there is a reversionary clause in the FAA's lease that requires you to sell the entire facility to the Southern New Jersey Transportation Authority for only $55,000 if you ever leave the facility. To your knowledge, was Coopers & Lybrand aware of these facts when they issued their recommendation?

Answer. During Coopers & Lybrand's 2-day visit to the Technical Center, they did not ask questions that would provide any rationale for reaching their conclusion. Therefore, our assumption is that Coopers & Lybrand was unaware of these facts and based their recommendation on incomplete information and flawed analyses.

An early draft version of Coopers & Lybrand's assessment stated that the Technical Center is located on land that is probably worth significantly more than the book value used by the FAA. The Technical Center proved the assessment incorrect for the following reasons:

—The South Jersey Transportation Authority (SJTA) owns a right of reverter on over 4,000 acres of the total Technical Center acreage. If the U.S. Government no longer requires use of the Center's land, ownership (title) of these acres, including all improvements, will revert to SJTA for a total sum of $55,000.

—The Center is listed as a Superfund site. As such, the site cannot be transferred to another owner until the completion of an extensive and expensive cleanup operation.

This information was conveyed to Coopers & Lybrand and resulted in their removal of their core assumption for the consolidation recommendation. Coopers & Lybrand in their final revision recognized that the assets (land) of the Technical Center are not a means of financial benefit to the FAA to offset other agency funding needs.

Question. Based on these facts, do you see any scenario by which the FAA would choose to pull out of the Atlantic City Technical Center and consolidate operations in Oklahoma?

Answer. Based on the information gathered to date, there is no scenario that would justify the relocation and consolidation of the Atlantic City Technical Center with operations in Oklahoma.

PERSONNEL REFORM AND NEW YORK-NEW JERSEY CONTROLLER STAFFING SHORTAGES

Question. Two years ago, this Committee gave your agency unprecedented personnel reform authority. This was done so that you would have the necessary tools to get the appropriately trained people in the right place IMMEDIATELY. For years now, the FAA has made commitments to me to get the number of air traffic controllers at Newark Tower and at the New York Center and TRACON up to the authorized level. But you have missed deadline after deadline. Today, staffing at all three facilities is still below authorized levels. Given the far-reaching personnel reforms you were granted in 1995, what explains these continued delays in getting the right number of controllers in the right place?

Answer. Personnel reform was implemented in the FAA on April 1, 1996. Because of financial constraints most controller hiring was deferred to the second half of fiscal year 1997. Newark Tower is scheduled to receive seven controllers in fiscal year 1997, four of which are already onboard. Similarly, New York Air Route Traffic Control Center is scheduled to receive 42 of which at least 12 are onboard. New York TRACON will receive a total of 22 in fiscal year 1997, of which at least 4 are onboard.

Question. We continue to hear reports that controller trainees at these facilities cannot get fully qualified in their jobs because the senior controllers that are responsible for training them are too busy handling aircraft to conduct any training. Do you agree that this is a problem? What are you doing to address it?

Answer. In the past, this situation has occurred. We are currently implementing plans to increase staffing at New York area facilities. In addition, we have recently increased overtime funding for New York Center by $735,000 to optimize on-the-job training for the new hires.

We have also initiated additional management controls at New York Center including: (1) the establishment of a stand-alone training department; (2) establishment of a staff manager for training; (3) assignment of two training specialists and two data analysts to the training department; and (4) designation of six operations supervisors (one from each area) to assume collateral training duties.

Question. What is your new target date to get all of the facilities in my region staffed to the level called for by the FAA's own staffing plan.

Answer. The FAA has worked closely with the National Air Traffic Controllers Association to negotiate staffing levels for key Eastern Region facilities. The agreed upon target date for meeting these staffing levels is September 30, 1998.

CONVERGING RUNWAY DISPLAY AID (CRDA)

Question. The Converging Runway Display Aid (CRDA) is an important feature in the FAA's Automated Radar Tracking System that is being adapted at the New York TRACON. It allows the use of two runways during instrument weather conditions and would increase safety and capacity as well as reduce weather delays. I understand that the CRDA system on this one runway at Newark airport is scheduled to be implemented next month, May 1997, but this will only be on the southwest flow runway. Is the CRDA still scheduled for implementation on the Southwest flow runway in May 1997? When will CRDA be implemented on the other major runway which handles about 40 percent of total traffic?

Answer. All air traffic facets of the CRDA implementation have been completed and are in place. However, during shakedown testing an anomaly in the software surfaced. In the interest of safety, implementation of CRDA was delayed. Implementation of CRDA is pending further shakedown testing.

There is currently not a firm timeline for implementation of CRDA on Runway 4 and 11 at EWR. Development of procedures on this runway configuration are more complicated than the southwest flow. Airspace changes including rerouting aircraft and adjustments of major arrival flows for Newark and LaGuardia Airports will be necessary to accommodate a Runway 4 final vector position. This will require an environmental review/assessment which will be a lengthy process.

The geometry of this runway configuration is such that a 6–7 mile in trail spacing on the final approach course to Runway 4 would be required to accommodate CRDA which may or may not enhance the capacity of current operations. Also, Runway 11 arrival interact with the Runway 4L departures in instrument Flight Rules (IFR) weather which will delay departures as a result.

We will continue to evaluate the procedures, airspace changes, and environmental issues necessary for development and will keep the Users informed via our Capacity Enhancement Task Force process.

AIRPORT ACCESS AND AGGRESSIVE SECURITY TESTING

Question. There have been a number of well-publicized incidents including one at Newark, where the media have broken through airport security measures and gained access to vulnerable areas, such as the tarmac and the ramp. The FAA Authorization Act included a provision I authored directing the FAA to conduct unannounced, aggressive testing of airport and airline security programs. What has changed over the past six months to tighten security for airport personnel and seal these vulnerable areas?

Answer. FAA initiated a focused, three-phased investigative effort emphasizing auditing the background and access investigations conducted primarily by airport tenant organizations prior to granting access privileges to employees of such entities. The first phase involved an audit of representative tenant organizations at 41 major airports nationwide. This effort was designed to determine the nature and scope of the problem. The results indicated problems at 10 airports, and strong immediate corrective actions were initiated, to include appropriate enforcement actions. Voluntary actions by the involved airports included locking out entire batches of employees until questions concerning their background verifications had been completely resolved. This audit also resulted in an emergency rule allowing FAA to take action against individuals and/or employers for falsification or fraud in background documents.

A second-phase audit of 19 major airports was conducted by FAA during February, 1997. The results of that audit reflect improvement; however, some problem areas remain. Enforcement actions have been initiated against individuals found to have made false representations, as well as any airports and tenant organizations failing to properly discharge their responsibilities.

FAA is now preparing a third-phase effort designed to ensure and confirm that all Category X airports and their tenant organizations are complying with the access investigation rules. Beyond this focused effort, FAA field elements will continue to conduct scheduled and unscheduled assessments of compliance at all airports subject to the requirements of FAR 107.

Question. Have there been major enforcement actions against the airports with lax security as a result of these aggressive testing measures?

Answer. During February, a second-phase audit of 19 major airports was conducted. The first phase of this effort was initiated in November 1996, and continues to focus on the background and access investigations conducted by airport tenant organizations prior to seeking access privileges for employees. Although there were no major enforcement actions against airports during the second-phase audit, 27 investigations for falsification of records were initiated against airports, air carriers, tenants and individuals.

FAA continues to aggressively test air carriers and airports to determine compliance with current security directives and emergency amendments. Enforcement action has been initiated whenever our testing revealed instances of non-compliance. Actions taken have included maximum civil penalty, public notification when the amount of civil penalty recommended is $50,000 or more, and when appropriate, letters from the Administrator level to airline CEO's.

In addition to our on-going testing to evaluate compliance with security requirements, FAA continues to define and develop testing procedures for all aspects of the aviation security program. As these new procedures are completed, special agents will use them as part of their daily compliance monitoring. Additionally, with these procedures, FAA will conduct nationally directed special emphasis assessments designed to target specific aviation security areas over an established period of time.

IMPLEMENTING DOMESTIC PASSENGER BAG MATCH

Question. The FAA Authorization Bill and the Gore Commission both recommend implementing passenger bag-match on domestic flights to increase security. I also endorsed this program in my aviation security bill. The FAA and the major airlines conducted a study last year which estimated that it would cost $2.5 billion annually to apply bag-match domestically in the first year and $2.25 billion every year thereafter. A system of partial bag match of all passengers would cost $2 billion annually. Now that Phase I of your pilot project is complete, do those cost estimates still hold up?

Answer. The White House Commission recommended implementation of a full passenger-baggage match by December 31, 1997. It entails matching bags to passengers to ensure no unaccompanied bag enters the system, and passengers to bags to ensure that a bag is removed if the passenger does not board. The latter part of the procedure would initially be based upon profiling. FAA, the Air Transport Association, and the Commission staff developed a protocol to ensure that the on-going

bag match pilot test is unbiased and, with the application of existing system models, representative of the effects of systemwide implementation.

As you noted, the pilot test is proceeding in two phases. In the first phase, existing operational models were verified and continue to be refined by an independent third party. The air carriers then collected data for analysis and computer modeling. This collection process was monitored by an FAA observation team. The second phase consists of analyses of historical and other data, and includes live testing on actual flights in May. A report, which will address the cost estimates of bag match in the domestic system, will be finished in August 1997.

Question. Are there ways to further decrease the cost of implementing this critical security measure?

Answer. The White House Commission recommended implementation of a full passenger-baggage match by December 31, 1997. It entails matching bags to passengers to ensure no unaccompanied bag enters the system, and passengers to bags to ensure that a bag is removed if the passenger does not board. The latter part of the procedure would initially be based upon profiling. FAA, the Air Transport Association, and the Commission staff developed a protocol to ensure that the on-going bag match pilot test is unbiased and, with the application of existing system models, representative of the effects of systemwide implementation.

As you noted, the pilot test is proceeding in two phases. In the first phase, existing operational models were verified and continue to be refined by an independent third party. The air carriers then collected data for analysis and computer modeling. This collection process was monitored by an FAA observation team. Phase II, which is underway, consists of analyses of historical and other data, and includes live testing on actual flights. This phase is being monitored by a joint team of FAA and third party observers. Live tests are scheduled for May. The analysis of operational impacts will be available in July, and a refined estimate of the cost will be available in August 1997. Careful analysis of results may suggest ways of reducing costs, but it is still too early to project implementation costs or suggest cost reduction strategies.

Question. Will the Federal Aviation Administration (FAA) and the airlines be able to hold to the December 31, 1997, deadline to implement domestic bag-match nationwide?

Answer. The Commission's recommendation is that bag match, initially based on profiling, should be implemented no later than December 31, 1997. That recommendation remains our goal. The FAA and the airlines are moving forward rapidly in developing an automated profiling system, which is the key to adopting the Commission recommendation. We will not know until the end of July whether or not unforeseen technical difficulties remain for some carriers in implementing automated profiling. Moreover, refinements to the cost estimates, based on live testing, will be available in August 1997.

HAZARDOUS MATERIAL SHIPMENTS

Question. Although not a certainty, it appears that the Valujet crash was caused by the ignition of oxygen generators, a hazardous material, in the cargo bay of the aircraft. While a lot of attention was focused on the airline involved, it would seem that the shipper bears a distinct responsibility to correctly package and label hazardous materials. What has FAA done to address the shipment of hazardous materials upstream from the airline, beyond banning the shipment of these particular canisters?

Answer. The FAA has already taken a number of actions to address shipments of hazardous materials, particularly that carried in company materials (COMAT), before those shipments reach the airport. The FAA has:

—Launched an entirely new Dangerous Goods and Cargo Security Program funded with $13.5 million. The new program will have 118 full-time, highly trained, dedicated dangerous goods/cargo security FAA inspectors in addition to the 14 full-time inspectors it had before the ValuJet accident, along with 12 new attorneys. RSPA is adding 15 new inspectors and 2 new attorneys. Hiring and training are on target, and the first intensive air carrier inspections began on February 1. The inspections will include verification of training procedures.

—Developed a new inspection/incident data base to provide trend analysis information for targeting inspection and outreach efforts upstream to deter and interdict unauthorized shipments of hazardous materials.

—In cooperation with RSPA, distributed to nearly 5,000 aviation repair stations a "Safety Alert" providing explanatory information regarding the shipment of hazardous materials as part of air carrier COMAT and information detailing

the prohibition on the transport of oxygen generators as cargo aboard passenger aircraft

—Announced to the shipper community a policy of publicizing proposed civil penalty cases over $50,000.00 where particularly dangerous hazardous materials are involved. Two such violations have been publicized

—Proposed in the "Hazardous Materials Transportation Safety Reauthorization Act of 1997," a clarification of its authority to open suspect packages when there is a reasonable belief that the package contains a hazardous material.

—In cooperation with RSPA, produced a training video to provide guidance for air carriers and shippers, emphasizing their legal responsibilities for safe preparation and transportation of hazardous materials.

—Together with RSPA, designed and developed a passenger information brochure on restricted hazardous materials entitled "These Fly, These May Not." Over 5 million copies have already been distributed to passengers, travel agencies, shippers, U.S. and foreign air carriers, and multinational chemical and pharmaceutical manufacturers.

—Helped develop, market and present the Air Transportation Association (ATA) HAZMAT/COMAT workshop attended by 200 air carriers, freight forwarders, and shippers.

Question. What specific measures have you taken with shippers and packers to insure proper packaging, labeling and handling of hazardous materials?

Answer. The FAA is taking a number of steps which will extend its enforcement of the hazardous materials regulations to shippers and freight forwarders:

—The FAA has developed new hazardous materials inspection protocols which direct the focus for compliance to parties located "off the airport." Outreach letters will be directed to shippers whose hazardous materials shipments were examined during inspections at air carrier facilities. Follow-up inspections at these shippers premises will verify that only properly trained personnel are engaged in the handling and shipment of all hazardous materials.

—New outreach material is being developed in cooperation with RSPA, for example, a training video to provide guidance for air carriers and shippers, emphasizing their legal responsibilities for safe preparation and transportation of hazardous materials.

—In cooperation with RSPA, distributed to nearly 5,000 aviation repair stations a "Safety Alert" providing explanatory information regarding the shipment of hazardous materials as part of air carrier COMAT and information detailing the prohibition on the transport of oxygen generators as cargo aboard passenger aircraft

—FAA will soon begin inspections of both aviation repair stations and indirect air carriers (freight forwarders) to continue to push its compliance focus off the airport and upstream towards the shippers.

—FAA is developing a new automated inspection database designed to provide trend analysis information for targeting inspection and outreach efforts upstream to deter and interdict unauthorized shipments of hazardous materials. Initial modules of the database are already on-line with full development expected by December 1997.

SUBCOMMITTEE RECESS

Senator SHELBY. This hearing of the Subcommittee on Transportation is now recessed. The next subcommittee hearing will be held on Wednesday, May 7, at 10 a.m. in Dirksen 124. The topic of the hearing will be transportation infrastructure financing, including a discussion of innovative financing methods and the administration proposed transportation user fees.

I thank you.

[Whereupon, at 12:08 p.m., Wednesday, April 16, the subcommittee was recessed, to reconvene at 10:36 a.m., Wednesday, May 7.]

DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1998

WEDNESDAY, MAY 7, 1997

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:36 a.m., in room SD–124, Dirksen Senate Office Building, Hon. Richard C. Shelby (chairman) presiding.

Present: Senators Shelby, Domenici, Gorton, Faircloth, Lautenberg, and Reid.

PANEL 1

DEPARTMENT OF TRANSPORTATION

STATEMENT OF MORTIMER L. DOWNEY, DEPUTY SECRETARY, INNOVATIVE TRANSPORTATION FINANCING

GENERAL ACCOUNTING OFFICE

STATEMENT OF JOHN H. ANDERSON, JR., DIRECTOR, TRANSPORTATION ISSUES, RESOURCES, COMMUNITY, AND ECONOMIC DEVELOPMENT

OPENING REMARKS

Senator SHELBY. Our first panel is Mr. Mortimer Downey, Deputy Secretary, U.S. Department of Transportation; John Anderson, Director of Resources, Community, and Economic Development Division, General Accounting Office. Welcome to the committee.

This hearing will now come to order. Today the subcommittee will explore several broad issues related to financing Federal transportation programs. The three areas we will discuss are Federal Aviation Administration user fees, innovative financing proposals to leverage Federal investment in infrastructure, and Amtrak's current precarious financial condition.

Except for day-to-day operations, the Federal Aviation Administration derives its funding from the airport and airways trust fund, which is financed by the airline ticket tax. That tax expires at the end of fiscal year 1997 and the administration has proposed replacing the ticket tax with a cost-based user fee structure. This represents a major change in how financing is approached for this agency and many in Congress, myself included, are a little skeptical.

There are many questions that need to be answered before any funding decisions can be based on user fee assumptions. Whatever system of financing, however, that we adopt, it must meet at least three broad objectives: It must not increase the overall tax burden on the American people; it must not place a disproportionate burden on any one group; and it must be easy to administer. I know that the GAO has studied several of these issues and I look forward to hearing from them today.

Another issue of interest to the subcommittee is the administration's innovative financing proposals, which include the State infrastructure banks and the new transportation infrastructure credit enhancement program in the President's 1998 budget request. These programs are intended to support highway, transit, or rail projects that can be financed with loans or credit enhancements and which involve non-Federal investment partnerships.

Currently, only two States have actually begun projects with State Infrastructure Banks [SIB's] financing, and it appears that this approach to leveraged financing simply needs more time before it can be fully evaluated. In addition, the budget request and the NEXTEA reauthorization proposal both incorporate a change in Federal law that will permit States to levy tolls on interstate highways. I do not have to tell you how unpopular tolls are in my part of the country, or any part of the country for that matter.

In general, I hate to mention the terms "innovative financing" and "user fees" in the same breath. There is nothing particularly innovative about charging system users for something they have already paid for. I hope that Deputy Secretary Downey and Mr. Anderson from the General Accounting Office can explain these proposals and that the discussions during this first panel will further illuminate the issues before us.

Perhaps the most politically volatile issue we will discuss today is how and whether the Federal Government should continue to subsidize Amtrak. The administration has proposed spending about $767 million out of the highway trust fund to provide operating and capital assistance to Amtrak in fiscal year 1998. Ms. Jolene Molitoris, the Federal Railroad Administrator, will represent the Department's position on Amtrak funding, since Deputy Secretary Downey will need to leave the hearing. In addition, Amtrak's President, Tom Downs, will present the railroad's position, and Ms. Phyllis Scheinberg of GAO will give us the benefit of her extensive studies of Amtrak and the financial condition of the railroad.

I have several concerns regarding Amtrak. First, Amtrak has now been in existence for 26 years and they have never once during that period generated an annual profit. Moreover, Amtrak, with its huge Federal subsidy, accounts for only three-tenths of 1 percent of all annual intercity passenger trips in the United States, while intercity bus service attracts a ridership four times as great. I am not sure it makes sense to continue to pour millions of taxpayer dollars into a system which is used so little, but costs so much, especially when there are more efficient alternatives available. Finding a new bottomless source of revenue does not address the fundamental problems facing Amtrak.

I understand that Amtrak is operating under outdated labor policies which make the railroad's success very difficult. American

businesses all over the country have had to downsize during the past 10 years or so in order to stay competitive. However, Amtrak faces disincentives to reducing their work force to a size supported by the market because rail labor laws require the corporation to continue to pay a full salary for 6 years to any employee who loses his or her job as a result of service reductions.

I am a firm believer in markets. If there is a demand for passenger rail service, it will survive. In many areas of the country there is no doubt that a private company could operate a profitable rail service. But given Amtrak's poor track record, heavy debt load, massive capital requirements, and continued reliance on Federal operating subsidies, I question the merits of putting more and more of the taxpayers' hard-earned money into this system. I do not know of a single investor who would put his or her own money into an organization in such a bleak financial situation. I am not sure it is right to ask the taxpayers to pay for something with their tax dollars which they are so clearly not willing to pay for with their disposable income.

Amtrak President Tom Downs says in his statement that: "If the decision is simply to end Amtrak, we ought to face it head on and deal with the reality that comes with it." I believe that is certainly one option to explore.

Mr. Downey, your—excuse me, Harry. I did not see you. I apologize to you. Senator Reid.

STATEMENT OF SENATOR REID

Senator REID. Thank you a lot, Mr. Chairman. Because of the vote, I am not going to be able to stay for all the testimony. I appreciate your arranging this hearing in spite of the fact that we have not had our mark for what we are going to do with this subcommittee. This is an important subcommittee. I am very happy that you are getting some of these things looked at prior to our getting our mark.

Mr. Chairman, I would just say this before going to my prepared statement. I think we have to take a close look at Amtrak, I agree with you. But I also think we have to look at what is happening with our other forms of transportation in this country. Our airports are crowded and filled. Our highways are jammed to capacity. And we as a government help the airlines, we help people who drive on highways, in many different ways with Federal moneys.

We have to take a look at rail service. It is a way that we can increase the ability of people to travel. We are now working on rail service between Los Angeles and Las Vegas, to see if we can move more people through that very busy corridor than we have.

I think from distances of 200 to 500 miles we have to look at rail service as an alternative. I think if you look around the world, other countries, they have done a much better job with their rail service than have we. So I would hope that we would recognize that rail service is something that we need to work to try to make it better, and certainly not consider terminating it.

There is little doubt the issues we address in today's hearing are issues of great concern to every Member of both bodies, both the House and the Senate. Transportation represents a national concern. All of us have a stake in ensuring that America's transpor-

tation policies are coherent and they are efficient. More importantly, all have a vested interest in ensuring that the goals of our transportation policies are capable of being achieved.

This session of Congress will include extensive consideration of not only how we finance our national infrastructure, but also what our transportation policies should aim for as we head into the 21st century. Our transportation policies must recognize the importance of providing adequate dollars for improvement and maintenance of our infrastructure. The policy should not favor one region over another. Funding formulas should provide States with sufficient funding to meet the changing infrastructure needs they face.

While some push for devolution, all of us agree that Federal regulations have to recognize the need for greater flexibility at the State level. Because we have a national transportation policy, we must recognize that there are often unique interstate needs that otherwise would not be addressed but for a Federal program. I believe the unique regional perspective all of us bring to this issue will ultimately allow us to forge a coherent national policy.

I represent a State that happens to be the fastest growing State in the country. We have about 7,000 new people moving into the Las Vegas area each month. Because funding formulas are based on old census data, it is nearly impossible for Nevada to receive the proper financing necessary to accommodate this growth.

Nevada is also unique in that 87 percent of the land is owned by the Federal Government. To appreciate how much land this is, consider the fact that in the areas between our interstates—this is not the whole State of Nevada, but just between our two interstates—you can fit the States of New Jersey, Connecticut, Massachusetts, Rhode Island, Vermont, New Hampshire, and Delaware. That is a lot of land.

Because the Federal Government owns these lands, the State of Nevada receives little or no taxes from them, but still must provide the intercontinental activity across these areas. In order for all States to enjoy the benefit of our economy, we must be able to build and maintain these lines of commerce, and Federal lands programs are a source of much of the funding for these areas.

Nevada is also a bridge State. Much of the traffic is interstate. We play an important role in interstate commerce. But the need for improving and maintaining these interstates arises out of the damage caused by non-Nevada traffic, especially the big trucks. And we like to have the traffic coming from outside the State of Nevada, of course. But it is difficult for me to explain to my constituents why we are underfunding basic maintenance projects when we see first hand the infrastructure degradation caused by this out-of-State traffic on our interstates.

Finally, I am concerned that, while we have consistently articulated a coherent national transportation policy, we fail to provide the adequate funding necessary to support these policies. I am troubled by the current budgetary things that are being used with the highway trust fund. The trust fund programs, some of them are penny wise and pound foolish.

I have introduced legislation to take the highway trust fund off budget. I believe this action is necessary if we are to be serious about meeting our infrastructure needs. Our Nation's infrastruc-

ture represents the lifeline that fuels our economy. When we neglect to adequately provide for the health of this lifeline, all of us suffer. Whether it is unsafe and degraded roads or pollution caused from overcongestion, all of us are affected.

The price is not only the inconvenience of traversing a dilapidated infrastructure. Indeed, the real price is the increased cost all of us pay for goods and services because of the burdens placed on the steady flow of this stream of traffic. Similar to cholesterol buildup in arteries, eventually there is a steep price to pay.

I look forward to being a participant in rewriting a bill that will allow us to continue into the next millennium as the world's foremost economic powerhouse. The ranking member of this committee and I serve not only on this Appropriations Committee, but also on the authorizing committee, the Environment and Public Works Committee. By providing coherent, efficient, and flexible transportation policies, we will surely rise to the challenges of the 21st century. We have a big burden to bear. Thank you, Mr. Chairman.

Senator SHELBY. Senator Faircloth.

STATEMENT OF SENATOR FAIRCLOTH

Senator FAIRCLOTH. Thank you, Senator Shelby, and thank you for calling this hearing.

I have been concerned about the trend and talk by the Federal Government toward user fees. And I have even heard it referred to as "innovative financing." I do not know if there is anything innovative about adding a toll to a road. We have been doing that for 2,000 years. But it is nothing but a tax increase with a different name.

The political climate right now is not friendly to new taxes, certainly if we call them outright taxes. The Federal Government is already overtaxing the American people. But in this climate we wind up with a euphemism for a tax increase and we call it a user fee.

If we are going to put user fees on every service the Federal Government provides, which is the direction we are headed, then what are we going to use the regular income tax and the other sources of general revenue for? The White House has even proposed $300 million in user fees for the Federal Aviation Administration. And yet this same FAA cannot tell me, has not told me, and literally refuses to tell me or explain how $1 billion was squandered by IBM on the Advanced Automation Systems computers in the eighties and early nineties. A billion dollars was absolutely wasted, no recoverable value, and they simply refuse to talk about it. Yet they need $300 million in user fees.

The administration's proposal for surface transportation reauthorization includes a plan to let States impose tolls on interstates. This is simply another tax, on roads that have long since been paid for by the traveling public.

There are a lot of new user fees and new ways—and user fees are simply a new way to take money from the American public. Now, if you want to cut the cost of highways, of highway construction, I have a suggestion. I ran for 8 years the largest highway system in the Nation under one head. That is the North Carolina Highway Department, as all roads in that State are under one au-

thority—counties, city streets, all 78,000 miles under one system. So I have watched what runs up the cost of roads, and the Davis-Bacon requirements are one of the principal sources of cost escalation. They probably add 20 percent to the cost of construction.

It is a needless surcharge on construction projects. If we want to do something to expedite the building of highways, to improve the system, and to get more road for our money and better road, the first thing we could do is to eliminate the requirements of the Davis-Bacon Act.

Mr. Chairman, just one brief statement. I, as I said, have spent a lot of time watching highway construction, doing some, and running a highway department, and I have long been a strong advocate of highways. But I think the time has come and the time has clearly reached us that we are going to have to look at light rail transportation in different forms. And it is not as complex a problem as we might think it would be.

Most of the railroads were acquiring right-of-way in the 19th century. They acquired rights-of-way of 100 to 200 feet in many cases, when it requires 14 feet for a track. So much of the rail rights-of-way in this country could accommodate additional track, and certainly a lot of them have been abandoned. Double tracks were at one time necessary. Now only singles are used.

So this is the way we are going to have to begin to go in this country. We cannot simply keep adding lanes to interstates.

We are running out of right-of-way there.

So I strongly support a move to look at rail transportation.

Senator SHELBY. Senator Lautenberg.

STATEMENT OF SENATOR LAUTENBERG

Senator LAUTENBERG. Thank you, Mr. Chairman.

First, my apologies for my late arrival. As you know, Mr. Chairman, since we serve on a couple committees together, it is just that we have been trying to disprove the process—it is just impossible to put ourselves in the same place two or three times at the same moment. We are still trying to prove that the standard rules of physics do not apply.

Senator SHELBY. Senator, before you arrived, Senator Reid suggested you move New Jersey to Nevada.

Senator LAUTENBERG. Well, I think we are doing it one drop at a time and that is enough.

Thanks, Mr. Chairman. I was delighted to hear our colleague from North Carolina, if I heard correctly, speak on behalf of investments in rail. We need to consider that.

I appreciate your holding this hearing on Amtrak. The service is critical to the country at large, the Northeast corridor, my State of New Jersey.

This morning GAO has very sobering testimony regarding Amtrak's financial condition. They say in short, without a prompt and bold response, Amtrak could be bankrupt and shut down by summer 1998. That, frankly, is not an acceptable option. It is imperative that the subcommittee and the Senate arrive at a consensus about how to restructure Amtrak's financing to get the railroad on a sounder footing.

Amtrak's annual operating deficit is rising again, despite an aggressive cost-cutting program and its willingness to absorb a certain amount of cuts in its subsidy. Amtrak's revenues have suffered as a result of deeply discounted selective air route fares. Moreover, this committee has over the last 2 years cut the railroad's operating subsidy far below the levels identified by Amtrak as acceptable.

To its credit, Amtrak has attempted to address this shortfall by eliminating routes that lose the most money. However, this predictable and reasonable response by Amtrak, which any business would have undertaken, has often been challenged by Members of Congress and their constituents, who want their services to continue. And we understand that, but somebody has got to pay the freight, as they say.

That, Mr. Chairman, is the dilemma we face. I believe that Congress must make a decision this year whether we want to continue a national passenger rail system or end it. If we want to continue intercity rail service, we need to ask if we want a national system and, if so, how much we are willing to subsidize it and how much are we willing to invest to make it successful and stabilize its finances?

I would like to see a stable funding stream provided for Amtrak and have endorsed, along with Senator Roth, chairman of the Finance Committee, and others, earmarking one-half cent of the gas tax to do just that. Amtrak's Northeast corridor service is essential to the Northeast corridor and that entire region, and these routes are profitable in the short run. In fact, short-term profits from the corridor subsidize all of the unprofitable routes elsewhere in the country and make a national rail passenger system possible. All of the increased revenue to sustain national Amtrak service is expected to be generated by new high-speed rail service in the Northeast corridor.

As we contemplate the future of Amtrak, I would like to emphasize three points: No national intercity railroad operates without a subsidy, no place. Amtrak covers a larger portion of its operating costs than any other system in the world. These systems are subsidized because they are in the national public interest. In fact, every other mode of transportation in this Nation enjoys heavy subsidies, although some are more hidden or more indirect, and we ought to be honest about that.

If Amtrak fails, the Federal Government will be exposed to sizable shutdown costs and other liabilities that will exceed even the funding levels called for under the half-cent proposal. At least in the Northeast corridor, if Amtrak fails this subcommittee will have to make enormous new investments in highways and aviation facilities to provide an alternative to rail service. Without Amtrak service, we would have to add 7,500 fully booked 757's, or 10,000 fully booked DC–9's, for the year to the already congested airspace in our region.

Amtrak currently carries one-half of the combined air-rail market between New York and Washington. If we move those travelers off the rails, we are talking about multiple new lanes on I–95, more terminal space at area airports, perhaps even a new airport in Boston.

In closing, Mr. Chairman, these are the realities we should keep in mind when considering the substantial capital investment needed by Amtrak. Clearly, I believe it is an investment worth making and one which is critical to the functioning of one of the most densely populated regions of our country and one that deals with our national economic well-being as well.

Thanks very much, Mr. Chairman.

Senator SHELBY. Senator Gorton.

STATEMENT OF SENATOR GORTON

Senator GORTON. Mr. Chairman, it has got to be extremely frustrating to sit on the other side of the bench, not just in this hearing but in every hearing, for witnesses, and much more so for second panels, because by the time the second panel gets here there will probably be one Senator left, maybe if they are lucky two, simply because of the nature of our work here. I strongly suspect that I am going to add to that frustration and end up apologizing for it.

But I do want in my opening comments to ask for the comments, which I will read and see, of these witnesses and of the next witnesses on some of the questions which I think are fundamental to the talk about rail transportation that Senator Faircloth engaged in and the eloquent defense of Amtrak in which Senator Lautenberg engaged, because for the life of me I do not see the rationale of the way in which we treat various forms of transportation in the country and the kind of investments that we make in it.

So I would like you to tell me, Mr. Secretary, for example, how many passengers Amtrak carries during the course of a year, and maybe the passenger-miles that they are carried. My note here from my staff says it is about 55 million passengers. You can correct that. It does not have passenger-miles.

And you want between three-quarters of a billion dollars and $1 billion to subsidize that form of transportation, one that is not carried on very efficiently or very effectively. And that money you want out of the pockets of general taxpayers, those who use the system and those who do not.

I also want you to tell me how many passengers our privately owned commercial airlines carry in the course of the year and the number of passenger-miles involved. Again, my notes say 550 million passengers, that is to say 10 times the number of passengers on Amtrak and obviously far more miles on average. And yet you only want to give to the physical facilities of the airlines $1 billion.

[The information follows:]

In 1996, Amtrak carried about 20 million passengers resulting in about 5 billion passenger-miles. U.S. commercial airlines carried about 558 million domestic passengers in 1996 resulting in about 434 billion domestic passenger-miles.

Senator GORTON. But that money does not come from the general taxpayer. That comes from people who ride on the airlines and pay a ticket tax for it.

Now, what is the rationale of that ratio? I must say emotionally, with respect to Amtrak, that I agree with Senator Lautenberg. I think the idea of passenger rail service, a balanced system, is one I think I favor, and I am going to have to make an admission against interest now. Last year about this time of year, I flew to

Chicago one Friday and took the Empire Builder to Seattle, just to see what kind of service was being provided for me.

I must tell you very bluntly, it was a lousy experience. The service was not as good as the service is on United or one of the other airlines. No one ever told us why we were late when we were late or how long we were going to stop in any given place. But my feeling more than that was there was no way that that long-distance service could compete with air service on the cost per mile that it would operate. The crew was at least as large or larger per passenger than I would have found on United Airlines. The fare was higher, but not sufficiently higher by any means to make the difference between 4 hours and 48 hours, which was the length of the trip.

I just did not see, with all respect to Senator Lautenberg, how anyone, however efficiently they operated, could ever compete for passengers on long distances like that, unlike the situation between here and New York and perhaps Boston when there are new tracks.

But why is it that we will spend as much money in a direct subsidy to one-tenth of the passengers on Amtrak as we spend out of a trust fund on the facilities for airports? Why is it that the airport trust fund spending for facilities has dropped in half, according to this administration's requests, at a time at which the passenger use of the airlines has gone up by almost double? And why is it—and this second, I am not asking rhetorical questions; I am asking a very, very specific question. You tell us in your statement that user fees are the best way to promote efficiency in both the provision and consumption of FAA services. What is broken that we have to fix?

We have a present system that is a fuel tax and a ticket tax, that have at the very least the ability of great efficiency. It costs us almost nothing to collect them. The number of FTE's that are involved is extremely small. Obviously the cost of collecting user fees is going to be far higher. And are we not going to run into exactly the situation that some other countries that use user fees do, that pilots, particularly private pilots, are going to attempt to avoid the user fees by not using the services when in fact they really ought to use those services, and a distinct decline in safety in and among our aircraft?

Do we have a situation that is broken or are we trying to fix something that is not broken at all?

I put these questions to you. Whether I can stay and get all the answers, I think it is very important that we have the answers to each one of those.

Finally, going back to Amtrak again, at my behest and with the agreement of the former chairman, Senator Lautenberg, we asked you all for a study of the privatization of Amtrak last year in our committee report. We understand that that request does not meet with much enthusiasm and that we are probably going to just get regurgitated insider information that we had previously. But it does seem to me that for those who wish for the survival of passenger service in the United States that a very serious and thoughtful examination of whether or not the system can efficiently and effectively be privatized is in order, and that it is very much

in the interest of the administration to come up with some answers to those questions. And Lord knows we do not know the answers yet.

Senator SHELBY. Senator Domenici, happy birthday.

Senator DOMENICI. Thank you very much.

Senator SHELBY. 39 years old today.

Senator GORTON. He just told me he is ready to retire.

Senator SHELBY. No, no; he is just getting warmed up.

STATEMENT OF SENATOR DOMENICI

Senator DOMENICI. Frankly, Senator Lautenberg, Senator Graham met me on the floor and somebody said I was 65. He said: Oh, that is why you were so interested in putting in all those good things for the old folks in your budget. I told him it was both you and me, not just me, right.

Senator LAUTENBERG. I do not deny it.

Senator DOMENICI. Well, listen. If you all could answer the questions that Senator Gorton asked, I would leave the scene and just wait around and read the answers with great enthusiasm. I would add just one more question, however.

Ever since I have been serving on the Appropriations Committee and slightly before that, when we used to take a little more serious look at Amtrak in the budget process, it was a mystery to me as to why we could not change the system of compensating working men and women who are injured on the job from an ancient system Amtrak follows to the modern system that everybody else follows, to wit workman's compensation.

Now, I understand, if there are any labor union people in the audience, I have just been put on their whatever they call it list. But the truth of the matter is, in my opinion, there is no excuse to have one system of compensation which costs, according to what I know, so much more than workman's compensation, which is covering workers in all the other systems. I think that there ought to be some reforms that are serious forthcoming if there is an expectation that we are going to continue to subsidize this program.

Mr. Chairman, I would like to report to you, while the budget is not out yet, we heard your request loud and clear.

Senator SHELBY. Plea.

Senator DOMENICI. Your plea, yours at some times almost begging.

Senator SHELBY. Right.

Senator DOMENICI. It was very nice.

Senator SHELBY. Especially to the Budget Committee.

Senator DOMENICI. It is very nice to have that happen every now and then, when somebody does that to me.

Senator SHELBY. Well, were our prayers answered?

Senator DOMENICI. Yes.

Senator SHELBY. OK.

Senator DOMENICI. The bipartisan balanced budget agreement will accommodate a rather substantial increase. I cannot give you the number, but surely it is $8 to $10 billion over the President's numbers, which were way too low, and I think they knew that, so they are not objecting to this increase. In fact, as in some items, the Republicans will claim victory for things the administration

wanted and the administration will claim victory for the transportation funding, I assume.

Senator SHELBY. Nothing has changed, has it?

Senator DOMENICI. It seems like it is going to turn out all right.

I will not be here for the entire morning, but I commend you for the hearings and for the great work you are doing as the new chairman of the subcommittee.

Senator SHELBY. Secretary Downey.

STATEMENT OF MORTIMER L. DOWNEY

Mr. DOWNEY. Thank you, Mr. Chairman, and thank you for the opportunity to testify on the President's proposal.

Senator SHELBY. Let me mention this. Your entire written statement will be made part of the record, and if you will briefly summarize.

Mr. DOWNEY. Yes; I will do that. And before I begin my testimony, let me thank the subcommittee and the full committee for your prompt action on the emergency supplemental. The efforts that we have made together on this and in other disasters have made a real difference for hundreds of thousands of Americans. But disasters like those floods really make it clear how much we do depend on our transportation system. That is why we have worked with the Congress to increase Federal investment to record levels in infrastructure even as we are moving toward a balanced budget.

We recognize that Federal funding alone cannot meet all of our needs, and that is the reason for conceiving a set of strategies to make the most of Federal resources by cutting redtape and leveraging greater non-Federal investment. The first step we took in that was what we called the Partnership for Transportation Investment to attract new sources of funding and speed up project construction.

The National Highway System Act 2 years ago made a reality of our proposals for State Infrastructure Banks, which will use Federal seed money to provide loans and credit enhancements to highway and transit infrastructure projects. As these loans are repaid or as the financial exposure implied by credit enhancements expires, the funds will be available for additional cycles of projects. Banks in the 10 pilot States, as the chairman pointed out, are only now beginning operation, so there is limited experience with them. But we believe that they can leverage non-Federal funds at rates up to 4 to 1. We are now considering applications from 29 additional States for their State Infrastructure Banks. We expect to make decisions on them shortly.

The President's proposed 1998 budget and the reauthorization bill would carry us to the next generation of innovative finance. They would continue supporting State Infrastructure Banks by providing $150 million annually in seed money and $100 million annually for a new national transportation infrastructure credit enhancement program.

Finally, NEXTEA, our reauthorization bill, would provide for the first time a stable source of funding for Amtrak as it moves toward operating self-sufficiency. We want to provide direct funding for Amtrak from the highway trust fund and we wish to give States

the flexibility to use part of their Federal funding apportionments for Amtrak infrastructure.

We are also committed to adequately financing our aviation system needs. We want to work with the Congress and with the new National Civil Aviation Review Commission, which was recently appointed, to establish reliable long-term funding for the FAA so it can continue to provide the services the aviation system needs. In the meantime, Congress has authorized us to charge for air traffic services provided to those flying through our airspace but not using a U.S. airport, and these fees would become effective on May 19.

I recognize that this committee has added language in the emergency supplemental that would limit our authority to impose these fees, but we look forward to working with the Congress on this issue.

We also propose to collect an additional $300 million in new fees next year under the President's 1998 budget as a means to providing the necessary funding for a growing demand for air traffic services.

We are also exploring new ways to fund airport infrastructure. Last year Congress authorized airport development projects using new financial techniques, much in the way the Partnership for Transportation Investment set the stage for innovative finance in the surface modes. We will soon select five innovative financing projects from around the country for formal applications under the airports improvement program. These proposed projects include the construction of a safety-related building, new runways to provide additional capacity, and mitigation of airport noise. And each of the three innovative financing mechanisms the Congress authorized—payment of interest, credit enhancement, and a flexible non-Federal share—would be tested by at least one of the proposals.

Let me conclude my statement by reiterating our belief that these initiatives for surface transportation and for aviation will help give us the infrastructure and the equitable and efficient funding of services we need for a world-class transportation system. The partnership that we have forged with the Congress to make possible these innovations has been a successful one and we look forward to continuing to work with you in the coming months to build on this progress.

Thank you.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Downey. We have your complete statement and it will be made part of the record.

[The statement follows:]

PREPARED STATEMENT OF MORTIMER L. DOWNEY

Mr. Chairman, Members of the Subcommittee. Thank you for the opportunity to testify on the Department of Transportation's accomplishments and proposals with respect to innovative financing of transportation infrastructure.

OVERVIEW

President Clinton came to office dedicated to improving the Nation's transportation infrastructure because of its contribution to economic prosperity. He had declared during the 1992 campaign: "The 1980's saw the concrete foundations of the

United States crumble as the investment gap widened between America and our global competitors."

In the 21st century, Americans will compete in a truly global marketplace. This marketplace will be fiercely competitive, and our success as a Nation will be determined on how safely, reliably and cost-effectively we can move people, goods and information. Transportation accounts for about 11 percent of the United States gross domestic product—roughly comparable to health (14 percent) and food (12 percent)—and will affect our country's global competitiveness in the future.

Working with Congress, we have increased Federal transportation infrastructure investment to record levels. These investments have paid off in substantial improvements to the condition and performance of our highways and mass transit systems. But the Federal government alone can not close the investment gap, and President Clinton early on recognized that "the only way to lay the foundation for renewed American prosperity is to spur both public and private investment." His 1994 Executive Order setting out "Principles for Federal Infrastructure Investments," provides that:

> Agencies shall seek private sector participation in infrastructure investment and management. Innovative public-private initiatives can bring about greater private sector participation in the ownership, financing, construction, and operation of . . . infrastructure programs. . . . Consistent with the public interest, agencies should work with State and local entities to minimize legal and regulatory barriers to private sector participation in the provision of infrastructure facilities and services.

In response to the President's direction, the Department initiated the Partnership for Transportation Investment. Through that Partnership, we have supplemented our traditional surface transportation grant programs with innovative financing, stretching our transportation investments further. Our efforts, which have focused on public-private partnerships, have accelerated more than 74 projects with a total value exceeding $4.5 billion.

State Infrastructure Banks, proposed by the Administration and approved by Congress in the National Highway System Designation Act of 1995 (NHS Act), are now being established in 10 pilot states. The banks are beginning to offer new financing tools for a variety of transportation improvements—such as toll roads and intermodal terminals. As you well know, the fiscal year 1997 Transportation Appropriations Act gave us authority to select additional states to participate in the SIB's. We have received 26 applications from 29 states, including two multi-state applications, for additional SIB's and expect to make announcements on those applications shortly. While projects are just being initiated under the new SIB's so experience is limited, some have suggested a potential for as much as a 4-to-1 leveraging factor from funds deposited in SIB's.

With respect to other modes, financing all of our aviation system's needs—airports, airway facilities, security, and FAA operations—is a critical priority for us. With authority Congress provided in the Federal Aviation Reauthorization Act of 1996, we are soliciting and reviewing innovative financing proposals for airport development. We want to work with Congress to establish a reliable, long-term funding base so that the FAA can continue to provide the services our aviation system needs. As an interim measure until comprehensive financial reform is achieved, we are proposing $300 million in new user fees. Members have been appointed to the new National Civil Aviation Review Commission, and they are beginning their work to analyze aviation budget requirements and ways to fund them and to help us to reach a consensus on what course to take.

And we have proposed changes in the financing for Amtrak—to provide more stability in its direct funding by requesting contract authority (beginning in fiscal year 1999) from the Highway Trust Fund and to permit states to help meet Amtrak's financial needs from state apportionments of National Highway System and Surface Transportation Program funds where state officials see Amtrak as a key part of their transportation systems.

FEDERAL INVESTMENT

As Secretary Rodney Slater discussed with you, working with this Subcommittee and the entire Congress, over the past four years (fiscal years 1994–97) we have increased Federal investment in highways, transit systems, and other infrastructure to an average of $25.5 billion, more than 20 percent higher than the average during the previous four years. The Department is committed to a long-term infrastructure investment program and seeks the highest levels of investment within the context

of a balanced budget and the President's priorities. But we recognize that Federal investment alone can never close the investment gap.

As part of Secretary Slater's commitment to bring common sense government to the Department of Transportation in order to provide the people we serve with a Department that works better and costs less, we will continue to encourage more flexible, innovative funding to leverage Federal dollars for infrastructure investment—one subject of your hearing today.

INNOVATIVE FINANCING

Innovative financing is one of the Department's most significant success stories over the last four years. The Department initiated the Partnership for Transportation Investment in 1994. Under that initiative, we have supplemented our traditional grant programs with innovative financing. Our efforts have resulted in more than $1.2 billion in non-Federal investment in transportation infrastructure that would not have occurred without the financing concepts included under the Partnership.

As a result, projects like State Highway 190 in Texas cost less and will bring benefits to the economy sooner. In that case, the Texas DOT loaned $135 million in Federal-aid funds to the Texas Turnpike Authority, which was combined with almost $500 million in bond proceeds from the private sector. Construction on this project will be initiated over a decade earlier than originally planned and is expected to relieve existing congestion on other highways in the north Dallas area.

Also, the Massachusetts Bay Transportation Authority was granted advance construction authority to issue bonds to rebuild its heavy rail maintenance facility. This $236 million project was undertaken 30 months earlier as a result, with immediate construction savings of over $50 million. Each repair and overhaul from 1997 onward will take up to one-third less time to complete.

The Partnership initiative was based on the use of innovation within existing authority by the Federal Transit Administration and on the use of test and evaluation authority provided to the Federal Highway Administration under Section 307(a) of Title 23 of the United States Code. That section permits FHWA to engage in a wide range of research projects, including those related to infrastructure finance. As part of this research effort, FHWA provided states with flexibility on certain policies and procedures so that specific transportation projects could be advanced through the use of non-traditional financing concepts. The Partnership was designed and operated to give states the opportunity to propose and test those concepts that best met their needs. Projects that were advanced were those that were identified by state-level decision makers facing real world barriers to financing needed transportation improvements. No new Federal funds were made available; the focus of the Partnership has been to foster the identification and implementation of new, flexible strategies to overcome fiscal, institutional, and administrative obstacles faced in funding transportation projects.

The 74 projects have been both highway and intermodal projects. Because ISTEA broadened the availability of Federal-aid highway funds for non-highway projects, many of the projects that have been advanced have also involved other modes. For example, they have included installation of Intelligent Transportation System technologies, ferry purchases, intermodal facilities for truck-to-rail transfers, construction of a commuter rail station, and bike/pedestrian projects.

There have been eight major financing tools tested under the Partnership for Transportation Investment; those tools can be generally characterized as investment tools and cash flow tools. Investment tools are those that draw new sources of funds to transportation investment; cash flow tools aim to accelerate construction and completion of projects.

The most popular tools have been flexible match and advance construction, both of which were made a basic part of the Federal-aid highway program by the NHS Act. Prior to that, private contributions toward a project were deducted from the total project cost, and states had to provide the matching share of the remaining cost. Under the Partnership initiative, we permitted such contributions to be counted toward the state matching share. This innovation encouraged states to seek private partners since the states got the total benefit of the contributions. We also allowed some states to use tapered match where the Federal share is allowed to vary during the life of the project.

Under advance construction, states use state and local funds to construct projects while preserving those projects' eligibility for future Federal-aid reimbursement. However, conversion of such projects was to be made by the end of the ISTEA authorization period—that is, by the end of this fiscal year—and, when the project is converted, obligation of the full amount of Federal funds to be committed to the

project was required. The requirement to convert by the end of this year made advance construction less and less available as a tool as we got closer to the end of the ISTEA period. The requirement to obligate the full amount of Federal funds at the time of conversion limited the states' flexibility in using this tool. We allowed (and the NHS Act made the authority permanent) states to rely, within certain limits, on likely future-year apportionments beyond the current authorization period and to make partial conversions of such projects.

Tax advantaged leasing is another finance tool that has provided significant additional revenues to transit systems in several States. Since 1994, over $2.2 billion in equipment and facilities leasehold transactions (cross-border leases, domestic leases, and lease/leaseback) have provided over $143 million in cash benefits for the transit systems involved. This non-Federal cash has been used for these transit providers' long term capital investment programs.

A few states used other innovative financing tools such as lending some of their regularly apportioned Federal funds to revenue producing projects or using those funds to reimburse the cost of retiring bonds. Although these tools leveraged the greatest amount of non-Federal funds, they have been utilized less frequently because in many cases legal and institutional impediments must be overcome and because states chose not to divert grant funds previously programmed for other uses.

In addition to leveraging more non-Federal investment, the Partnership initiative has accelerated construction of these projects—by an average of 2.2 years. That means the benefits of these projects—typically, travel time savings, safety improvements, reduced vehicle operating costs for transportation users, and environmental and other social benefits for communities—are realized sooner.

The Partnership for Transportation Investment provided clear evidence of the potential for innovative financing tools to generate more total investment and accelerate construction of transportation projects that deliver benefits to transportation users and communities in general. It also demonstrated that there is strong interest at the state and local level in using these tools. That evidence contributed to inclusion of a number of new authorities to use innovative financing tools and of a State Infrastructure Bank pilot program in the NHS Act—an important step in making these tools broadly available to better meet the Nation's transportation needs.

STATE INFRASTRUCTURE BANKS

A SIB is a state or multi-state fund that can offer loans and credit enhancements to a wide variety of project sponsors. They are intended to support certain highway, transit, or rail projects that can be financed—in whole or in part—with loans or that can benefit from the provision of credit enhancement. As loans are repaid or the financial exposure implied by a credit enhancement expires, a SIB's initial capital is replenished, and it can support a new cycle of projects.

With the authority provided in the NHS Act, DOT selected ten states from among 15 applicants. We have established cooperative agreements with nine of those states: Arizona, Florida, Missouri, Ohio, Oklahoma, Oregon, South Carolina, Texas, and Virginia. California is still considering the best structure for its SIB.

With just five months having passed since most states signed cooperative agreements with us for chartering their SIB's, financial activity within the SIB's has gotten underway. Federal outlays to the SIB pilots (from regularly apportioned Federal-aid highway funds) totaled $65 million as of the end of February. Three loans have been made—two by Ohio totaling $20 million and one by Missouri for $1.2 million. Three other states—Florida, Oklahoma, and Oregon—intend to make project loans this fiscal year. Texas and Virginia may be able to offer loans this year, too.

This is a new way of advancing infrastructure improvements—for us and for the states, and, as we move forward, we are finding impediments as we thought we would and we are solving them. Arizona, Oklahoma, and Texas have found limitations in their enabling legislation for SIB's and are actively seeking remedies. South Carolina and Virginia are developing procedures for SIB operations and project selection and do not expect to request Federal capitalization funds until late in fiscal year 1997 or fiscal year 1998. California is exploring structural options for its SIB, including the possibility of solely providing third-party credit enhancements. This strategy would require California to obtain an investment grade rating for its SIB. The process to do so is underway but not yet completed.

While we are still in the start-up phase, our expectations are for a healthy level of SIB activity within the first ten pilots. Based on the states' plans, we expect to see $260 million in SIB assistance offered this fiscal year to support $940 million worth of projects. By the end of fiscal year 1998, we expect $324 million in assistance to be committed in support of $1.6 billion worth of projects. If those expecta-

tions hold true, by the end of fiscal year 1998, each SIB dollar would be supporting nearly $4 of non-Federal infrastructure investment.

As with the Partnership initiative, highway projects will likely form the bulk of SIB-assisted projects—about 75 percent of them based on current plans. But SIB's will also assist in construction of other projects such as intermodal facilities and improvement of rail transit infrastructure. For example, Missouri's SIB will use a Missouri DOT grant to capitalize its SIB transit account. The initial capitalization will support a loan for the Kiehl Center, a multi-modal terminal serving St. Louis, Missouri's transit system, the Bi-State Development Agency. The loan will be followed by a debt service line of credit, which will reduce the project's borrowing costs by over 200 basis points. This will be the first SIB transit account to be capitalized.

We expect that SIB's will be an important contributor to meeting the Nation's transportation needs. They can support locally and regionally significant projects that have access to a dedicated revenue stream but need flexible financial assistance to clear hurdles that would otherwise obstruct or delay their implementation. SIB's can do this by offering: lower cost financing than might otherwise be available, flexible repayment terms that can be tailored to a project's revenue stream, or credit enhancements that improve access to, or lower the cost of, debt financing. And the fact that SIB resources are recycled means that the benefits of SIB assistance—leveraging of other investment, lower project costs, and accelerated construction—can be realized repeatedly.

The fiscal year 1997 Transportation Appropriations Act authorized us to permit more States to establish SIB's and provided $150 million in seed money. Twenty-nine States have applied to establish additional SIB's. We expect to be announcing our decisions on those applications very shortly. At the same time, we will be announcing how the $150 million will be distributed among the first 10 pilot states and the new SIB states we are selecting with the authority in the Appropriations Act.

PROPOSALS FOR FISCAL YEAR 1998 AND BEYOND

The President's fiscal year 1998 budget and our proposal for ISTEA reauthorization—the National Economics Crossroads Transportation Efficiency Act of 1997, or NEXTEA—expand the innovative financing opportunities available to state and local governments by authorizing all states to establish SIB's, by providing $150 million in seed money for SIB's per year, and by creating a new Transportation Infrastructure Credit Enhancement Program funded at $100 million per year. This program is intended to assist in the funding of nationally significant transportation projects that otherwise might be delayed or not constructed at all because of their size or uncertainty over timing of revenues.

The proposed new Credit Enhancement Program would provide grants (limited to 20 percent of project costs), which could be supplemented by contributions from states or other entities, to establish a Revenue Stabilization Fund for each project selected. That Fund would be used to secure external debt financing or would be drawn upon if needed to pay debt service costs in the event project revenues are insufficient. These debts will not be considered "federally guaranteed" under the Internal Revenue Code, thus allowing the Program to be used in connection with either taxable or tax-exempt bond issues. Our vision is that the Credit Enhancement Program will complement the SIB's by encouraging the development of large, capital-intensive infrastructure facilities through public-private partnerships consisting of a state or local government and one or more private sector firms involved in the design, construction, or operation of the facility. Candidate projects that meet threshold eligibility criteria—relating to project size, access to user charges or other dedicated revenue streams, inclusion in a State's Transportation Improvement Program, ability to provide benefits of national significance, and demonstrated need that it cannot otherwise obtain financing on reasonable terms—would then be evaluated and selected based on the extent to which they would leverage private capital, their overall credit worthiness, and other program goals.

OTHER MODES

I have focused my remarks on surface transportation infrastructure, but I want to tell you briefly how we are applying innovative concepts for financing of our aviation programs and Amtrak.

Based on the success of the Partnership initiative in surface transportation, we asked Congress for authority similar to FHWA's test and evaluation authority to test innovative financing techniques for airport development. The Federal Aviation Reauthorization Act of 1996 permitted us to select ten airport development projects to demonstrate innovative financing techniques that were not otherwise permitted

by statute. Although FAA's innovative financing options available in this demonstration program are more limited than FHWA's have been under its test and evaluation authority, we are optimistic that the results will be positive.

In response to its invitation, FAA has received 12 written expressions of interest that contained sufficient detail on which to base a preliminary concept decision. A panel with expertise in airport financing has reviewed the proposals and recommended that five be advanced to the next step. I am pleased to announce today that these five applicants will be invited to provide additional detail to support formal applications for Airport Improvement Program funds.

The proposed projects include construction of a safety-related building, new runways to provide additional airport capacity, and mitigation of airport noise impacts. In addition, each of the three innovative financing mechanisms authorized under the 1996 Act—payment of interest, credit enhancement, and flexible non-Federal share—would be tested by at least one of the proposals.

We anticipate finding that these financing innovations will lead to greater leveraging power for limited Federal funds, acceleration of needed capital improvements, and overall cost savings in developing airport infrastructure. We look forward to sharing preliminary data on innovative financing benefits with the National Civil Aviation Review Commission later this summer.

As you know, we have been proposing for some time to change the financing structure for FAA from aviation excise taxes to cost-based user fees. In the long run, we believe that is the best way to promote efficiency in both the provision and consumption of FAA services and ensure that FAA will receive the resources it needs to be able to continue to provide the services that aviation users demand. FAA is critical to the operation of the civil aviation system in this country and for much of the airspace beyond our borders. Our economy, in turn, is dependent on the efficient and unconstrained use of that airspace. Congress has given us the authority to charge for the air traffic services provided to those flying through our airspace but not taking off or leaving from a U.S. airport. We have issued an interim final rule to collect those fees, and the fees will be effective May 19, 1997. In the President's fiscal year 1998 Budget, we propose to collect an additional $300 million in new fees next year. This proposal is an interim measure to provide the FAA with needed resources until comprehensive financial reforms can be implemented based on the work of the National Civil Aviation Review Commission. The FAA provides a variety of services the costs of which are not fully recovered under the current system of excise taxes (e.g., security, inspections, and air traffic services provided to general aviation jet aircraft and international air cargo carriers). These represent possible fees that could be authorized for fiscal year 1998.

We look forward to the recommendations of the National Civil Aviation Review Commission regarding the long-term financing of the FAA and to working with Congress on FAA financing.

We believe Amtrak is a key part of the Nation's intercity transportation system and that a combination of cost savings, revenue generation, and capital support is essential if Amtrak is to achieve eventual operating self-sufficiency. Our NEXTEA proposal requests contract authority (beginning in fiscal year 1999) for Amtrak from the Highway Trust Fund. The total level of capital support is directly tied to Amtrak's ability to reduce spending and increase revenues so as to reduce its reliance on Federal operating grants. The intent of this arrangement is to encourage Amtrak to operate in the most efficient and effective manner. Our NEXTEA proposal would also let states, for the first time, use their National Highway System and Surface Transportation Program funds for Amtrak infrastructure. We believe that is the right kind of expansion of the flexibility ISTEA provided six years ago. More and more, state officials see the individual transportation modes as part of a network to meet transportation needs, and permitting them to use Federal funds in the most effective way to meet those needs is the best use we can make of the funds.

CONCLUSION

As the President has said, when times change, so government must change. We recognize that there must be more investment in transportation infrastructure and the Federal government can and must find new ways to promote that investment. The success of the Partnership for Transportation Investment encouraged us to change our grant programs so that innovative financing tools are available to encourage more non-Federal investment. We appreciate Congress' support in helping make those tools available. They are the right way to ensure the Nation's transportation system is ready to meet the demands of the 21st Century.

AVIATION USER FEES

Senator GORTON. Mr. Downey, there has been a lot of discussion and criticism of the way in which the Federal Aviation Administration is currently financed. We have already been talking about it some. Basically, the ticket tax and general revenues. I expect this controversy will not subside as we move through the appropriation process. Last year Congress established the National Civil Aviation Commission to review this issue and to make recommendations to the Secretary of Transportation by August 1997.

Sir, what criteria will the Department use as it considers various user fees that are recommended by the National Civil Aviation Commission?

Mr. DOWNEY. We will be working with the Commission, and I am not sure what their recommendations will be. They are really beginning with a clean slate, looking at the needs of the system, looking at various means of financing it. I think the key issues will be ability to provide the funding necessary for FAA to meet a growing demand; second, equity among the classes of users; and third, efficiency in terms of the way the FAA does its business. As Senator Gorton raised the point of safety, we do not want a system of financing that would in any way detract from the safety of the system.

So we need to look at all of those. The Civil Aviation Commission has been appointed. They began their work about 2 weeks ago and we expect them to be able to meet their schedule.

Senator SHELBY. Mr. Anderson, do you have some comments?

STATEMENT OF JOHN H. ANDERSON, JR.

Mr. ANDERSON. Yes; I do. I will summarize my statement as well.

Senator SHELBY. Go ahead. It will be made part of the record.

Mr. ANDERSON. All right, thank you.

I appreciate the opportunity to testify today on three critical transportation financing issues facing the Congress and the administration: meeting the long-term financing needs of FAA, Amtrak's needs for Federal financial assistance, and innovative ways for financing highway construction. In my oral statement I will summarize the financing challenges presented by FAA and our Nation's highways, and my colleague Phyllis Scheinberg will discuss Amtrak's financial condition during today's second panel.

Major financing issues need to be resolved to improve the safety and security of our aviation system. Over the years we have identified numerous shortcomings in FAA's aviation safety and security programs. Following the crashes of ValuJet Flight 592 and TWA Flight 800, FAA and the Gore Commission also identified areas requiring action.

How these improvements will be funded, however, has yet to be addressed. FAA estimates that its needs will exceed projected funding levels over the next 5 years by $13 billion, which includes $4 billion to accelerate air traffic control modernization.

The administration has proposed that the current financing system, including the tax on domestic airline tickets, be replaced with user fees, and a national commission will examine this financing option. However, a user fee approach requires a good cost account-

ing system, which our work has shown FAA lacks. In a recent study, Coopers & Lybrand reported that, despite FAA's lacking a cost accounting system, it is possible on an interim basis for FAA to assign its costs to broad categories of users such as commercial airlines, general aviation, and the military. However, the study concluded that FAA did not currently have sufficiently detailed, reliable cost data to support a comprehensive user fee system.

If FAA is required to adopt a comprehensive system of user fees, it should first implement a modern cost accounting system that can reliably assign costs to specific users. FAA plans to implement such a system by October 1997. However, according to FAA, it will take at least 6 to 12 months after that before the agency can develop enough data to accurately assign costs to specific users.

Even with better cost data, a significant portion of FAA's costs may not be directly assignable to individual users, and policy decisions and judgments are going to have to be made about how to assign those costs. Different user groups are likely to have diverging opinions about what constitutes an equitable allocation of these costs.

Because the excise taxes that finance about three-fourths of FAA's budget lapse at the end of this fiscal year, the Congress will have to select a financing mechanism without knowing whether specific users are assigned their fair share of costs. The Congress could decide to extend the present excise tax system, modify it, or adopt a different one from numerous options, such as a fuel tax or enplanement fees. Deciding among these alternatives involves tradeoffs between their ease of administration, impact on the efficiency of the system, the ability to produce an equitable system in which users pay their fair share, and their impact on other policy goals.

In choosing how to finance FAA, these tradeoffs and the potential competitive impacts of new fees will need to be carefully studied by the National Commission and the Congress. When FAA develops more detailed and reliable cost data, the financing method that is initially chosen could be reexamined.

Similarly daunting challenges are presented by the financing of repairs and construction of our Nation's highways. DOT estimates that $16 billion in additional spending is needed annually just to maintain, not improve, the condition of the Nation's highways to 1993 levels. In order to stretch limited funds, the Congress in 1995 authorized a number of innovative financing mechanisms, including a State infrastructure bank pilot program.

SIB's serve as an umbrella under which a variety of innovative finance techniques can be implemented. Much like a bank, a SIB needs equity capital to get started and equity capital can be provided, at least in part, through Federal highway funds. Once capitalized, the SIB can offer a range of loans and credit options, such as loan guarantees and lines of credit, to public or private sponsors of transportation projects.

SIB's are intended to complement, not replace, traditional grant programs and provide States with increased flexibility to attract private investment in highway projects. For some States, however, barriers to establishing and effectively using a SIB remain. Michigan officials, for instance, told us that the State does not have the

constitutional authority to lend money to the private sector. As a result, the SIB program has been slow to start up. Only two States, Missouri and Ohio, have actually started projects under their SIB's.

To provide for greater participation, DOT's Fiscal Year 1997 Appropriations Act lifted the 10-State limit on establishing SIB's and provided $150 million in new seed money. Since the act's passage, DOT has received additional applications from 28 States and Puerto Rico.

Clearly, the SIB program will need time to develop and mature before its impact on meeting highway funding needs can be assessed. In our 1996 report we suggested that once SIB's begin operating FHWA could disseminate information on States' successes and failures with various financing options, which could help other States use them more effectively.

That concludes my oral statement and I would be glad to answer any questions.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Anderson. We have your complete statement and it will be made part of the record.

[The statement follows:]

PREPARED STATEMENT OF JOHN H. ANDERSON, JR.

Mr. Chairman and Members of the Subcommittee: We appreciate the opportunity to testify on three critical transportation financing issues facing the Congress and the administration: meeting the long-term funding needs of the Federal Aviation Administration (FAA), Amtrak, and the nation's highways. Each area presents formidable challenges that will stretch our limited resources; at the same time, pressures remain to reduce the federal budget. Overall, the $38 billion proposed in the Department of Transportation's (DOT) fiscal year 1998 budget to fund the Department represents about a 1-percent reduction from this year's enacted appropriation. In summary, we have found the following:

—Major financing issues need to be resolved to improve the safety and security of our nation's aviation system. FAA estimates that its needs will exceed projected funding levels by about $13 billion over the next 5 years. The Congress last year established a national commission to make recommendations by August 1997 on how best to finance FAA. Currently, FAA receives most of its funding from excise taxes, including a tax on domestic airline tickets, but those taxes lapse at the end of fiscal year 1997. The administration has proposed replacing the current system with user fees, and the national commission clearly will be examining this option. Developing such fees requires good data for assigning FAA's costs to specific users and policy decisions on such issues as how to allocate costs not directly related to any particular user. FAA currently lacks sufficient cost data, however, and will not start collecting better data until October 1997. As a result, better cost data will not be available before the excise taxes lapse or before initial decisions will have to be made about how to finance FAA. Deciding among the various financing alternatives involves tradeoffs between their (1) ease of administration, (2) impact on how efficiently the airport and airway system is used, (3) ability to produce an equitable system in which users pay their fair share, (4) potential competitive impacts, and (5) other policy goals.

—Amtrak remains in a very precarious financial position and continues to be heavily dependent on federal support to meet its operating and capital needs. Amtrak's passenger rail service has never been profitable and, through fiscal year 1997, the federal government has provided Amtrak with over $19 billion for operating and capital expenses. Amtrak projects that its fiscal year 1997 operating loss could be $783 million. While the corporation's goal is to eliminate the need for federal operating support by 2002, it is likely that Amtrak will continue to require substantial federal financial support—both operating and capital—beyond that time.

—DOT believes that current public spending on the capital needs of highways is inadequate and estimates that $16 billion in additional spending is needed an-

nually just to maintain—not improve—the condition of the nation's highways. State Infrastructure Banks offer the promise of helping to close the gap between transportation needs and available resources by sustaining and potentially expanding a fixed sum of federal capital. Benefits include expediting the completion of projects, recycling loan repayments to future projects, and obtaining financial support from the private sector and local communities. However, some state officials and industry experts are skeptical that such banks will produce these benefits and believe that (1) the number of projects with a sufficient revenue stream to repay the loans may be insufficient and (2) state infrastructure banks face impediments under state law. Only time will tell. This program is new, and only two states have begun projects under their state infrastructure bank.

ISSUES ASSOCIATED WITH ADDRESSING FAA'S FINANCIAL PROBLEMS AND DETERMINING THE BEST FUNDING MECHANISM

One of the most difficult financing problems confronting the Congress and the administration is how to adequately fund FAA to meet its mission over the long term. Over the years, we have issued numerous reports and testimonies that identified shortcomings in FAA's aviation safety and security programs.[1] These shortcomings include the insufficient training of FAA safety inspectors, inaccurate and incomplete aviation safety databases, and vulnerabilities in our aviation security systems. Similarly, in the wake of the May 1996 crash of Valujet Flight 592 and the July 1996 crash of TWA Flight 800, FAA and the White House Commission on Aviation Safety and Security (the Gore Commission) have concluded that a number of actions are needed to improve the safety and security of our aviation system.[2] However, how to fund these improvements has not been resolved.

Deciding how to meet FAA's funding needs involves not only determining what FAA's financial requirements are but choosing the best financing mechanism to meet those needs. Recognizing the seriousness of these issues, the Congress directed that a number of studies be completed. Under the Federal Aviation Reauthorization Act, enacted in October 1996, the Congress required (1) an independent assessment of FAA's financial needs and costs, which was performed by Coopers & Lybrand; (2) an assessment by GAO of airports' capital needs; and (3) an assessment by GAO of how air traffic control costs are allocated between FAA and the Department of Defense (DOD). The act established the National Civil Aviation Review Commission to, among other things, consider these studies and recommend to the Secretary of Transportation, by August 1997, how best to finance FAA.[3]

While its assessment of FAA's financial needs identified some areas for potential savings, Coopers & Lybrand concluded that FAA's estimates of its needs through 2002 were reasonable.[4] Table 1 compares FAA's estimated requirements with the agency's budget estimates for fiscal years 1998–2002, which were contained in the President's fiscal year 1998 budget.[5] In addition, FAA officials estimate that the almost $9 billion potential shortfall shown in table 1 could increase by an additional $4 billion as the agency tries to address the Gore Commission's recommendations to accelerate the modernization of the National Airspace System.

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[1] See, for example, "Aviation Safety: New Airlines Illustrate Long-Standing Problems in FAA's Inspection Program" (GAO/RCED–97–2, Oct. 17, 1996) "Aviation Safety: Data Problems Threaten FAA Strides on Safety Analysis System" (GAO/AIMD–95–27, Feb. 8, 1995), "Aviation Security: Additional Actions Needed to Meet Domestic and International Challenges" (GAO/RCED–94–38, Jan. 27, 1994), and "Aviation Security: Technology's Role in Addressing Vulnerabilities" (GAO/T–RCED/NSIAD–96–262, Sept. 19, 1996).

[2] "Final Report to President Clinton, White House Commission on Aviation Safety and Security" (Feb. 12, 1997) and "FAA 90 Day Safety Review" (Sept. 16, 1996).

[3] The Secretary of Transportation is required to consult with the Secretary of the Treasury and report to the Congress by October 1997 on the Secretary's recommendations for funding FAA through 2002.

[4] "Federal Aviation Administration: Independent Financial Assessment," Coopers & Lybrand (Feb. 28, 1997).

[5] One component of FAA's requirements is funding a portion of the cost of developing our nation's airports. Last month, we reported that estimates of airports' annual capital needs during 1997–2001 ranged from $1.4 billion to $10.1 billion, depending on how needs are defined. See "Airport Development Needs: Estimating Future Costs" (GAO/RCED–97–99, Apr. 7, 1997).

[Dollars in billions]

Fiscal year	FAA's estimated requirements	FAA's projected budget	FAA's budget shortfall
1998	$8.46	$8.46	.....
1999	10.82	8.68	($2.14)
2000	11.22	8.91	(2.31)
2001	11.32	9.15	(2.17)
2002	11.50	9.39	(2.11)
Total	53.32	44.59	(8.73)

Source: FAA and the President's 1998 budget.

To help meet these financial challenges, the administration has proposed that the current approach to financing FAA be changed. Generally, three-quarters of FAA's funding comes from the Airport and Airway Trust Fund, which in turn, receives most of its funding from a 10-percent tax on the fares paid by passengers. The remainder of FAA's funding comes from the General Fund of the U.S. Treasury. In its fiscal year 1998 budget for FAA, the administration proposed replacing this system with usage-based fees starting in fiscal year 1999. The administration also proposed, as an interim step, $300 million in new user fees in addition to the $100 million in fees on foreign airlines' overflights of the United States that were authorized in fiscal year 1997. FAA has subsequently indicated that the new fees could potentially be charged for business aviation, international air cargo, and security activities. Similarly, a coalition of the nation's largest airlines advocate replacing the airline ticket tax with usage-based fees. These airlines believe that they pay more than their fair share of the costs incurred by FAA in running the airport and airway system and that competing low-fare airlines underpay.[6]

In our December 1996 report on the coalition's proposal to replace the ticket tax and in our February 1997 testimonies before the Senate Finance Committee and House Aviation Subcommittee, we stated our belief that, to the extent possible, commercial users of the nation's airspace should pay their share of the costs that they impose on the nation's airport and airway system.[7] We noted that because the airline ticket tax is computed based on the fares paid and not on factors that directly relate to FAA's costs for providing service, the extent to which the tax fairly allocates costs among system users is open to question. While many factors drive FAA's costs, we found that the coalition's proposal only incorporated factors that would substantially increase the taxes paid by low-fare and small airlines and decrease the taxes paid by the seven coalition airlines. We concluded that determining how best to finance FAA is a complex problem that requires careful study and good cost data. Our prior work has shown that FAA does not have an adequate cost-accounting system and, as a result, has limited capability to accumulate accurate, reliable cost data.[8]

On February 28, 1997, Coopers & Lybrand reported that despite FAA's lack of a cost-accounting system, it is possible, on an interim basis, to attribute FAA's costs to broad categories of users such as commercial airlines as a group or general aviation. However, Coopers & Lybrand concluded that FAA did not have sufficiently detailed or reliable cost data upon which to base a comprehensive system of new fees charged to specific users (e.g., particular airlines). It recommended that if FAA is required to adopt a comprehensive system of user fees, a modern cost-accounting system should be implemented to reliably assign costs to specific products and users. FAA is developing a cost-accounting system as required by the Federal Aviation Reauthorization Act of 1996 and plans to implement the system by October 1997. However, FAA's Manager, Cost Accounting System Division, told us that developing a sufficient amount of data to accurately assign costs to specific users will take at least 6 to 12 months after the system is implemented.

Because the airline ticket tax and other taxes that finance the Trust Fund lapse on September 30, 1997, better cost data will not be available before the Congress

[6] The coalition comprises the seven largest airlines—American Airlines, Continental Airlines, Delta Air Lines, Northwest Airlines, TWA, United Airlines, and US Airways.

[7] See "Airport and Airway Trust Fund: Issues Raised by Proposal to Replace the Airline Ticket Tax" (GAO/RCED–97–23, Dec. 9, 1996), "Issues and Options in Deciding to Reinstate or Replace the Airline Ticket Tax" (GAO/T–RCED–97–56, Feb. 4, 1997), and "Issues Related to Determining How Best to Finance FAA" (GAO/T–RCED–97–59, Feb. 5, 1997).

[8] See "Air Traffic Control: Improved Cost Information Needed to Make Billion Dollar Modernization Investment Decisions" (GAO/AIMD–97–20, Jan. 22, 1997).

is faced with the lapsing of those taxes. As a result, regardless of whether the Congress decides to extend the current excise taxes, modify them, or implement some other financing mechanism, it will not have assurance that specific users are assigned their fair share of costs. When more detailed cost data become available sometime in the future, a determination could be made to reexamine the financing method that is chosen.

Notwithstanding the limitations of FAA's cost data, the data that are currently available indicate that a large portion—55 percent—of FAA's costs are "common," or not directly related to any particular user. In our congressionally mandated April 1997 report on the allocation of air traffic control costs, we concluded that the method for allocating common costs could have a profound impact on the total cost shares assigned to system users.[9] We reported that in allocating common costs, assumptions and judgments must be made and that different user groups are likely to have diverging opinions about what constitutes an equitable allocation of those costs. We also reported that FAA and DOD strongly disagree about how FAA's common costs should be allocated.[10] In addition, we noted that whether and to what extent DOD's costs for providing air traffic services to civil users should be included in the development of user fees is another issue that would need to be resolved if the Congress instituted such fees. If DOD's costs are included, fees could be collected from civil users for the services provided by DOD, thereby providing an offset to what DOD may owe FAA.

In addition to retaining the ticket tax, there are numerous financing alternatives for the national commission, and ultimately the Congress, to consider. Possible options include taxing one or more of the general indicators of system use, such as departures, passenger enplanements, seats flown, fuel consumed, or a combination of these indicators. However, the potential competitive impact of using these indicators as a basis for allocating FAA's costs varies greatly depending on which indicator is used. For example, if a tax on passenger enplanements were adopted and designed to generate about the same amount of revenue as the ticket tax, the amount paid by the coalition of the nation's largest airlines would decline by about $251 million while the amount paid by competing airlines would increase by $269 million and commuter carriers by $61 million. In contrast, a fuel tax would keep the amount paid by the largest airlines and by competing airlines about the same as each paid under the ticket tax, but the amount paid by individual airlines would vary.

The various potential financing mechanisms for FAA, whether they be the $400 million in user fees contained in the administration's fiscal year 1998 budget or the longer-term options for replacing the ticket tax with usage-based fees, present policy tradeoffs between their ease of administration, impact on how efficiently the airport and airway system is used, ability to produce an equitable system in which users pay their fair share, and other policy goals. For example, a usage-based formula that combines several of the common system-usage indicators might provide the most exact method to ensure that all users pay their fair share of system costs. However, such a formula may also be so complex that it would be difficult to administer. By contrast, a fuel tax, while generally correlating to system use, would be less exact than more complex formulas but would be easier to administer. Likewise, taxing airlines for their use of the most congested airports may result in a more efficient use of the nation's airspace. However, because the coalition airlines are the primary users of these airports, this approach may not produce the most equitable result from their point of view.

Such tradeoffs and the potential competitive impacts of new fees will need to be carefully studied over the next several months by the national commission, the Secretary of Transportation, and the Congress. The financing mechanism that is finally selected should be relatively easy to administer and help ensure that, in the long term, FAA has a secure funding source, the nation's airports and airways are used as efficiently as possible, commercial users of the system pay their fair share, and a strong, competitive airline industry continues to exist. Ultimately, it is a policy call for the Congress to decide how to achieve these and other goals.

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[9] "Air Traffic Control: Issues in Allocating Costs for Air Traffic Services to DOD and Other Users" (GAO/RCED–97–106, Apr. 25, 1997).

[10] DOD believes that it should not bear any of FAA's common costs because the Department is only a marginal user of FAA's air traffic services and has a minor impact on FAA's cost structure. Conversely, FAA believes that DOD should be assigned some portion of common costs because, like other users, DOD benefits from FAA's air traffic control infrastructure.

AMTRAK'S FINANCIAL CONDITION AND ITS QUEST FOR OPERATING SELF-SUFFICIENCY

Over the last several years, we have issued a number of reports and testified several times on Amtrak's financial condition.[11] Amtrak's passenger rail service has never been profitable and, through fiscal year 1997, the federal government has provided Amtrak over $19 billion for operating and capital expenses. In response to continually growing losses and a widening gap between operating deficits and federal subsidies, Amtrak developed its Strategic Business Plan. This plan, which has been revised several times, was designed to increase revenues and control cost growth and, at the same time, eliminate Amtrak's need for federal operating subsidies by 2002.

Our assessment of Amtrak's financial condition is that, despite some gains, the corporation is still in a very precarious position. It remains heavily dependent on federal support to meet its operating and capital needs. Although actions taken by Amtrak through its business plans have helped reduce Amtrak's net losses, Amtrak has struggled to reach net loss targets.[12] For example, Amtrak's plans for fiscal years 1995 and 1996 included actions to reduce its net loss by $195 million—from about $834 million in fiscal year 1994 (in current year dollars) to $639 million in fiscal year 1996.[13] By the end of fiscal year 1996, Amtrak's loss had declined to about $764 million; however, it was substantially more than planned. In addition, the relative gap between total revenues and total expenses has not significantly closed, and passenger revenues (adjusted for inflation)—which Amtrak has been relying on to help close the gap—have generally declined over the past several years (see apps. I and II). Similarly, the gap between operating deficits and federal operating subsidies rose in fiscal year 1996 to $82 million—the highest it had been in the last 9 years.[14]

Amtrak's continuing financial crisis can be seen in other measures as well. In February 1995, we reported that Amtrak's working capital—the difference between current assets and current liabilities—declined between fiscal years 1987 and 1994. Although Amtrak's working capital position improved in fiscal year 1995, it declined again in fiscal year 1996 to a $195 million deficit (see app. III). This decline reflects an increase in accounts payable, short-term debt, and capital lease obligations, among other items. A continued decline in working capital jeopardizes Amtrak's ability to pay immediate expenses. Amtrak's debt levels have also increased significantly (see app. IV). During fiscal years 1993 through 1996, Amtrak's debt and capital lease obligations nearly doubled—from about $527 million to about $987 million, in 1996 dollars. These debt levels do not include an additional $1 billion expected to be incurred beginning in fiscal year 1999 to finance 18 high-speed trainsets and related maintenance facilities for the Northeast Corridor and the acquisition of new locomotives.

It is important to note that servicing Amtrak's increased debt takes away from the federal financial operating support needed to cover future operating deficits. In fact, over the last 4 years, interest expenses have about tripled—from about $20.6 million in fiscal year 1993 to about $60.2 million in fiscal year 1996 (see app. V). Because Amtrak pays interest from federal operating assistance and principal from federal capital grants, this increase has absorbed more of the federal operating subsidy each year. During fiscal years 1993 through 1996, the percentage of federal operating subsidies used to pay interest expenses increased from about 6 to about 21 percent. As Amtrak assumes more debt to acquire equipment, the interest payments are likely to continue to consume an increasing portion of federal operating subsidies. Amtrak's fiscal year 1997 operating losses may be even higher than those in fiscal year 1996. As a result of unanticipated expenses and revenue shortfalls, at the end of the second quarter Amtrak projected that its actual fiscal year 1997 year-end net loss could be about $783 million.

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[11] See "Intercity Passenger Rail: The Financial Viability of Amtrak Continues to Be Threatened" (GAO/T–RCED–97–94, Mar 13, 1997), "Amtrak's Strategic Business Plan: Progress to Date" (GAO/RCED–96–187, July 24, 1996), "Northeast Rail Corridor: Information on Users, Funding Sources, and Expenditures (GAO/RCED–96–144, June 27, 1996), "Amtrak: Early Progress Made in Implementing Strategic Business Plan, but Obstacles Remain" (GAO/T–RCED–95–227, June 16, 1995), and "Intercity Passenger Rail: Financial and Operating Conditions Threaten Amtrak's Long-Term Viability" (GAO/RCED–95–71, Feb. 6, 1995).

[12] "Net loss" is defined as total revenues minus total expenses.

[13] Net loss for fiscal year 1994 excludes a one-time charge of $244 million for accounting changes, restructuring costs, and other items.

[14] Operating deficit is the same as net loss, except noncash items (such as depreciation) and the one-time charge taken in fiscal year 1994 are excluded from total expenses.

Amtrak Has Large Capital Needs

Amtrak's goal of eliminating federal operating subsidies by 2002 is heavily dependent on capital investment. Such investment—the modernizing of property, plant, and equipment—will not only help Amtrak to retain revenue by improving the quality of existing service but will potentially increase revenues by attracting new riders.

Amtrak's capital investment needs are great—both to replace and modernize current physical assets and to complete new projects such as high-speed rail service on the Northeast Corridor. For example, in May 1996, the Federal Railroad Administration (FRA) and Amtrak estimated that about $2 billion would be needed over the next 3 to 5 years to recapitalize the south end of the Northeast Corridor and preserve its ability to operate in the near-term at existing service levels. FRA and Amtrak estimate that up to $6.7 billion may be needed over the next 20 years to recapitalize the Northeast Corridor and make improvements targeted to respond to high priority growth opportunities. Amtrak also estimates that an additional $1.4 billion will be needed to finish the high-speed rail project.

Our ongoing work indicates that Amtrak has made some progress in addressing its capital needs, but the going has been slow and, in some cases, Amtrak may be facing significant future costs. For example, in October 1996, about 53 percent of Amtrak's active fleet of 1,600 passenger cars averaged 20 years old or more and were at or approaching the end of their useful life. It is safe to assume that as this equipment continues to age, it will have more frequent failures and require more expensive repairs.

Finally, Amtrak will continue to find it difficult to take those actions necessary to further reduce its costs. During fiscal year 1995, Amtrak was successful in reducing and eliminating some routes and services. For example, Amtrak reduced the frequency of service on seven routes from daily to three or four times per week, and on nine other routes various segments were eliminated. Amtrak estimates that such actions saved about $54 million. However, Amtrak was less successful in making the route and service adjustments planned for fiscal year 1997. As a result, Amtrak estimates that its projected fiscal year 1997 net loss will increase by $13.5 million. Amtrak has also been unsuccessful in negotiating productivity improvements with labor unions.

Amtrak has staked its financial future on the ability to eliminate federal operating support by 2002 by increasing revenues, controlling costs, and providing customers with high-quality service. Although its business plans have helped reduce net losses, Amtrak continues to face significant challenges in accomplishing this goal, and it is likely Amtrak will continue to require substantial federal financial support—both operating and capital—well into the future.

INNOVATIVE HIGHWAY FINANCING THROUGH STATE INFRASTRUCTURE BANKS

In October 1996, we reported that total public spending on the capital needs for highways and bridges was approximately $40 billion in 1993—the most recent year for which data are available—and that DOT estimated that an additional $16 billion annually is needed just to maintain—not improve—the condition of the nation's highways at the 1993 level.[15] Moreover, postponing investment can increase costs; DOT estimated that deferring $1 in highway resurfacing for just 2 years can require spending $4 in highway reconstruction costs to repair the damage.

In order to stretch limited federal funds, the Congress in 1995 authorized some innovative uses of federal transportation funds. The National Highway System Designation Act of 1995 established a number of innovative financing mechanisms, including the authorization of a State Infrastructure Bank (SIB) Pilot Program for up to 10 states or multistate applicants—8 states were selected in April 1996, and 2 were selected in June 1996. Under this program, states can use up to 10 percent of most of their federal highway funds for fiscal years 1996–97 to establish their SIB's. This program was expanded by DOT's fiscal year 1997 appropriations act, which removed the 10-state limit and provided $150 million in new funds.

A SIB serves essentially as an umbrella under which a variety of innovative finance techniques can be implemented. Much like a bank, a SIB needs equity capital to get started, and equity capital can be provided at least in part through federal highway funds. Once capitalized, the SIB can offer a range of loans and credit options, such as loan guarantees and lines of credit. For example, through a revolving fund, states can lend money to public or private sponsors of transportation projects. Project-based revenues such as tolls or general revenues such as dedicated taxes can

[15] "State Infrastructure Banks: A Mechanism to Expand Federal Transportation Financing" (GAO/RCED–97–9, Oct. 31, 1996).

be used to repay loans with interest, and the repayments replenish the fund so that new loans can be supported. Thus, projects with sufficient potential revenue streams are needed to make a SIB viable.

Expected assistance for projects in the 10 states selected for the pilot program include loans, credit enhancement to support bonds, and lines of credit. In some cases, large projects that are already under way may be helped through SIB financial assistance. Examples of projects that the initial 10 pilot states are considering for financial assistance include the following:

—In Orange County, California, a $713 million project that includes construction of a 24-mile tollway may receive SIB assistance in the form of a $25 million line of credit that would replace an existing contingency fund. If the line of credit is used, plans are for it to be repaid through excess toll revenues.

—In Orlando, Florida, a $240 million project that will construct a 6-mile segment to complete a 56-mile beltway may receive a SIB loan in the amount of $20 million. Repayment of the loan would come from a mix of project-related and systemwide toll receipts and state transportation funds.

—In Myrtle Beach, South Carolina, a SIB loan is being considered to help construct a new $15 million bridge to Fantasy Harbor. The source for repaying the loan would be proceeds from an admission tax at the Fantasy Harbor entertainment complex.

SIB assistance is intended to complement, not replace, traditional transportation grant programs and provide states with increased flexibility to offer many types of financial assistance. As a result, projects could be completed more quickly, some projects could be built that would otherwise be delayed or infeasible if conventional federal grants were used, and private investment in transportation could be increased. Furthermore, a longer-term anticipated benefit is that repaid SIB loans can be "recycled" as a source of funds for future transportation projects. If states choose to leverage SIB funds, DOT has estimated that $2 billion in federal capital provided through SIB's could be expected to attract an additional $4 billion for transportation investments.

For some states, barriers to establishing and effectively using a SIB still remain. One example is the low number of projects that could generate sufficient revenue to repay loans made by SIB's. Officials from six of the states that we surveyed told us that an insufficient number of projects with a potential revenue stream would diminish the prospects that their state would participate in the SIB pilot program. Officials from 10 of 11 states that we talked to about this issue said they were considering tolls as a revenue source. However, state officials also told us that tolls would likely generate considerable negative reaction from political officials and the general public.

Some states expressed uncertainty regarding their legal or constitutional authority to establish a SIB or use some financing options that would involve the private sector. Michigan, for instance, said that it does not currently have the constitutional authority to lend money to the private sector. Another impediment can arise if the SIB exposes the state to debt. Backing SIB assistance with the full faith and credit of the state is not legally permitted in some states. Without that guarantee, SIB's will have to rely on the strength of their project portfolio and initial capitalization as the basis for borrowing. As such, they are likely to experience higher borrowing costs than if their portfolio was backed by the full faith and credit of the state. Bond-rating agencies will have to assess each portfolio on a case-by-case basis.

Finally, a principal federal barrier to attracting private capital is the fact that the Internal Revenue Code, with some exceptions, restricts private involvement in tax-exempt debt. In the case of state and local bonds, bondholders' interest earnings are exempt from federal taxes. However, the tax exemption does not apply to a bond issue if (1) the private sector uses more than 10 percent of the proceeds and finances more than 10 percent of the debt or (2) more than 5 percent of the proceeds or $5 million (whichever is less) is used to make loans to the private sector. A number of federal and state officials and academic experts told us that states that choose to leverage their banks will likely do so with tax-exempt debt because bondholders are willing to accept lower interest rates in exchange for the bonds' tax-exempt status.

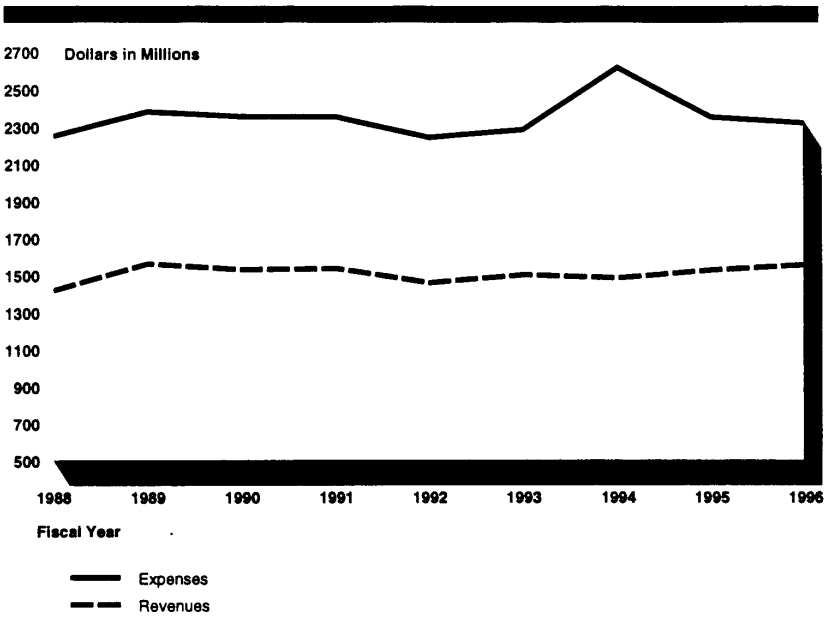
The SIB program has been slow to start up. Only two states—Ohio and Missouri—have actually begun projects under their SIB. Nevertheless, since $150 million was provided and the 10-state restriction was lifted in DOT's fiscal year 1997 appropriations act, the agency has received applications from 28 states and Puerto Rico. The program will need time to develop and mature before a comprehensive assessment of SIB's impact on meeting transportation needs can be assessed. In our October 1996 report, we suggested that once SIB's begin operating, the Federal Highway Administration could disseminate information on states' successes and fail-

ures with various financing options and thus help states use SIB's more effectively and educate other states on the pros and cons of a SIB.

Mr. Chairman, that concludes our prepared statement. We would be happy to respond to any questions that your or other members might have.

APPENDIX I

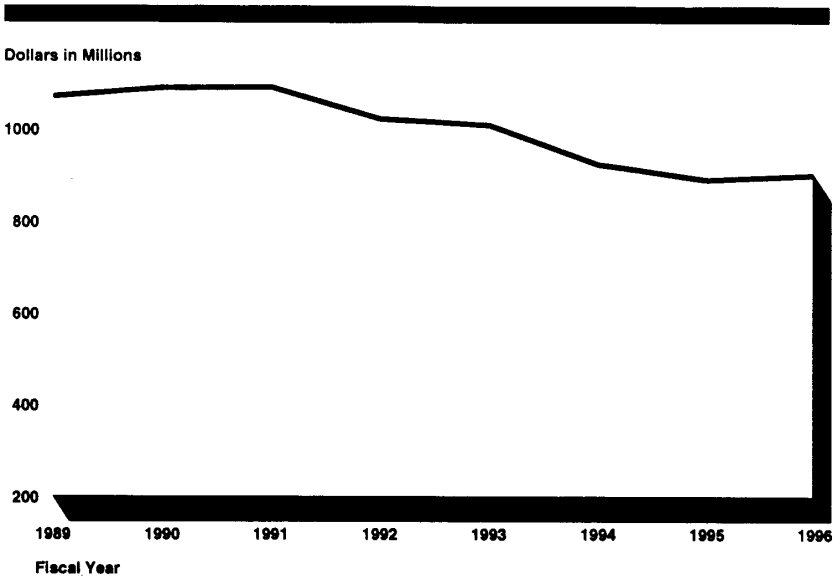
AMTRAK'S REVENUES AND EXPENSES, FISCAL YEARS 1988–96



Note: Amounts are in 1996 dollars.
Source: Amtrak.

APPENDIX II

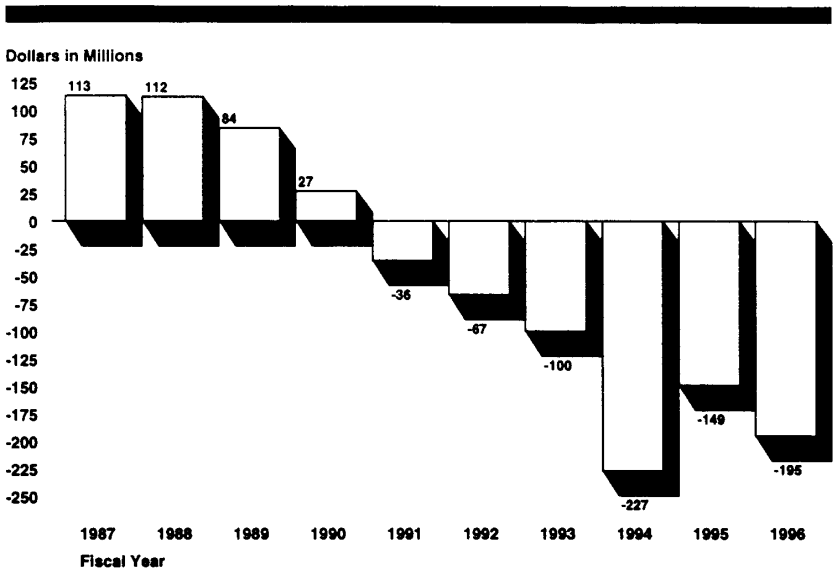
AMTRAK'S PASSENGER REVENUES, FISCAL YEARS 1989–96



Note: Amounts are in 1996 dollars.
Source: GAO's analysis of Amtrak's data.

APPENDIX III

AMTRAK'S WORKING CAPITAL SURPLUS/DEFICIT, FISCAL YEARS 1987–96

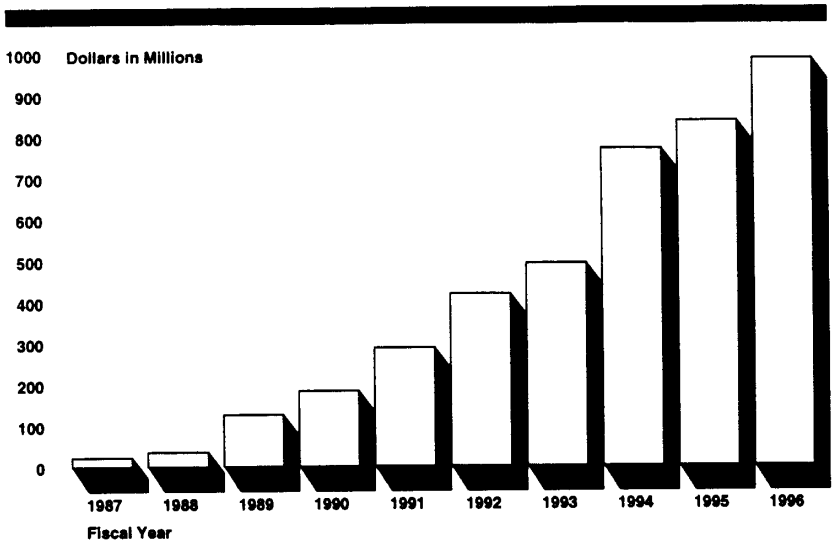


Notes: Working capital is the difference between current assets and current liabilities.

Amounts are in current year dollars. In 1996 dollars, working capital declined from $149 million in fiscal year 1987 to a deficit of $195 million in fiscal year 1996.
Source: GAO's analysis of Amtrak's data.

APPENDIX IV

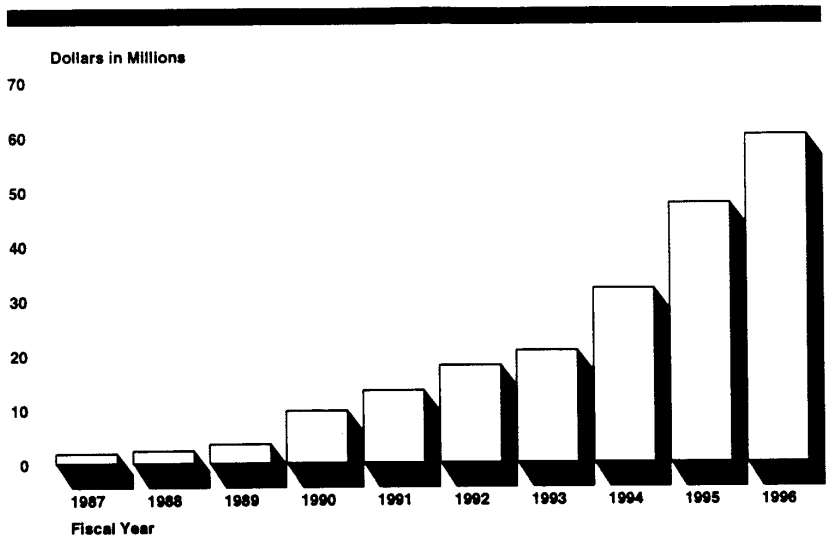
AMTRAK'S OUTSTANDING DEBT/CAPITAL LEASE OBLIGATIONS, FISCAL YEARS 1987–96



Note: Amounts are in current year dollars.
Source: Amtrak.

APPENDIX V

AMTRAK'S INTEREST EXPENSE, FISCAL YEARS 1987–96



Note: Amounts are in current year dollars.
Source: Amtrak.

AVIATION USER FEES

Senator SHELBY. Going back to you, Secretary Downey, do you anticipate, first, that the National Civil Aviation Review Commission will in fact report on user fees by August of this year?

Mr. DOWNEY. We are hopeful that they can do that. They understand the importance of the timetable and the fact that decisions have to be made. They are planning to meet on a quite regular basis between now and August.

Senator SHELBY. If they do, will that leave sufficient time for the administration to review the recommendations they make and for Congress to consider enactment of any new user fees before the end of the year? That is moving in August, September?

Mr. DOWNEY. We will be sharing what information we have, but the $300 million that is in the coming year's budget in our view is independent of what the Commission will recommend and should be considered on its own merits.

Senator SHELBY. Mr. Anderson, is it fair to say that any imaginable new user-specific fee, whether security fees, inspection fees, air traffic service fees, per-seat fees, or per-passenger fees, will create winners and losers in the airline industry and among the traveling public?

Mr. ANDERSON. There is no question. We have done various analyses of different alternatives for assessing fees, and there are winners and losers and they vary for each proposal.

Senator SHELBY. Who are the winners and losers?

Mr. ANDERSON. It varies depending upon which proposal you look at. For example, the coalition of the Nation's largest airlines about

1 year ago at this time put forth a proposal where the major airlines were going to be winners in terms of having their tax burdens reduced, but the low-fare other airlines were going to be big losers. We looked at that proposal and we had some critical comments about it.

Senator SHELBY. What does that do to the traveling public?

Mr. ANDERSON. Well, our biggest concern was it could have competitive impacts, because one of the reasons that we believe that airline deregulation overall has been a success is because of the competition that low-fare airlines have injected into the system.

Senator SHELBY. And brought down a lot of fares, has it not?

Mr. ANDERSON. Exactly. So one of the problems if you go to tampering with a system that is going to significantly shift that tax burden is you could upset the applecart, so to speak, in terms of the competition mechanisms that have been set up.

Senator SHELBY. So I guess the caveat is for us to be real careful in what we do if we do anything?

Mr. ANDERSON. Yes.

Senator SHELBY. Mr. Anderson, would you expect that user fees will alter behavior among the airlines?

Mr. ANDERSON. I think it could. This is one of the things Mr. Downey alluded to. You have to be real careful when you set up these fees that you do not have some unintended consequences coming out as a result. It could also affect the routes they serve.

Senator SHELBY. Have you considered some unintended consequences?

Mr. ANDERSON. Well, one of the things that has been talked about is if you actually have to—if, let us say, an airline has to pay for the amount of inspector time that FAA inspectors spend inspecting them, they might be attempting to get the inspectors out of there sooner so that they could reduce their inspection bill. Obviously you have to build in things to mitigate against that.

Senator SHELBY. Have you given any thought to how the various fees that might be considered could alter airline services' hub and spoke operations or traffic patterns? I know we talked about money, but I think that is very important.

Mr. ANDERSON. Sure. I think they could, and this is another reason why this is a complex problem that I do not think you want to jump to solutions too soon. If you change the fee structure, the profit on individual routes could change and the airlines could decide to serve different cities, that sort of thing. One of the things that we have been concerned about was, while airline deregulation overall has been a success, there clearly are pockets of pain out there that have not fully enjoyed the benefits of lower fares and increased service. If you are not careful, you could exacerbate that problem.

OTHER PROPOSED TRANSPORTATION USER FEES

Senator SHELBY. Mr. Downey, besides the FAA user fees, what other user fees are proposed in the President's 1998 budget request?

Mr. DOWNEY. The other fees that are proposed include railroad safety user fees, a proposal to reinstate the industrywide levy that had been in place up until 1 or 2 years ago, and an advance pro-

posal to consider icebreaking fees for the Coast Guard, not in the current budget but 1 year out from now.

Senator SHELBY. Mr. Downey, have any recognized user groups publicly supported this administration's interstate toll proposal that you know of?

Mr. DOWNEY. User groups I do not believe have, but we have heard from States and local governments that do have an interest in that proposal. They would be the ones to enact any tolls. This would not be a Federal toll. It is merely an opportunity for State and local government to finance transportation projects through this mechanism.

Senator SHELBY. Mr. Anderson, I understand the GAO has looked at some of these user fees. If any of these user fees are imposed on top of the current ticket and excise tax that we have, is it possible that some of the airlines or users might be paying twice for the same service?

Mr. ANDERSON. That is possible. I think that is one of the problems with going with an incremental approach as opposed to looking at it comprehensively, like I think the National Commission is doing. I think you can sort of see—I have had discussions with my staff—the proposal for the overflight fees, it is going through 1,000 cuts here as it is being examined. As you look at this thing piece by piece, you are not sure what changes are going to come down the road that might be an additional tax on the user. So I think a comprehensive look-see is the way to go with these things.

Senator SHELBY. The bottomline is we better be careful what we do for a lot of reasons?

Mr. ANDERSON. Yes, sir.

Senator SHELBY. Senator Lautenberg.

Senator LAUTENBERG. Thanks very much, Mr. Chairman.

I am sorry that Senator Gorton had to leave, but the record should reflect some of my concerns. I will talk about those for just a minute. In terms of comparing one transportation mode to another, I think you run into all kinds of extraneous debate. The fact is that we have to have intermodal balanced transportation services throughout our country, and you cannot suggest that one is more favored than the other because there is not a 10-to-1 ratio. I think that is, frankly, not a particularly reliable statistic to depend upon when you make decisions like we have.

If you look at aviation—and I like flying, I like flying in small airplanes, and I think that the aviation system has helped build our country perhaps more than any other because of the ability to get across the breadth of our huge Nation. But when I start thinking about what it takes to keep airlines going, the aviation system going, and I think of people paying parking fees of $15, $20, $50 to be at an airport so that they can take an airplane, I am forced to say, well, is that a direct subsidy of air travel? It certainly ought to be counted as part of it.

When I look at all the shops, and the rents in some of these places are fantastic, collecting a lot of fees. That goes to subsidize in part the whole of the aviation business. We are not counting that, but people are paying user fees effectively when they pay $2 for a coffee that you can get for 55 cents elsewhere.

The fact of the matter is that when we build special roads, special travel connections, to get to airports, that is a subsidy. For railroads we do not do that. I have not seen a railroad station that has a private road built to it. And if you want to see a glaring example, look at the Denver Airport, which I like. I think the Denver Airport is an excellent airport. But look at what we had to do to have access to that airport created. We spend hundreds of millions of dollars.

So those questions have to be answered. Unfortunately, since Senator Gorton is not here, I do not want to take advantage of his absence to ask the penetrating questions. But we will go on from here.

COST OF IMPLEMENTING GORE COMMISSION RECOMMENDATIONS

Mr. Downey, the Gore Commission's recommendation to accelerate the deployment of modern air traffic control equipment I frankly think was a wise one. We have seen what happens with our air traffic controllers. There is enough tension, enough stress in those towers, that we ought not to make their job more difficult as a result of outages in our air traffic control centers and towers in recent months because of the age of this antiquated equipment.

Is the administration, Mr. Anderson, committed to requesting the additional billions of dollars that are going to be necessary to fully follow the Gore Commission's recommendations? I ask you, Mr. Downey.

Mr. DOWNEY. You are correct, it will cost additional billions or at least a need to accelerate the billions of dollars already planned. And we are working that through the budget process, looking down to the next few years. Within the constraints, even with the good news from Senator Domenici, it will be hard, but we need to find it. The benefits of improving the air traffic control system, both in terms of safety and efficiency, are so great, we really need to make that investment.

That is one of the reasons why we have proposed user fees, because that may be a way to accelerate income in order to get those benefits sooner for the users.

Senator LAUTENBERG. The good news from Senator Domenici was offset by the bad news from Congressman Shuster, I think, in the paper this morning. And while I do not necessarily agree with Congressman or Chairman Shuster in a lot of things, the fact is I think it is fairly obvious that we need more money than is planned, even with the—I will not call it a bonus—with the largess that was discovered along the way, because it still leaves us short of what an extended baseline would look like running out 5 years. The system needs and deserves more than that.

FINANCING AMTRAK

Mr. Downey, your statement points out your request for contract authority from the highway trust fund for Amtrak beginning in fiscal 1999. How does your Amtrak proposal in NEXTEA compare to the one-half-cent proposal in terms of the funding that would be available, generally available to Amtrak over the next several years that would be capital funds?

Mr. DOWNEY. Our proposal is somewhat below the one-half cent. It phases it. It would increase capital investment in the outyears as Amtrak makes progress toward self-sufficiency, and I think by the fifth year it is roughly equivalent to the one-half cent.

Senator LAUTENBERG. Is it your view that once this contract authority is established, if NEXTEA is the version we subscribe to, Amtrak will be able to sign contracts for the total amount of the full funding of the contract authority assumed in the bill?

Mr. DOWNEY. I think in the same way a State is able to anticipate those funds and make financial arrangements for making use of them, we would expect Amtrak to be able to do the same thing.

Senator LAUTENBERG. A couple seconds more if I might, Mr. Chairman?

Senator SHELBY. Yes, sir; go right ahead.

Senator LAUTENBERG. Does your proposal assume that the Appropriations Committee is going to place obligations limits on this contract authority, just as we do on highway and transit programs?

Mr. DOWNEY. Certainly that has been the history of the highway and transit programs. We did not request such a limit, but we certainly would work with this committee on it. And I know your interest in seeing that the funds are used wisely.

Senator LAUTENBERG. As always.

USER FEES COVERAGE OF COSTS

I want to ask you this. Should we assume that, whatever new user fees are developed, that they will completely offset the savings gained from the continuation of the ticket tax?

Mr. DOWNEY. I really do not know the answer to that, because I am not sure about what the continuation of the user taxes would entail.

Senator LAUTENBERG. Right, but you would be projecting. Let us say, if you projected your own views, should they?

Mr. DOWNEY. If you look at the FAA's financing today, the ticket taxes, if collected for a full year on a regular basis, do not cover the entire cost to the FAA. So it would be our expectation that the user fees would come closer, hopefully, to 100 percent coverage of those costs. In that sense they would, if they replaced the ticket taxes, would more than add up to the ticket taxes, but they would create some relief on the general fund side.

Senator LAUTENBERG. Right. What I wanted to do there was just have you indicate, because I felt that it was necessary. There are going to be any number of combination of things and we ought not to be lulled into believing that, OK, everything is going to be paid for in direct user fees, you put down a buck and you would get 1 dollar's worth. I think you put down $1 right now and you get 100 dollars' worth, and I do not mind some of that because the aviation system is a national asset and we have to keep it going.

I do not think it ought to be just those who ride the planes, but rather society in general has to participate in some way. If you build a national highway system they do. If you build a national aviation system they do. And frankly, if you have a decent, functioning rail passenger service like all of us here would like to say, the public is going to have to chip in.

Thanks very much, Mr. Chairman.

Senator SHELBY. Thank you two gentlemen. We are probably going to have some questions for the record and we will keep that open for other members, too.

Mr. DOWNEY. We will be happy to.

Senator SHELBY. Some have already said that.

We thank you both.

Mr. DOWNEY. Thank you.

Mr. ANDERSON. Thank you.

PANEL 2

DEPARTMENT OF TRANSPORTATION

FEDERAL RAILROAD ADMINISTRATION

STATEMENT OF JOLENE MOLITORIS, ADMINISTRATOR

NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK)

STATEMENT OF THOMAS M. DOWNS, CHAIRMAN, PRESIDENT, AND CHIEF EXECUTIVE OFFICER

GENERAL ACCOUNTING OFFICE

STATEMENT OF PHYLLIS SCHEINBERG, ASSOCIATE DIRECTOR, RESOURCES, COMMUNITY, AND ECONOMIC DEVELOPMENT DIVISION

INTRODUCTION OF WITNESSES

Senator SHELBY. Our next panel will be Jolene Molitoris, Administrator, Federal Railroad Administration, Department of Transportation; Tom Downs, President, National Railroad Passenger Corporation (Amtrak); Phyllis Scheinberg, Associate Director, General Accounting Office, Resources, Community, and Economic Development Division.

Your entire written statements will be made part of the record and I would ask you to briefly summarize your remarks. Ms. Molitoris.

STATEMENT OF JOLENE MOLITORIS

Ms. MOLITORIS. Thank you, Mr. Chairman and members of the committee. I appreciate the opportunity to represent the Federal Railroad Administration before you today. I would like to testify concerning the financial commitment of the Clinton administration to Amtrak and especially about the fiscal year proposed 1998 budget.

We all know about the challenges that Amtrak is facing, not only to survive, Mr. Chairman, but to thrive, because that is the kind of system we all want. Let me comment that when we arrived 4 years ago we analyzed Amtrak and realized that it faced very serious challenges and set about the business of taking the very many necessary steps to help Amtrak become a very healthy organization. One of those steps that was very important was really developing a new leadership team, and of course you will be hearing from the leader of that team, Mr. Downs.

Although we have much, much more to do, as the GAO and our own records indicate, I think it is useful for the committee to at least hear a couple of highlights as to the kinds of movement in

a positive direction that we have had for Amtrak, and I think they may begin to respond to some of the comments that you made early on.

First of all with regard to Federal operating subsidies, I think the Congress and the administration have agreed to set as a goal zero Federal operating subsidies by the year 2002. That is a goal that has been begun to be achieved by cutting these Federal subsidies in half in the last 2 years. That I think is a significant achievement.

Second, Amtrak has divided its business into three strategic units so it can act like a business, better concentrate on the customers, and provide the kind of customer service that your colleague Senator Gorton did not find on his trip. I think if he took that trip today he would have a different experience.

Another very important issue——

Senator SHELBY. Do you recommend that I take it?

Ms. MOLITORIS. Absolutely, Mr. Chairman.

Senator SHELBY. I might do it.

Ms. MOLITORIS. I am sure Mr. Downs would recommend the same thing.

Senator SHELBY. I might do that.

Ms. MOLITORIS. I think a very important step, Mr. Chairman, was unbundling the whole financial information base at Amtrak, because when we arrived and when Mr. Downs arrived it was very, very difficult to understand the cost of individual pieces of the business, and I think that that very important piece of work has shown a big light on a lot of the issues that were not as visible before. But I think that we can only achieve a healthy company by looking at the facts as they really are.

I think the kind of business partnerships and entrepreneurial activities of Amtrak are very important for the committee to recognize. They have made some very important business partnerships, not only with States, which they have, but also with private entities, like Disney, Pepsi, United Airlines. For example, in just one small example, they had a partnership with Disney on the release of the video "Aristocats" and they had a coupon in that video. By tracking the coupons, they were able to see that through that one initiative alone they earned $13 million. So these private partnerships are ways to grow Amtrak into a healthy business.

Another important change is that States are taking a much more active, proactive partnership with Amtrak. In fact, the State investment in Amtrak operating assistance has almost doubled in the past year. And in State capital assistance, four States—California, Washington, North Carolina, and Pennsylvania—are actually partnering with Amtrak by buying equipment for them to use. This gives you the kind of indicator that States consider Amtrak vital for their transportation future.

I would believe another instance that is very important, and my guess is that Senator Gorton faced some of this. When we arrived and when Mr. Downs and his new team arrived, there were a lot of so-called heritage cars, Mr. Chairman. This is not a heritage that any of us would want to inherit. They were 40- or 50-year-old cars. We know that no airline would fly equipment that age. They had nonoperative bathrooms, they broke down a lot. We know

that—we knew that we had to change that situation if Amtrak was going to succeed.

So there has been substantial progress there, Mr. Chairman, ordering nearly 200 locomotives, 250 passenger cars, and these 40- and 50-year-old cars are almost now gone from the fleet, and I think that helps customer service.

As a result of aggressive pricing strategies in 1996, ticket yields were up by 10 percent. And since 1994, the last 2 full years, Amtrak's total revenue is up by $141 million. That is up 10 percent.

I think we should recognize the employees of Amtrak, because without recognizing the employees you do not recognize the people who are working day by day to make this railroad succeed. For example, this company was voted the most improved transportation company in the country in customer service. That happens because employees make it happen, and I think we should give them credit for that.

In addition, improved productivity of the work force. If you look at the Bear and Wilmington Shops, you see self-directed employee shops that are actually bringing new business to Amtrak because they are so good and so cost competitive.

Certainly last but not least, the high-speed rail initiatives, the new trainsets which the Vice President unveiled last April, the electrification project which was begun in July of last year, this is forecast to bring about $150 million of profit to Amtrak when they are fully implemented.

Finally, let me say, Mr. Chairman, the budget of the administration has no fat at all. As I said for the record to Mr. Wolf and I would like to say to you, the administration has made a very serious investment in Amtrak through the NEXTEA proposal and we want to say it is not padded. It is not like the old days, where we put in extra and Congress took out extra.

Mr. Downs will tell you that one of the challenges he faces financially is because there was a disconnect between the President's budget and the final appropriation last year, $115 million. And if we had been on the same wavelength, Mr. Downs' budget would have shown a surplus.

So I would like to say to you that our NEXTEA proposal, Mr. Downey has already said, represents about 96 percent of operating and 92 percent of capital of what Amtrak is requesting and what the one-half cent would give. So we think that in a time of budget cutting it really is a significant statement by the administration. Although we have just seen the fruits of the cooperation on the budget agreement, we know, as was said, there will be extra money, we do not know what the negotiation will end up with, but perhaps there would be an opportunity for some more money for Amtrak.

Finally, the administration is committed to a corporation that you all would be proud of, that we all would be proud of, a healthy company that is free of operating subsidy, and it is one of the safest railroad companies in the world, and we should underscore that because no operation in any transportation mode can be viable without reliable safety for the American people.

I appreciate the time with you, Mr. Chairman, and I would be happy to answer questions.

Senator SHELBY. Mr. Downs.

STATEMENT OF THOMAS M. DOWNS

Mr. DOWNS. Thank you, Mr. Chairman. It is a pleasure to be here. Senator Lautenberg.

At the risk of starting off with what seems like a superfluous note, there was a piece in this morning's New York Times that says:

> I was in Penn Station purchasing Amtrak tickets to Wilmington, DE, when a woman approached the agent at the next window. "Is it your job to sell me a ticket to anywhere I want to go?" she asked. "Yes, ma'am," he replied. "Where would you like to go?" "To hell and back," she said. Without batting an eye, the agent, with the utmost courtesy, consulted his computer and said, "I'm sorry, ma'am, but that train is completely sold out." [Laughter.]

I could spend this time reiterating how important Amtrak is, that we are 55 million passengers, that if you count intermediate stops in the Northeast corridor we are 70 percent of the combined air-rail traffic between Washington and New York. I could say that we are the essential lifeblood of urban and rural America in places like Anniston, AL, and Haver, MT, and Devil's Lake, ND.

Where, as Senator Gorton says, it is a long way from Seattle to Chicago, the difference is that our business is often 60-mile increments linking places like Minneapolis to places like Minot, ND, and that is lost in this debate.

We are the Nation's passenger railroad. We, Amtrak, are often held accountable for the things that have been done to this railroad. I believe the national Government is accountable for what has happened to Amtrak, good, bad, and indifferent. It is impossible to sort out our current financial position without at least telling part of the story in a slightly different way than perhaps Senator Shelby had characterized it earlier.

I have a chart I hope you all have. It is called "The Gap." We had an agreement between the Budget Committees, Mr. Kasich, Senator Domenici who was here earlier, about the 5-year glidepath to self-sufficiency. It looks like this [indicating]. In 1996, the glidepath number was supposed to be a $135 million reduction in operating subsidy for Amtrak. The Congress said: That is really neat; to give you something to shoot for, why do we not go ahead and reduce it by $210 million.

That had a cost and a consequence. It wrecked, in a sense, the business plan for the company.

[The chart follows:]

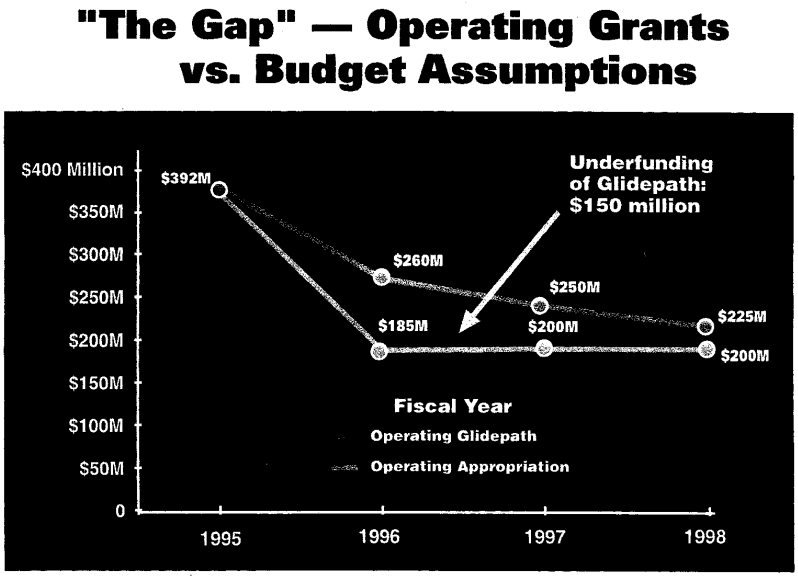


Chart 1

We started over. We said: OK, that makes it $250 million in 1997. Well, the answer is it is $200 million. We said: It is $225 million for 1998. The answer is probably going to be it is $200 million.

Underfunding a business plan has financial consequences. The financial consequences are we are running out of cash. The reason that we are out of cash is that in the 1980's the Congress told us, this company: Go borrow your money. Senator Shelby said nobody has invested, the private sector is not investing in this corporation. That is not true. All of our locomotives, all of our new passenger cars, and our high-speed trainsets are funded, not by Federal capital, but by private banking interests. Ironically, they are foreign banks, in France and Germany and Japan and Canada.

But borrowing those moneys is an expense for the company, particularly since we have to pay a premium for the money.

Chart 2 shows what happened to us from a capital standpoint. In 1986 our capital budget was $3 million. It was enough to fix broken windows maybe. In 1987 it zoomed all the way to $27 million. Both years, our depreciation account was one-quarter of a billion dollars. Clearly, we were directed to borrow the money that we needed for capital investments in this company.

[The chart follows:]

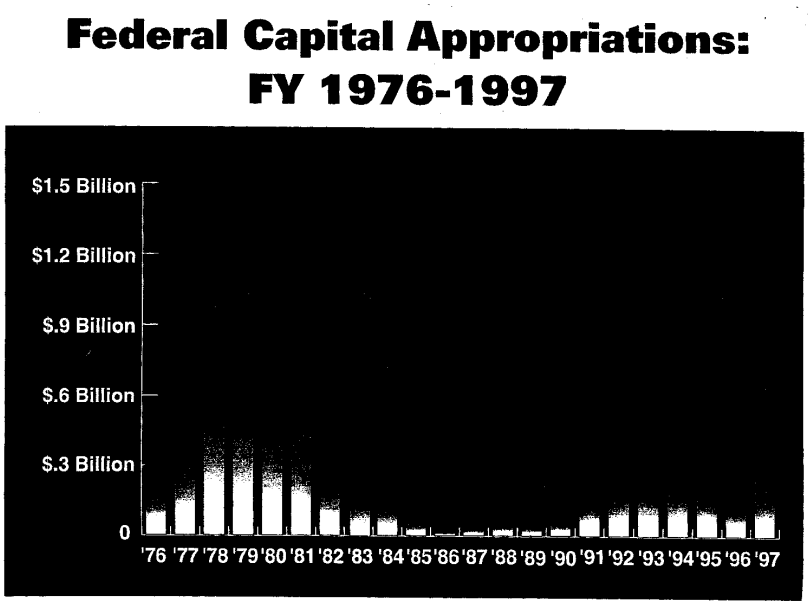


Chart 2

We did. We began to incur private sector investments. I do not consider it debt; I consider it investments in our future. That is chart 3.

[The chart follows:]

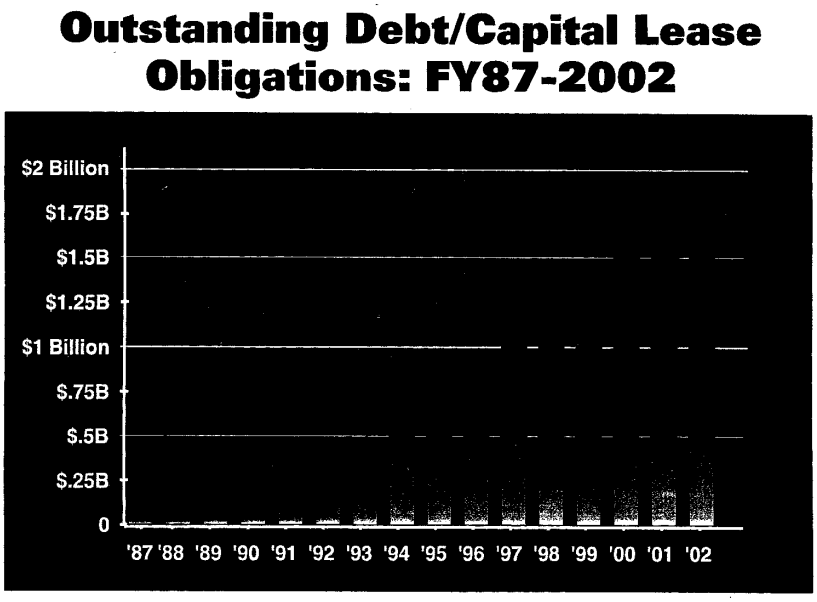


Chart 3

And what has happened about our principal and our debt yields a chart that looks like "Principal and Interest Payments," not unlike what is happening with the Federal budget. Our fastest growing expense, as GAO will point out, is principal and interest on that capital.

[The chart follows:]

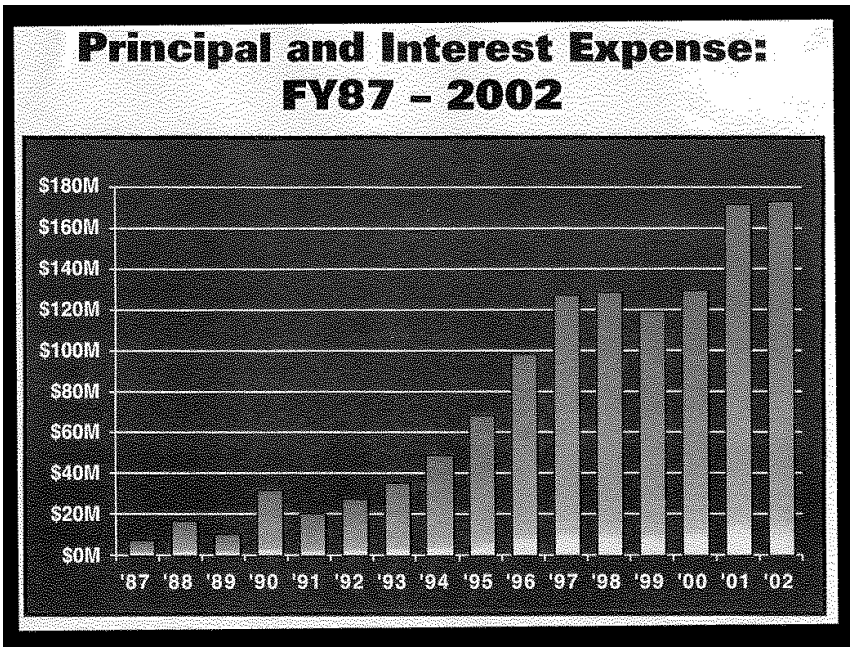


Chart 4

We have been told to make this a businesslike operation. We still believe it is part of a national transportation network and an asset, but we are told: Make it a business. I hope you have this last chart: "1987 to 1998, Percent of Expenses Covered by Federal Operating Support for Amtrak." In 1987 it was 34.6 percent, in 1998 it is 14.4 percent of expenses.

[The chart follows:]

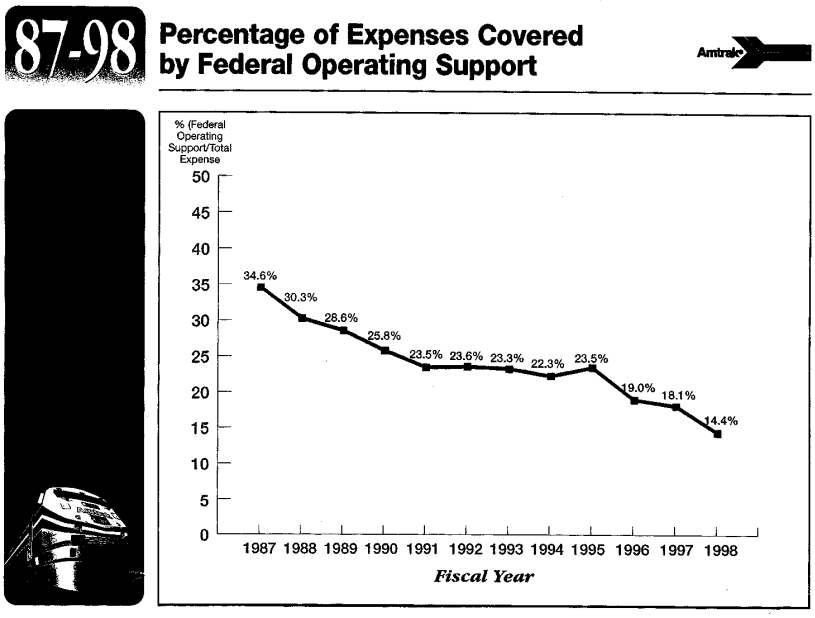


Chart 5

I would like to say that this company has done what the Congress has asked it to do. What we have not had is a concomitant response about defining clearly what the national role for Amtrak is, what purpose it fills in environmental, in mobility, in small urban and rural areas.

We have exhausted, I believe—and I would take exception only with one statement in Senator Shelby's opening remarks, that there is no doubt that a private company could operate a profitable rail service. Every private railroad in America proved that that was wrong in the 1960's and 1970's. They said, we cannot any longer operate rail passenger service as private businesses. I do not know of a single country in the world who can, private or public, operate an intercity rail passenger service at a break-even or profitable basis.

We have said: Recapitalize this railroad after a horrible depreciation cycle, which gives us bad equipment, bad plant, inefficient operations. We have said: Give us the right structure in law to operate the way you want. We will build high-speed rail to the point where that investment will yield, after all principal and interest payments, a net profit for this company of $150 million a year. That is working capital, that is an improvement on the bottomline.

We have said in our business plans that we are building in mail and express business, the business we put on the back of passenger trains, to help defray the expenses of long distance trains. In 1959, the last time that freight railroads in America on a fully allocated cost basis broke even on rail passenger service, 46 percent of the revenues of those passenger trains were mail and express. We would like to recreate that kind of environment, the old REA busi-

ness, without getting in the freight railroads business, without trying to be in economic warfare with anyone, that we can build a profitable relationship with the Post Office and express business. That is part of a business plan that we think makes sense for you all.

We have said clearly: The answer is recapitalize this railroad. Make a choice. If you cannot fund it, have the courage to face the consequences. Senator Shelby said that at the end of his remarks. It is one option to explore.

What has happened is that we have been told time and again, make it work, do it with less, do it without capital, keep selling tickets, sell disappointment to the American public, ignore the consequences of the undercapitalization. We have run out of time, we have run out of room, because we are now out of cash. It is time to choose.

Thank you, Mr. Chairman.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Downs. We have your complete statement and it will be made part of the record.

[The statement follows:]

PREPARED STATEMENT OF THOMAS M. DOWNS

Mr. Chair: Thank you for the opportunity to discuss Amtrak's fiscal year 1998 funding request, as well as the current financial condition of Amtrak and our vision for the future.

The current state of Amtrak, if it were boiled down to a single phrase, it would be, to borrow a line, "the best of times and worst of times." In the last two and one-half years, we have begun to put together the pieces for a viable national service which is operationally self-sufficient. We know that two years in the future, we will inaugurate the first high-speed rail service in America and usher in a new level of rail passenger service for our customers. And, in the next few months, I am hopeful that we will be sharing revenues with our freight partners by using Amtrak trains for the delivery of time-sensitive materials. Each of these endeavors is expected to generate large net-revenue benefits, help steady our finances, and make Amtrak far less dependent on federal resources.

The problem is that in the short term, I am not sure that we will remain solvent. Further, I do not believe that enough people realize or understand how close to extinction intercity rail service is in the United States.

I make this statement in stark terms because I want the attention of the Congress. The demise of Amtrak need not happen. In fact, it would be a national tragedy if it did. Unless we all, and I mean Amtrak, Congress and the Administration, work together during the next six months, we will likely be out of cash and out of business by the summer of 1998.

This Subcommittee has a major role to play in whether or not America has a national rail passenger system. The answer in the short term is adequate operating support, legislative reform, and dedicated capital. I have a fiduciary responsibility to make the right decisions and recommendations to make a national system work. But I need the help of this Committee and others in Congress.

Two years ago, the Administration and the new Congress indicated that if Amtrak was to survive, it would have to eliminate its dependence on federal operating support. We were faced with a daunting task. For some reason Amtrak, the only major mode of transportation which does not have a dedicated source of funding, is held to a higher standard than any other mode, all of which are dependent on the federal government for support and none of whom are called upon to defend themselves in terms of "profitability." We are also held to a higher standard than any other passenger rail system in the world, all of which rely on some level of federal support. Amtrak covers more of its operating costs—an estimated 84 percent—than any other passenger railroad in the world, and serves more than 93 percent of the continental states, while receiving less than 3 percent of all federal transportation spending.

I am not aware of any transportation system that supports itself solely through user fees. According to the US DOT, in fiscal year 1994 nearly $6 billion more was

spent on highways than was collected in user fees. In fiscal year 1995 nearly $8 billion more was spent on highways than was collected in user fees. It's not just highways—transit is exempt from the gas tax and received approximately $3 billion in gasoline revenues last year. No mode is self-financed.

Amtrak is an absolutely critical part of our national transportation system in both rural and urban areas. To provide some context, if we were an airline carrier, we would be the third largest in the United States. We carry almost half of the combined air-rail market between Washington, DC and New York, and when intermediate cities (such as Baltimore and Philadelphia) are included, Amtrak's share of the air-rail market rises to seventy percent. Loss of Amtrak service in this corridor would not only put a huge financial burden on the affected states, it would require another 7,500 fully-booked 757's to carry our passengers every year, or hundreds of thousands of cars added to already congested highways. If Amtrak disappeared tomorrow, there would be an additional 27,000 cars on the highway between Boston and New York every day. Between New York and Philadelphia, Amtrak service removes 18,000 cars from the highways every weekday.

That number—18,000 cars a day—does not include the thousands of commuter rail passengers, and their parked cars, that are carried on Amtrak's Northeast Corridor by commuter agencies such as New Jersey Transit (NJT) and the Southeastern Pennsylvania Transit Authority (SEPTA) every day. These commuter agencies could not operate if Amtrak did not maintain the track, bridges, signals and electric traction system on the Corridor. Above and beyond Amtrak's enumerated ridership, another 220 million commuter passengers ride on Amtrak's Corridor between Boston and Washington, DC every year. You can measure Amtrak's impact not only in the number of cars removed from the road, but also in terms of avoided costs—as reported in the Journal of Commerce last May, Amtrak's presence eliminates the need for twenty additional highway lanes in New York City, and ten new tunnels under the Hudson.

It's not just the urban corridors that depend on our service. Some 22 million of our 55 million passengers depend on Amtrak for travel between urban centers and rural locations some of which have no alternative modes of transportation. Some of the most persuasive appeals for flexibility for Amtrak and some of the strongest advocates for a dedicated trust fund have been elected officials from those states who are facing the elimination of Essential Air Service (EAS) or the disappearance of local bus service, and truly face the elimination of all other modes.

Finally, it also must be noted that Amtrak carries all these passengers even as the terms of relative investment by mode become more and more disparate. In real terms, spending for highways approached $20 billion last year while capital investment for Amtrak was less than $450 million. In relative terms, between fiscal year 1980 and fiscal year 1994, transportation outlays for highways increased seventy-three percent, aviation increased 170 percent, and transportation outlays for rail went down by sixty-two percent. In terms of growth, between 1982 and 1992 highway spending grew by five percent, aviation by ten percent, while rail decreased by nine percent. The overall funding amounts as well as the relative levels of investment should make one wonder how Amtrak has managed to maintain a fairly constant level of ridership, not why it hasn't increased its share. Amtrak has been accused of not serving enough of the travelling population, but that must be weighed against the price of not serving those travelers. It isn't just a matter of slightly more clogged roads or additional pollution. For some people it is the only way "to get there from here."

I both hope and expect that Amtrak will play an even larger role in America's transportation system in the future, as Congress, the states, and local planners work toward developing a more balanced transportation system which addresses the increased congestion, land use and clean air challenges.

At this point in time, however, playing a bigger role in our transportation system is a dream. I have had to call too many governors, mayors and Members of Congress over the past three years to tell them that I will be eliminating or reducing Amtrak service in their district, town or state. I relish making these calls even less than the recipients enjoy receiving them. I believe in a national passenger rail system, but years of disinvestment in the system are finally taking their toll. As GAO will confirm for you today, Amtrak is in difficult financial shape. We cannot preserve a national passenger rail system through yet another year of inadequate funding. I can also assure you that Amtrak will have to break its commitment to achieve independence from federal operating support if we are not given an adequate, reliable dedicated source of capital funding, and the requested level of declining operating support. As we have always said, operational self-sufficiency is absolutely dependent on adequate capital investment in the system.

How did we get into the financial condition GAO has described for you? Nearly a decade of inadequate appropriations, especially for capital investment, has caused us to borrow heavily from private banks. Amtrak also owns, operates, and maintains the majority of the Northeast Corridor, a critical transportation asset that carries more than 1,000 trains a day, including Amtrak, seven different commuter railroads, and freight. The Northeast Corridor is in the midst of a tremendous make over of transportation. Work is underway to introduce high-speed rail service to America. In preparation, investments have been made to upgrade and modernize the infrastructure—track, bridges, and structures—in the north end. This past spring, construction also started on the completion of a 75-year transportation plan—electrification north of New Haven. The high-speed rail program has been met enthusiastically by rail riders as well as investors. Significant capital investments are needed on the south end and a continued source of capital will be needed for the entire program if we are to have the highest return on this investment.

To provide some context, in the fall of 1994, we, as brand new managers of Amtrak, evaluated and came to grips with the corporation's financial fragility, and began taking the steps to avoid bankruptcy. Two years ago, I came up here and laid out for our authorizing committees a three-pronged approach which would reduce Amtrak's deficit, improve our operating ratio by making capital investments in our infrastructure, and reduce costs through legislative reform. We implemented a business plan at that time which internally generated nearly $400 million in savings on an annualized basis and re-engineered virtually every aspect of our operations.

To help us, we asked Congress to enact legislative reforms which would allow Amtrak to operate more like a business, and provide us with a dedicated source of capital funding and the requested level of operating support. These three items—Amtrak-controlled cost savings, legislative reforms, and establishment of a dedicated capital funding source—were the key to surviving, and doing so without operating support. Two years later, we have successfully advanced only one of the three prongs. Ours.

During the past two years, Amtrak has reduced costs, eliminated some of our poorest performing routes, retired old 1950's era equipment, eliminated a large number of positions, consolidated operations, rationalized our fare structure, and made countless productivity improvements. As important, we have restructured our service so that decisions are made closer to the passenger. We also improved our on-board services. The trains we are operating today are light years ahead of where they were in 1994. In addition, we have progressively managed to modernize our fleet of rolling stock, purchase new and more efficient locomotives, and have ordered the first generation of North American high-speed train sets, all with private capital. Our six-year strategic plan provides us with an innovative way out of our current financial predicament but has very little cash cushion. The plan, adopted by our Board of Directors last September, will require short-term borrowing simply to finance operations over the next three years of close to $180 million ($66 million this year). These borrowed funds will be paid back through profits generated from capital investments in high-speed rail implementation, locomotive replacement, reflecting and other critical capital projects which will generate new revenues, reduce expenses, and leverage new state and local support for trains. Without the capital investment, the revenue and savings will not be generated and the already difficult cash management task will be impossible to manage.

Unfortunately, neither the legislative reform nor the dedicated funding source was enacted last session, and we've been provided $125 million less than requested in operating grants over the past two years. The Senate Finance Committee came closest when it reported S. 1395, which redirected ½ cent of the federal fuel tax into a dedicated trust fund for Amtrak. Unfortunately, it was never taken up by the full Senate. However, companion legislation to accomplish the same thing has been introduced in both the House and the Senate this year. On this side, Senators Roth and Moynihan are the primary authors of S. 436, which takes ½ cent of the permanent 4.3 excise fuel tax, currently going toward the General Fund, and redirects it to an Intercity Passenger Rail Account. I believe their positions of leadership on the Finance Committee bode well for the future of the bill. I also want to publicly thank Senator Lautenberg for being a cosponsor of that bill. More recently, Senators Baucus and Warner introduced S. 634, which is more far reaching legislation and which includes the ½ cent provision.

As GAO testified two weeks ago, in the current fiscal environment, the best course is to provide a significant capital funding increase. It is the single best solution for both Amtrak and for the American taxpayer. It does not constitute a new tax—it is an existing one. It would increase the spending on transportation overall without taking dollars from any other mode, and most importantly, it would allow Amtrak to preserve the national system and attain operating self-sufficiency.

Congress must soon make a decision on whether or not it wants this country to have a national rail passenger system. If we go on without the necessary capital investment, it will be a decision by default, resulting in bankruptcy—which is a painful and messy way to implement policy.

If the decision is simply to end Amtrak, we ought to face it head on and deal with the reality that comes with it. There is no question that it has some significant costs. Dissolution of Amtrak by neglect would be irresponsible. Two years ago, the Budget Committee and others in Congress asked us what we thought the dissolution of Amtrak would cost the American taxpayer. At that time, we estimated that the costs would top out at, or above, $5 billion. This number, which included the mandatory labor protection costs, was later certified by the Congressional Budget Office.

In addition, the elimination of Amtrak would mean the loss of over 20,000 jobs, well over 1,500 pieces of equipment would have to be parked, mandatory labor protection be triggered, Railroad Retirement would be further burdened and the list goes on and on. Ironically, the dissolution of Amtrak would likely cost the American taxpayers nearly 20 percent more money than the entire five years of funding for a trust fund proposal. The latter solution has the bonus of creating a viable and less costly national rail passenger service.

At the same time, although there is a critical and immediate need, the picture is not all bleak. Between the 1st and 2nd quarter this year, Amtrak's year-end cash deficit projection, after five months of actual financial data, has improved from $96 million to $76 million. I also believe that the support exists in this Congress to finally put Amtrak on more equal footing with other modes. There are ten cosponsors of S. 436, three cosponsors of S. 634, and two other bills being introduced in the Senate which include the ½ cent provision. In addition, last year a non-binding "Sense of the Senate" amendment to the fiscal year 1997 Budget Resolution, supporting the creation of an Intercity Passenger Rail Account using ½ cent of the fuel tax, was adopted 57–43, and later included in the conference report. With the reauthorization of ISTEA approaching, I think the appropriate vehicle exists. The time is right.

I can share with you the vision of what Amtrak can be in a few years if a trust fund is provided. High-speed service will be operating in the Northeast, strong state investment and partnerships in the West, and profitable mail and express-laden long-distance trains connecting both coasts. The path to that is the half-cent and legislative reform that will allow Amtrak to maintain a national system, complete our high-speed rail initiatives, and develop the business partnerships with the freight railroads. Adequate operating funds and a dedicated capital funding source will deliver an Amtrak that will be, for the first time, free of federal operating support.

There are no simple solutions to Amtrak finances, but it is very clear that Amtrak cannot continue to go on as we have been, bleeding the corporation and trying to achieve prosperity by downsizing the system. I sat here two years ago and presented a workable plan to achieve operating self-sufficiency, and I sit here today with the same proposal, seeking your help. It is also very clear Congress cannot make Amtrak better simply by wishing it so.

Unfortunately, we no longer have the luxury of time. Without adequate resources there is only a limited amount of time that Amtrak can be held together and a national system preserved. The GAO report should be viewed as a call to action. Over the next few months, I hope we at Amtrak can work with this Committee, and the United States Congress, to save and strengthen this railroad for future generations of Americans.

I am enclosing a detailed summary of our fiscal year 1998 Grant Request, and I look forward to answering any questions the Committee may have.

EXPLANATION OF AMTRAK'S FISCAL YEAR 1998 REQUEST

Amtrak requests: $245 million in federal operating assistance; $751 million in federal capital (which includes funding for the Northeast Corridor); $142 million in excess RRTA for fiscal year 1998.

Operating Support

Amtrak is requesting $245.0 million in operating support in fiscal year 1998. It represents an increase of $45 million or 22.5 percent increase over the original appropriation for fiscal year 1997 of $200 million before the Omnibus Appropriations Act (OAA) of 1997. The $245 million is $20 million over the original glidepath amount for fiscal year 1998 in order to help compensate for the cumulative fiscal

years 1995–1997 underfunding and help limit the impacts of the fiscal year 1997 cash deficit on fiscal year 1998, keeping Amtrak on plan for fiscal years 1998–2002.

Excess RRTA Contribution for fiscal year 1998

The sum of $142.0 million represents the current estimate for actual mandatory excess RRTA liabilities in fiscal year 1998. The methodology for calculating the liability has been shared with OMB and was submitted to Congress and this Subcommittee on February 15. It is Amtrak's position that the excess RRTA liability should be fully funded by the federal government and not considered a part of federal operating support to Amtrak. The RRTA account of $142 million is a mandatory spending provision that has nothing to do with Amtrak's cost of providing rail passenger service. These costs are based on a federal formula that requires Amtrak to pay the retirement costs of former freight railroad employees who have never worked for Amtrak. These costs will exist whether or not Amtrak continues its operations and these payments rightfully belong in a mandatory account. As stated in the fiscal years 1997–2002 Strategic Business Plan, Amtrak must continue to either receive full reimbursement from the federal government for these federally mandated excess RRTA costs or be relieved from paying them altogether.

Federal Capital Support

The fiscal year 1998 grant request is $751 million or the equivalent of ½ cent of the existing federal motor fuels excise tax.[1] This is only 68 percent of Amtrak's fiscal year 1998 capital sources and 52 percent of our fiscal year 1998 needs. It is assumed that the difference between total needs and sources of funds can be commercially borrowed as long as a dedicated capital source is secured for the total amount over our planning period. Fiscal year 1998 is probably the most critical year for achieving the full implementation of high-speed rail in the Northeast Corridor in fiscal year 2000. Our February 15 grant request submission breaks this out in much greater detail.

STATEMENT OF PHYLLIS SCHEINBERG

Senator SHELBY. Ms. Scheinberg.

Ms. SCHEINBERG. Thank you, Mr. Chairman and Senator Lautenberg. I appreciate the opportunity to be here today to discuss Amtrak's financial condition.

As you know, Amtrak's passenger rail service has never been profitable and to date the Federal Government has provided Amtrak with over $19 billion for operating and capital expenses. In 1995, in response to continually growing losses, Amtrak developed a strategic plan to increase revenues and control cost growth, with the goal of eliminating its need for Federal operating subsidies by the year 2002.

On the positive side, Amtrak's actions to reduce some routes and services, cut management positions, and raise fares have helped improve its financial performance. For example, Amtrak's net operating losses—total revenues less total expenses—declined from over $1 billion to about three-quarters of a billion dollars in 1996.

Despite these efforts, Amtrak is projecting that its 1997 net losses may be even greater than those of last year. These losses are one indication that Amtrak is still in a very precarious financial position. It remains heavily dependent on Federal support to meet its operating and capital needs. Amtrak's expenses have exceeded its revenues by at least $760 million in every year since 1988. Amtrak had hoped that increases in passenger revenues would help close the gap, but for the most part passenger revenues have actually decreased when adjusted for inflation.

Furthermore, Amtrak's operating deficits exceed the Federal operating subsidy. In 1996 this gap reached $82 million, the highest

[1] April 11 scoring by CBO equals $800 million.

level of any of the last 9 years. To pay for the gap between operating deficits and Federal operating subsidies, Amtrak has had to draw upon its financial resources. To illustrate, Amtrak's working capital position indicates its ability to pay short-term bills out of current assets, such as cash and short-term receivables. Amtrak's working capital has decreased from a surplus position in the late 1980's to a deficit of $195 million in 1996. This affects Amtrak's ability to pay its bills over the short term.

A related concern is with Amtrak's debt level, which has doubled since 1993 from about one-half of a billion dollars to almost $1 billion. Amtrak expects to borrow an additional $1 billion in 1999 to finance high-speed trainsets and maintenance facilities.

As Amtrak's debt levels have increased, interest expenses on this debt have also increased. In fact, over the last 4 years annual interest expenses have tripled, from about $21 million to about $60 million. Interest expenses now consume over 21 percent of the Federal operating subsidy and will consume an even higher portion of its Federal operating subsidies as Amtrak assumes more debt.

Amtrak's goal of eliminating Federal operating subsidies by the year 2002 is heavily dependent on capital investment. For the Northeast corridor alone, Amtrak estimates that an additional $1.4 billion are needed to bring high-speed rail service between New York and Boston and about $2 billion are needed over the next few years for the south end of the corridor just to preserve the ability to operate at existing service levels.

However, an increasing portion of Amtrak's Federal capital subsidy is being devoted to debt service, capital overhauls, and legally mandated uses, such as equipment modifications and environmental cleanup. As a result, the portion of the capital grant available to meet general capital investment needs continues to shrink. In fiscal year 1997 only about 5 percent of Amtrak's Federal capital grant of $223 million is expected to be available for general capital needs.

Regarding the future, Amtrak anticipates significantly increased levels of Federal capital assistance, about $750 million per year, compared to the $478 million in capital funding that Amtrak received this year. However, even with increased capital funding, Amtrak will continue to find it difficult to take the actions that are necessary to further reduce its costs. While Amtrak was somewhat successful in making route and service adjustments in fiscal year 1995, it was less successful in 1997. Amtrak has also been unsuccessful in negotiating productivity improvements with labor.

To conclude, although Amtrak's business plans have helped reduce net losses, we see little hope for Amtrak to reach the goal of operating self-sufficiency by the year 2002. We believe that as currently constituted Amtrak will continue to require significant Federal financial support, both operating and capital, well into the future.

Mr. Chairman, thank you. That concludes my statement.

Senator SHELBY. Thank you.

FEDERAL GOVERNMENT'S LIABILITY IF AMTRAK LIQUIDATED

Ms. Molitoris, the Federal Government I understand has appropriated over $19 billion for Amtrak since the corporation's forma-

tion in 1971. If continued Federal funding was not provided this year for Amtrak, either by a dedicated trust fund or appropriation, what would the Federal Government's liability be in the event of a liquidation of the corporation?

Ms. MOLITORIS. Well, of course, Mr. Chairman——

Senator SHELBY. In that event?

Ms. MOLITORIS. We agree that the corporation is crucial to the transportation network of the country. Under the scenario that you paint, of course, there is a real danger of the loss of a true important transportation resource. That is the Northeast corridor, which, as I am sure you are aware, is a lifeline for hundreds of thousands of commuter travelers.

The agreement, the lease arrangement that Amtrak has with the Federal Government, is one of 1,000 years with a balloon payment at the end. So there is a question of technically the amount of value in 1997, considering that kind of a lease, is small and the concern, of course, would be when this was litigated, as it surely would be, what the decision of any court would be.

The Congress does have the ability by congressional action to accelerate that value to protect that asset for the Federal Government.

Mr. DOWNS. Mr. Chairman, if I might.

Senator SHELBY. Sure, Mr. Downs.

Mr. DOWNS. Two years ago the House Budget Committee asked that CBO score that scenario. It was $5 billion.

Senator SHELBY. It was $5 billion.

Mr. DOWNS. According to CBO.

Senator SHELBY. Scored at $5 billion.

Mr. DOWNS. Yes; $5 billion.

OPPORTUNITIES FOR PRIVATIZATION

Senator SHELBY. I understand that the Northeast corridor is profitable, is that correct?

Ms. MOLITORIS. The Metroliners, Mr. Chairman, on the Northeast corridor are for the first time in the history of the corporation making a profit, and I think that indicates the kind of progress the company is making.

Senator SHELBY. Is that an indication that the Northeast corridor could possibly be run by a private company if Amtrak were liquidated?

Ms. MOLITORIS. Well, I would comment, certainly with the kind of management that Amtrak is receiving, the Metroliners are very popular and are making a profit for the company.

I would like to comment for the record with regard to Senator Gorton's comments, that we are responsible for the privatization study that he requested and I want you to know that we are doing this in a very thoughtful way. We have already reached out with meetings with local and State governments and throughout the system, and we will be providing the Congress with that report in August. So I do not know where the Senator got his information, but, being the responsible party, I would like to make that statement.

Senator SHELBY. Well, that is good.

You did not suggest that a private company could profitably run a national railroad, did you?

Ms. MOLITORIS. What I would like to suggest is that I think the full report will do a better job of giving you all of the elements. I think it is interesting——

Senator SHELBY. When is that coming?

Ms. MOLITORIS. That is due in August, Mr. Chairman.

I could comment on efforts throughout the world in terms of privatization. I think it is very important for someone studying this issue to recognize that so-called privatization, which is defined in a variety of ways, in Britain, Germany, and elsewhere, Japan, almost exclusively involves the government owning and maintaining the right of way while the operational franchise for operating those systems then goes to a private company.

So I am not sure that most people who use the term "privatization" consider that kind of a split.

Senator SHELBY. It is some kind of a mix, anyway, is it not?

Ms. MOLITORIS. Yes; it is, sir.

AMTRAK'S FEDERAL SUBSIDY ON PER PASSENGER BASIS

Senator SHELBY. Ms. Scheinberg, how does the Federal subsidy per passenger for Amtrak, noncommuter passengers, compare to the Federal cost per passenger for commercial airline passengers? Is there any data available on Federal costs per passenger for intercity business service? Have you gotten any into that?

Ms. SCHEINBERG. I do not have information on the intercity bus service, but if you look at the general fund Federal subsidy to commercial airlines and if you look at that portion of the airline industry, it is about $1.50 per emplanement, and if you look at the Amtrak direct Federal subsidy it comes out to about $38 per passenger trip.

Senator SHELBY. It is $38?

Mr. DOWNS. Mr. Chairman, if I might.

Senator SHELBY. Mr. Downs.

Mr. DOWNS. The Congressional Research Service, at the request of Senator Pressler, was asked the same question. They did three comparisons. One was highways from general funds, including user fees. That is all local property, sales, and income tax. That was $79 per person in the United States on highway, according to CRS.

The second was Amtrak's. This was done on 1990 data to make sure that it was completely clean. CRS said the number was $27.

On aviation, they recognized that there was a $19 billion general fund subsidy to general domestic aviation before any user fees were imposed and the inability to quantify the subsidy that goes to aviation for the use of tax exempt bonding and property tax exemptions for airports as a business, but said it was probably in the billions of dollars as a subsidy.

It is a report that I would be glad to share with the committee.

AMTRAK'S LONG-TERM FUNDING NEEDS

Senator SHELBY. Mr. Downs, let us just assume for a moment a best case scenario. Let us say that Congress enacts the one-half-penny trust fund for capital expenses, that Amtrak is able to offset more of its operating losses with increased revenue from high-

speed services in the Northeast corridor and other savings and efficiencies realized along the way. A dedicated funding resource based on Federal gas tax revenues is authorized for only 5 years if it happens. What would you do when it goes away?

Mr. DOWNS. We have been told, and I have been asked this same question, will it be able to go away? And that was asked by Senator Warner, Senator Chafee, Senator Moynihan, Senator Roth in various hearings that I have been through in the last 3 weeks.

The answer is, We will probably have some need for some ongoing capital because no railroad, with the exception of the Illinois Central and the Norfolk Southern, in the United States makes its full cost of capital. Not even railroads as large as the Union Pacific-Southern Pacific, for instance, make their full cost of capital yet.

We have said that part of the key to that will be what the Congress decides to let States do with Federal transportation dollars about funding flexibility. It depends on what we can do about developing business alliances where others can make investments in us on a capital basis, for instance ongoing power distribution investments in the corridor based on an ability to partner with power companies in the Northeast.

We say we will need capital. We do not believe that it is necessary to extend the one-half-cent gas tax trust fund beyond its 5-year life. Senator Chafee has said that his expectation was that it would return to deficit reduction. Others have said that it is going to go into the highway trust fund account. Mr. Shuster has made it clear in his authorization bill that if it does include an authorization for a trust fund, it would be a 5-year limited life. Senate Finance has said the exact same thing.

Senator SHELBY. Do you see in the foreseeable future, Mr. Downs, any scenario where you would not need some kind of subsidy?

Mr. DOWNS. The only thing that we have said that we will continue to need is some way of funding excess railroad retirement long term. We have said that that is in effect a subsidy to the existing freight railroads.

Senator SHELBY. How much money are you talking about?

Mr. DOWNS. $145 million a year that Amtrak pays into railroad retirement above whatever its normal charges would be. There are 800,000 retired railroad employees in the United States, almost all of them freight railroad employees. There are 175,000 existing employees in the railroad industry, so the charges are pretty hefty. Most of those, 95 percent of those employees, are freight railroad employees.

We believe it is unfair to consider that a subsidy to Amtrak. If Amtrak went away tomorrow, those charges would be spread immediately to the freight railroads. We think that that needs to be addressed, not as a subsidy to Amtrak, but a subsidy to the railroad retirement system.

Senator SHELBY. Well, it certainly does not need to be hidden, does it?

Mr. DOWNS. No; it does not.

Senator SHELBY. Mr. Downs, in your testimony you state that Amtrak provides a necessary service for rural communities as well as urban corridors. Do you still believe that?

Mr. DOWNS. Absolutely, more than ever.

Senator SHELBY. Give us several examples?

Mr. DOWNS. I was meeting with some folks in Haver, MT. The mayor said: "You know, everybody, the rest of the world has kind of left us all behind. We do not have essential air service. We have a highway. Sometimes in the winter up here, it closes. If you cannot drive a car or a four-wheel vehicle, you do not have mobility up here. We do not have economic development resources like an airport. We do not have it in terms of the kind of rail system that the rest of the country, particularly the east and west coast, take for granted."

That railroad from Haver, MT, to Minot, ND, is an essential part of business development and local transportation for them, for seniors, for young people, and for the handicapped. He said it is just an essential part of the railroad business.

Anniston, AL, will say the same thing about connections to places like New Orleans and Birmingham. We do provide that linkage, and we are proud of it.

ROUTE PROFITABILITY

Senator SHELBY. Mr. Downs, it is my understanding that, of the Amtrak routes, the Metroliners between Washington, DC, and New York are the only profitable routes. Is that right?

Mr. DOWNS. On a fully allocated cost basis.

Senator SHELBY. OK.

Mr. DOWNS. The next closest is, I believe, AutoTrain.

Senator SHELBY. Have you thought about trying to close or realign some of your most unprofitable routes? That is just the way you do business, is it not?

Mr. DOWNS. We have. This committee stopped that process last year by saying that they thought we ought to defer those route closings for 6 months to give those States the opportunity to see if they wanted to partner. Those routes, particularly the Pioneer and the Desert Wind, Senator Reid's service, disappears on the 11th of this month. Service to eastern Oregon, Wyoming, Idaho, on the Pioneer disappears. The Texas legislature is still struggling with whether or not they are actually going to invest enough money to keep the Texas Eagle going until the 1st of October. If they do not, that service will go away.

We have said we have to do that. Everybody said be a business. We are now about 20 percent smaller than we were 36 months ago. We are several thousand employees smaller as a result of that. We think we are more efficient. But we have kept every one of those commitments about downsizing the railroad to make it more businesslike.

Ms. MOLITORIS. Mr. Chairman, if I might.

Senator SHELBY. Sure, go ahead.

Ms. MOLITORIS. I would like to comment on cutting your way to health. You mentioned, your comment was: That is the way you do business, is it not?

Senator SHELBY. Well, you do, but you do not cut your heart out.

Ms. MOLITORIS. Right, or the arteries, either.

And I want to make this comment. Certainly all the biggest and most profitable, most healthy passenger railroads in the world, es-

pecially in Japan, have an interesting mission statement, and that is—for example, Japan East, which makes more money than any other passenger railroad because they have almost unlimited passengers, that 50 percent of their revenues will come from nonpassenger sources.

Mr. Downs mentioned that the last time the rail passenger service was close to break-even it was because they had mail and express. It was not until just a few months ago that Amtrak was looking at even enhancing the mail and express that they already had.

So if you cut away vital routes, you cannot even have the opportunity for very valuable and important express service. So I want to just get for the record that that is not always as simple as it sounds. Some people think, well, you just cut, cut, cut until you somehow achieve health, and with this railroad that is not possible.

LABOR-RELATED COSTS

Senator SHELBY. Under current rail labor laws, I understand Amtrak is required to pay up to 6 years salary to anyone who loses their job as a result of Amtrak's reduction or terminating service. Would the administration support revising this provision to allow labor unions and Amtrak management to negotiate a more workable solution?

Ms. MOLITORIS. Well, Mr. Chairman——

Senator SHELBY. Have you thought about it?

Ms. MOLITORIS. In the discussions of last year the administration continued to support the opportunity for Amtrak management and labor to come to an agreement that was satisfactory to both. I think it is also—I would like to have for the record that C2, as it is called, is sometimes——

Senator SHELBY. The 6-year provision?

Ms. MOLITORIS. Yes, sir; is sometimes held out to be much more significant expense than it really ends up being. If the railroad closed everything, then that $5 billion that Mr. Downs mentioned would occur. But in fact, even in the route closings that the railroad has accomplished, the estimates of the cost were much more than they actually ended up being, something in the neighborhood of approximately $10,000 per person. So I think——

Senator SHELBY. So it is an overstatement thus far?

Ms. MOLITORIS. Well, I think that railroad labor wants this railroad to succeed and has a history of working to have good agreements with management. So I just want to point out that the facts do not always substantiate this, which is always pulled out as somehow the panacea for the health of the railroad.

Senator SHELBY. GAO, for example, stated that Amtrak has been unsuccessful in negotiating productivity improvements with the labor unions. Many of the same craft unions are represented at both freight rail and Amtrak labor negotiations and I know there is pressure from labor to secure equally favorable agreements with Amtrak—that would be logical—as have been secured with the freight railroads.

As a result, in the last 6 months many freight labor union agreements have been negotiated, while I understand that Amtrak is stuck at the table, bargaining still. Is that correct?

Ms. MOLITORIS. I think Mr. Downs is better able to respond to that.

Senator SHELBY. Mr. Downs, is that right?

Mr. DOWNS. We have 13 labor unions, 25 collective bargaining agreements. All of them have expired. Some of them have been expired for as long as 2½ years. You are absolutely right that part of the motivation with rail labor was to conclude their freight railroad contracts. Freight railroads had a lot more in terms of profits and could afford a better settlement, and they are also 90 percent of the employment in the rail labor industry. So it was important for them to finish those agreements first.

We have said that we were willing to do gain-sharing type contracts, that we are not asking for give-backs, not asking for fundamental changes in the way that the contracts are drawn. We have said, however, that if we can make changes in the way work rules are put together, around the way health care is provided, or in other areas, that we would count that in and that it would have zero impact on our business plan.

It has been very difficult because of the disparity between the impact of a freight railroad agreement on Amtrak. We have done some calculations. Over 5 years, the freight railroad agreement would cost Amtrak about $220 million. We have not got $220 million.

Ultimately, that issue may be resolved by Congress because, as you know, the Rail Labor Act says that if there is a release from mediation and there is a job action and the President deems it in the national interest, there is a Presidential emergency board appointed. They make a finding. If the parties still disagree at the end of that finding and they are released from further action, then the issue is brought here to Congress to resolve.

So ultimately, if the question is what assurance could the Congress have about a reasonable outcome on labor negotiations, this Congress will perhaps have the ultimate say about what those outcomes are.

Senator SHELBY. Senator Lautenberg, thanks for your indulgence.

ADMINISTRATION'S BUDGET REQUEST FOR AMTRAK

Senator LAUTENBERG. Thank you, Mr. Chairman. The questions were interesting ones and I think ought to be answered, and they were.

Ms. Molitoris, the administration's request for Amtrak for 1998 is substantially lower than the levels requested by Amtrak itself. If the administration's budget request was enacted, would that permit us to avoid the system shutdown that Mr. Downs has warned us about by the summer of 1998?

Ms. MOLITORIS. Mr. Chairman, Senator Lautenberg, the administration's budget is barebones. I have said that clearly. There is no fat in it at all. We need every cent.

Senator LAUTENBERG. Is there any marrow in it?

Ms. MOLITORIS. There is marrow.

Clearly, Senator Lautenberg, I think, given our challenges with deficit reduction, the administration has made a clear statement of support and has invested over the life of this administration more

in the last 4 years for Amtrak than in the previous 10. However, we recognize this will not be easy. The cash problem that Mr. Downs has raised he is addressing.

In all the years on the board since the Clinton administration has arrived, the projected deficits by Amtrak have always been in the neighborhood of $200 million or something in that area and the board has always asked for actions by management to address that deficit. The same continues to go on. We believe Amtrak is going to have to push hard with the administration's request, cut costs, increase the partnerships with States, increase the private sector partnerships. And there are many opportunities. We know that mail and express can produce some positive effects. We know some more partnerships with private industry can produce effects.

But we also know that it is going to be very, very tight for 1998. As I mentioned, we do not know at this time if the numbers that Mr. Downey mentioned of somewhere around $10 billion with $7 billion authority will net any more opportunity for Amtrak or not.

Senator LAUTENBERG. I think that I heard you say that—no.

Ms. MOLITORIS. I said yes, Mr. Chairman, and Senator Lautenberg.

Senator LAUTENBERG. Well, by the time we get finished with these partnerships and the agreements, and considering that there are political ramifications to every one of these decisions, I could have a full head of white hair by that time. It is going to take a long time, I would believe. I think we need more.

Mr. Downs, what do you—can you give us a little information about how you see the administration's budget request? Does it seem to be adequate to you?

Mr. DOWNS. There is a leading question.

Senator LAUTENBERG. Speak freely, young man. You are among friends.

Mr. DOWNS. Speak freely?

I had long and difficult arguments with the Office of Management and Budget over the President's budget request. We said we did not make the request for $245 million lightly. We did not make it because we thought that it was kind of a nice to do, pie in the sky kind of target. We explained that on a cash basis we would have a very difficult time making it at the administration's number.

The answer was: We are sorry; that is all the room there was in their budget. It was not necessarily a longer story about what they thought it meant or how this whole process looked over a couple of years. It was simply that there was no room in the inn for anything more.

It does make for a very difficult environment for labor contract negotiations. It creates no room. It makes it a shrinking sum pie. It makes for a kind of hostile, antagonistic environment with labor. Labor supported a larger number with the administration aggressively.

The sum of $200 million is one of the reasons why we will probably face a liquidity crisis at the end of fiscal 1998. We will be clearly challenged, I think is the right term, by a $200 million operating subsidy number.

Ms. SCHEINBERG. Senator Lautenberg, may I address the question?

Senator LAUTENBERG. Please, yes.

Ms. SCHEINBERG. I think the $43 million that the administration's budget or operating subsidy is lower than the Amtrak business plan assumes will require, if you follow the business plan assumptions, that that money—the lack of that $43 million will require Amtrak to further borrow for its short-term needs and lead to the crisis that Mr. Downs is discussing.

On the capital side, the administration's budget is $328 million lower than what Amtrak is assuming. That level of capital support will not allow Amtrak to make the capital improvements that it needs to improve the quality of service, to attract more riders and increase revenues.

Senator LAUTENBERG. This chart tells you something about the prospect of additional borrowing. We could get a larger page, of course. That would enable us to run the bar higher.

Mr. DOWNS. Senator, I think our bankers have told us that we are probably at the limits of our credit in terms of long-term borrowing, unless there is something unique that happens in our future, that we have probably exhausted all of our capabilities with the last round of high-speed trainsets.

Senator LAUTENBERG. I am glad that these charts are not my EKG, I can tell you that.

NORTHEAST CORRIDOR

Ms. Scheinberg, do you know of any investment that holds the kind of promise that the Northeast corridor high-speed project could offer in terms of generating substantial revenues to aid Amtrak's bottomline?

Ms. SCHEINBERG. The high-speed rail improvement project on the north end of the Northeast corridor is the best investment that Amtrak can make. As we discussed, the Metroliner is the only route that covers all its fully allocated costs, and Amtrak's plans are to extend that type of service to the north end of the corridor. By doing that and in making that investment, the hope is to generate the revenues that would cover, more than cover, the cost of that route and apply that surplus to the rest of the system.

Senator LAUTENBERG. So positive cash flow could result.

I have got to tell you something. I use Amtrak, Mr. Chairman, between here and Newark, and the Metroliner is good service. But it is not a great ride, the equipment. It is the only place I can go to find anything older than me around here. It bumps and it grinds. People try to do their best, but it is just not up to the kind of service that we ought to be offering.

With that, it is a pretty good investment in terms of railroad as we sit here. There is nothing else in the system that offers that kind of opportunity.

Ms. Molitoris, you were with me and Vice President Gore when we celebrated the signing of the new high speed train sets for the Northeast corridor. At the time the administration fully endorsed the goal of achieving 3-hour high speed service with the modern trainsets by the end of 1999, to be sure.

Do you believe that we can have that high-speed service—and 3 hours is not as good as it could be, but it would be good—based on the funding level that you have requested in your fiscal year 1998 budget?

Ms. MOLITORIS. Mr. Chairman, Senator Lautenberg, of course we need to look at the whole NEXTEA proposal to really look at how the administration plans to invest in those high-speed trains, because the NEXTEA proposal stretches out to the year 2003. And if you look at our total investment package, on the capital side we are suggesting 92 percent of what Amtrak itself is asking and 96 percent of the operating.

So I do not think it is insignificant. But I think we must say that the Federal funds cannot do it alone. There is no major transportation system that gets 100 percent of its funding from the Feds, and the board of Amtrak is working with management to continually focus on new ways to instigate additional revenue, cost cutting, and ways to achieve all the goals in the business plan.

The goal of the business plan is high-speed service, and of course we all want that because, as Ms. Scheinberg identified, it is going to be profitable, it is going to help the bottomline of Amtrak.

The difficulty that we are facing is the shorter term; 1998 will be very difficult. I think that the NEXTEA proposal clearly shows the investment and the support of those trainsets and the high-speed service. And I might comment that they are bending the steel now and those bodies will be ready for testing by the end of the summer.

Senator LAUTENBERG. So you said they got 90 percent of their request, Amtrak?

Ms. MOLITORIS. It totals 90 percent of what Amtrak——

Senator LAUTENBERG. So you are saying to this patient, you are going to get 90 percent of the oxygen you need, and if you are around here a couple years longer than we expect you to be you are going to get the full shot. Because you said they stretched out the service, so we cannot possibly execute all these refinements, develop all these plans, get them into place—the interest and debt payments here are overpowering—by the original date. So we are now going to, you said, maybe 2003 if I heard you?

Ms. MOLITORIS. No, sir; what I am saying to you is, if we are going to use your analogy of oxygen, that the Federal Government pharmacy will give 90 percent of the oxygen and they will have to get an extra tube of oxygen from other sources, another pharmacy.

The fact is there is a partnership that has to occur. The States are stepping up to the plate. I have mentioned that they have doubled their support of Amtrak in the last year. They are buying equipment because Amtrak is so important to them.

Senator LAUTENBERG. Because Amtrak is important, but it is also so deficient.

What happens in your judgment if the railroad does go into some default kind of position? What happens to commuter service? Is it affected? We have got New Jersey Transit, SEPTA, MTA, MARC, MBTA. Is there any impact at all on their operating costs, their ability to perform service?

Ms. MOLITORIS. Mr. Chairman, Senator Lautenberg, not only is there some, there is tremendous impact. In fact, I do not believe

the $5 billion reflects that kind of cost, because of course not only would Amtrak's service on the Northeast corridor be in danger, but the commuter services on the NEC would be in danger as well.

That is why we continually emphasize this is a partnership, and the importance of Amtrak cannot be evaluated by their passengers alone, because in fact on the Northeast corridor three-quarters of the passengers are commuter passengers.

Senator LAUTENBERG. So the partnership proposal is the one that says, if you want to keep this system going, that you are going to be the pharmacy necessary to keep this alive. So you can make your choice whether you just turn people to the highways and the airways and all that, and we will have to do it right away.

Ms. MOLITORIS. Mr. Chairman——

Senator LAUTENBERG. I would not want to be operating that pharmacy and to give you that decision, I must tell you.

What about the costs or the involvement of the freight railroads to this operating annual cost that we have? Do you get any assistance, Mr. Downs, from the freight railroad community in support of the one-half-cent proposal, for instance?

Mr. DOWNS. I thought you were going to say there for a minute, do we get any respect from the freight railroad industry. And the answer to that would be——

Senator LAUTENBERG. Rodney—and I am talking about, not Slater, Dangerfield. Do not expect respect also.

Mr. DOWNS. The American Association of Railroads' unofficial position, which I am not sure they have delivered as testimony for the record, is that because they pay 5.3 cents of diesel fuel tax to the deficit reduction fund at Treasury, they will likely oppose the creation of a one-half-cent gas tax trust fund for Amtrak if it includes any of the revenues that they pay to deficit reduction. They do not want to be paying into an Amtrak trust fund for any purpose.

I think that is a relatively convoluted argument. I have said that time and again. They cannot necessarily track where the revenue goes, into Treasury or into trust funds. But I have been unable to dissuade them from that.

At the same time, though, I have to say that we are having a lot of luck in developing working partnerships about the development of this new business, mail and express, with them. These will be joint ventures with them that will be very helpful to both of us. I think that their position so far on the trust fund is a bit murky.

Senator LAUTENBERG. If Amtrak does go under, the freights will have to pay some significant contribution to Amtrak's railroad retirement bill, will they not?

Mr. DOWNS. We currently pay total, management and employees and Federal payment, we pay $300 million a year into railroad retirement. If this railroad goes away, all of those costs, all $300 million, get absorbed into the railroad retirement fund and they are then spread to the freight railroads. Do they have an interest in not having that happen? You bet.

Senator LAUTENBERG. I would imagine.

Mr. Chairman, I have got a couple of other questions, but I do not want to keep our panel or the subcommittee here any longer. I think it is fairly obvious that more has to be done, and it cannot

just be new innovative partnership designs or the creation of new business opportunities, which are coming at a time which we would describe as under the gun.

I would hope that the administration will find a way to boost its transportation funding request to a more satisfactory level. I talk as a member of the negotiating committee on budget as well. But we have to make this investment. The communities are crying for it, the States are demanding it, and we are going to have to find a way to do it, Mr. Chairman.

Thank you very much.

Senator SHELBY. Thank you, Senator Lautenberg.

SUBMITTED QUESTIONS

There will be additional questions which will be submitted in writing, and we urge you to respond to them within a reasonable period of time.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR SHELBY

CAPITAL ASSETS AND EXPENSES

NORTHEAST CORRIDOR IMPROVEMENT PROJECT

Question. When does Amtrak anticipate the completion of Northeast Corridor (NEC) electrification and commencement of high-speed rail service throughout the Corridor? What is the end goal of this project?

Answer. The program is on schedule. Before the end of 1999, infrastructure and electrification will have been completed and Boston to Washington high-speed service will have begun, using electric power and no longer requiring a time consuming engine change in New Haven. The end goal of the program is to provide reliable high-speed rail service between Boston and New York in approximately three hours and between New York and Washington, DC, in under three hours.

Question. With the commencement of high-speed service throughout the Northeast Corridor, what increase in ridership and revenue does Amtrak expect to realize on an annual basis? Have any independent auditors or other interested parties corroborated these projections?

Answer. The revenue forecasts for high-speed rail service in the Northeast Corridor are based on extensive market analysis and modeling which incorporate all critical factors that drive market demand—travel time, trip frequency, fares, transportation alternatives and location of true passenger origination and destination.

The growth forecasted for high-speed rail is premised on significant travel time reductions that place the train trip in a competitive position with alternative transportation modes, service frequency increases, service reliability and quality improvements and a reasonable pricing structure that is competitive with, or complementary to, airfares.

Completion of electrification and high-speed rail investments (high horsepower locomotives, tilt-technology trainsets and infrastructure improvements) will reduce travel time between Boston and New York from four hours forty-five minutes to three hours. Southend travel time between New York and Washington, DC, will be reduced from three hours to two hours forty-five minutes.

The investment made to complete the electrification of the northend and the investment made to improve the track, signal, stations and other infrastructure will benefit both high-speed rail service as well as NortheastDirect service. Travel times for all trains will improve on the Corridor.

Service frequency increases drive a significant portion of forecasted revenue growth. The daily frequency of high-speed service increases on the northend from zero to eight roundtrips, while the current Metroliner service of 15-daily roundtrips on the southend will increase to high-speed service with 17-daily roundtrips. While this represents a 67 percent increase in roundtrips available, revenue estimates are not predicated on filling this to capacity.

Investments in equipment and infrastructure produce reliability improvements that strengthen Amtrak's products and increase revenues. Reduced infrastructure related delays and mechanical failures from employment of new, proven equipment will enhance on-time performance, the key factor to customer satisfaction. Less time will be devoted to maintenance and repair due to state-of-the-art diagnostic and communications systems and manufacturer-trained and -managed staff.

The NEC's current market share is 12 percent, with a 16 percent share of business travel and a 9 percent share on non-business travel. Current business travel along the Corridor is driven by the southend frequencies provided by the Metroliner service. When the market share is analyzed geographically, it is clear that Amtrak has the potential to increase ridership, particularly on the northend. The current market share for the north and south ends of the corridor are 7 percent and 16 percent respectively. Since there is no first class/high-speed service currently provided between Boston and New York, the advent of an incremental eight daily roundtrips high-speed trains will increase ridership and market share. To place the revenue forecasts in a market share perspective, the current market share of 12 percent needs only to grow to 14–15 percent for the forecasted revenues to be met.

Passenger rail provides amenities other modes do not offer, such as a level of interior comfort and access directly to and from urban centers. This access provides time savings and financial savings for travelers who do not need to arrange for transportation outside the urban core. These benefits have been considered in the assessment of comparative costs, value of alternate modes of transportation and the pricing for high-speed rail service.

From fiscal year 1996 to fiscal year 2000, ticket prices are assumed to be moderately inflated, with a premium then placed on first class service. Amtrak understands that high-speed rail will not compete pricewise with discount air carriers or short-lived promotional airfares. However, Amtrak's 2001 high-speed rail fares are very competitive with steady state airfares. Discount carriers that provide service in Northeast Corridor markets present an opportunity, not a risk, for Amtrak. Rather than compete with these airlines, Amtrak will be complementing the discount air service available in secondary markets. The NEC has already experienced revenue growth at stations that provide convenient access to these airports.

The resulting incremental revenue forecast for the full implementation of electrified service on the northend, and high-speed rail service throughout the Corridor totals $280 million annually. In fiscal year 2001, for example, these gross revenues will be partially offset by incremental operating costs and debt service of approximately $100 million, yielding net incremental benefits of approximately $180 million. Total ridership is expected to grow from the current volume of 11.1 million riders in fiscal year 1997 to 14.7 million riders in fiscal year 2001.

The assumptions used in the forecasting process are conservative and are supported by extensive market research, elasticity models, pricing analysis and sensitivity analysis. Three separate forecasting models have been used, with resulting revenue estimates within five percentage points of each other.

The best testament to the validity of the forecasts is that private, profitable corporations have partnered with Amtrak to finance the high-speed trainsets and maintenance facilities. This external funding stream was made possible because of the strength and legitimacy of the ridership and revenue forecasts.

Question. Amtrak estimates that $1,400,000.000 is needed to finish the Northeast Corridor high-speed rail project. How much total has been invested in the Northeast Corridor improvement project thus far? What is the year-to-year capital budget for improvements to the Northeast Corridor, beginning with fiscal year 1997 through fiscal year 2000?

Answer. The budget for the electrification and high-speed rail service program is $2.3 billion. Of this total, $810 million, or approximately 35 percent is being externally financed for trainset and maintenance facility costs. The remaining $1.5 billion is supported by Federal funds—$.9 billion has been appropriated to-date and $.6 billion is required to be funded.

These funding levels represent only the investment required for electrification and high-speed service. When state-of-good-repair, equipment overhaul, life/safety and other infrastructure needs are added to the electrification/high-speed rail requirements, the total capital program for fiscal year 1997 through fiscal year 2000 is estimated to be $597 million, $924 million, $557 million and $550 million respectively. This capital program is supported by federal funds, external financing and state/local funding. The Northeast Corridor's five-year capital program is premised on an average federal capital funding stream of $388 million per year.

Question. How much of Amtrak's $751,000,000 capital request for fiscal year 1998 would be utilized for improvements to the Northeast Corridor? Why doesn't the fis-

cal year 1998 federal grant request display NECIP funds versus general capital funds?

Answer. Based on the fiscal year 1997–2002 Strategic Capital Plan, the Northeast Corridor planned to invest $593 million in projects to be funded from federal capital sources and short-term borrowings. The breakdown between those two funding sources has not been determined. However, the process by which fiscal year 1998 capital projects will be chosen for funding (based on financial and non-financial factors), is currently underway, and with the completion of that process we will be able to determine exactly which Northeast Corridor projects would be funded, and from which sources.

The fiscal year 1998 Grant request does not request general capital and NECIP funding separately because Amtrak requested a dedicated source of capital equal to the revenues from ½ cent of the current gasoline tax (which at the time had been estimated to be $751 million). Those funds would be available to all organizational units within Amtrak and invested in the projects with the highest returns.

Question. Will Amtrak obligate all previously appropriated funds for the North Philadelphia station by September 1, 1997, as directed in the fiscal year 1997 conference report?

Answer. Amtrak has obligated all previously appropriated funds for the North Philadelphia station project.

Question. Over half of all Amtrak passengers use NEC services. What has been the Customer Satisfaction Index for the NEC in fiscal year 1994, fiscal year 1995 and fiscal year 1996?

Answer. Amtrak began measuring customer satisfaction in May 1996 through the use of monthly ridership surveys that measure customer satisfaction for fourteen characteristics of train service. The NEC Customer Satisfaction Index has risen from a score of 79 in May 1996 to the recent score of 85 in the second quarter of this fiscal year. These customer satisfaction statistics show a consistently improving trend line since the inception of the program for all NEC product lines. These increases are attributable in large measure to improved on-time performance and the NEC's priority focus on quality customer service.

Question. How much in revenues to Northeast Corridor operations return to Amtrak annually (fiscal years 1994, 1995, 1996 and projected end of 1997)? Do these figures include depreciation?

Answer. The Northeast Corridor Business Unit's first full year of operation was fiscal year 1995. In fiscal year 1995 and fiscal year 1996 the NEC contributed $1.3 million and $56.4 million in budget surpluses, respectively, to Amtrak's corporate-wide budget results ($12.4 million deficit in fiscal year 1995, $82.2 million deficit in fiscal year 1996). Amtrak's 1996 Annual report displays each Business Unit contribution to Amtrak's overall budget result for fiscal year 1995 and fiscal year 1996 (attached). The "budget result" is equal to all revenues and operating grants minus all expenses excluding depreciation, as reported in Amtrak's monthly and quarterly reports. The current year-end estimate (as of the end of May 1997) for NEC's fiscal year 1997 budget surplus is $109 million. This estimate includes eight months of actual financial results and four months of forecast.

TABLE 1: FISCAL YEARS 1995 AND 1996 OPERATING RESULTS BY MAJOR BUSINESS UNIT

[Dollars in millions]

	Intercity		NEC		West		Corporate		Total	
	Fiscal year—		Fiscal year—		Fiscal year—		Fiscal year—		Fiscal year—	
	1995	1996	1995	1996	1995	1996	1995	1996	1995	1996
Revenue	$465.0	$483.8	$828.3	$867.9	$156.5	$184.1	$47.1	$19.0	$1,496.9	$1,554.8
Expenses	673.0	738.5	1,044.4	1,018.9	253.0	272.0	334.7	289.0	2,305.1	2,318.4
Operating loss	−208.0	−254.7	−216.1	−151.0	−96.5	−87.9	−287.6	−270.0	−808.2	−763.6
Federal operating grant	.....	7.0	.....	.....	.....	.....	.....	.....	392.0	285.0
Other Federal contributions	42.0	62.2	70.5	65.4	16.5	13.3	21.0	15.5	150.0	156.4
Net operating loss	−166.0	−185.5	−145.6	−85.6	−80.0	−74.6	−266.6	−254.5	−266.2	−322.2
Noncash	87.4	80.1	146.9	142.0	18.2	14.7	1.4	3.2	253.9	240.0
Budget result	−78.6	−105.4	1.3	56.4	−61.8	−59.9	−265.2	−251.3	−12.3	−82.2

Question. Recently, the FRA issued a notice of proposed rulemaking that would require improved safety in train cars and seats. What efforts have been devoted to assuring that the NECIP high-speed rail trainsets meet the letter and spirit of the rail safety rulemaking? Are safety engineers involved in developing the specifications for the trainsets?

Answer. Every aspect of existing and proposed rules for passenger equipment safety were included as performance requirements in the design and manufacture of the NECIP high-speed rail trainsets. The design of the trainsets is undergoing an intense safety analysis, forcing mitigation through design, and is complemented with a System Safety Plan (Amtrak's comprehensive management tool for implementing safe operations). Particular emphasis has been placed on passenger compartments, with an eye to maintaining the safest environments during all operating conditions. Examples include:

—Trainset structure is designed to manage and dissipate energy during a collision, creating "crumple" zones in non-passenger areas to keep passenger compartments intact.
—All windows on coaches will also be emergency exits.
—Lighted strips will illuminate aisles in event of power loss.
—Overhead luggage compartments will contain and secure carry-on items inside compartments, instead of on open shelves.
—Seats will conform to new standards for securement strength.
—On-board systems to monitor and control speed will include the latest requirements in proposed rulemaking relating to civil speed enforcement.

In addition, Amtrak is working with the FRA on a Notice of Particular Applicability to define the requirements of the new Advanced Civil Speed Enforcement System (ACSES), which will be incorporated into the new trainsets to enforce civil speed restrictions. This state-of-the-art system will constitute a fundamental improvement in safety on the Northeast Corridor and is an essential component of Amtrak's program to operate at speeds up to 150 mph.

The coordination between Amtrak and the FRA in the design of the high-speed trainsets has been extraordinary. During development of the trainset specifications between 1993 and 1996, Amtrak design and safety engineers met frequently with the FRA to review all safety issues and develop new safety standards for what will be the fastest trains operating in the United States. This iterative process resulted in changes to the specifications for the trainsets in 1994. The FRA has deemed the new trainsets to be the safest trains ever built.

The joint work on trainset safety spurred by the high-speed trainset procurement has had benefits for safety in the rest of the industry—this joint work has served as the basis for many of the changes the FRA is now seeking in its rulemaking for all passenger trains.

Question. Please detail how many new jobs will be created in American cities and communities through the manufacture, testing, and deployment of the new high-speed trainsets.

Answer. High-speed rail generates many direct and indirect jobs:

—100 suppliers from 23 states are benefiting from the contract for high-speed trainsets.
—Thousands of design and construction jobs have already been created by the contracts awarded for infrastructure and electrification work.
—Amtrak ridership is expected to grow from the current level of 11.1 million passengers per year to 14.7 million passengers annually due to the implementation of high-speed rail service. These customers will be delivered to the stations, city centers, and surrounding communities served by Amtrak and commuter rail, providing an engine for economic development. This has already happened on a smaller scale with Metroliner service. The advent of this transportation alternative has helped spur development in the New York to Washington D.C. corridor. Leaders in the political and business community in cities such as Philadelphia, Wilmington and Baltimore have also looked ahead and understand the potential that high-speed rail service brings. In Baltimore, the local business community, as well as the City and State, have joined Amtrak in investing in station improvements to handle an increasing number of passengers more quickly, safely, and easily. In Wilmington and in Philadelphia, local businesses and universities, the cities, states, and Amtrak are joining in distinct programs to redevelop the stations and their surrounding neighborhoods. High-speed rail service opens up enormous opportunities for economic growth to cities located on the north end of the Corridor that can take advantage of proximity to major city markets such as New York and Boston.
—The Coalition of Northeastern Governors has estimated that nearly 5,000 new jobs and $440 million per year will be generated indirectly in that region by

Amtrak's high-speed rail once it is up and running—businesses and communities enjoying an improved transportation system will be more productive.

Question. Please update the Committee on the recent offer by Guilford to purchase the Northeast Corridor.

Answer. The purchase offer was submitted by Guilford to the United States Secretary of Transportation, Amtrak's majority shareholder. The Secretary of Transportation is expected to formally respond.

OTHER CAPITAL ISSUES

Question. What is the statutory provision regarding cross-utilization of general capital funds for the Northeast Corridor Improvement Program? How much general capital funding has been crosswalked to NECIP in fiscal years 1995, 1996, and anticipated for 1997?

Answer. There is no statutory prohibition on Amtrak using general capital grants for NECIP. But NECIP grant funds may be used only for NECIP as defined in Pub. L. No. 104–205, 110 Stat. 2961 and 2963 (1996).

For fiscal year 1994, the last year for which appropriations for Amtrak were authorized, capital was authorized for NECIP and non-NECIP projects separately in 49 U.S.C. 24104(a). This may be the "provision regarding cross-utilization " which is referenced in the question.

General capital funds spent for track and structure programs on the Northeast Corridor total $17.2 million in fiscal year 1995; $0 in fiscal year 1996 and $0 in fiscal year 1997. During fiscal year 1995 and fiscal year 1996, $18.8 million and $17.2 million, respectively, was used to fund certain debt service principal, facility upgrades and mandatory environmental projects in the Northeast Corridor. This brought the total general capital expenditure "crosswalked" to NEC-related projects in fiscal year 1995 to $36 million, and in fiscal year 1996 $17.2 million. In fiscal year 1997, no general capital funds will be crosswalked from general capital to Northeast Corridor projects.

Question. Please display the total Corporation capital spending (including funding from all sources, not only federal) by strategic business unit, for fiscal years 1995, 1996, 1997, and anticipated for 1998.

Answer.

AMTRAK CAPITAL SPENDING FROM ALL SOURCES

[Dollars in millions]

	Fiscal year—		
	1995	1996	1997
NEC SBU	$252.8	$372.2	$596.5
Intercity SBU	43.6	77.2	180.7
West SBU	3.4	25.3	37.4
Corp/Svc	5.4	5.3	15.2
Multiple SBU	28.2	2.5	4.9
Debt Service	50.0	33.3	85.2
Total	383.4	515.8	919.9

Capital Projects to be funded in fiscal year 1998 have yet to be determined.
Source: Capital Expenditure Reports

Question. Does Amtrak support the administration's request of $23,450,000 for Pennsylvania Station redevelopment (the Farley Building)? If the Corporation were to receive the administration's requested level of funding for capital expenses ($445,450,000) rather than the Corporation's requested level of $751,000,000, would Amtrak still want to earmark $23,450,000 for Pennsylvania Station redevelopment?

Answer. Amtrak supports the Administration's request of $23,450,000 for the Pennsylvania Station Redevelopment, including the redevelopment of the James A. Farley Post Office Building. If the funds are to be dedicated exclusively to the Farley portion of the Redevelopment project, the funds should be made available to the Pennsylvania Station Redevelopment Corporation, rather than to Amtrak. If the funds are to be used for the Pennsylvania Station portion of the Redevelopment project, they should be made available to Amtrak. It is Amtrak's preference to receive all capital funding without constraints on allowable uses, so that Amtrak can define priority allocations within its capital program. If Amtrak receives less capital

funding in fiscal year 1998 than requested, we will have to amend and prioritize our capital plan accordingly.

Question. Please prepare a summary of all non-track equipment and rolling stock assets, property, and other non-railroad assets owned by the Corporation, including market value, broken out by strategic business unit and grouped by type of asset. What is the debt secured by each of these assets?

Answer. The attached table summarizes property accounts gross book value by type of asset for Amtrak as a whole. To break out this information by SBU would result in a loss of information, as only a portion of it is tracked by SBU. In terms of market value, such information can only be provided by appraisals. Amtrak conducts market appraisals of its assets on an as-needed basis.

Also attached is a one page table indicating the assets which are financed, and the amount of debt outstanding as of May 1997.

AMTRAK
G/L BALANCES FOR PROPERTY ACCOUNTS
3RD QUARTER FISCAL YEAR 1997

ACCT #	EQUIPMENT ACCOUNT TITLE	BALANCE 03 / 31 / 97	APRIL 1997	BALANCE 04 / 30 / 97	MAY 1997	BALANCE 05 / 31 / 97
120501	LOCOMOTIVES – NEW	376,902,478.30	0.00	376,902,478.30	0.00	376,902,478.30
120504	LOCOMOTIVES – NEW (CAPITAL LEASE)	326,590,108.50	75,971,104.00	402,561,212.50	0.00	402,561,212.50
	TOTAL LOCOMOTIVES NEW	703,492,586.80	75,971,104.00	779,463,690.80	0.00	779,463,690.80
120502	LOCOMOTIVES – REBUILT	25,853,670.49	0.00	25,853,670.49	0.00	25,853,670.49
120503	LOCOMOTIVES – USED (ALL)	4,280,477.19	0.00	4,280,477.19	0.00	4,280,477.19
120505	LOCOMOTIVES – CAPITAL OVERHAULS	3,684,456.90	1,430,928.50	5,115,385.40	10,681,966.75	15,797,372.15
#1	TOTAL LOCOMOTIVES	737,311,191.38	77,402,032.50	814,713,223.88	10,681,966.75	825,395,210.63
120601	PASSENGER CARS – HORIZON FLEET	109,778,083.12	0.00	109,778,083.12	0.00	109,778,083.12
120602	PASSENGER CARS – AMFLEET/VIEWLINERS	551,790,491.09	15,464,532.47	567,255,023.56	5,897,623.14	573,152,646.70
120603	PASSENGER CARS – CONVENTIONAL	123,456,383.41	0.00	123,456,383.41	10,191,050.19	133,647,433.60
120604	PASSENGER CARS – BI LEVEL	32,025,695.54	0.00	32,025,695.54	0.00	32,025,695.54
120605	PASSENGER CARS – TURBO TRAINS	58,939,028.40	0.00	58,939,028.40	0.00	58,939,028.40
120606	PASSENGER CARS – CAB CARS	28,197,645.29	1,169,271.21	29,366,916.50	0.00	29,366,916.50
120607	PASSENGER CARS – CAPITOLINERS	11,066,852.41	0.00	11,066,852.41	0.00	11,066,852.41
120608	PASSENGER CARS – SUPERLINERS	380,797,436.05	0.00	380,797,436.05	0.00	380,797,436.05
120608	PASSENGER CARS – SUPERLINERS II	620,862,904.71	(95,918,032.00)	524,944,872.71	0.00	524,944,872.71
	TOTAL SUPERLINERS	1,001,660,340.76	(95,918,032.00)	905,742,308.76	0.00	905,742,308.76
#2	TOTAL PASSENGER CARS	1,916,914,520.02	(79,284,228.32)	1,837,630,291.70	16,088,673.33	1,853,718,965.03
120701	AUTO CARRIERS	5,113,322.15	0.00	5,113,322.15	0.00	5,113,322.15
120702	MATERIAL HANDLING CARS	29,214,704.24	0.00	29,214,704.24	0.00	29,214,704.24
	TOTAL NON PASSENGER CARS	34,328,026.39	0.00	34,328,026.39	0.00	34,328,026.39
120801	WORK EQUIPMENT – (ALL)	31,858,832.86	0.00	31,858,832.86	0.00	31,858,832.86
120901	MISCELLANEOUS EQUIPMENT – (ALL)	31,144,645.66	119,544.00	31,264,189.66	0.00	31,264,189.66
#3	TOTAL OTHER ROLLING STOCK	97,331,504.91	119,544.00	97,451,048.91	0.00	97,451,048.91
	TOTAL EQUIPMENT ACCOUNTS	2,751,557,216.31	(1,762,651.82)	2,749,794,564.49	26,770,660.08	2,776,565,224.57
	TOTAL ROAD ACCOUNTS	2,139,180,465.83	10,522,334.99	2,149,702,800.82	4,370,187.71	2,154,072,988.53
	TOTAL TRACK ACCOUNTS	984,398,932.60	0.00	984,398,932.60	0.00	984,398,932.60
	TOTAL – ROAD & TRACK ACCOUNTS	3,123,579,398.43	10,522,334.99	3,134,101,733.42	4,370,187.71	3,138,471,921.13
	TOTAL – ALL PROPERTY ACCOUNTS	5,875,136,614.74	8,759,683.17	5,883,896,297.91	31,140,847.79	5,915,037,145.70

AMTRAK
G/L BALANCES FOR PROPERTY ACCOUNTS
3RD QUARTER FISCAL YEAR 1997

ACCT #	COMPANY 1, AMTRAK OWNED ACCOUNT TITLE	BALANCE 03 / 31 / 97	APRIL 1997	BALANCE 04 / 30 / 97	MAY 1997	BALANCE 05 / 31 / 97
122001	LAND FOR TRANSPORTATION PURPOSES	20,521,939.56	0.00	20,521,939.56	0.00	20,521,939.56
122002	GRADING	6,300,531.39	0.00	6,300,531.39	0.00	6,300,531.39
122003	OTHER R/W EXPENDITURES	186,283.00	0.00	186,283.00	0.00	186,283.00
122004	TUNNELS & SUBWAYS	41,686,646.03	0.00	41,686,646.03	0.00	41,686,646.03
122005	BRIDGES, TRESTLES, & CULVERTS	74,399,994.52	0.00	74,399,994.52	0.00	74,399,994.52
122007	FENCES, SNOWSHEDS, & SIGNS	12,489,852.06	0.00	12,489,852.06	0.00	12,489,852.06
122008	STATIONS & OFFICE BUILDINGS	249,885,425.25	489,466.99	250,374,892.24	4,190,753.95	254,565,646.19
122009	ROADWAY BUILDINGS	2,100,239.52	0.00	2,100,239.52	0.00	2,100,239.52
122010	WATER STATIONS	645,769.80	0.00	645,769.80	0.00	645,769.80
122011	FUEL STATIONS	1,859,314.04	0.00	1,859,314.04	0.00	1,859,314.04
122012	SHOPS & ENGINE HOUSES	133,098,786.07	395,789.00	133,494,575.07	0.00	133,494,575.07
122013	COMMUNICATION SYSTEMS	25,142,778.28	113,931.00	25,256,709.28	113,931.00	25,370,640.28
122014	SIGNALS & INTERLOCKERS	55,450,124.32	0.00	55,450,124.32	0.00	55,450,124.32
122015	POWER PLANTS	1,079,977.80	0.00	1,079,977.80	0.00	1,079,977.80
122016	POWER TRANSMISSION SYSTEMS	28,898,044.48	0.00	28,898,044.48	954,485.00	29,852,529.48
122018	ROADWAY MACHINES	7,975,656.52	0.00	7,975,656.52	0.00	7,975,656.52
122019	PUBLIC IMPROVEMENTS-CONSTRUCTION	2,378,737.23	0.00	2,378,737.23	0.00	2,378,737.23
122020	SHOP MACHINERY	20,466,982.07	0.00	20,466,982.07	298,648.21	20,765,630.28
122021	POWER PLANT MACHINERY	96,396.84	0.00	96,396.84	0.00	96,396.84
122022	COMPUTER EQUIPMENT	39,518,774.56	3,975,057.00	43,493,831.56	0.00	43,493,831.56
	SUB TOTAL ROAD	724,182,253.34	4,974,243.99	729,156,497.33	5,557,818.16	734,714,315.49
	RECORDED ON EQUIPMENT SYSTEM					
122008	STATIONS & OFFICE BLDGS	133,563.75	0.00	133,563.75	0.00	133,563.75
122012	SHOPS & ENGINE HOUSES	82,000.00	0.00	82,000.00	0.00	82,000.00
122018	ROADWAY MACHINES	28,918,721.59	0.00	28,918,721.59	0.00	28,918,721.59
	TOTAL ON EQUIPMENT SYSTEM	29,134,285.34	0.00	29,134,285.34	0.00	29,134,285.34
	TOTAL ROAD ACCOUNTS	753,316,538.68	4,974,243.99	758,290,782.67	5,557,818.16	763,848,600.83
122040	TIES	122,037,088.26	0.00	122,037,088.26	0.00	122,037,088.26
122041	RAIL	97,276,472.48	0.00	97,276,472.48	0.00	97,276,472.48
122042	BALLAST	38,888,610.09	0.00	38,888,610.09	0.00	38,888,610.09
	TOTAL TRACK ACCOUNTS	258,202,170.83	0.00	258,202,170.83	0.00	258,202,170.83
	TOTAL ROAD & TRACK – COMPANY 1	1,011,518,709.51	4,974,243.99	1,016,492,953.50	5,557,818.16	1,022,050,771.66

AMTRAK
G/L BALANCES FOR PROPERTY ACCOUNTS
3RD QUARTER FISCAL YEAR 1997

ACCT #	COMPANY 2, LEASEHOLD IMPROVEMENTS ACCOUNT TITLE	BALANCE 03 / 31 / 97	APRIL 1997	BALANCE 04 / 30 / 97	MAY 1997	BALANCE 05 / 31 / 97
123001	LAND FOR TRANSPORTATION PURPOSES	0.00	0.00	0.00	0.00	0.00
123002	GRADING	365,673.66	0.00	365,673.66	0.00	365,673.66
123003	OTHER R/W EXPENDITURES	0.00	0.00	0.00	0.00	0.00
123004	TUNNELS & SUBWAYS	0.00	0.00	0.00	0.00	0.00
123005	BRIDGES, TRESTLES, & CULVERTS	11,810,726.23	0.00	11,810,726.23	0.00	11,810,726.23
123007	FENCES, SNOWSHEDS, & SIGNS	98,810.42	0.00	98,810.42	0.00	98,810.42
123008	STATIONS & OFFICE BUILDINGS	120,607,422.41	5,548,091.00	126,155,513.41 ***	(1,187,630.45)	124,967,882.96
123009	ROADWAY BUILDINGS	364,309.24	0.00	364,309.24	0.00	364,309.24
123010	WATER STATIONS	745,767.59	0.00	745,767.59	0.00	745,767.59
123011	FUEL STATIONS	277,694.68	0.00	277,694.68	0.00	277,694.68
123012	SHOPS & ENGINE HOUSES	2,980,453.59	0.00	2,980,453.59 ***	0.00	2,980,453.59
123013	COMMUNICATION SYSTEMS	445,591.43	0.00	445,591.43	0.00	445,591.43
123014	SIGNALS & INTERLOCKERS	3,187,898.35	0.00	3,187,898.35	0.00	3,187,898.35
123015	POWER PLANTS	218,613.85	0.00	218,613.85	0.00	218,613.85
123016	POWER TRANSMISSION SYSTEMS	1,211,976.20	0.00	1,211,976.20	0.00	1,211,976.20
123018	ROADWAY MACHINES	0.00	0.00	0.00	0.00	0.00
123019	PUBLIC IMPROVEMENTS--CONSTRUCTION	3,729,644.90	0.00	3,729,644.90	0.00	3,729,644.90
123020	SHOP MACHINERY	177,474.91	0.00	177,474.91	0.00	177,474.91
123021	POWER PLANT MACHINERY	0.00	0.00	0.00	0.00	0.00
123022	COMPUTER EQUIPMENT	0.00	0.00	0.00	0.00	0.00
	SUB TOTAL ROAD	146,222,057.46	5,548,091.00	151,770,148.46	(1,187,630.45)	150,582,518.01
123018	ROADWAY MACHINES (ON EQUIPMENT SYSTEM)	0.00	0.00	0.00	0.00	0.00
	TOTAL ROAD ACCOUNTS	146,222,057.46	5,548,091.00	151,770,148.46	(1,187,630.45)	150,582,518.01
122040	TIES	11,769,178.19	0.00	11,769,178.19	0.00	11,769,178.19
122041	RAIL	44,164,653.63	0.00	44,164,653.63	0.00	44,164,653.63
122042	BALLAST	2,603,436.80	0.00	2,603,436.80	0.00	2,603,436.80
	TOTAL TRACK ACCOUNTS	58,537,268.62	0.00	58,537,268.62	0.00	58,537,268.62
	TOTAL ROAD & TRACK - COMPANY 2	204,759,326.08	5,548,091.00	210,307,417.08	(1,187,630.45)	209,119,786.63

AMTRAK
G/L BALANCES FOR PROPERTY ACCOUNTS
3RD QUARTER FISCAL YEAR 1997

ACCT #	COMPANY 3, CONRAIL CONVEYED ACCOUNT TITLE	BALANCE 03 / 31 / 97	APRIL 1997	BALANCE 04 / 30 / 97	MAY 1997	BALANCE 05 / 31 / 97
122001	LAND FOR TRANSPORTATION PURPOSES	11,063,555.24	0.00	11,063,555.24	0.00	11,063,555.24
122002	GRADING	6,592,526.00	0.00	6,592,526.00	0.00	6,592,526.00
122003	OTHER R/W EXPENDITURES	0.00	0.00	0.00	0.00	0.00
122004	TUNNELS & SUBWAYS	7,348,222.00	0.00	7,348,222.00	0.00	7,348,222.00
122005	BRIDGES, TRESTLES, & CULVERTS	9,033,548.00	0.00	9,033,548.00	0.00	9,033,548.00
122007	FENCES, SNOWSHEDS, & SIGNS	0.00	0.00	0.00	0.00	0.00
122008	STATIONS & OFFICE BUILDINGS	17,762,027.00	0.00	17,762,027.00	0.00	17,762,027.00
122009	ROADWAY BUILDINGS	0.00	0.00	0.00	0.00	0.00
122010	WATER STATIONS	0.00	0.00	0.00	0.00	0.00
122011	FUEL STATIONS	0.00	0.00	0.00	0.00	0.00
122012	SHOPS & ENGINE HOUSES	1,284,593.00	0.00	1,284,593.00	0.00	1,284,593.00
122013	COMMUNICATION SYSTEMS	1,141,326.00	0.00	1,141,326.00	0.00	1,141,326.00
122014	SIGNALS & INTERLOCKERS	4,273,959.00	0.00	4,273,959.00	0.00	4,273,959.00
122015	POWER PLANTS	940,442.00	0.00	940,442.00	0.00	940,442.00
122016	POWER TRANSMISSION SYSTEMS	7,778,104.00	0.00	7,778,104.00	0.00	7,778,104.00
122018	ROADWAY MACHINES	0.00	0.00	0.00	0.00	0.00
122019	PUBLIC IMPROVEMENTS-CONSTRUCTION	4,281,592.00	0.00	4,281,592.00	0.00	4,281,592.00
122020	SHOP MACHINERY	0.00	0.00	0.00	0.00	0.00
122021	POWER PLANT MACHINERY	0.00	0.00	0.00	0.00	0.00
122022	COMPUTER EQUIPMENT	0.00	0.00	0.00	0.00	0.00
	SUB TOTAL ROAD	71,499,894.24	0.00	71,499,894.24	0.00	71,499,894.24
122018	ROADWAY MACHINES (ON EQUIPMENT SYSTEM)	0.00	0.00	0.00	0.00	0.00
	TOTAL ROAD ACCOUNTS	71,499,894.24	0.00	71,499,894.24	0.00	71,499,894.24
122040	TIES	0.00	0.00	0.00	0.00	0.00
122041	RAIL	0.00	0.00	0.00	0.00	0.00
122042	BALLAST	0.00	0.00	0.00	0.00	0.00
	TOTAL TRACK ACCOUNTS	0.00	0.00	0.00	0.00	0.00
	TOTAL ROAD & TRACK – COMPANY 3	71,499,894.24	0.00	71,499,894.24	0.00	71,499,894.24

AMTRAK
G/L BALANCES FOR PROPERTY ACCOUNTS
3RD QUARTER FISCAL YEAR 1997

ACCT #	COMPANY 4, NECIP ACCOUNT TITLE	BALANCE 03 / 31 / 97	APRIL 1997	BALANCE 04 / 30 / 97	MAY 1997	BALANCE 05 / 31 / 97
122001	LAND FOR TRANSPORTATION PURPOSES	6,014,918.00	0.00	6,014,918.00	0.00	6,014,918.00
122002	GRADING	116,084,205.01	0.00	116,084,205.01	0.00	116,084,205.01
122003	OTHER R/W EXPENDITURES	0.00	0.00	0.00	0.00	0.00
122004	TUNNELS & SUBWAYS	37,151,259.44	0.00	37,151,259.44	0.00	37,151,259.44
122005	BRIDGES, TRESTLES, & CULVERTS	165,296,711.93	0.00	165,296,711.93	0.00	165,296,711.93
122007	FENCES, SNOWSHEDS, & SIGNS	8,578,235.00	0.00	8,578,235.00	0.00	8,578,235.00
122008	STATIONS & OFFICE BUILDINGS	37,261,111.48	0.00	37,261,111.48	0.00	37,261,111.48
122009	ROADWAY BUILDINGS	20,105,077.47	0.00	20,105,077.47	0.00	20,105,077.47
122010	WATER STATIONS	0.00	0.00	0.00	0.00	0.00
122011	FUEL STATIONS	0.00	0.00	0.00	0.00	0.00
122012	SHOPS & ENGINE HOUSES	88,516,266.27	0.00	88,516,266.27	0.00	88,516,266.27
122013	COMMUNICATION SYSTEMS	13,201,435.98	0.00	13,201,435.98	0.00	13,201,435.98
122014	SIGNALS & INTERLOCKERS	335,038,553.20	0.00	335,038,553.20	0.00	335,038,553.20
122015	POWER PLANTS	0.00	0.00	0.00	0.00	0.00
122016	POWER TRANSMISSION SYSTEMS	149,477,523.14	0.00	149,477,523.14	0.00	149,477,523.14
122018	ROADWAY MACHINES	411,202.00	0.00	411,202.00	0.00	411,202.00
122019	PUBLIC IMPROVEMENTS-CONSTRUCTION	353,514.63	0.00	353,514.63	0.00	353,514.63
122020	SHOP MACHINERY	4,293,768.00	0.00	4,293,768.00	0.00	4,293,768.00
122021	POWER PLANT MACHINERY	0.00	0.00	0.00	0.00	0.00
122022	COMPUTER EQUIPMENT	28,512,045.67	0.00	28,512,045.67	0.00	28,512,045.67
	SUB TOTAL ROAD	1,010,295,827.22	0.00	1,010,295,827.22	0.00	1,010,295,827.22
122018	ROADWAY MACHINES (ON EQUIPMENT SYSTEM)	0.00	0.00	0.00	0.00	0.00
	TOTAL ROAD ACCOUNTS	1,010,295,827.22	0.00	1,010,295,827.22	0.00	1,010,295,827.22
122040	TIES	157,762,760.34	0.00	157,762,760.34	0.00	157,762,760.34
122041	RAIL	393,434,146.81	0.00	393,434,146.81	0.00	393,434,146.81
122042	BALLAST	57,423,258.43	0.00	57,423,258.43	0.00	57,423,258.43
	TOTAL TRACK ACCOUNTS	608,620,165.58	0.00	608,620,165.58	0.00	608,620,165.58
	TOTAL ROAD & TRACK - COMPANY 4	1,618,915,992.80	0.00	1,618,915,992.80	0.00	1,618,915,992.80
	NECIP / FRA CONVEYED					
120503	LOCOMOTIVES-USED	4,245,137.68	0.00	4,245,137.68	0.00	4,245,137.68
120601	WORK EQUIPMENT	25,106,037.75	0.00	25,106,037.75	0.00	25,106,037.75
120901	MISCELLANEOUS EQUIPMENT	822,694.00	0.00	822,694.00	0.00	822,694.00
122008	STATIONS & OFFICE EQUIPMENT	102,554.00	0.00	102,554.00	0.00	102,554.00
122013	COMMUNICATION SYSTEMS	13,352.00	0.00	13,352.00	0.00	13,352.00
122018	ROADWAY MACHINES	14,978,490.00	0.00	14,978,490.00	0.00	14,978,490.00
	TOTAL - NECIP / FRA CONVEYED	45,268,265.43	0.00	45,268,265.43	0.00	45,268,265.43

AMTRAK
G/L BALANCES FOR PROPERTY ACCOUNTS
3RD QUARTER FISCAL YEAR 1997

ACCT #	COMPANY 5, FRA PROGRAMS (NECIP) ACCOUNT TITLE	BALANCE 03 / 31 / 97	APRIL 1997	BALANCE 04 / 30 / 97	MAY 1997	BALANCE 05 / 31 / 97
122001	LAND FOR TRANSPORTATION PURPOSES	2,785,400.91	0.00	2,785,400.91	0.00	2,785,400.91
122002	GRADING	0.00	0.00	0.00	0.00	0.00
122003	OTHER R/W EXPENDITURES	2,166,189.54	0.00	2,166,189.54	0.00	2,166,189.54
122004	TUNNELS & SUBWAYS	0.00	0.00	0.00	0.00	0.00
122005	BRIDGES, TRESTLES, & CULVERTS	17,189,547.93	0.00	17,189,547.93	0.00	17,189,547.93
122007	FENCES, SNOWSHEDS, & SIGNS	0.00	0.00	0.00	0.00	0.00
122008	STATIONS & OFFICE BUILDINGS	120,849,910.82	0.00	120,849,910.82	0.00	120,849,910.82
122009	ROADWAY BUILDINGS	0.00	0.00	0.00	0.00	0.00
122010	WATER STATIONS	0.00	0.00	0.00	0.00	0.00
122011	FUEL STATIONS	0.00	0.00	0.00	0.00	0.00
122012	SHOPS & ENGINE HOUSES	171,641.97	0.00	171,641.97	0.00	171,641.97
122013	COMMUNICATION SYSTEMS	0.00	0.00	0.00	0.00	0.00
122014	SIGNALS & INTERLOCKERS	14,683,457.06	0.00	14,683,457.06	0.00	14,683,457.06
122015	POWER PLANTS	0.00	0.00	0.00	0.00	0.00
122016	POWER TRANSMISSION SYSTEMS	0.00	0.00	0.00	0.00	0.00
122018	ROADWAY MACHINES	0.00	0.00	0.00	0.00	0.00
122019	PUBLIC IMPROVEMENTS-CONSTRUCTION	0.00	0.00	0.00	0.00	0.00
122020	SHOP MACHINERY	0.00	0.00	0.00	0.00	0.00
122021	POWER PLANT MACHINERY	0.00	0.00	0.00	0.00	0.00
122022	COMPUTER EQUIPMENT	0.00	0.00	0.00	0.00	0.00
	SUB TOTAL ROAD	157,846,148.23	0.00	157,846,148.23	0.00	157,846,148.23
122018	ROADWAY MACHINES (ON EQUIPMENT SYSTEM)	0.00	0.00	0.00	0.00	0.00
	TOTAL ROAD ACCOUNTS	157,846,148.23	0.00	157,846,148.23	0.00	157,846,148.23
122040	TIES	14,553,194.25	0.00	14,553,194.25	0.00	14,553,194.25
122041	RAIL	38,960,052.26	0.00	38,960,052.26	0.00	38,960,052.26
122042	BALLAST	5,526,081.06	0.00	5,526,081.06	0.00	5,526,081.06
	TOTAL TRACK ACCOUNTS	59,039,327.57	0.00	59,039,327.57	0.00	59,039,327.57
	TOTAL ROAD & TRACK - COMPANY 5	216,885,475.80	0.00	216,885,475.80	0.00	216,885,475.80

AMTRAK
G/L BALANCES FOR PROPERTY ACCOUNTS
3RD QUARTER FISCAL YEAR 1997

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ACCT #	TOTAL OWNED PROPERTY (122000 A/C's) ACCOUNT TITLE	BALANCE 03 / 31 / 97	APRIL 1997	BALANCE 04 / 30 / 97	MAY 1997	BALANCE 05 / 31 / 97
122001	LAND FOR TRANSPORTATION PURPOSES	40,385,813.71	0.00	40,385,813.71	0.00	40,385,813.71
122002	GRADING	128,977,262.40	0.00	128,977,262.40	0.00	128,977,262.40
122003	OTHER R/W EXPENDITURES	2,352,472.54	0.00	2,352,472.54	0.00	2,352,472.54
122004	TUNNELS & SUBWAYS	86,186,127.47	0.00	86,186,127.47	0.00	86,186,127.47
122005	BRIDGES, TRESTLES, & CULVERTS	265,919,802.38	0.00	265,919,802.38	0.00	265,919,802.38
122007	FENCES, SNOWSHEDS, & SIGNS	21,068,087.06	0.00	21,068,087.06	0.00	21,068,087.06
122008	STATIONS & OFFICE BUILDINGS	425,758,474.55	489,466.99	426,247,941.54	4,190,753.95	430,438,695.49
122009	ROADWAY BUILDINGS	22,205,316.99	0.00	22,205,316.99	0.00	22,205,316.99
122010	WATER STATIONS	645,769.80	0.00	645,769.80	0.00	645,769.80
122011	FUEL STATIONS	1,859,314.04	0.00	1,859,314.04	0.00	1,859,314.04
122012	SHOPS & ENGINE HOUSES	223,071,287.31	395,789.00	223,467,076.31	0.00	223,467,076.31
122013	COMMUNICATION SYSTEMS	39,485,540.26	113,931.00	39,599,471.26	113,931.00	39,713,402.26
122014	SIGNALS & INTERLOCKERS	409,446,093.58	0.00	409,446,093.58	0.00	409,446,093.58
122015	POWER PLANTS	2,020,419.80	0.00	2,020,419.80	0.00	2,020,419.80
122016	POWER TRANSMISSION SYSTEMS	186,153,671.62	0.00	186,153,671.62	954,485.00	187,108,156.62
122018	ROADWAY MACHINES	8,386,858.52	0.00	8,386,858.52	0.00	8,386,858.52
122019	PUBLIC IMPROVEMENTS-CONSTRUCTION	7,013,843.86	0.00	7,013,843.86	0.00	7,013,843.86
122020	SHOP MACHINERY	24,760,750.07	0.00	24,760,750.07	298,648.21	25,059,398.28
122021	POWER PLANT MACHINERY	96,396.84	0.00	96,396.84	0.00	96,396.84
122022	COMPUTER EQUIPMENT	68,030,820.23	3,975,057.00	72,005,877.23	0.00	72,005,877.23
	SUB TOTAL ROAD	1,963,824,123.03	4,974,243.99	1,968,798,367.02	5,557,818.16	1,974,356,185.18
	RECORDED ON EQUIPMENT SYSTEM					
122008	STATIONS & OFFICE BLDGS	133,563.75	0.00	133,563.75	0.00	133,563.75
122012	SHOPS & ENGINE HOUSES	82,000.00	0.00	82,000.00	0.00	82,000.00
122018	ROADWAY MACHINES	28,918,721.59	0.00	28,918,721.59	0.00	28,918,721.59
	TOTAL ON EQUIPMENT SYSTEM	29,134,285.34	0.00	29,134,285.34	0.00	29,134,285.34
	TOTAL ROAD ACCOUNTS	1,992,958,408.37	4,974,243.99	1,997,932,652.36	5,557,818.16	2,003,490,470.52
122040	TIES	294,353,042.85	0.00	294,353,042.85	0.00	294,353,042.85
122041	RAIL	529,670,671.55	0.00	529,670,671.55	0.00	529,670,671.55
122042	BALLAST	101,837,949.58	0.00	101,837,949.58	0.00	101,837,949.58
	TOTAL TRACK ACCOUNTS	925,861,663.98	0.00	925,861,663.98	0.00	925,861,663.98
(Pg 2,4-6)	TOTAL OWNED PROPERTY (122000 A/C's)	2,918,820,072.35	4,974,243.99	2,923,794,316.34	5,557,818.16	2,929,352,134.50
(Pg 3)	TOTAL L/H IMPROVEMENTS (123000 A/C's)	204,759,326.08	5,548,091.00	210,307,417.08	(1,187,630.45)	209,119,786.63
	TOTAL - ROAD & TRACK ACCOUNTS	3,123,579,398.43	10,522,334.99	3,134,101,733.42	4,370,187.71	3,138,471,921.13
(Pg 1)	TOTAL EQUIPMENT (120000 A/C's)	2,751,557,216.31	(1,762,651.82)	2,749,794,564.49	26,770,660.08	2,776,565,224.57
	TOTAL - ALL PROPERTY ACCOUNTS	5,875,136,614.74	8,759,683.17	5,883,896,297.91	31,140,847.79	5,915,037,145.70

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AMTRAK
G/L BALANCES FOR PROPERTY ACCOUNTS
3RD QUARTER FISCAL YEAR 1997

ACCT #	TOTAL OWNED PROPERTY (122000 A/C's) ACCOUNT TITLE	BALANCE 03 / 31 / 97	APRIL 1997	BALANCE 04 / 30 / 97	MAY 1997	BALANCE 05 / 31 / 97
	RIGHT OF WAY PROPERTIES					
122002	GRADING	128,977,262.40	0.00	128,977,262.40	0.00	128,977,262.40
122003	OTHER R/W EXPENDITURES	2,352,472.54	0.00	2,352,472.54	0.00	2,352,472.54
122004	TUNNELS & SUBWAYS	86,186,127.47	0.00	86,186,127.47	0.00	86,186,127.47
122005	BRIDGES, TRESTLES, & CULVERTS	265,919,802.38	0.00	265,919,802.38	0.00	265,919,802.38
122007	FENCES, SNOWSHEDS, & SIGNS	21,068,087.06	0.00	21,068,087.06	0.00	21,068,087.06
122009	ROADWAY BUILDINGS	22,205,316.99	0.00	22,205,316.99	0.00	22,205,316.99
122010	WATER STATIONS	645,769.80	0.00	645,769.80	0.00	645,769.80
122011	FUEL STATIONS	1,859,314.04	0.00	1,859,314.04	0.00	1,859,314.04
122013	COMMUNICATION SYSTEMS	39,485,540.26	113,931.00	39,599,471.26	113,931.00	39,713,402.26
122014	SIGNALS & INTERLOCKERS	409,446,093.58	0.00	409,446,093.58	0.00	409,446,093.58
122015	POWER PLANTS	2,020,419.80	0.00	2,020,419.80	0.00	2,020,419.80
122016	POWER TRANSMISSION SYSTEMS	186,153,671.62	0.00	186,153,671.62	954,485.00	187,108,156.62
122018	ROADWAY MACHINES	8,386,858.52	0.00	8,386,858.52	0.00	8,386,858.52
122019	PUBLIC IMPROVEMENTS-CONSTRUCTION	7,013,843.86	0.00	7,013,843.86	0.00	7,013,843.86
122021	POWER PLANT MACHINERY	96,396.84	0.00	96,396.84	0.00	96,396.84
	STOTAL ROAD - RIGHT OF WAY PROPERTIES	1,181,816,977.16	113,931.00	1,181,930,908.16	1,068,416.00	1,182,999,324.16
	RECORDED ON EQUIPMENT SYSTEM					
122018	ROADWAY MACHINES	28,918,721.59	0.00	28,918,721.59	0.00	28,918,721.59
	TOTAL R/W ROAD ON EQUIPMENT SYSTEM	28,918,721.59	0.00	28,918,721.59	0.00	28,918,721.59
122040	TIES	294,353,042.85	0.00	294,353,042.85	0.00	294,353,042.85
122041	RAIL	529,670,671.55	0.00	529,670,671.55	0.00	529,670,671.55
122042	BALLAST	101,837,949.58	0.00	101,837,949.58	0.00	101,837,949.58
	STOTAL TRACK - RIGHT OF WAY PROPERTIES	925,861,663.98	0.00	925,861,663.98	0.00	925,861,663.98
#4	TOTAL-RIGHT OF WAY PROPERTIES	2,136,597,362.73	113,931.00	2,136,711,293.73	1,068,416.00	2,137,779,709.73
	OTHER PROPERTIES					
122001	LAND FOR TRANSPORTATION PURPOSES	40,385,813.71	0.00	40,385,813.71	0.00	40,385,813.71
122008	STATIONS & OFFICE BUILDINGS	425,758,474.55	489,466.99	426,247,941.54	4,190,753.95	430,438,695.49
122012	SHOPS & ENGINE HOUSES	223,071,287.31	395,789.00	223,467,076.31	0.00	223,467,076.31
122020	SHOP MACHINERY	24,760,750.07	0.00	24,760,750.07	298,648.21	25,059,398.28
122022	COMPUTER EQUIPMENT	68,030,820.23	3,975,057.00	72,005,877.23	0.00	72,005,877.23
	STOTAL OTHER PROPERTIES	782,007,145.87	4,860,312.99	786,867,458.86	4,489,402.16	791,356,861.02
	RECORDED ON EQUIPMENT SYSTEM					
122008	STATIONS & OFFICE BLDGS	133,563.75	0.00	133,563.75	0.00	133,563.75
122012	SHOPS & ENGINE HOUSES	82,000.00	0.00	82,000.00	0.00	82,000.00
	TOTAL OTHER ROAD ON EQUIPMENT SYSTEM	215,563.75	0.00	215,563.75	0.00	215,563.75
#5	TOTAL OTHER PROPERTIES	782,222,709.62	4,860,312.99	787,083,022.61	4,489,402.16	791,572,424.77
(Pg 2.4-6)	TOTAL OWNED PROPERTY (122000 A/C's)	2,918,820,072.35	4,974,243.99	2,923,794,316.34	5,557,818.16	2,929,352,134.50

AMTRAK
G/L BALANCES FOR PROPERTY ACCOUNTS
3RD QUARTER FISCAL YEAR 1997

FIS (REVISED 10/95) RECONCILIATION PAGE #2

ACCT #	COMPANY. 2, LEASEHOLD IMPROVEMENTS ACCOUNT TITLE	BALANCE 03 / 31 / 97	APRIL 1997	BALANCE 04 / 30 / 97	MAY 1997	BALANCE 05 / 31 / 97
	RIGHT OF WAY PROPERTIES					
123002	GRADING	365,673.66	0.00	365,673.66	0.00	365,673.66
123003	OTHER R/W EXPENDITURES	0.00	0.00	0.00	0.00	0.00
123004	TUNNELS & SUBWAYS	0.00	0.00	0.00	0.00	0.00
123005	BRIDGES, TRESTLES, & CULVERTS	11,810,726.23	0.00	11,810,726.23	0.00	11,810,726.23
123007	FENCES, SNOWSHEDS, & SIGNS	98,810.42	0.00	98,810.42	0.00	98,810.42
123009	ROADWAY BUILDINGS	364,309.24	0.00	364,309.24	0.00	364,309.24
123010	WATER STATIONS	745,767.59	0.00	745,767.59	0.00	745,767.59
123011	FUEL STATIONS	277,694.68	0.00	277,694.68	0.00	277,694.68
123013	COMMUNICATION SYSTEMS	445,591.43	0.00	445,591.43	0.00	445,591.43
123014	SIGNALS & INTERLOCKERS	3,187,898.35	0.00	3,187,898.35	0.00	3,187,898.35
123015	POWER PLANTS	218,613.85	0.00	218,613.85	0.00	218,613.85
123016	POWER TRANSMISSION SYSTEMS	1,211,976.20	0.00	1,211,976.20	0.00	1,211,976.20
123018	ROADWAY MACHINES	0.00	0.00	0.00	0.00	0.00
123019	PUBLIC IMPROVEMENTS-CONSTRUCTION	3,729,644.90	0.00	3,729,644.90	0.00	3,729,644.90
123021	POWER PLANT MACHINERY	0.00	0.00	0.00	0.00	0.00
	STOTAL – RIGHT OF WAY PROPERTIES	22,456,706.55	0.00	22,456,706.55	0.00	22,456,706.55
122040	TIES	11,769,178.19	0.00	11,769,178.19	0.00	11,769,178.19
122041	RAIL	44,164,653.63	0.00	44,164,653.63	0.00	44,164,653.63
122042	BALLAST	2,603,436.80	0.00	2,603,436.80	0.00	2,603,436.80
	STOTAL TRACK – RIGHT OF WAY PROPERTIES	58,537,268.62	0.00	58,537,268.62	0.00	58,537,268.62
	TOTAL – RIGHT OF WAY PROPERTIES	80,993,975.17	0.00	80,993,975.17	0.00	80,993,975.17
	OTHER PROPERTIES					
123001	LAND FOR TRANSPORTATION PURPOSES	0.00	0.00	0.00	0.00	0.00
123008	STATIONS & OFFICE BUILDINGS	120,607,422.41	5,548,091.00	126,155,513.41	(1,187,630.45)	124,967,882.96
123012	SHOPS & ENGINE HOUSES	2,980,453.59	0.00	2,980,453.59	0.00	2,980,453.59
123020	SHOP MACHINERY	177,474.91	0.00	177,474.91	0.00	177,474.91
123022	COMPUTER EQUIPMENT	0.00	0.00	0.00	0.00	0.00
	STOTAL – OTHER PROPERTIES	123,765,350.91	5,548,091.00	129,313,441.91	(1,187,630.45)	128,125,811.46
#6	TOTAL – LEASEHOLD IMPROVEMENTS	204,759,326.08	5,548,091.00	210,307,417.08	(1,187,630.45)	209,119,786.63

AMTRAK
G/L BALANCES FOR PROPERTY ACCOUNTS
3RD QUARTER FISCAL YEAR 1997

FIS (REVISED 10/95) RECONCILIATION PAGE #3

ITEM #	TOTAL OWNED PROPERTY FIXED ASSET CATEGORY TITLE	BALANCE 03 / 31 / 97	APRIL 1997	BALANCE 04 / 30 / 97	MAY 1997	BALANCE 05 / 31 / 97
	FIXED ASSET PORTION OF THE CONSOLIDATED BALANCE SHEETS					
#1	LOCOMOTIVES	737,311,191.38	77,402,032.50	814,713,223.88 **	10,681,986.75	825,395,210.63
#2	PASSENGER CARS	1,916,914,520.02	(79,284,228.32)	1,837,630,291.70 **	16,088,673.33	1,853,718,965.03
#3	OTHER ROLLING STOCK	97,331,504.91	119,544.00	97,451,048.91	0.00	97,451,048.91
#4	RIGHT OF WAY PROPERTIES	2,136,597,362.73	113,931.00	2,136,711,293.73	1,068,416.00	2,137,779,709.73
#5	OTHER PROPERTIES	782,222,709.62	4,860,312.99	787,083,022.61	4,489,402.16	791,572,424.77
#6	LEASEHOLD IMPROVEMENTS	204,759,326.08	5,548,091.00	210,307,417.08 *	(1,187,630.45)	209,119,786.63
	TOTAL – FIXED ASSET PORTION	5,875,136,614.74	8,759,683.17	5,883,896,297.91	31,140,847.79	5,915,037,145.70

* A/C 123008 and 123012 of Co 2 have duplicate capitalization of $378.470.0
It will be adjusted in the F.I.S. with J.E. in April.

** Difference of $1,430,928.50 between Item #1 and #2 as of 04/30/97 Balance
It will be adjusted in 05/97 with correct J.E. Codes.

NATIONAL RAILROAD PASSENGER CORPORATION EQUIPMENT COLLATERAL

Project description	Equipment cost	Outstanding balance	Number of units
Encumbered through Financing			
Viewliners	$67,754,183	$67,754,183	50
Superliners	263,523,402	259,295,962	112
Do	19,643,148	19,643,148	7
Do	64,211,589	63,989,961	23
Do	37,634,372	37,634,371	13
Do	19,552,189	19,436,013	7
Do	31,851,793	31,851,792	11
Do	63,740,830	63,740,829	22
Subtotal	500,157,323	495,592,076	195
Material handling cars	22,197,000	20,483,220	70
Locomotives	28,600,000	27,935,012	11
Do	83,200,000	80,316,410	32
Subtotal	111,800,000	108,251,422	43
Horizon	108,150,462	92,669,314	103
GE Dash 8 locomotives	31,872,604	29,453,302	18
F40 locomotives	16,200,000	14,494,622	9
AEM 7	25,776,800	21,225,220	7
Base order GE locomotives	83,200,000	83,200,000	32
Do	52,000,000	52,000,000	20
Do	33,800,000	33,800,000	13
Do	36,400,000	36,400,000	14
Do	49,400,000	49,400,000	19
Subtotal	254 800,000	254,800,000	98
Option order GE locomotives	13,000,000	13,000,000	5
Subtotal	13,000,000	13,000,000	5
10 duel mode locomotives	34,159,605	33,864,264	10
Subtotal	1,185,867,977	1,151,587,622	608
Uncollaterized Financings			
WRSO	11,700,000	4,095,000	N/A
Wreck repair	28,500,000	3,000,000	N/A
CUS garage	20,000,000	20,000,000	N/A
30th Street—Term loan	33,100,486	7,505,775	N/A
30th Street—Bonds	30,000,000	30,000,000	N/A
Total	1,309,168,463	1,216,188,397	608

Question. Please describe ongoing or planned commercial development of Corporation assets that Amtrak believes will net a profit in fiscal year 1998.

Answer. Amtrak is continuing to pursue numerous Commercial Development initiatives which create net profits for the corporation. These initiatives include commercial leasing of space within corporate owned stations and along the right-of-way, including leases for telecommunications purposes, parking leases and development, advertising sales and property sales and development. The net profit associated with Amtrak Commercial Development projects is estimated to be at least $33 million dollars in fiscal year 1998.

STRATEGIC CAPITAL PLAN

Question. A total of approximately $1,100,000,000 in capital funding is assumed by Amtrak for fiscal year 1998, $751,000,000 of which is to be provided by federal appropriations (through a dedicated trust fund or reserve fund, or directly appropriated funds). Amtrak's capital plan projects spending $1,440,000,000 in fiscal year 1998, for a capital net loss of $341,500,000. Does it make sense to deliberately set out to spend more than the "best case scenario" plans to bring into the capital program?

Answer. Amtrak has identified its investment needs based on the implementation of high-speed rail and other high return projects which will help move Amtrak toward operating self-sufficiency. The spending needs, as projected, approximately equal the revenue generated by the ½ cent of the existing gasoline tax. However, there are spending peaks and valleys in those projections which, if "smoothed," could create delays in completing critical programs. With a secure, dedicated source of capital funding such as a trust fund with revenues equal to those generated by ½ cent of the current gasoline tax and with contract authority, Amtrak anticipates that it would be able to obtain short-term financing for the shortfall in capital needs in fiscal year 1998. However, without the guarantee of such a stable source of capital funding, such short-term financing would likely not be possible.

Question. Please describe the current status of efforts to secure a dedicated trust fund or reserve fund for Amtrak.

Answer. The Amtrak Reserve Fund is included in Section 207 of H.Con.Res. 84, the concurrent congressional resolution on the budget, and codified in S. 949, the Senate-passed Revenue Reconciliation Act of 1997. S. 949 also establishes a three and one-half year, $2.323 billion Intercity Passenger Rail Fund, which is a deficit neutral and fully offset dedicated source of capital for Amtrak. This fund is subject to the annual appropriations process and is the key to Amtrak's survival.

STATE CONTRIBUTIONS TO CAPITAL NEEDS

Question. Amtrak plans that a portion of its capital needs are to be met through state and local financial contributions. For example, in 1995, Amtrak assumed state contributions would double over the years. To what extent have states increased their contributions since then?

Answer. Amtrak continues to expect a portion of its capital needs to be met through state and local financial contributions. Since 1995, the contributions are as follows (including future expectations):

1996	$89,100,000
1997	115,700,000
1998	49,300,000
1999	33,200,000
2000	50,000,000
2001	50,300,000
2002	50,300,000

While it may appear that future support is diminished, Amtrak has only included obligations from states and localities which have entered into agreements with Amtrak. Most state and local support is approved on a year-by year basis during the fiscal budgeting cycle, and we would expect the later years to increase accordingly.

Question. Does Amtrak still assume that state contributions will fully cover the cost of some state routes by fiscal year 1998? If so, what is the likelihood of this event occurring and what actions is Amtrak taking to bring this aspect of its plan to fruition?

Answer. In 1995, Amtrak began negotiations to have the relevant states reimburse Amtrak for fully allocated costs. The original goal was to have states assume fully allocated costs by fiscal year 1999. This policy proved unworkable because:

—it rapidly imposed costs for which the states have no dedicated funds.

—there are significant differences between the state services and each state's ability to contribute. For example, the Texas rail service differs greatly from the Pennsylvania service.

—Amtrak historically has not had a "one size fits all" agreement with our states.

Therefore, in late 1996, Amtrak developed an individually negotiated approach with each (former 403B states, and now Texas as a new contract service state). This allows for each state to develop a contract with its Strategic Business Unit that includes pricing for train operations, shared overhead expenses, state specific services (i.e. The Vermonter) and equipment lease costs. Beyond these changes, there are other negotiable items such as long term capital contributions, contract term incen-

tives and specific performance guarantees (such as the recent agreement with Illinois).

Amtrak's business plan through 2002, forecasts growth in state revenues (403B) from $32.6 million in fiscal year 1994 up to $73.6 million in 2002. Increased "flexible funding" in NEXTEA will be the mechanism which will enable states to cover a greater portion of the costs for rail services delivered by Amtrak.

REVENUE AND DEBT

Question. Please display the Corporation's total revenues by fiscal year for 1996, 1997, and requested for 1998, breaking out revenue in four subdivisions: (1) internally generated or prior existing funds; (2) federal appropriations further broken down by operating and capital; (3) state and local funds; and (4) external financing.

Answer.

REVENUES, APPROPRIATIONS, AND FINANCINGS

[Millions of dollars]

	Fiscal year—		
	1996	1997 forecast	Requested 1998
1. Prior existing funds [1]	N/A	N/A	N/A
2. Revenues	1,490.6	1,540.8	.....
3. Federal appropriations:			
Operating + excess RRTA	405.0	364.5	.....
Capital	345.0	398.0	.....
One-time grant	.....	80.0	.....
4. State and local funds	66.1	69.0	.....
5. External financing	188.5	213.3	.....

[1] Amtrak does not have existing revenue that carries over from year to year.
The fiscal year 1998 budget is a work in progress and there are no statistics for 1998.

Question. Please display the Corporation's total end-of-year debt load for the past ten fiscal years (1988–1997 projected), broken out by year.

Answer.

Debt obligation	*Balance*
1988 actual	$35,900,000
1989 actual	126,500,000
1990 actual	183,800,000
1991 actual	287,900,000
1992 actual	418,800,000
1993 actual	492,300,000
1994 actual	770,300,000
1995 actual	836,900,000
1996 actual	986,900,000
1997 projected [1]	1,216,200,000

[1] Fiscal year 1997 projection as of May 1997.

Question. Amtrak's debt level has significantly increased, correspondingly increasing interest payments. For example, over the last four years interest payments have tripled from about $20.6 million in fiscal year 1993 to about $60.2 million in fiscal year 1996. As Amtrak assumes more debt to acquire more equipment, what portion of the federal operating subsidy will be used for interest payments over the next five years?

Answer. Amtrak's current outyear projection as of July 3, 1997 for interest expense, based on all known financings, are as follows: Fiscal year 1998, $98,200,000; fiscal year 1999, $94,200,000; Fiscal year 2000, $114,400,000; Fiscal year 2001, $137,200,000; fiscal year 2002, $133,000,000; and fiscal year 2003, $127,900,000. However, how much of that will be funded by federal operating subsidy has yet to be determined. It clearly will not be the entire amount.

Question. How much current movement of freight railroads occurs over Amtrak-owned trackage? Please specifically detail where this occurs, which railroads utilize Amtrak's trackage, and what arrangements exist for recompense. How much revenue was generated by these arrangements in fiscal years 1995, 1996, and projected for 1997?

Answer. The current movement of freight railroads that occurs over Amtrak-owned trackage is approximately 22 million car miles per annum.

The locations where freight railroads utilize Amtrak's trackage is as follows:

—Northeast Corridor: Conrail; St. Lawrence & Hudson Railway (Delaware & Hudson Railway Company[1]); Springfield Terminal; Providence & Worcester; and Connecticut Southern Railroad.[2]

—Chicago (South Joint Tracks): Burlington Northern Santa Fe Railway Company; Illinois Central Railroad Company; and Consolidated Rail Corporation.

—Indiana and Michigan—Porter, Indiana, to Kalamazoo, Michigan: Consolidated Rail Corporation.

The arrangements that exist for recompensation are the various operating agreements between Amtrak and the freight railroads that specify rates per car mile. Those rates range from $0.33 cents per car mile in Michigan to $0.90 cents per car mile on the Northeast Corridor.

Revenue generated by these arrangements in fiscal years 1995, 1996 and projected for 1997 is as follows: Fiscal year 1995, $18,717,762; fiscal year 1996, $19,083,744; and fiscal year 1997 projected, $15,146,558.

Over the past ten years, thanks in large part to Senator Lautenberg's leadership with respect to rail safety, including his sponsorship of amendments to the Rail Safety Act of 1988, we have implemented many critical railroad operating safety measures across the Amtrak system and on the Northeast Corridor. These include:

—Speed control for Amtrak, commuter, and freight trains on the NEC.

—Random drug and alcohol testing for hours of service employees.

—Improvements to engineer certification and recertification processes.

—Improved audit and enforcement procedures.

Thanks to these efforts, Amtrak is prepared to safely support limited, selective, and compatible competitive freight access to ports along the Northeast Corridor that might flow from merger decisions.

The Northeast Corridor could play a role to help facilitate access to ports along the eastern seaboard, spur economic competitiveness and development in this region, and generate new commercial revenue in the context of declining federal operating support for Amtrak. However, Amtrak stresses that increased access would only be considered within the context of absolute and overriding protocols relating to operating safety. We are inflexible on this. This includes the measures listed above as well as assessment of the locations and time slots in the Northeast which may offer these opportunities—generally, those locations and periods of time that are lightly-used by passenger rail services.

Other than the primary concern of safety, two other concerns would also weigh heavily in our consideration of incremental freight access. One, on time performance for Amtrak and commuter trains on the Northeast Corridor will not be jeopardized. Two, any additional burden placed on Amtrak's infrastructure (tracks, bridges, etc.) by increased traffic or increased axle loads will be carefully established to ensure full compensation for wear and tear as well as useful life impacts.

Question. What commuter railroads currently operate over Amtrak-owned trackage? Please specifically detail where this occurs, which commuter railroads utilize Amtrak's trackage, and what arrangements exist for recompense. How much revenue was generated by these arrangements in fiscal years 1995, 1996, and projected for 1997?

Answer.

[Dollars in millions]

Commuter agency	Fiscal year—				
	1992	1993	1994	1995	1996
MBTA,[1] MA	$7.0	$7.4	$7.2	$14.7	$7.3
NJ Transit, NJ	25.4	26.7	28.9	28.3	25.5
SEPTA, PA	16.9	16.7	17.5	18.1	18.7
LIRR, NY	3.1	3.5	3.4	2.4	2.1
NIRC-CUS, IL	5.4	6.0	6.5	7.4	7.9
Other	.....	0.1	.....	0.1	.....

[1] Service ended March 31, 1997.

[2] Service commenced September 23, 1996.

[Dollars in millions]

Commuter agency	Fiscal year—				
	1992	1993	1994	1995	1996
Total revenue	57.8	60.4	63.5	71.0	61.5

[1] Fiscal year 1995 includes a $7.5 million retro-active settlement covering fiscal year 1988 thru fiscal year 1995. The fiscal year 1997 revenues are still being developed.

ELECTRIC PROPULSION

[Dollars in millions]

Commuter agency	Fiscal year—				
	1992	1993	1994	1995	1996
NJ Transit	$13.2	$13.6	$13.0	$12.0	$11.2
SEPTA	7.8	7.8	7.7	6.9	10.6
Maryland DOT [1]	.....	.....	.....	.....	.....
Total revenue	21.0	21.4	20.7	18.9	21.8

[1] Maryland DOT Propulsion costs are in Contract Operations.

The Northeast Corridor is a critical and valued part of the region's transportation infrastructure. Over 1,200 commuter, freight and Amtrak trains daily use the corridor. Commuter railroad recompense is governed by principles laid down in federal statute and regulatory decisions.

More so than operating fees, investments in the extensive capital plant of the Northeast Corridor are critical to the survival of Amtrak and commuter railroads. Amtrak has aggressively pursued joint investment partnerships with commuter authorities to encourage increased investment in the capital asset of the Northeast Corridor.

One example of the joint capital investment partnerships which Amtrak is using as a model is the Amtrak and NJ Transit agreement which commits both parties to invest $25 million each for the next five years. This will give NJ Transit a direct voice in the decision making process for capital investments, guarantees investments from Amtrak for the benefit of New Jersey, and permits both entities a better ability to engage in long-term planning for the infrastructure needs of New Jersey. Similar capital partnership agreements have been developed in Maryland, Virginia, the District of Columbia, Delaware, New York and Pennsylvania.

Question. Amtrak has many ongoing strategies to decrease costs and/or generate additional revenue. For each of the following strategies, please estimate the annual savings or additional revenue for fiscal years 1998, 1999 and 2000.

Answer. The following table represents a preliminary estimate of the impact from revenue enhancements or cost reduction efforts based on the following Business Plan Actions for fiscal years 1998–2000. These estimates are from Amtrak's fiscal year 1998–2000 Business Plan which is currently being updated.

Business plan action	Fiscal year—		
	1998	1999	2000
High-speed rail	.....	(7.3)	93.1
Self service ticketing (NEC, West)	1.8	1.8	1.8
Procurement	7.7	8.3	8.9
Route and service changes	21.6	19.7	19.7
Real estate sales and leases	2.8	2.8	2.8
Insourcing and consulting (NEC)	1.0	1.5	2.0
Reduction in operating costs due to capital investment	([1])	.....	.....
Power wheeling (NEC)	15.6	34.5	36.5
Food and beverage initiative (NEC)	(3.0)	5.6	5.6
Telecommunications (NEC)	2.0	1.0	1.0
Station development	N/A	N/A	N/A

Business plan action	Fiscal year—		
	1998	1999	2000
Training (NEC, intercity)	(4.0)	(2.0)	(4.0)
Commuter—Total revenue	249.5	249. 9	250.3
State supported trains	77.6	78.7	79.3

[1] Fiscal year 1998 projects under review.

OPERATING EXPENSES—FUNDING ISSUES

Question. Please display the annual federal operating grant and mandatory passenger rail service payments for fiscal years 1988 through 1997.

Answer.

[Dollars in millions]

Fiscal year	Federal operating grant	Excess RRTA
1988	$580.8	([1])
1989	584.0	([1])
1990	520.1	([1])
1991	342.1	$144.8
1992	330.0	150.2
1993	350.0	147.0
1994	351.7	150.0
1995	392.0	150.0
1996	285.0	120.0
1997	222.5	142.0

[1] Included in Block Grant.

Question. What is the historical per passenger subsidy for non-commuter passengers per year by fiscal year since Amtrak's creation?

Answer. The historical per passenger (trip) subsidy for non-commuter passengers is shown below since 1971. Federal operating grants decreased from $587 in fiscal year 1986 to $285 in fiscal year 1996, a 51.4 percent decline. The subsidy per passenger decreased from $28.92 per passenger in fiscal year 1986 to $14.47 per passenger in fiscal year 1996, representing a 49.8 percent decline, or a nearly 50 percent improvement in efficiency.

	Federal operating grant (millions)	Noncommuter ridership (millions)	Subsidy per passenger
Calendar years 1971/72	$40	27.2	$1.47
Fiscal year:			
1974	147	18.4	7.97
1975	277	17.3	15.98
1976	462	17.8	25.96
1977	483	19.2	25.14
1978	536	18.9	28.36
1979	600	21.4	28.04
1980	650	21.2	30.68
1981	720	20.6	34.96
1982	[1] 735	19.0	38.68
1983	[1] 670	19.0	35.26
1984	[1] 716	19.9	36.00
1985	[1] 680	20.8	32.69
1986	587	20.3	28.92
1987	579	20.4	28.38
1988	532	21.5	24.74

	Federal operating grant (millions)	Noncommuter ridership (millions)	Subsidy per passenger
1989	554	21.4	25.89
1990	520	22.2	23.42
1991	343	22.0	15.59
1992	331	21.3	15.54
1993	351	22.1	15.88
1994	352	21.2	16.60
1995	392	20.7	18.94
1996	285	19.7	14.47

[1] Received as Block Grant rather than Operating Grant.

Question. Please prepare a table showing Amtrak's cost to operate each strategic business unit, for fiscal years 1996, 1997, and requested for 1998.

Answer.

1996

[Dollars in millions]

Operating expenses	Intercity	NEC	West	Corp/Svc	Total
Salaries	$16.4	$42.1	$12.4	$43.7	$114.6
Wages and overtime	224.1	375.1	86.6	56.9	742.7
Employee benefits	102.5	176.4	41.7	33.4	354.0
Employee related	5.9	8.0	2.4	8.7	25.0
Facility and office related	46.7	62.4	15.2	57.0	181.3
Train operations	126.5	131.8	62.4	−0.1	320.6
M of W Good and Svs	4.2	51.4	3.7	0.1	59.4
Advertising and sales	53.5	23.7	10.8	20.5	108.5
Financial	78.1	36.1	18.3	16.5	149.0
Depreciation	80.1	142.0	14.7	1.2	238.0
Other	0.5	−30.1	3.9	51.1	25.4
Total expenses	738.5	1,018.9	272.1	289.0	2,318.5

1997 FORECAST

[Dollars in millions]

Operating expenses	Intercity	NEC	West	Corp/Svc	Total
Salaries	$18.2	$44.5	$12.7	$47.5	$122.9
Wages and overtime	229.7	378.4	88.3	59.6	756.1
Employee benefits	104.4	178.0	42.2	50.1	374.6
Employee related	7.3	9.6	2.6	9.6	29.2
Facility and office related	47.3	72.2	13.1	57.4	189.9
Train operations	153.1	143.6	66.3	−0.1	362.9
M of W Good and Svs	3.6	41.9	2.4	.....	47.9
Advertising and sales	47.1	30.0	6.6	15.2	98.8
Financial	97.0	41.7	23.7	1.4	163.9
Depreciation	99.7	143.7	16.1	1.5	261.0
Other	0.4	−24.1	4.6	65.1	46.0
Total expenses	807.9	1,059.5	278.5	307.3	2,453.2

Note: 1997 based on the eight months of actuals and four months of forecast.
Fiscal year 1998 business plan development is currently in progress.

Question. What is the current set cost which Amtrak must pay freight railroads to operate passenger rail over freight-owned trackage? How much of Amtrak's operating expenses went for this recompense in fiscal years 1994, 1995, and 1996? How much is estimated for fiscal year 1997?

Answer. The current expense which Amtrak must pay freight railroads to operate passenger rail over freight-owned trackage is the costing methodology employed under U.S.C. Title 49, Section 24308(a), the Rail Passenger Service Act.

The amount (and percentage) of Amtrak's operating expenses paid to the freight railroads to operate passenger rail over freight-owned trackage in fiscal years 1994, 1995 and 1996, and estimated for fiscal year 1997, is as follows: [3]

Fiscal year	Amount	Percent
1994	$89,728,000	3.7
1995	86,373,000	3.7
1996	84,246,000	3.6
1997 projected	88,946,000	3.6

Question. The Administration and the Congress have instructed Amtrak to be free from federal operating assistance by 2002. Although Amtrak has improved its bottom line by more than $300,000,000 over the last two years, significant improvements are necessary in the remaining years to meet the goal of operating self-sufficiency. Currently, Amtrak is significantly behind schedule in its plan to eliminate operating subsidies. In this regard, Amtrak's operating losses were $764,000,000 for fiscal year 1996, $125,000,000 more than planned for its business plan. How does Amtrak plan to get back on track and achieve all of its planned savings by 2002? What actions require legislative changes?

Answer. As noted in the question, Amtrak has improved its bottom line by over $300,000,000 on an annualized basis over the last two years. Yes, significant improvements are necessary in the remaining years if we are to meet the 2002 goal of operating independence. However, it should be noted that Amtrak has achieved this much of the plan without the three elements we have said were absolutely essential from the beginning: a secure and reliable source of dedicated capital; a declining level of operating support consistent with our business plan, and legislative relief from some of our statutory mandates. None of these things have occurred, yet we met and exceeded our target in the first year of our business plan. In the second year, despite having our operating needs underfunded by more than $125 million over the same two year period, we missed our plan target but more importantly, avoided losing any of the ground gained in fiscal year 1995. Should we in fact receive the dedicated source of capital we have sought, and an adequate amount of operating support as proposed in our Strategic Business Plan and included in the Congressional Budget Resolution, we do believe we can achieve independence from federal operating support by 2002.

Question. For over 25 years Amtrak has operated passenger rail service. With the exception of Metroliner service in fiscal year 1996, none of Amtrak's routes has made a profit or broken even, when all cost are allocated. What is the likelihood, given Amtrak's history, that the railroad can operate without federal operating funds?

Answer. As stated in the fiscal year 1997–2002 Strategic Business Plan as well as in the fiscal year 1998 Federal Grant Request, Amtrak's ability to operate without federal operating support is dependent on several key assumptions in order to meet that target by 2002. The implementation and operation of high-speed rail in 2000 will contribute $150–200 million, net of expense, to the corporation. Non-core business will contribute $50 million in fiscal year 1997, escalating to $80 million in the year 2002. Other key assumptions are the continued funding of excess mandatory RRTA payments at $142 million per year and a gradual reduction in federal operating support consistent with our request. Not included in the plan are initiatives such as significantly expanded mail and express. These will be included in the revised fiscal years 1998–2003 Strategic Business Plan. As we have consistently said, if we are provided with a secure and reliable source of capital, and the necessary legislative relief and declining levels of operating support, we will achieve the goal of operating self-sufficiency. Our Strategic Business Plan shows exactly how that will be achieved.

Question. Please provide the Committee a copy of the Working Group on Intercity Passenger Rail recommendations, released on June 23, 1997.

[3] Defined as total expenses as reported in Amtrak's applicable annual report.

Answer. "A New Vision for America's Passenger Rail" is attached.

A New Vision for America's Passenger Rail

INTRODUCTION

For millions of Americans, passenger trains signify more than just a means of transportation; they serve as potent symbols of our nation's heritage, environmental consciousness and collective hopes for a humane future. Many passionately argue that the United States has the capacity and indeed, the obligation, to create a world-class national passenger rail system to endorse these values and to arrest the growing unintended side-effects of automobiles and airplanes in our cities and countryside.

A more tangible and immediate argument for rail service can be weighed in straight financial terms. The United States is a diverse and increasingly mobile nation with a growing (as well as graying) population and an aging transportation infrastructure. It needs a well-integrated national transportation policy that offers a range of modal choices in order to maximize mobility and to minimize transportation costs, infrastructure funding requirements and environmental damage in a variety of settings.

Under the right conditions, passenger rail service can provide an attractive, financially sustainable transportation alternative that enhances efficiency of other modes (including cars, trucks, buses, airplanes and freight rail). Unfortunately, the conditions under which Amtrak currently operates do not allow for Amtrak to function as a true and equal alternative to other modes of transportation.

Amtrak is now awash in red ink, buffeted by conflicting missions and ballooning debt, and virtually starved for capital in both political and financial terms. Not surprisingly, revenues, ridership and service have ebbed despite valiant efforts by both management and labor to reverse these trends. Neither the Congress nor the Administration seems eager to increase or even continue Amtrak's subsidy, though each institution still exerts sizable control over its organization, operations and route structure. This control is often at odds with Amtrak's ability to operate efficiently and to maximize the value of its assets. Meanwhile, competing modes of transportation fight ruthlessly for every uncommitted traveler in Amtrak's shrinking market share.

Together these conditions create an untenable outlook for passenger rail in the United States. In the short range (the next 6 to 12 months), Amtrak faces a major liquidity crisis and probable bankruptcy. Unless the Congress moves swiftly to reconfirm the value of passenger rail service and dramatically restructure the way in which it is organized and operated, the substantial asset base of the existing system will permanently disappear by default, along with many vital long-range prospects for service.

A good measure of political and financial capital will be needed to avert this course; naturally, both elements are in short supply. Nevertheless, the U.S. government can claim a long and impressive tradition of large-scale problem solving, as in the creation of the interstate highway system and the notable improvement of the nation's air and water quality.

Genuine renewal of national passenger rail service will not be resolved by political rhetoric nor by periodic last-minute infusions of cash; rather, it requires that the Congress take a long, hard step back from the status quo in order to plot a viable, market-driven course for the future. The immediate pain and risks to existing rail service and jobs that may accompany this overhaul must be gauged carefully against the larger and longer-range havoc that assuredly would follow the further decline and liquidation of Amtrak.

More importantly, if passenger rail is to become a serious part of the nation's mobility strategy in the future—rather than a mere incantation of the past—it must operate in a profoundly more growth- and customer-oriented fashion. It must have the management tools, the flexibility, the incentives and the discipline posed by competition to vie with other modes of transportation on a level playing field.

CONTEXT

Fiscal

Amtrak has been in financial difficulty for most of its 26-year existence. In recent years, its financial condition has deteriorated to the point that Amtrak believes it may exhaust all sources of cash within the next 12 months. To reduce its continually growing losses and widening gap between operating deficits and federal subsidies, Amtrak developed its Strategic Business Plan. Although Amtrak has made some progress in implementing its business plan and cutting its losses, its financial

condition is still very precarious. Amtrak's financial measures continue to deteriorate. Financial targets have been missed, and substantial capital investment is needed.

Amtrak has lost over $700 million in each of the last 9 years. Amtrak has been relying on passenger revenues to help close the gap between revenues and expenses, but passenger revenues, when adjusted for inflation, have declined over the past several years. Half way through the current fiscal year, Amtrak began borrowing against its short-term line of credit to meet basic operating expenses, such as payroll. From 1993 to 1996, Amtrak's debt and capital lease obligations nearly doubled—from about $500 million to almost $1 billion dollars. Amtrak expects to incur another $1 billion in debt within the next 2 years to finance 18 train sets and related maintenance facilities for the Northeast Corridor and the acquisition of new locomotives. To service this increased debt, Amtrak must use a substantial portion of its federal operating subsidies that would otherwise be used to cover future operating deficits. Over the past 4 years, Amtrak's interest expenses have tripled from about $20 million to about $60 million.

The costs of an Amtrak bankruptcy cannot be underestimated. These include financial, social, and political. Every constituency would lose: state, local, and federal government, employees, customers, suppliers, taxpayers. The true cost of a bankruptcy would be billions of dollars. The resolution of such a bankruptcy is far from certain, as control of the process would be taken out of the hands of the government.

Support

After investing over $19 billion in Amtrak since 1971, Congress is losing patience with Amtrak's continued dependence on federal subsidies. Congress has promised to provide legislative reforms (labor, liability) and continued capital support in return for Amtrak's pledge to eliminate its need for federal operating subsidies by 2002. Amtrak has asked for a dedicated funding source for its capital needs, and there have been several bills introduced to accomplish this, but the outcome is uncertain.

While the Administration has stated its commitment to Amtrak's future, it has proposed a level of funding below Amtrak's stated needs to be provided from the Highway Trust Fund in its NEXTEA legislative proposal. The Administration's proposal would force Amtrak to compete with other surface transportation programs for the limited funding allowed by the budget from the Trust Fund. The Administration also supports the elimination of all federal operating subsidies for Amtrak by 2002. The current Congressional budget resolution makes additional resources for a possible inter-city rail trust fund contingent upon enactment of reform legislation.

The public's support for Amtrak is segmented among the geographic areas of the country. Its greatest support is in the Northeast, where Amtrak serves a substantial portion of the business travel between New York and Washington. In contrast, Amtrak's routes in other parts of the country are sparsely traveled. Amtrak's support among select user groups (retirees, leisure travelers), is higher than its support from the general population. Yet Amtrak's load factor (the percentage of seats filled) for fiscal year 1996 was 43.3 per cent on a system-wide basis, and ranged from 37.4 per cent to 47.3 per cent among its strategic business units. By comparison, a load factor around 60 per cent is generally considered the break-even point for airlines.

Access to freight railroads' facilities

Currently, Amtrak operates over the freight railroads' right-of-way for all routes except the Northeast Corridor, which Amtrak owns, and small route segments in New York State, Pennsylvania, and Michigan, also owned by Amtrak. Amtrak owned rights-of-way comprise less than 5 per cent of the company's current route system. Amtrak's access rights, in combination with its own right-of-way, form the nation's current intercity rail system, and therefore, these rights must be viewed as one of the most valuable of all of Amtrak's assets.

The freight railroads view the terms and conditions that govern Amtrak's access as entirely to their detriment, while Amtrak views its access rights as part of its compensation for having relieved the freight railroads of the obligation to provide passenger rail service. These viewpoints represent polar extremes and there needs to be satisfactory balance between the two positions.

There are three elements to the freight railroad/Amtrak relationship:

—*Access*—Amtrak has compulsory access to the freight railroads' right-of-way by virtue of a federal statute. In addition, by federal law, Amtrak must be given priority dispatching over freight trains.

—*Compensation*—Amtrak's payments to the freight railroads for its use of their right-of-way is specified by formula in federal statute according to incremental costs. The freight railroads claim that this formula forces them to subsidize Amtrak service.

—*Liability*—Current law and judicial interpretation of access agreements gives the freight railroads no protection against unlimited tort liability that comes with the presence of passenger trains on their tracks.

An additional element that exacerbates the freight/Amtrak relationship is the recent increase in freight traffic, which makes each train movement more valuable as capacity becomes constrained. The freight railroads claim that the incremental cost formula, in addition to not adequately covering the costs that Amtrak itself imposes, does not even address the opportunity cost of reduced freight movements due to Amtrak's presence. The freight railroads are very sensitive to new lines of business that Amtrak has proposed to undertake, such as hauling increased mail and express freight commodities that may encroach on their own business.

The Amtrak/freight relationship can be contrasted with the current system by which commuter authorities obtain access to freight railroad rights-of-way. Commuter railroads negotiate with the freight railroads at arms' length on a case-by-case basis with no federal statute compelling mandatory access. Compensation levels are established by mutual agreement. And in most cases, state law limits tort liability that can arise from a commuter rail accident.

A major task in designing a new format for intercity passenger rail will be to determine at what point in between the two options, i.e., the current Amtrak/freight relationship, and the freight/commuter relationship, a balance can be achieved that is fair and adequately provides for continued access by Amtrak and other potential intercity passenger rail operators.

Services and values

A renewed National Passenger Rail System (as one or more entities) should do two important things (in order of priority):

(1) Provide safe, reliable, comfortable convenient and financially-sound passenger rail service in all densely populated corridors of the United States that show declining air quality and presently or potentially intractable traffic congestion problems; and

(2) Encourage public/private development of attractive overnight passenger rail service, on a periodic basis throughout regions of the nation with significant cultural, historical and scenic character (e.g., a kind of "rolling national park") or where such service is justified on an economic basis.

The working group believes that a renewed passenger rail system should provide the maximum benefit to its customers and achieve operational excellence and efficiency. In addition, the system should be subjected to market discipline and financial accountability. Environmental protection and improvement, as well as national historic and cultural preservation should also be goals of a new passenger rail system.

RESTRUCTURING PROPOSAL

The working group believes that Intercity Passenger Rail is a major United States asset which is, for specific roles, superior to or complementary to competing modes. It should be supported and expanded. This, however, requires a commitment to broadened, secure investment in the basic infrastructure to permit competitive speeds and reliable operation in the major corridors of the country.

This infrastructure investment for passenger rail should properly be the responsibility of the Federal Government, as it is for the highways, ports, airports, and traffic control systems of the other modes. However, Amtrak is an anomaly. Competing modes do not own their infrastructure. Bus lines and autos use public highways, airlines use public airports, cruise ships use public waterway improvements. Thus, competing modes infrastructure needs are funded through long-established entities, e.g. FAA, FTA, the Corps of Engineers, etc. No such vehicle exists for the funding of passenger rail infrastructure. The working group recognizes that currently all major publicly owned rail infrastructure is in the Northeast Corridor, but it believes that there can be efficient use of Federal capital in rail for short and medium distance trips in several areas of the country.

While the working group believes that the costs of infrastructure investment and maintenance are properly the province of the Federal Government, it also believes that the operating costs of intercity rail travel should be met by its beneficiaries, particularly users and state and local governments and authorities. Again, this generally parallels competitive modes who are generally responsible for their operating costs. The working group also notes that typically several operators compete by using common public ports, highways, and airports, and this principle should be applicable to rail. Thus, opportunities for possible access by competitive operators in intercity passenger rail should be enhanced.

The working group believes that the separation of infrastructure ownership and management from passenger transportation responsibility is fundamental, and that it should be reflected in a basic division of governance. The separation of the infrastructure function from the passenger transportation function serves several purposes:

—It provides a clear demarcation between the ultimate federal infrastructure capital responsibility and the operating responsibility funded by beneficiaries. Accountability will therefore be made much clearer.

—It provides a mechanism whereby the merits of funding new rail corridor development can be assessed separately from criticism of the performance of the operator.

—It provides a mechanism to introduce new operators competitive to or comparative to Amtrak.

—It will enable Amtrak to focus its efforts on its principal day-to-day responsibility—providing and developing superior, efficient service to its users, not seeking support for its infrastructure capital program.

Amtrak's current responsibility for infrastructure planning, construction, and maintenance should therefore be separated from the responsibility of operating passenger service. Thus, a new federally owned corporation with its own governance would take responsibility for managing the track, signals, and other fixed infrastructure of the Northeast Corridor, along with capital investment in those new corridors that are envisioned for the future, while Amtrak would continue its passenger services operating role.

Initially Amtrak would be the only operator of intercity passenger transportation, but to encourage innovation and to match service to local interests, it would further decentralize by adding strategic business units in the Midwest and elsewhere. The working group also believes that the potential of intercity passenger rail will be improved if subject to competition from other modes and from other actual or potential providers of intercity passenger rail service and furthermore from a new focus on passenger service provision, as distinct from infrastructure management. Thus, eventually, provision would be made for other operators to compete with Amtrak on particular routes or in particular regions.

Establishing this newly structured passenger rail service environment will not be an instantaneous process, and therefore attention will need to be paid during the transitional period to ensuring a reasonable balance of benefits among various stakeholders in rail passenger service and among various regions of the country. Legislation to implement this proposal would provide that the infrastructure currently owned by Amtrak would be transferred to the new infrastructure management entity.

The new infrastructure management entity would:

—Determine infrastructure capital needs

—Request and expend Federal funding for passenger rail infrastructure

—Oversee rail operations on and manage its infrastructure

—Establish standards for selection of passenger rail operators.

In the long run, after standards for new passenger service operators are established, the infrastructure entity would establish competitive procedures for selecting passenger service operators and conduct competitions for the right to provide service. These procedures would provide for reasonable protection for employees adversely affected by the competition. We want to emphasize, however, that a properly structured reform of inter-city rail passenger service and the related infrastructure responsibilities offers real potential for stable, secure employment. The proposal is assumed to increase passenger rail jobs with the expansion of rail service in appropriate markets. Most of Amtrak's employees would continue to work under existing labor contracts. Some Amtrak employees, who currently work on infrastructure maintenance, would work for the new infrastructure entity, Amrail.

FUNDING

The working group assumes that there are essentially three alternatives: (1) no funding; (2) funding (with some minimal level of conditionality attached); and (3) bridge, or conditional funding. Clearly variations are possible, but all would include principal elements of one of these three alternatives.

The group has also assumed that the national passenger rail service contemplated is one where infrastructure management and development and passenger transportation services are non-overlapping and divided into two different operating entities.

The working group is also of the belief that fixed infrastructure capital funding and operating funding requirements must be viewed as distinct from one another. Additionally, both types of funding need to be more directed toward existing and po-

tential routes with the greatest demand and market potential, which are primarily the higher density inter-city corridors.

Fixed infrastructure capital funding amounts required would be determined by the new infrastructure manager and developer. The new entity would in turn request and expend federal funding for passenger rail infrastructure. Over the short term, the amount of such funding needs to be absolutely no less than called for in the Amtrak strategic plan. Longer term, these amounts must be increased significantly and placed in a more secure manner.

Operating funding requirements arise at the transportation service provider level, and in the group's view should be minimized through strict oversight and market discipline. Start-up operating funding requirements should be factored into the initial years of the operation, possibly for 5 years.

The group has identified two types of funding requirements: short term, or bridge funding, and longer term funding. These are discussed further below.

Alternative 1: No Funding ("Bankruptcy")

Based on statements made by both Amtrak senior management as well as several government transportation officials in the past six months, it appears irrefutable that (i) Amtrak is not financially self-sustainable, and; (ii) Amtrak has borrowings and other financial payment obligations that place it in real danger of bankruptcy if these obligations are not met.

The costs of an Amtrak bankruptcy cannot be underestimated. These include financial, social, and political. Every constituency would lose: state, local and federal government, employees, customers, suppliers, taxpayers. The true cost of a bankruptcy would cost billions of dollars. The resolution of such a bankruptcy is far from certain, as control of the process would be taken out of the hands of the government.

Although frequently used as a tool to precipitate wholesale corporate reorganization, bankruptcy for Amtrak would most likely ensue in chaos. This outcome should be seen as most undesirable.

Alternative 2: Funding (assumes encouragement of existing management to get on with their plan)

Amtrak has cost U.S. taxpayers almost $1 billion per year since its inception twenty six years ago. Funding has been irregular, and its operating plan impaired, resulting in yearly underfunding by Congress, and declining levels of corporate performance including bigger operating losses, fewer passengers, fewer routes, and poorer service. Monies marked for capital improvements have been spent on covering debt service, resulting in a chronic underinvestment for the future.

Many reforms were launched by the company in the 1993–94 period, aiming at reversing this decline. Broadly speaking, these have not paid off. Today, Amtrak finds itself once again cap in hand asking for money that it claims will support the achievement of a self-sufficiency plan that is generally acknowledged by many outside Amtrak as wholly unrealistic. Specifically, many if not most of the tenets of this plan (on which the funding request is predicated), include sources of revenue which are unproven on a broad scale (e.g. high speed trains, express delivery, freight carriage). Management is fighting with, or staving off, creditors, freight carriers, Congress, and labor, to name a few. Credibility is beyond repair without a real fresh start.

The Clinton Administration, and many within Congress, have put proposals forward to fund a portion of Amtrak's needs, but none would come close to solving Amtrak's problems. By Amtrak's own admission, this approach will merely postpone a true crisis. A true crisis would be akin to bankruptcy, with many of the attendant costs. In fact, Amtrak management has gone on the record stating that even if all of its request for funds was met, Amtrak would still be in an extremely precarious position.

It would seem logical to conclude from this that simply funding Amtrak when it is running with a poorly articulated plan and little hope of success would seem to be irrational, a true waste of taxpayers' money and in fact only serve to defer and potentially exacerbate the problems.

Alternative 3: Conditional Funding

The notion of conditional funding incorporates two concepts. Firstly, that bankruptcy must be avoided (i.e., funding must be made available) and secondly that such funding as is granted must be done within the context of the implementation of one or a set of mechanisms/reforms designed to improve the performance of Amtrak for its owner, users, and employees.

Such funding naturally breaks down in two parts: (i) short term funding to avert the immediate crisis and allow the reforms to be implemented; and (ii) longer term funding that allows for the flourishing of the model that is implemented. It is our

belief that alternative sources of funding will become accessible as a direct result of a credible reform process being implemented. Some of these are discussed further below.

How much money, for how long and from where?

Under (i) above, short term funding should be provided in an amount that lies between the current funding request of Amtrak and the Administration's proposal. This funding should be made to be as short term as possible to encourage urgency in implementing reform. A term of 12 to 18 months is seen as realistic. In other words, fund Amtrak exactly as much as it needs to avoid bankruptcy during the implementation of reforms over a specific and defined time period. This funding must be sourced from the readiest sources of cash, i.e., the normal Amtrak appropriation.

Regarding (ii) above, the amount required on a regular basis will depend on the plan adopted. Sources will vary depending on the use of funds, but the implementation of various reforms will certainly impact the funding sources available, as discussed further below. This funding should be regular and predictable, for greatest ease for both the recipient as well as the donor. It should be subject to periodic review, or certain performance or other events should trigger such a review.

In light of current budgetary constraints, and yet the clear need to provide a regular, predictable, and stable infusion of capital investment in inter-city passenger rail infrastructure, Congress should consider creative and innovative procedures for infrastructure assistance. Merely renewing calls for "dedicated" funding sources without exploring new and more adaptable funding mechanisms is unlikely to produce constructive results. In the past, many such proposals for "dedicated" funding have foundered on the philosophical objection of states with little or no inter-city passenger rail service to making forced tax contributions to states with substantial amounts of such service.

We have not attempted to select a single funding mechanism to recommend to the Congress. We are agreed that stability is an essential element of such funding, and that greater creativity needs to be exercised in selecting potential funding mechanisms. As part of our deliberations, we did discuss two examples of innovative funding mechanisms. Although we are not recommending these specific approaches, they are offered here as purely illustrative examples of the general type of non-traditional mechanisms we recommend the Congress examine.

First, one potential technique for addressing the perennial issue of fairness among "rail" and "non-rail" states might be to authorize at the federal level a state-option portion of the federal gasoline tax. This would permit states who wished-either alone or in concert with other participants in multi-state compacts-to participate directly in passenger rail capital funding to opt for some additional increment of gasoline tax to be used for this purpose.

Another example would be to expand and modernize the guaranteed loan programs of the 1976 Railroad Revitalization and Regulatory Reform ("4R") Act. These programs are already targeted toward rail infrastructure needs. Under current law, the "subsidy component" or "risk premium" supporting such guaranteed loans may be funded only through on-budget federal appropriations. If these functional equivalents of security deposits could be provided by outside entities (such as state governments or private parties), substantial amounts of infrastructure capital might be made available with minimal budgetary impact.

CONCLUSION

A majority of the working group is of the view that a division between infrastructure management and operations affords the best chance for the preservation and renewal of passenger rail service in this country. Amtrak has operated for too long under conditions that no business could endure. The problems do not lie with Amtrak management or Amtrak labor, but rather with the basic structure that was established when Amtrak was created in 1971. Amtrak's mission is vaguely defined, its funding has never been adequate for a true national system and it has been burdened with expensive legal mandates.

The majority believes that intercity rail should be placed on the same structural footing as other modes of transportation. This would include a stable and permanent commitment by the Federal Government to fund the infrastructure costs of intercity passenger rail. It would also mean the elimination of operating subsidies for operators of passenger rail, and the introduction of competition among these operators.

MINORITY COMMENTS

JAMES J. FLORIO AND CARL VAN HORN

The majority of the Working Group on Intercity Rail sets the right note at the outset of their report by emphasizing the important role that intercity passenger rail plays in reducing airport and highway congestion and improving air quality, and urges the preservation and enhancement of intercity passenger rail service in order to achieve these objectives. The report also advances the admirable goal of increasing the Nation's investment in intercity passenger rail infrastructure, especially in densely travelled corridors where high-speed rail service is a realistic alternative. The report proposes to achieve these goals by separating ownership of passenger rail infrastructure from responsibility for passenger rail operations. We have examined this proposal carefully, however, and have concluded that it is unlikely to solve the existing problems of intercity passenger rail service in the United States. In fact, we believe that, if adopted, it would create difficult new problems.

The majority report establishes two goals for reforming and restructuring Amtrak:

(1) Provide safe, reliable, comfortable, convenient, and financially sound passenger rail service in all densely populated corridors of the United States that show declining air quality and presently or potentially traffic congestion problems; and

(2) Encourage public/private development of attractive overnight passenger rail service, on a periodic basis, throughout regions of the nation with significant cultural, historical, and scenic character (e.g., a kind of "rolling national park").

We believe the proposals advanced by the majority report fail to achieve either goal. We believe that, if implemented, they are likely to reduce investment in passenger rail infrastructure and reduce service on most interstate routes, whether those routes are on high-density corridors or in regions of the country with significant cultural, historical, and scenic character.

We believe that our colleagues come at their proposal largely due to an unwarranted pessimism about Amtrak's prospects. They are unduly critical of Amtrak's management, unduly critical of Amtrak's Strategic Business Plan, and unduly critical of the market potential for Amtrak's services. The majority report is also unnecessarily pessimistic about Congressional support for Amtrak. Senator Roth has recently introduced legislation to create a $2 billion reserve fund for Amtrak that has attracted broad support in the Senate. While the majority report claims that there is "very little support for the long-distance routes," that is contradicted by the fact that the Senate added a special provision in last year's Omnibus Appropriations Act adding $22.5 million to Amtrak's appropriation to save four long-distance routes. Senator Lott has become a leading supporter of Amtrak, primarily because of his support for a long-distance route passing through the State of Mississippi.

There is No Compelling Rationale for Restructuring

The proponents of restructuring Amtrak have not put forth any compelling rationale for changing the current structure. The majority report cites four purposes that are served by their restructuring proposal; on closer examination, none of the four purposes is actually achieved.

First, the majority report suggests that the proposal would enhance accountability by providing "a clear demarcation between the ultimate infrastructure capital responsibility and the operating responsibility funded by beneficiaries." Yet the way in which the infrastructure entity is established would muddy this responsibility, because the infrastructure entity would be responsible not only for managing the infrastructure, but also for establishing standards for selecting operating companies. The "infrastructure" entity would thus be setting service standards for operations and be involved both as a supplier to the operating companies (by selling them access to the infrastructure) and as a regulator of those companies (by selecting who can use the infrastructure and what service standards they must meet). In any case, separating the infrastructure and operations roles is unlikely to enhance accountability. When problems develop, the operating companies are likely to blame the infrastructure company for failing to maintain the infrastructure properly, while the infrastructure company is likely to blame the operating companies. When both infrastructure and operations are the responsibility of the same company, accountability is clear and undivided. There is no one else to blame.

Second, our colleagues suggest that separating ownership of the rails from operations will create greater infrastructure investment from the public and private sector. They argue that having an entity whose sole responsibility is infrastructure will encourage Congress to invest more in high-speed rail infrastructure in appropriate high-density corridors around the country without being distracted by arguments about the performance of the rail service operator (Amtrak).

In our view, the impediment to high-speed rail has been constraints on the federal budget resulting in budget caps on all infrastructure investment, not structural problems with Amtrak. In 1994, the Congress declined to approve the Clinton Administration's request to finance high-speed rail development, despite the fact that these funds would have been spent independently of Amtrak. Since 1991, the Congress has declined to appropriate any of the $725 million authorized for maglev development by the Intermodal Surface Transportation Efficiency Act, none of which would have been managed by Amtrak. This year, Congress is considering a request for $300 million for development of the high-speed rail project in Florida, which would be managed independently of Amtrak; however, thus far the Florida congressional delegation has not strongly supported the request.

Third, our colleagues suggest that separating infrastructure management from operations will facilitate the introduction of new competitors to Amtrak. For virtually all of the Amtrak system, ownership of the infrastructure is already separate, in the hands of the freight railroads, so there are already opportunities for competition over the rails that Amtrak does not own. In any case, it is not clear why new competitors are needed, since there is plenty of competition already from other modes of transportation. As the majority report itself states in its Introduction, ". . . competing modes of transportation fight ruthlessly for every uncommitted traveler" who rides on Amtrak.

Fourth, the majority report also argues that separating infrastructure from operations will benefit Amtrak by eliminating the need for Amtrak to seek support for its infrastructure capital program. We believe this argument is exceedingly naive. Amtrak's success will still depend critically on the amount appropriated for the infrastructure program, so Amtrak will still need to expend resources lobbying for appropriations for it, just as trucking companies lobby for highway expenditures and airlines lobby for airport investments.

There are, perhaps, other reasons for advancing this restructuring proposal. Several members of the working group have cited, with approval, the recent British approach that separated infrastructure maintenance from operations. But the British model is not one to be emulated. Thus far, the British model has cost nearly $1 billion a year more in public funding than it did under its predecessor, BritRail. If the British model were applied to the U.S. it would in all likelihood lead either to substantially increased subsidy levels or to the elimination of all long distance trains as well as the elimination of many short-haul trains that require regional or multistate support. The best one can say at this point is that the jury is still out on the British experiment.

Another rationale for the proposal is that other modes of transportation operate privately-owned and operated vehicles on publicly-owned infrastructure. This is not uniformly true—mass transit receives federal subsidies both for its rolling stock and for its operating costs. But the proposal to separate ownership of infrastructure from operation of trains might be more appealing in an environment where the entire national rail infrastructure is owned by a single entity, and where several passenger rail operators compete on that infrastructure. Neither of those conditions obtains in the United States. Most rail infrastructure is owned by freight railroads, and the existence of competing passenger rail operators is only a distant potential. Our colleagues acknowledge those facts, but think that separation of infrastructure from operation will help to move us toward an environment where more infrastructure is publicly-owned and more operators compete on that infrastructure. For reasons which we shall discuss in more detail below, however, we think the proposal is unlikely to increase the extent of publicly owned infrastructure. We also think that the elimination of federal operating subsidy is likely to discourage most new private passenger rail operators from entering the market.

There are Serious Negative Effects of Restructuring

We believe that our colleagues's restructuring proposal not only lacks a clear rationale; it also is likely to have serious adverse effects on infrastructure investment and passenger rail service. We think it is likely both to reduce the level of infrastructure investment for passenger rail and, by reducing operating subsidies, dramatically curtail the level of interstate passenger rail service.

While the restructuring proposal is advanced with the intent of increasing infrastructure investment, the likelihood of Congress approving additional infrastructure funding under this proposal is undermined by the unequal distribution of infrastructure spending among the states. Virtually all of Amtrak's infrastructure spending is now done within the eight states of the Northeast Corridor. Other states are willing to support these expenditures because they receive a disproportionate share of the operating subsidies to keep trains running in their states. If federal operating subsidies were eliminated, as the proposal envisions, the other states would have

little reason to support infrastructure investment in the Northeast Corridor, and might cease such expenditures altogether. This could lead to the collapse of the high-speed rail project in the Northeast Corridor and the gradual erosion of conventional Northeast Corridor service as the infrastructure deteriorates.

Even if a handful of high-speed rail infrastructure projects were supported outside of the Northeast Corridor, this would still not produce enough support to keep the program going. While the proposal is advanced on the assumption of an increase in passenger rail infrastructure funding, it may thus result in a decrease in infrastructure funding.

The restructuring proposal's assumptions about operating subsidies would also have a seriously negative effect on the support for interstate passenger rail service, and would probably lead to most of that service being canceled. The proposal suggests that the new operating entity would receive no federal operating subsidy, would be required to pay for its own rolling stock, and would have to depend on voluntary payments from the states for any public operating subsidy it received. We think this proposal would make most long-distance trains and many short-haul trains that require regional or multi-state support unsupportable.

Amtrak believes that it can cover its operating costs, but only if the costs of acquiring rolling stock are treated as a capital cost to be paid for by public subsidy. No one who has studied Amtrak's cost structure believes that it can break even if it has to cover the costs of its rolling stock. If Amtrak cannot cover its costs, it must either cut routes or go to the states for operating subsidy. (If Amtrak cuts routes, this further undermines national support for federal infrastructure funding.)

We think Amtrak is unlikely to be able to generate substantial operating subsidies from the states. Amtrak's inability to obtain sufficient state support thus far is instructive. While state support for Amtrak has increased, it is still only $70 million in 1997 and the states continue to struggle over providing modest amounts of money. More than half of the state support comes from a single state—California. Two-thirds comes from two states (California and Illinois). All of it comes from 14 states. The States of Louisiana, Mississippi, and Alabama could not agree on how to divide up the $2 million cost of the *Gulf Coast Limited,* so none of them contributed anything, and the route was terminated, even though this is the sort of short haul service (from Mobile, AL, to New Orleans, LA) that states should find attractive. The State of Massachusetts would not contribute even $100,000 to support the *Vermonter* even though it serves the western part of the state. Vermont had to pay the full share (but in the absence of federal subsidies, the route would have been canceled, because Vermont only had to pay for the extension of service north from Springfield, MA). The proposal will likely lead to the elimination of most interstate routes outside of the Northeast Corridor; the few remaining routes are likely to be the relatively small number that fall entirely within one state, such as those in California.

Our colleagues assert that separation of infrastructure ownership from operations would enhance the efficient use of the infrastructure, but the experience of Amtrak and the freight railroads points to the opposite conclusion. Freight railroads defend their right to operate on their own privately owned rights-of-way because they believe strongly that the ownership of the right-of-way allows them to offer a more efficient and customer-oriented service than would be the case if they were tenants on a right-of-way owned by someone else. Clearly, one of Amtrak's problems over the years has been that it does not own most of its rights-of-way. Delays in Amtrak service are often due to operations of freight railroads. It is no accident that Amtrak has succeeded on the one right-of-way that it owns—the Northeast Corridor. We see no reason to endanger this success by separating ownership of the right-of-way from operation of the trains.

The restructuring proposal also suggests weakening what the report itself describes as "one of the most valuable of all of Amtrak's assets." Amtrak has guaranteed access to the Nation's freight railway system, and it is these rights of access that the "Context" section of the report describes as one of the "most valuable" assets cited above. Yet in the "Question-and-Answer" section of the report, these rights are put up for negotiation. "The panel believes that Congress should explore new alternatives that would fall between the current Amtrak arrangements [i.e., guaranteed access] and the present framework for commuter rail access [i.e., no guaranteed access] to freight rail infrastructure." We cannot see how giving away these critical access rights advances the cause of passenger rail transportation in the United States.

The Restructuring Proposal is Based on Erroneous Factual Statements

The analysis in the majority report is based in part on a number of unsupported factual assertions, some of which are contradicted by its own findings. The majority

report alleges, without foundation, that "Amtrak's Strategic Business Plan is generally acknowledged by many outside of Amtrak as wholly unrealistic." In fact, the outside parties that count, namely the bankers that are lending Amtrak money, do believe the plan is realistic, and that is why they are lending the $1 billion that Amtrak is borrowing for its Northeast Corridor high-speed rail service.

The majority report takes note of the reforms that Amtrak has instituted in the past three years and asserts, again without offering any evidence, "Broadly speaking, these [reforms] have not paid off." This does not appear to be the view of the states who work with Amtrak. The State of Wisconsin, for example, has written to the Working Group saying that "In recent years, Amtrak has taken more aggressive actions to improve the service, increase advertising, and increase eldership. These changes are reflective of the new attitude that is manifesting itself in Amtrak. Everyone at the company recognizes that they must please their customers if they are to continue as a company. They are working hard to do so." The letter also notes that ridership has doubled since the State contracted with Amtrak for passenger service. While ridership has declined nationally because Amtrak has been forced to eliminate routes due to federal budget cuts, traffic is generally growing on those routes that have been retained. Similarly, the State of Illinois has written to the Working Group stating that "Amtrak has shown the flexibility and will to make significant and tangible strides toward self-sufficiency and good business practices. We thus have reason to be hopeful for the future."

The Majority Report Proposes Confusing Information about Rail Labor Issues

The majority report for the most part ignores the controversial issue of labor protection and accident liability, because there was little consensus on these issues among the Working Group, and information had been presented to the Group indicating that these issues had inconsequential effects on Amtrak's financial status. Indeed, the majority report states in its conclusions that "The problems do not lie with Amtrak management or Amtrak labor. . . ." Yet, the report does not address what will happen to employees under the restructured system. Freight railroads operate under essentially the same labor protection provisions as Amtrak, and they find it possible to succeed in a competitive business. The fact is that Amtrak's recent experience in eliminating routes has shown that labor protection in practice has inconsequential costs. Amtrak does not use the flexibility it has now to contract out work and has never been able to show that it would actually save money if it had more flexibility. We believe that these labor provisions have little if any effect on Amtrak's financial status and should not be part of any Amtrak reform proposals. But more importantly, we believe that any proposal to restructure Amtrak should specifically address the future status of Amtrak's employees.

There Are Better Ways to Preserve and Enhance Intercity Passenger Rail Service in the United States

Congress has repeatedly urged Amtrak to make better use of its infrastructure and to reduce costs and lessen its dependence on operating support. Instead of embarking on an the uncertain path of restructuring, we believe that Amtrak should be given the next two to three years to implement several promising revenue-enhancing activities that could significantly improve its financial situation. These initiatives include high-speed rail in the Northeast Corridor, increased mail and express, and development of electric power initiatives, among others.

We believe that Amtrak's management has done a credible job of making Amtrak more efficient and more customer-focused. We believe that Amtrak has correctly seen that it must invest in new rolling stock to replace obsolete equipment that is unreliable and expensive to maintain. We believe that the Congress should support Amtrak's effort to reduce its costs and expand its market by providing it with the capital and operating support it needs and by eliminating statutory restrictions on Amtrak's operations.

First, Amtrak needs more capital support so that it does not have to borrow money on the private market at high interest rates. Clearly it makes more sense for Amtrak's capital costs to be financed at low government interest rates than at high private interest rates. In particular, Amtrak needs capital support to pay for and promptly begin service with its new high-speed rail service on the Northeast Corridor. While it is possible to dispute the exact estimates of the surplus that will be generated by this service, there is no doubt that this is a worthwhile investment for Amtrak and for the Nation.

Second, Amtrak needs sufficient operating subsidy so that it does not have to borrow short-term to meet its operating costs. Amtrak has reduced its operating costs by over $200 million since 1994. It is making good progress toward minimizing its need for operating subsidy. Reducing Amtrak's operating subsidy in the short run

simply forces Amtrak to borrow more, thus increasing its need for operating subsidy in the long run. A predictable, realistic glidepath to lower operating subsidy is the most sensible policy.

Third, Amtrak needs some basic revisions in its statutory authorization to clarify its authority and allow it to reduce its costs and increase its revenues. Amtrak currently is authorized to carry "mail and express" in addition to passengers, but "express" is never defined in the statute. Instead, "express" is defined by a long series of Interstate Commerce Commission decisions. The definition is obscure and subject to prolonged litigation. The freight railroads have opposed Amtrak's recent attempts to expand its express business and have threatened litigation to prevent Amtrak from increasing its revenues in this way. The freight railroads say they only want Amtrak to carry what is traditionally considered express—things like United Parcel Service (UPS) packages. But the freight railroads already carry a considerable amount of UPS packages by carrying UPS trailers on their flatcars. It would not make sense for the freight railroads for Amtrak to expand its business in an area that is already being served by the freight railroads.

Amtrak has proposed carrying cargoes like refrigerated perishables and other intermodal traffic requiring very tight delivery times. The railroads have opposed letting Amtrak carry this cargo because it is "freight," not "express." But the important point is whether the railroads have any realistic likelihood of carrying the cargo in question. If the freight railroads cannot meet the delivery schedules demanded by shippers, then they are not harmed by having Amtrak carry the cargo, regardless of whether it is "freight" or "express." We therefore recommend that the definition of "express" that Amtrak is authorized to carry be defined in statute as any cargo that existing freight railroads do not carry because they cannot routinely meet the delivery schedules or other criteria demanded by shippers.

Amtrak uses prodigious amounts of electrical power on the Northeast Corridor. The commuter railroads who use Amtrak's right-of-way use even more. Electrical power costs in the northeast are among the highest in the country. If Amtrak could buy power from distant suppliers who can generate power at lower costs, it could dramatically reduce its costs of service. Amtrak should further be permitted to make more efficient use of the natural distribution system created by its Northeast Corridor electrical grid to sell power to other users along its right-of-way. If Amtrak is to make more efficient use of its infrastructure, it needs to have the authority to use its infrastructure to reduce its costs and generate revenues.

Summary

In summary, despite the unanimous belief of the Working Group that intercity passenger rail is a valuable part of the Nation's transportation system, our colleagues' proposal could create a crisis in rail transportation in the one corridor where it is most vital, and lead to the erosion or collapse of rail service in other regions of the country. We believe that further analysis of the costs and benefits is needed before reaching the conclusion that intercity rail operating and infrastructure units should be separated. In our judgment, such a strategy would result in greater costs to the taxpayer, more bureaucracy, and fewer trains.

While our worst fears may not be realized, we strongly urge the Congress to undertake a more thorough analysis of the tools necessary for lowering costs and raising revenues before adopting their recommendations.

APPENDIX C

QUESTIONS AND ANSWERS CONCERNING THE PROPOSAL OF THE COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE WORKING GROUP ON INTERCITY RAIL

—*Will the proposal lead to a reduction in Amtrak routes?*

The proposal does not envision or call for a reduction in routes. In fact, it is hoped that with a more streamlined organizational structure, the lifting of Amtrak's current legal constraints, and increased infrastructure investment by Amrail, an expansion of intercity passenger rail service in appropriate markets will be possible.

—*What level of federal funding does the proposal assume?*

The working group believes that capital and operating funding requirements must be treated separately. Federal operating subsidies should be eliminated at least by 2002. In the short-term, operating bridge funding at a level between the Administration's request ($342M) and Amtrak's request ($387M) should be provided in order to avoid a bankruptcy.

Continued capital funding should be provided on a regular, predictable and permanent basis. The level should be on the order of that proposed in Amtrak's strate-

gic business plan (approximately $750M per year), although the working group believes non-federal sources, such as private and state/local funding would be available for at least a portion of this funding.

—*What will happen to Amtrak's employees?*

Employment levels will not decrease as a result of this proposal. In fact, the proposal is assumed to increase passenger rail jobs with the expansion of passenger rail service in appropriate markets.

Both Amtrak's employees and its management have been severely handicapped by the organizational structure of Amtrak as currently constituted. The working group views the proposed restructuring as an opportunity for both labor and management to be freed from these constraints and to explore new options for stable and growing employment.

Most of Amtrak's employees will continue to work for Amtrak under existing labor contracts. Some Amtrak employees, who currently work on infrastructure maintenance, would work for the new infrastructure entity, Amrail.

—*How will the working group's proposal improve passenger rail service?*

In the short-term, the proposal is aimed at averting an Amtrak bankruptcy, which is a real possibility if no legislative action is taken.

Over the longer-term, splitting operations from infrastructure management will enable Amtrak to focus its efforts on its principal day-to-day responsibility—providing and developing superior, efficient service to its users—not seeking support for its infrastructure capital program.

In addition, the working group believes that the introduction of competition from other providers of intercity passenger rail service will inject an element of market discipline in the provision of passenger rail service that is currently lacking.

Furthermore, Amrail, the new infrastructure management organization, would be responsible for developing new rail corridors outside the Northeast Corridor to provide high quality, higher-speed rail service in appropriate markets.

—*Would providers of inter-city passenger rail service have access to freight railroads' rights-of-way outside the Northeast Corridor?*

Amtrak currently has compulsory access by federal law and pays for that access under a statutory "incremental cost" formula that does not take into account the operational impact of passenger traffic on freight operations. In addition, the presence of Amtrak trains exposes the host railroad to unlimited tort liability from possible passenger train accidents. In sharp contrast to the present Amtrak access arrangements, publicly funded commuter railroads using freight railroads' tracks negotiate their access on a case-by-case basis, bargain the specific compensation to be paid, and typically bring with them the liability limitations of state laws governing publicly funded transit and commuter rail operations.

The panel believes that Congress should explore new alternatives that would fall between the current Amtrak arrangements and the present framework for commuter rail access to freight rail infrastructure. Liability protection should be a critical element of a new access regime. In addition, the panel has recommended long-term, stable federal assistance for infrastructure upgrades on and off the Northeast Corridor. This already occurs in the commuter rail field, where the Federal Transit Administration assists in capacity and signal improvements on freight railroad lines that also carry commuter rail traffic. We envision similar infrastructure projects focused on the passenger corridors around the country with the greatest market potential.

—*Has anything like this ever been tried before?*

Yes, other countries have restructured their rail systems by separating infrastructure management from transportation services, including Great Britain, Denmark, Sweden, the Netherlands, and Australia. Materials on the experiences of other countries are included in the appendices to the working group's report.

MAIL AND EXPRESS

Question. What is the size and make-up of Amtrak's current fleet of mail and express cars? Are there plans to acquire new cars for mail and express service? What funds are being utilized to purchase these cars?

Answer. Amtrak has a fleet of 138 active and 9 stored baggage cars that are used for passenger baggage, mail and express. Mail and express are also carried in Material Handling Cars (MHC's) for which the fleet includes 141 active and 2 stored cars. Last year 13 Roadrailer trailers (vehicles that operate on the rail and highway) were acquired, which are used primarily to transport mail. Amtrak is acquiring an additional 250 plain MHC's, 367 refrigerated MHC's and 283 Roadrailer trailers for the mail and express business this year. This equipment is being leased through private market financing

Question. For fiscal years 1995, 1996 and projected for 1997, please display the amount of revenue generated by Amtrak's mail service and by express service.

Answer.

Year	Mail revenue	Express revenue
1995	$57,300,000	$3,100,000
1996	63,000,000	3,100,000
1997 (proj.)	64,500,000	5,200,000

Question. How much does Amtrak expect to generate in mail and express business in the next five years (fiscal years 1998–2002), by year?

Answer. The 1998–2002 business plan will not be approved by Amtrak's board of directors until September, so specific numbers are not yet available. Because of the board's approval of the equipment acquisition (250 plain MHC's, 367 refrigerated MHC's and 283 Roadrailer trailers for mail and express business), 1998 pilot program express revenue will exceed $200 million. Plans are being developed which, if approved by Amtrak's Board, will result in potential annual mail revenue exceeding $200 million and an equivalent amount or higher in express revenue.

Question. Do you have agreements with any freight railroads to initiate this service? Which railroads? Which railroads are opposed to Amtrak performing this service?

Answer. Joint venture agreements are in various stages of discussion with Class I railroads and several smaller railroads to give them profitable opportunities to participate in aggressive growth of carload and trailerload express. Amtrak intends to increase its handling of premium shipments that are currently being transported by motor carriers and via air for which prices higher than railroad freight rates will be charged. Shippers have expressed strong interest in Amtrak's express service capabilities because it is tightly scheduled, relatively damage free, offered by a transcontinental carrier meaning no railroad to railroad interchange, and is highway transit time competitive while at the same time being more economical than highway or air. Mail and express business is currently carried over virtually all freight railroads over which Amtrak operates. It has been this way since Amtrak's inception. One railroad has publicly stated concerns about the possibility of Amtrak capturing business it now carries.

Question. What additional expenses are associated with the mail and freight program? What are the estimated first year profits?

Answer. Since the business is handled on passenger trains that are currently operating, as a way to help make them financially viable, incremental expenses are relatively limited. They include equipment leases, terminal costs and administrative costs. As train lengths increase there is an additional cost associated with additional locomotive power and fuel. First year contribution (incremental revenue less incremental expense) for the pilot express initiative is projected at $53 million.

Question. Why is it necessary to enter into agreements with freight railroads at all to provide mail and express service? Doesn't Amtrak have the authority and absolute right to operate over any track?

Answer. Amtrak wishes to enter into agreements with freight railroads in connection with the expansion of its express business because some of the accessory services required, such as terminal services, can be best provided by the freight railroads. In addition, Amtrak believes that railroad participation in its express business, through joint ventures or other contractual arrangements, will give railroads a financial incentive to achieve significantly improved on-time performance which also benefits passengers. Amtrak also believes that entering into agreements with railroads will enable it to avoid disputes over whether particular shipments it is handling constitute "express." Although Interstate Commerce Commission decisions support Amtrak's position that all of the business it plans to handle is in fact "express", litigation over this issue with freight railroads, which own the tracks over which Amtrak's trains operate, could delay Amtrak's efforts to expand the business. This would hamper Amtrak's ability to free itself from Federal operating subsidy, as it has been directed to do by the Administration and Congress, and would be inconsistent with Amtrak's objective of being viewed by those railroads as a valued partner whose operations provide a way for them to earn additional profits. Amtrak has the right to operate over any railroad's track and to carry mail and express business on its trains.

LABOR ISSUES

Question. How do the labor provisions affecting rail employees differ from those affecting airlines and intercity buses?

Answer. Amtrak is governed by the following legislative labor provisions which do not apply to airlines and/or intercity buses:

1. *Federal Employer's Liability Act.*—A fault-based workers compensation system, governing compensation for employee on-duty injuries.

2. *Railway Labor Act (also applies to airlines).*—Governing labor relations issues of employee representation, dispute resolution and negotiation of contracts.

3. *Railroad Retirement Act.*—Governing railroad employee retirement.

4. *Rail Passenger Service Act provisions.*—Governing employee protective conditions (Appendix C–2) and no furlough (except food and beverage) contracting out restrictions.

While airlines and intercity bus operations are affected by other laws covering workman's compensation, collective bargaining and retirement, Amtrak is uniquely covered by the legislative requirements outlined in item 4 above.

Question. GAO's testimony stated that Amtrak has been unsuccessful in negotiating productivity improvements with labor unions. Many of the same craft unions are represented at both freight rail and Amtrak labor negotiations, and there is pressure from labor to secure equally favorable agreements with Amtrak as have been secured with the freight railroads. As a result, in the last six months, many freight/labor union agreements have been negotiated, while Amtrak is stuck at the table. Do you believe that the labor unions fully appreciate how dire Amtrak's financial circumstances actually are? Are the union negotiating the railroad out of business?

Answer. With freight settlements in the background, it seems unlikely "concessionary" agreement can be reached voluntarily with some unions for political or union institutional reasons without Congressional action but it is difficult to characterize union beliefs in general or in total. We believe that all of our unions understand Amtrak is in financial difficulty. However, few, if any, unions accept the Congressional and Administration mandate that Amtrak be independent of federal operating support. Consequently, they do not accept Amtrak's Strategic Business Plan to achieve that independence. This non-acceptance exists despite the fact that our level of federal operating support has been cut in half—nearly 50 percent—over the past two fiscal years. Consequently, Amtrak has been unable to reach agreements providing for work rule and benefit reform necessary to help Amtrak live within an environment of declining federal operating support.

OPERATING COMMUTER RAILROADS

Question. What commuter railroads does Amtrak operate? What was the total revenue stream from these operations (broken out by commuter transit authority) for fiscal years 1994, 1995, 1996, and projected for fiscal year 1997?

Answer. Amtrak operates seven commuter operations. Those commuter services and revenues are noted below. (fiscal year 1997 figures still being developed.)

AMTRAK CONTRACT OPERATIONS OF COMMUTER TRAINS

[Dollars in millions]

Commuter agency	Fiscal year—				
	1992	1993	1994	1995	1996
MBTA (Boston)	$88.4	$96.4	$105.4	$124.0	$132.2
Maryland DOT	10.7	12.2	14.0	14.2	22.2
Northern Virginia	2.8	7.7	7.3	9.0	8.6
Connecticut DOT	5.3	5.8	6.0	6.1	6.5
Southern California	1.6	13.8	24.2	25.1	25.1
Peninsula Commuter	7.4	27.2	30.0	30.8	34.9
San Diego Commuter	.....	.....	0.2	6.2	5.8
Orange County, CA	1.8	1.5	0.5	.....	.....
Total revenue	118.0	164.6	187.6	215.4	235.4

RURAL SERVICE

Question. In Amtrak's testimony before the Committee on May 7th, President Downs stated that Amtrak provides a necessary service for rural communities as well as urban corridors. But considering the ridership figures and operating losses on many of these long-distance routes that serve rural communities, it seems clear that the railroad's rural constituency is not sold on Amtrak's necessity. Low income, young, and elderly passengers who generally have to watch their budgets more often travel by intercity buses, which have four times the ridership Amtrak does, rather than pay more per ticket for less frequent, more often delayed, train service. Can you make any compelling arguments for Amtrak's importance as a rural transportation alternative?

Answer. Passenger rail service is essential to many rural areas. Sixty-two million Americans live in small towns and rural areas. Amtrak serves over 530 communities nationwide many of which are in rural areas with few transportation options. While commercial air and bus carriers have found it economically infeasible to provide service to many smaller cities, intercity passenger trains can stop at areas with populations as low as 10,000–20,000 without significant cost or time loss. Amtrak serves thirty-three communities which have no air service, eighteen communities which have no bus service, and nine communities with neither air nor bus service.

COST TO LIQUIDATE

Question. How solid is the estimate of $5,000,000,000 in costs associated with liquidation of the railroad? Couldn't some employee dismissal cost be reduced?

Answer. The estimated cost associated with the liquidation of the railroad is approximately $6.2 billion. This is based on an analysis done by Amtrak in February 1995 and subsequently scored by the Congressional Budget Office on April 11, 1995. The original analysis estimates a "shut down" cost of $5.4 billion. The current estimate of $6.2 billion is higher primarily due to an escalation in the amount of financing obligations that Amtrak now has. In a shutdown situation, employee dismissal cost would be reduced primarily via "protected" employees getting jobs and giving up their protection payments.

UNPROFITABLE ROUTES

Question. Please update the Committee on the status of the five routes on which Amtrak planned to discontinue service last year, that then received 6-month extension funds in the fiscal year 1997 omnibus consolidated appropriations bill.

Answer. The five routes are the Texas Eagle, Pioneer, Desert Wind, Boston-Albany section of the Lake Shore Limited, and the Gulf Coast Limited.

The Gulf Coast Limited was discontinued on March 31, 1997 and the Pioneer and Desert Wind were discontinued on May 10, 1997. The Texas Eagle and Boston-Albany section of the Lakeshore Limited were extended through the end of the fiscal year based on arrangements with the states (loan from the state of Texas and a capital investment from the state of Massachusetts).

Question. Does Amtrak have plans to close or reduce service on additional routes? If yes, what routes would be affected and why? Does Amtrak expect that it will be successful in making these route adjustments?

Answer. Amtrak does not plan on closing additional routes. Our business plan calls for maintaining the national system.

STATES USING HIGHWAY FUND FLEXING

Question. If the successor surface transportation authorization bill includes provisions giving states the flexibility to use highway funds for Amtrak operations within the state, what is the likelihood of this increased flexibility being utilized by the states? What states have done this so far?

Answer. It seems clear that states would utilize the increased flexibility to spend a portion of their federal transportation allocation on Amtrak if they were allowed to do so. Many, many states have expressed their strong support for this, coast to coast, north to south, urban to rural. Governors who have made clear public statements on this issue range from Oregon to Delaware, West Virginia to Wisconsin, Michigan to Virginia. Right now public policy concerning the various transportation modes is incredibly skewed and distorts state and local decision making. The federal government offers generous matches for state investments in highway or transit service, but little or no funds to match state investment in rail passenger service. The result is states and localities are discouraged in investing in rail even when it is the best transportation solution for the area.

The only program exception is the ISTEA Enhancements program, which states can use for Amtrak stations, but not intercity rail operations. States have so far used more than $70 million for Amtrak station projects, and spent another $100 million of ISTEA funds on intermodal stations where Amtrak stops. Because states are currently not allowed to use their federal transportation funds for intercity passenger rail, only the State of Oregon, which was granted permission under specific conditions, is using Congestion Mitigation and Air Quality (CMAQ) funds to help support an Amtrak train.

STRATEGIC BUSINESS UNIT OPERATIONS

Question. Please prepare a table displaying, for each strategic business unit, the routes operated by name; by terminus city pairs (and system miles); by frequency of service; by total annual revenue in fiscal year 1996; by total annual expanses in fiscal year 1996; the profit/(loss) in dollars for each route; and the operating ration (expenses to revenue comparison).

NATIONAL RAILROAD PASSENGER SYSTEM FINANCIAL PERFORMANCE

[In millions]

Route No./description	Terminus city pairs	Route miles	Frequency	Fiscal year 1996—			
				Revenue	Total expense	Profit/loss	Operating ratio
Intercity SBU							
16 Silver Star	New York-Tampa/Miami	1,263/1,433	Daily	31.1	70.4	(39.3)	2.26
17 Three Rivers	New York-Chicago	924	Daily	11.5	18.8	(7.3)	1.63
18 Cardinal	Chicago-Washington	929	Triweekly	4.2	14.0	(9.8)	3.33
19 Silver Meteor	New York-Miami	1,391	Daily	30.1	62.9	(32.8)	2.09
20 Chicago-St. Louis	Chicago-St. Louis	282	Daily	10.4	26.6	(16.2)	2.56
21 Hiawathas	Chicago-Milwaukee	86	Daily	9.8	25.3	(15.5)	2.58
22 Chicago-Detroit-Pontiac	Chicago-Pontiac	302	Daily	9.7	33.9	(24.2)	3.49
23 Illini	Chicago-Carbondale	309	Daily	4.7	8.0	(3.3)	1.70
24 Illinois Zephyr	Chicago-Quincy	258	Daily	3.6	7.2	(3.6)	2.00
25 Empire Builder	Chicago-Portland/Seattle	2,209/2,261	Quadweekly	32.5	73.6	(41.1)	2.26
26 Capitol Limited	Chicago-Washington	780	Daily	20.6	48.2	(27.6)	2.34
27 California Zephyr	Chicago-Oakland	2,425	Quadweekly	25.9	60.1	(34.2)	2.32
28 Southwest Chief	Chicago-Los Angeles	2,259	Daily	45.6	83.4	(37.8)	1.83
30 City of New Orleans	Chicago-New Orleans	934	Six days	10.8	31.0	(20.2)	2.87
32 Texas Eagle	Chicago-Los Angeles	2,726	Triweekly	10.4	32.7	(22.3)	3.14
33 Sunset Limited	Los Angeles-Miami	3,066	Triweekly	16.1	55.9	(39.8)	3.47
41 International	Chicago-Toronto	501	Daily	4.5	12.6	(8.1)	2.80
45 Lake Shore Limited	Chicago-Boston/New York	950/1,017	Daily	29.7	60.3	(30.6)	2.03
49 Pioneer	Denver-Seattle	1,625	Triweekly	10.3	29.2	(18.9)	2.83
52 Crescent	New York-New Orleans	1,380	Daily	22.0	52.8	(30.8)	2.40
56 Kansas City-St. Louis	Kansas City-St. Louis	282	Daily	6.9	12.9	(6.0)	1.87
57 Pennsylvanian	New York-Pittsburgh	788	Daily	5.9	12.5	(6.6)	2.12
60 Desert Wind	Chicago-Los Angeles	2,397	Triweekly	14.9	38.0	(23.1)	2.55
63 Auto Train	Lorton-Sanford	861	Daily	45.4	58.4	(13.0)	1.29
65 Pere Marquette	Chicago-Grand Rapids	177	Daily	1.9	4.8	(2.9)	2.53
66 Carolinian	New York-Charlotte	702	Daily	12.0	17.3	(5.3)	1.44

NATIONAL RAILROAD PASSENGER SYSTEM FINANCIAL PERFORMANCE—Continued

[In millions]

Route No./description	Terminus city pairs	Route miles	Frequency	Fiscal year 1996—			
				Revenue	Total expense	Profit/loss	Operating ratio
67 Piedmont	Raleigh-Charlotte	172	Daily	1.7	3.5	(1.8)	2.06
Intercity SBU total				432.2	954.3	(522.1)	2.21
Northeast Corridor SBU							
01 Metroliners	New York-Washington	226	Daily	157.9	143.8	14.1	0.91
04 Vermonter	St. Albans-Washington	606	Daily	4.2	11.4	(7.2)	2.71
05 Northeast Direct	Newport News-Boston	644	Daily	239.9	381.9	(142.0)	1.59
13 Clockers	New York-Philadelphia	90	M-F	12.6	24.8	(12.2)	1.97
14 Philadelphia-Harrisburg	Philadelphia-Harrisburg	104	Daily	5.0	8.8	(3.8)	1.76
15 Empire Service	New York-Toronto	544	Daily	35.7	83.4	(47.7)	2.34
40 Adirondack	Montreal-New York	381	Daily	4.6	10.4	(5.8)	2.26
42 New York-Harrisburg	New York-Harrisburg	195	Daily	7.4	16.7	(9.3)	2.26
NEC SBU totals				467.3	681.2	(213.9)	1.46
West SBU							
34 Coast Starlight	Seattle-Los Angeles	1,389	Daily	25.1	69.7	(44.6)	2.78
35 San Diegans	San Luis Obispo-San Diego	347	Daily	36.4	73.2	(36.8)	2.01
36 Pacific Northwest	Vancouver, BC-Eugene	310	Daily	9.9	23.4	(13.5)	2.36
37 Capitols	Roseville-San Jose	152	Daily	11.7	25.3	(13.6)	2.16
39 San Joaquins	Oakland-Bakersfield	315	Daily	28.1	38.0	(9.9)	1.35
West SBU totals				111.2	229.6	(118.4)	2.06
Total Amtrak				1,010.7	1,865.1	(854.4)	1.85

REIMBURSABLE SERVICES

Question. In what reimbursable service agreements is Amtrak currently engaged? What revenues are associated with these agreements?

Answer. The major portion of Amtrak's reimbursable service agreements are in the NEC. The largest service agreement is with NJ Transit, a "new initiatives" agreement involving maintenance-of-way (M.O.W.) services which Amtrak undertakes for NJ Transit. Amtrak also has an agreement with the Long Island Rail Road (LIRR) for various M.O.W. tasks and a joint venture with the LIRR for Penn Station train control improvements.

Revenues associated with reimbursable arrangements are: Fiscal year 1995, $107,300,000; fiscal year 1996, $107,500,000; and fiscal year 1997, $90,878,000 (forecast).

SUBCOMMITTEE RECESS

Senator SHELBY. The hearing of the Subcommittee on Transportation is now recessed, to reconvene subject to the call of the Chair. Thank you.

[Whereupon, at 12:37 p.m., Wednesday, May 7, the subcommittee was recessed, to reconvene at 10:10 a.m., Thursday, June 12.]

DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1998

THURSDAY, JUNE 12, 1997

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:10 a.m., in room SD–138, Dirksen Senate Office Building, Hon. Richard C. Shelby (chairman) presiding.

Present: Senators Shelby, Domenici, Bennett, Faircloth, and Lautenberg.

Also present: Senator D'Amato.

PANEL 1

CONGRESSIONAL WITNESSES

STATEMENTS OF:

HON. ALFONSE M. D'AMATO, U.S. SENATOR FROM NEW YORK
HON. SUSAN MOLINARI, U.S. REPRESENTATIVE FROM NEW YORK
HON. PETER T. KING, U.S. REPRESENTATIVE FROM NEW YORK

NONDEPARTMENTAL WITNESS

STATEMENT OF DAN DONOVAN, CHIEF OF STAFF, ON BEHALF OF HON. GUY V. MOLINARI, BOROUGH PRESIDENT, STATEN ISLAND, NY

OPENING REMARKS OF SENATOR SHELBY

Senator SHELBY. The subcommittee will come to order.

I scheduled this hearing at the request of my friend and colleague, Senator D'Amato. I would like to welcome Members of the New York delegation, Senator D'Amato, Congressman King, former Congressman Guy Molinari, and Congresswoman Susan Molinari.

We are here today to talk about air traffic control staffing, specifically the situation in the Northeast. One of my top priorities as chairman of this subcommittee is to make sure that the United States has the safest air transportation system possible. Air travel among the general public is increasing every year, and I believe we must have adequate air traffic control staffing to meet this demand.

Our current air traffic control system is antiquated, and is in dire need of an overhaul. We gave the FAA the tools to reform its acquisition and personnel systems in the 1996 Appropriations Act.

We will be interested to hear the FAA explain how they are using these tools to address the problems in the New York-New Jersey area.

I should also point out that in this subcommittee's report accompanying the Fiscal Year 1997 Appropriations Act, we took note of staffing and equipment problems in the New York-New Jersey area and directed the FAA Administrator to report to us on the initiation of a local recruiting effort in this region.

We received that report yesterday afternoon, and it pointed out some of the difficulties of moving controllers up to higher level facilities in the New York-New Jersey areas. It also sets out some new initiatives that FAA plans to implement to increase the number of recruits from the immediate New Jersey and New York areas.

We are fortunate to have a great deal of institutional expertise in this matter in the members represented on the first panel, and in the ranking member of this subcommittee and former chairman, Senator Lautenberg. Senators D'Amato and Lautenberg both have a great deal of background and experience with air traffic controller staffing issues, and we are looking forward to hearing both of their comments.

The second panel today would include Mr. Barry Krasner, the president of the National Air Traffic Control Association, Mr. David Barger, a vice president of Continental Airlines from Newark, NJ; Mr. Raymond D. Maldonado with the FAA Control Tower at Newark International Airport; Mr. Tom Monaghan with the FAA Control Tower at JFK International Airport; Jack Johnson, Professional Airways Systems Specialists president; and Henry Brown, New York Systems Management Office PASS representative.

We will also be joined by Monte Belger, the Acting Deputy Administrator, Federal Aviation Administration; and Mr. Ron Morgan, Director of Air Traffic Service at the FAA.

The third panel today will consist of Mr. Charles Barclay, the president of the American Association of Airport Executives; Mr. Phil Boyer, president, Aircraft Owners and Pilots Association; and Mr. Edward Bolen, president of General Aviation Manufacturers Association.

Air traffic safety is critical to the health and security of this Nation. Americans deserve to have the highest level of confidence in their air traffic control system, and I am committed to help bring this about.

Again, I want to thank all the witnesses that will be participating here today, and before we hear from the first panel, I want to first ask the ranking member and any of the other members if they have any opening statements.

Senator Lautenberg.

STATEMENT OF SENATOR LAUTENBERG

Senator LAUTENBERG. Thank you very much, Mr. Chairman, and I commend you for calling this very important hearing to address the staffing and equipment modernization problems for air traffic facilities in the New Jersey-New York area.

I, too, want to welcome our colleagues both former and present, Senator D'Amato, with whom I have done lots of work on transpor-

tation matters. What happens in one State often immediately happens in the other.

I want to welcome our friends from commerce, and that includes all of them, even including the next Oprah Winfrey, Barbara Walters, name it as you will. We wish Susan Molinari well. I am sure she will succeed in that new venture, as she has in past ventures. All one has to do is look at that baby. Where is she? But we are delighted to have you here.

I have been voicing concern, along with others, over the staffing and equipment problems for several years, both individually and through this subcommittee. Now, there is not a deeper level of frustration that anyone holds than I do with the slow response to the clear need for increased staffing at our air traffic control towers, as well as the air traffic control center and TRACON in New York, and no one is more frustrated than I with the delays in modernizing the equipment our controllers must work with.

I am tired of the broken commitments, the missed targets, the waste of taxpayer dollars that went down the drain when the failed aviation advanced automation system did not work. I am tired of listening to reasons, excuses, if you will.

While recognizing that our air traffic control system is the safest in the world, we also have got to recognize that it remains so because of the exceptional effort by the air traffic controllers who face extremely challenging, indeed worsening conditions during an era of prosperity in the air, significant growth in traffic, and I am sure that everyone here agrees that safety must be the No. 1 issue in each and every decision on how aviation systems function.

But as I review the litany of excuses for staffing shortages and equipment replacement delays, I have to ask, are all parties putting safety first? In my view, when solutions to safety problems are at hand, it is the obligation of decisionmakers to, as the popular advertisement says, just do it, and no agency in the Federal Government is in a better situation to just do it than the FAA.

Two years ago, this subcommittee fought an uphill battle to implement meaningful personnel and procurement reforms for the Federal Aviation Administration. We fought on the Senate floor, as well as in conference. In the end, we succeeded in granting the FAA greater flexibility than currently applies to any other Federal agency, both in the manner in which it procures necessary equipment, and the manner in which it hires and assigns personnel.

We took these unprecedented steps in order to allow the FAA to act more like a business, but I can tell you, as a former chief executive of a sizable company, that I do not see the FAA functioning in quite businesslike form.

No successful chief executive would allow some facilities to be continually overstaffed while other critical facilities remain understaffed. They either move people, or they shift responsibilities from one facility to another, and that is not an easy assignment with the construction of our aviation system. They do not just wring their hands and offer excuses. They identify the right fix, and they just do it.

Apparently, the FAA can identify several facilities that are seriously understaffed, including the ones we are discussing today, but

the FAA also has several other facilities where staffing levels are above their authorized level.

Even before the enactment of personnel reform, the FAA had the authority to reassign people immediately to where they are needed. The time is long past due for the FAA to just go ahead and do it.

When it comes to the distribution of responsibility between facilities, there are opportunities at FAA's disposal right now to shift responsibilities from an understaffed and overworked air traffic control center to a neighboring center with adequate staff capacity. If the FAA believes this can be done in the interest of improving safety, then once again it is time for them to just do it.

At Newark International Airport we were making some progress with the FAA at reducing delays, but recently, and I use my own experiences as a yardstick, we have been singled out as the airport with the greatest number of delays in the Nation.

Well, part of this problem is related to area weather. An important part of the solution rests with the FAA's ability to deploy modern equipment and keep traffic moving safely in good weather and bad. When it comes to cutting through the bureaucracy and getting that equipment up and running at Newark, it is time for the FAA to just do it.

Finally, it must be said that in order to move rapidly on implementing these solutions, the FAA needs strong leadership, and needs it right now. It is unconscionable that it took until yesterday for the administration to announce their intent to nominate individuals for the position of FAA Administrator and Deputy Administrator. I say that with no disrespect to the current Acting Administrator, who I think has done an excellent job at the FAA.

They are doing the best they can, but we have not had a confirmed FAA Administrator for more than 7 months. We have not had a confirmed Deputy Administrator for more than 4 months. No business worth its salt would go ahead without a chief executive officer and a chief operating officer for such a long time, and I plan to do whatever I can to encourage the Senate to move these nominations as quickly as possible.

Thank you very much, Mr. Chairman.

Senator SHELBY. Senator Domenici.

STATEMENT OF SENATOR DOMENICI

Senator DOMENICI. Thank you very much, Mr. Chairman. I do not have a prepared statement. From time to time I might chime in indicating what the budget recommended for this year in this area.

Senator SHELBY. Absolutely. We would like to hear it, too.

Senator DOMENICI. Senator Lautenberg and I put the bipartisan budget agreement together, and there are some facts about funding expectations under the budget for the FAA that have some bearing.

Mr. Chairman, I am very pleased that you make the statement about what we ought to expect in the United States in terms of this system. I think I would like to add one other goal for your subcommittee that I hope you would clearly consider.

From time to time, agencies such as the FAA, IRS, and others have justification for their inability to get certain things done, and sometimes that is justifiably laid at our footsteps in Congress for

the way we fund or do not fund programs, or limitations we have placed on them. I think the issue is getting critical enough that before you have finished your markup, this subcommittee ought to be very sure that what we fund is indeed moving in a positive direction, not only from our individual eyes as Senators, but from the standpoint of those who have to put this behemoth together and make it work better.

Personally, I thank you for this hearing, and I welcome the New York delegation. Somehow from way out in New Mexico I have sort of been adopted by New York. Maybe it is because they have so many Italian people there. [Laughter.]

They invite me to be part of their Italian heritage. I welcome that, and I note that they are in predominance even here today.

In any event, I hope things can be worked out where you can be proud of what we do this year, that we make some strides that are positive with reference to the FAA both in terms of safety and modernization of equipment. I think it is imperative that we do that, be it for my State or your State or your cities. We just have to. It is the mode of transportation for people today that used to rely on other modes. They are all using airplanes today, airlines are growing, and we have to accommodate that.

Thanks very much.

Senator SHELBY. Senator Domenici, I believe that the Italians seated at the table like you personally, but they also know you are chairman of the Budget Committee, too. [Laughter.]

We also like you because you are a member of this subcommittee. You and Senator Lautenberg. You are the chairman of the Budget Committee. He is the ranking Democrat on the Budget Committee. We welcome you and we welcome your experience on this committee. You will have a lot to say.

Senator Bennett.

STATEMENT OF SENATOR BENNETT

Senator BENNETT. Thank you, Mr. Chairman.

I come to this issue with a strong personal sense of history. Some of you have heard this before, but I have discovered since coming to the Senate there is no such thing as repetition in the Senate, so I served in the Nixon administration at the Department of Transportation, and one of my first assignments was to lobby through the Congress the Airport Airways Act that created the airport airways trust fund.

We naively assumed when we created the trust fund, the ticket tax, the departure tax, and the rest of it to go into the trust fund, that we had put a financial base under the FAA that would make them immune from funding problems for all time, that from then on there would be a funding base to see to it that the air traffic control system would be properly staffed and properly equipped, no matter what happened to the ups and downs of the economy.

With all due respect to the Budget Committee and the unified budget, that has not happened, and Presidents, both Republican and Democrat, have reached into the airport airways trust fund under the process of the unified budget and taken money that it was the original intent of Congress would go to fund the air traffic control system, and they have used that money for other purposes.

As one who was charged with the responsibility of convincing Congress to create that trust fund in the first place, I am upset that the money has not been there and that the air traffic control system has been allowed to fall into the state that it now is. I have shared this before, but I think in this place it should be raised again.

Someone did a study of the computers in the Government to see how vulnerable they were to hackers who could break into the computer system and get at Government data, and they came back and said, every portion of the Government, the Defense Department, the IRS, every portion of the Government is subject to attack by outside hackers save one, and that one is the air traffic control system. Their equipment is so old and so obsolete and the software so unknown to today's hackers that they are immune from outside attack. [Laughter.]

Somehow I do not find that reassuring, and I am delighted that this hearing has been held, and I look forward to hearing from these witnesses.

Senator SHELBY. Senator D'Amato, your written statement and those of all of you will be made part of the written record in its entirety. You may proceed as you wish. Welcome to the committee. You have spent a lot of time on this committee yourself earlier in your Senate career.

STATEMENT OF SENATOR D'AMATO

Senator D'AMATO. Well, Mr. Chairman, let me thank you for not only holding this hearing but your moving to bring it on so quickly, given the tremendous thrust of business that you have to deal with, and it was only a matter of weeks ago that I requested the subcommittee hold hearings.

I would like to thank Congresswoman Molinari for appearing here today. The Borough President of Staten Island, her father and former Congressman Guy Molinari, who unfortunately was not feeling up to par to appear today, has sent in his place to testify his chief of staff, Dan Donovan. Guy Molinari has worked on aviation safety issues over the years when he was a Congressman and was on the Aviation Subcommittee. I would also like to welcome Congressman King, whose area and district takes in some of the people who work in the towers and the air traffic control centers.

Senator Lautenberg and I have worked over the years on a number of these aviation safety issues, and it is good to be here and to share some thoughts; however, I am sorry under these circumstances.

Senator Bennett raised a point that we will touch on with respect to the age and effectiveness of the equipment. It is a disaster, and a disaster ready to take place. It will happen, unless we do something.

Mr. Chairman, I want to thank you for giving us the opportunity to discuss the air traffic control situation in New York. I was going to read this speech, but I am going to just pick a couple of points out, because there is so much that has to be said, and I think my colleagues are going to touch on certain aspects of the problems and concerns that exist in New York's air traffic control facilities.

The current situation, I think, really came to our attention very vividly when a memorandum was leaked, a memorandum by Terry Bolerjack, who is the air traffic manager for the New York Center. I will ask for a copy of that memo, if you have not received it, to be made available.

This memo is in his language. I am certain he did not think that this was going to become public, because he would not have been as candid. But, Mr. Chairman, I went up there with Congressman King and Congressman Forbes and we saw the conditions at the New York Center. We have seen what's happening there.

Mr. Bolerjack is a man who deserves tremendous credit for calling to the attention of those working for him how serious the problem was. "Recent increases in New York Center operational errors and deviations have reached levels of grave concern." He did not mince words.

Now people will say, oh, well, these increases really were not levels of grave concern. Well, why did he say it? The man has been there for years.

"Analysis of these incidents has clearly established requirements for the immediate emplacement of improvements and refinements in our air traffic control [ATC] operations." He is specific here.

"The reduction of operational errors and deviations is our No. 1 priority." He is saying, we have got a problem here. This is our No. 1 priority.

"It is imperative that a concerted effort be made by the entire facility management team to immediately effect a substantial decrease in all categories of errors. The effective accomplishment of this priority will require both the commitment and best efforts of all of us."

Then the memo goes through what he is directing people to do, and he concludes with, "I regret that I must impose such a short deadline for this submission, but I firmly believe that we must take positive action in the earliest timeframe."

Coincidentally, my old roommate and Congressman and friend, Borough President Molinari, and Congresswoman Molinari, conducted a survey, and they got back a survey from nearly 200 air traffic controllers.

They are the controllers who try to man this outdated equipment, 26-plus years old. We ought to be ashamed of ourselves. Imagine a technology where controllers talk to each other and they can be disrupted at any one time. This is what you have in America in our skies.

Ask any pilot, and he will tell you the air traffic control system is a joke, it is a travesty, and the operation has been a travesty over the years. It has not gotten better. It has gotten worse.

Now, if you ask these people who will come up here and testify, the union representatives, what things are really like, let me tell you, they cannot tell you what it is like, because it means incredible consequences to them and to the people they represent. I am concerned that they could face unintended consequences where they could be shifted here, there, demoted up, down, or even possibly lose overtime.

Senator SHELBY. Mr. D'Amato, but you can tell us and tell the American people, and so can the Congress, Congressman King, and

Congresswoman Molinari, and tell the American people what it is like. That is why we are holding this hearing.

Senator D'AMATO. That is right, Senator, and I thank you. I think the American people thank you for giving us this opportunity, and I thank those who have come to us and shared some of this data and this information. It is incredible.

Let me just say that, over the last 8 months, airplanes carrying many hundreds of passengers have been coming too close to each other at the rate of more than three times each month. This is in the New York corridor, and it is a disaster waiting to happen.

The number of near misses has increased in the complex New York airspace by 26 percent. This is a problem. Senator Lautenberg alluded to it. It has gotten worse over the years. It has not gotten better. There have been six near misses since April—six near misses since April, including one this last week. Last year there were 760 incidents nationwide.

NEW YORK CONTROLLERS SURVEY

Now, the controllers and technicians that I spoke to have seen this taking place, and yet they feel powerless, and these incidents are taking place for two reasons. First, there are not enough fully trained controllers on the job, and second, the equipment that they are using is old and outdated.

Let me refer to a survey that was taken, a blind survey with no names, given to the controllers. The survey produced 182 responses.

Eighty-four percent of the respondents said that the morale was either low, or very low. These are the people whose lives we depend on—84 percent—that is a heck of a statement.

The controllers indicated that their workload is overwhelming. About 92 percent of the controllers surveyed said that they were required to handle more air traffic than was safe.

When asked what the most serious problems were, about two-thirds said they had too few fully trained controllers. Even the controllers that you have there in many cases are not fully trained.

Morale of the work force and outdated hardware were the next two areas of concern. Now, listen to this—amazing—40 percent of the personnel rated the overall safety of the air traffic system as poor, and an additional 4.9 percent said very poor, so you have 45 percent of the people who operate these systems saying that it was poor or very poor. We are talking about the safety of our people.

At the New York Center, which controls the airspace over New York, New Jersey, and parts of Pennsylvania and Maryland there are supposed to be 339 fully trained controllers. Today, there are 308, but of the 308, only 232 are fully trained.

Now, is it not interesting that today the FAA announces that they are going to hire 100 more controllers—and by the way, hiring 100 and getting them in there is far different than making a statement, as Senator Lautenberg knows. I dare say those 100 will not come online for who knows how long. It is not good enough to make such statements to satisfy Congress and then continue business as usual. But I fear that is what is taking place.

The number of fully trained controllers is more than one-third below the FAA's staffing standard, and I am not telling you that

the staffing standard is sufficient, but at their minimum levels they are one-third below. On any given day, there are supposed to be 190 controllers on hand; however, the New York Center typically runs 20 to 30 percent below that number. That is what is happening at the New York Center.

You are wondering why? Exhaustion, fatigue, greater airspace that they have to cover.

What's more, the FAA enacted a reduction in force program nationwide. Hundreds of positions were eliminated. The New York Center lost 34. These employees at the New York Center performed vital basic tasks, such as carrying data from station to station which enabled the controllers to do their job. With the loss of these positions, controller and controller trainees are forced to perform these additional tasks.

We have given them more airspace, we have given them more tasks, and they continue to have to use outdated equipment.

That is incredible, because let me tell you about the people who maintain the equipment. I did not know this until I toured the New York facility, and then one courageous person in front of everybody said, "Senator, don't forget the technicians, we are the people who take care of this equipment. Did you wonder why you are delayed when you come in from New York? Did you wonder why sometimes you were held 3 hours?"

I do not mind being held on the ground 3 hours, if it is a matter of safety; however, I do not enjoy it. But I did ask him, why? He said, "We only have 60 percent of the staff necessary to take care of these facilities."

He said, "Did you know that we operate sometimes without anyone here?" He said, "Do you know in terms of our testing of the equipment they keep extending the time because we do not have enough people, so we are not even checking on the equipment the way we should be?" So it is outdated equipment, it is old equipment, and we are cutting back on the people who maintain it and who keep it operational. You wonder why we have these outages? Incredible.

Let me talk about the outages, if I might, because it is interesting that just yesterday at 8:35 a.m., at Washington National the switching equipment which lets the airplanes communicate with the controllers at the tower facilities went out. I do not know if my colleagues know about that, because we fly out, basically, on weekends.

Well, why did this outage occur? It took them from 8:35 until 4:15 for the outage to be fixed. That was 8:35 in the morning to 4:15. They had 61 flight delays, lasting an average of 45 minutes, some much longer. Delays continued until after midnight, on practically the whole east coast. Why?

Well, I will tell you why. The FAA has the policy now which requires that an outside contractor must do the repair work on the equipment. They could not get the contractor there to do the job. Finally, a technician said, "listen, we will do it ourselves," but they had to wait for the contractor.

By the way, the FAA technicians on the job located the problem within 2 hours, so at 10:30 they located it. They could have fixed

it by 11:30 or so. The contractor wasn't there to fix it until 4:15. Now, that is the kind of thing that is going on regularly.

So the FAA today puts out this drivel to try and appease this committee—they say, oh, look, we have taken care of the New York problem. We want to hire 100 people. Baloney. Nonsense. Nonsense. The FAA says they are going to hire them, but how long before they get online? How many of them are fully trained? How many of them get up in those towers?

The busiest towers and air traffic facilities in the world, and they are going to put people who are not fully trained in them? Are you kidding? How many does the FAA have ready to go there? Where has been the hiring policy because this problem did not just develop yesterday, or the day before. This has been going on for years, and if you look at the numbers you will see where the staffing increased.

By the way, the FAA did increase staffing. Do you know where? Headquarters. Headquarters. That is where your budget money is going, Senator Domenici, instead of putting it out there in the field.

And do you know, they are cutting back on training? Cutting back on training. Incredible. What do you expect these poor people to do who are out there, the people who are managing this system like Mr. Bolerjack. What can he do if you do not give him enough personnel? What can he do if you do not give him people to maintain the equipment?

What can the people over here at National Airport do when the FAA relies on outside contractors? By the way, the FAA might say it saves money hiring outside contractors, but according to the GAO it does not. It costs more money. Each full-time technician hired saves the FAA $26,000 annually over the cost of keeping an outside contractor on the payroll. What are we doing?

You know, it sounds nice when you say, "hey, guess what, we have the private sector coming to help you here. We are going to save you money." It is not happening. You have got chaos and confusion, that is affecting the lives of people.

Senator SHELBY. Senator D'Amato, I think you are on a good point. Let us save lives here and train the people right, because we are not talking about that much money, but we are talking about a lot of lives.

Senator D'AMATO. Mr. Chairman, I am going to conclude my remarks, because I know Congresswoman Molinari and Congressman King have areas where they will touch on, but the fact of the matter is, you have got to have a fully trained work force that has sufficient numbers on staff doing the job. The FAA management at the top levels here in Washington are shortchanging the American people and endangering their lives. It is that simple.

Now, I am not telling you that it is an easy answer to get all sophisticated equipment, because that has been gummed up for years and years, but it is not a relatively difficult thing to make sure that the training facilities are operating at full capacity instead of cutting back. It's amazing. Whenever they need to save money, they stop training the air controllers and they stop training the air technicians.

By the way, we now maintain about 40,000 pieces of equipment and/or sites, and we have about 6,000 people who do that. We used

to maintain about 20,000 pieces of equipment and sites, and we had 11,000 people. So while we have doubled the number of facilities that have to be handled, we have reduced dramatically the number of online people. What's more, while they were reducing staff of the working people they were increasing staffing at central headquarters. That is what is taking place.

So I share this with you. I think this is going to have to be an ongoing process, Mr. Chairman, where your committee and others use their great power. You have started that by calling today's hearings, and I commend you for that.

If you do not watch the FAA day-in and day-out, if you do not encourage a line of communication between some of the frontline people who are out there doing the real work, you are never going to get this pertinent information and significant change will never get done. It will be a Band-Aid. It will be a press release. They have sent out a release, "we are going to hire 100 people. See, we are going to bring it up to staff."

Again, Senator Lautenberg has heard many of these promises over the years, and I commend him for never giving up, because we cannot. Once we turn away, it is business as usual. The situation is deteriorating. It is not getting better. It is deteriorating.

I thank you.

Senator SHELBY. Congresswoman Molinari.

STATEMENT OF CONGRESSWOMAN MOLINARI

Ms. MOLINARI. Yes; thank you very much, Mr. Chairman and members of the committee. I thank you for your time and interest, and certainly, Senator D'Amato, we thank you very much for bringing us here all together.

You know, every so often, as Senator D'Amato has said, we have a report that jolts airline passengers from their seats, because we have to determine that it is in fact in some cases unsafe to fly.

I would like to say to Senator Lautenberg that Dan and I were traveling this morning, and while we were waiting on the ground at Newark the pilot said to us that he had been a commercial pilot for 30 years and in the Air Force before that, and he had never seen a line of planes waiting to take off as long as we had to endure.

People are late for their meetings, people are late for their connections, and this happens routinely.

Over the past 12 years as a Member of Congress and a Staten Island Borough President, Guy Molinari has been addressing this problem. The serious and potentially dangerous problem that started amongst air traffic controllers at individual centers is now finally being addressed by the FAA we think—we hope.

As Senator D'Amato said, the catalyst for today's hearing was this internal FAA memorandum, which states clearly our current air traffic safety system is inadequately designed and staffed to handle the large volume of planes it must on a daily basis.

The catalyst to the memo was that during the past 6 months prior to this memo there were 24 incidents at New York Center where planes had come dangerously close to one another in flight. According to the center's manager, the problem had reached "levels of grave concern."

The response from the FAA was puzzling, but it is also very telling about their attitude. It described the dramatic increase in close calls as statistically unrelated to the shortage of air traffic controllers at New York Center. They concluded, overall safety has actually increased. That is right. They said overall safety has increased, even though one controller is now doing the work of two or four.

Now, that may be acceptable for the FAA, but that is clearly not acceptable for airline passengers.

Mr. Chairman, members of the committee, can any one of us believe one person can perform a better task requiring the work of four, when there has not been updated equipment to make that change? Will the FAA also have us believe that one wing is better than two?

The air traffic controllers, the people charged with the task of keeping the skies safe, do not agree with the FAA's bizarre explanation, and neither do I. There simply are not enough hands nor eyes to do the work, and as Senator Lautenberg has said, unfortunately this is not a new problem. Air traffic control facilities have been grossly understaffed since 1981, and over the past 16 years, the FAA has failed to develop an adequate solution.

A 1989 General Accounting Office study commissioned by then Congressman Guy Molinari surveyed FAA workers about safety and other conditions at their facilities. The GAO survey revealed great differences in the way air traffic controllers and the FAA viewed conditions at air traffic facilities. Not unexpectedly, controllers and supervisors received a critical shortage of full performance level controllers.

What does this do? The shortages forced controllers to handle unmanageable volumes of air traffic and work too long without a break.

These controllers also said that new workers receive inadequate training, and that the overall morale was low, and these factors hindered their ability to maintain the system safely. This is 1989.

The reason is simple to understand. Let us look at New York Center's one example among many. Last year, I visited the center and saw firsthand the problems and the fears expressed by the controllers. In an all-hands session during my tour the controllers cautioned that air traffic equipment was sometimes unreliable and often malfunctioning.

I saw a system, and I hope somebody is going to come up here who is going to explain it more professionally, called the ODAP system that deals with over the ocean, and basically all it does is type out little strips of paper that have the longitude and latitude of where planes are taking off. It then goes into almost like a puzzle game piece on a wall, and then it is up to that controller to study and measure and continuously focus and refocus.

In this age of technology, it is unconscionable that we do not have a computerized system that allows the air traffic controller to do the backup work but not the sustainable work, and it is also not uncommon for that system to go out completely, and then the air traffic controllers and the pilots are literally flying blind.

They warned equipment problems during this all-hands session, combined with staffing shortages, created an unprecedented situation for disaster.

Since 1981 the volume of air traffic handled by New York Center has increased 36 percent. Today, the New York Center route, the flights of 6,500 planes per day covering 35,000 square miles of the Eastern United States, over 3 million square miles of the Atlantic Ocean. That is their charge in this one center. It is huge.

Recent inventories show that we have a 45-percent reduction of air traffic controllers, so we have seen a tremendous increase in the amount of sky they have to cover, the amount of planes that are traveling, and a decrease in air traffic controllers.

To make matters worse, and I hope you ask the FAA to address this, the number of controllers at New York Center will be continuing to decrease. Nearly 60 percent of those controllers who are eligible to retire will do so within the next 2 years. Where is the backup plan to handle that pending crisis, when we have not fixed the pending crisis over the last 16 years?

Many others who came to the center from other parts of the country on a temporary basis for training would like to return to their facilities closer to home, so the number that they have is not even accurate, because they have said, based on the results of this report and the data provided by the FAA, they are out of there.

Moreover, with working conditions as dismal as they are, it is not surprising that the facility has difficulty retaining experienced controllers and attracting new ones.

Senator D'Amato referred to the fact that the FAA said they are going to hire all these new air traffic controllers. Senator Lautenberg will confirm every time Congress gets serious or the borough president gets serious and raises a red flag, a memo, a press release comes out from FAA saying they are increasing air traffic controller hiring, and then they do not have the program to train these air traffic controllers.

At New York Center, it takes 3 to 5 years to train an air traffic controller, because they bring them on, they take them off, they have shortages of actual air traffic controllers, nevertheless, the people to train them, so to say they are hiring 100 is not good enough. When will they be able to do the job?

This has been a longstanding problem at New York Center and other hard-to-staff facilities. Although the FAA initiated a pay incentive program in June 1989 to beef up its staff at such facilities, those pay incentives have since been reduced. In areas where it is so difficult, where the quality of life is more expensive, the FAA has to answer the question, what do we do to provide incentives to get air traffic controllers to those areas of the country?

It is hard to believe that the controller shortage was caused by a simple lack of funding, Senator Domenici. The FAA budget jumped over $800 million since 1991, to $4.1 billion in 1996. In 1997, its funding was again increased to $5.2 billion, and it will exceed $5.3 billion next year.

It is also hard to believe that incompetent management alone is the cause. In the past 16 years, the FAA has been headed by seven different administrators, and it is clearly, anyone can tell you, not the work force there.

I would suggest to you, Senators, that this situation would be more tragic, we would have more disasters, if it were not for the type of men and women who fill the positions of air traffic control-

lers who work overtime, who do all they can to make sure that the system works above and beyond the call of duty.

There is no doubt in my mind that we are cruising toward disaster if the FAA does not hire more controllers and have a program to train them at once.

Senators, let us not wait until a collision occurs. Let us not wait until another near miss becomes a tragic disaster. Let us please assess the problem now, and I thank you all very much for giving us this opportunity to bring this crisis and this level of frustration to your attention.

Thank you very much, Senators.

Senator SHELBY. Congressman King.

Ms. MOLINARI. Excuse me, Senator, before I go, I just want to make sure that the 1997 Air Traffic Controller Work Force Study that my dad and I performed is entered into the record.

PREPARED STATEMENT

Senator SHELBY. It will be made part of the record in its entirety along with your complete statement. Thank you.

Ms. MOLINARI. Thank you.

[The statement follows:]

PREPARED STATEMENT OF CONGRESSWOMAN MOLINARI

Chairman Shelby, Ranking Member Lautenberg, members of the Committee. Thank you for giving me the opportunity to testify today.

Every so often airline passengers are jolted from their seats by news that it is unsafe to fly. The most recent alarm, but one which Staten Island Borough President Molinari, has been sounding for more than a dozen years, is that air traffic control facilities are chronically understaffed. The epidemic has spread from low whispers among controllers at individual centers to the halls of the Federal Aviation Administration (FAA) itself.

The catalyst for today's hearing was an internal FAA memorandum. The memo said, clearly stated that the air traffic safety system today is unsafe. According to the memo, in the past six months there were 24 incidents at New York Center where planes had come dangerously close to one another while in flights. According to the Center's Manager, the problem had "reached levels of grave concern."

The response from the FAA was puzzling. It described the dramatic increase in "close calls" as statistically unrelated to the shortage of air traffic controllers at the New York Center. They concluded that overall safety is actually increased—that's right increased when one controller does the work of two or four. That may be acceptable for the FAA, but it is not acceptable for airline passengers.

The air traffic controllers—the people charged with the task of keeping the skies safe, do not agree with the FAA's bizarre explanation. There are simply not enough hands—or eyes—to do the work. And unfortunately, this is not a new problem. Air traffic control facilities have been grossly understaffed since 1981, and over the past 16 years the FAA has failed to develop an adequate solution.

A 1989 General Accounting Office ("GAO") study commissioned by Borough President Molinari while he was a member of Congress surveyed FAA workers about safety and other conditions at their facilities. The GAO survey revealed great differences in the way air traffic controllers and facility managers viewed conditions at FAA air traffic facilities. Not unexpectedly, controllers and their supervisors perceived a critical shortage of full performance level controllers.

These shortages, force controllers to handle unmanageable volumes of air traffic and work too long without a break. The controllers also said that new workers received inadequate training and that overall morale was low. And these factors hindered their ability to maintain system safety.

The reason is simple to understand. Let's look at New York Center as one example among many.

I visited the Center last year and saw first-hand the problems and fears expressed by the controllers. In an all-hands session during my tour of the facility, the controllers cautioned that the air traffic equipment was sometimes unreliable and often

malfunctioning. They warned that equipment problems—combined with staffing shortages created an unprecedented potential for disaster.

Since 1981, the volume of air traffic handled by the New York Center has increased 30 percent. Today, the New York Center routes the flights of 6,500 planes per day, covering 35,000 square miles of the eastern United States and over 3 million square miles of the Atlantic Ocean.

To make matters worse, the number of controllers at New York Center will be decreasing. Nearly 60 percent of those controllers who are eligible to retire within the next two years intend to do so. Many others, who came to the Center from other parts of the country on a temporary basis for training, would like to return to facilities that are closer to their home towns.

Moreover, with working conditions as dismal as they are, it is not surprising that the facility has difficulty retaining experienced controllers and attracting new ones.

This has been a long-standing problem at New York Center and at other hard-to-staff facilities. Although the FAA initiated a pay incentive program in June 1989 to beef up its staff at such facilities, those pay incentives have since been reduced.

In the face of this looming staff shortage, the FAA responded by closing its main training facility for controllers and technicians in Oklahoma.

It is hard to believe that the controller shortage was caused by lack of funding. The FAA's budget jumped over $800 million since 1991, to $4.1 billion in 1996. In 1997, its funding was increased to $5.2 billion and it will exceed $5.3 billion next year.

It is also hard to believe that incompetent management alone is the cause. In the past 16 years, the FAA has been headed by 7 different Administrators.

Today's hearing is the first step in repairing an air traffic safety system that is in trouble. There is no doubt in my mind that we are cruising toward disaster if the FAA does not hire more controllers at once.

Let's not wait until a collision occurs.

Let's not wait until another near miss becomes a tragic disaster.

Let's not wait until our air controller force is hanging by a thread.

The time to act is now. We must not delay.

[CLERK'S NOTE.—The 1997 Air Traffic Controller Work Force Study does not appear in the hearing record, but is available for review in the subcommittee's files.]

STATEMENT OF CONGRESSMAN KING

Senator SHELBY. Congressman King.

Mr. KING. Thank you, Senator Shelby. I really appreciate the opportunity to be here today. I thank you for convening this hearing. I also must commend my colleague, Senator D'Amato, for the tremendous leadership he has shown, and of course Congresswoman Molinari and Borough President Guy Molinari for never giving up on this issue. They realize how important it is, how vital it is, and they have just kept this fight going, and it is really essential that we try to rectify this tragic situation as soon as possible.

I would just like to say at the outset, though, Senator D'Amato says he does not mind waiting 3 hours on the runway on La Guardia Airport. I do, if I have to sit next to Senator D'Amato and I hear a 3-hour speech on ATM's and the FAA, and I get his entire litany of abuse that he was going to give to other people, and I have to listen to it for 3 hours on the runway. [Laughter.]

But this is a serious issue, and I just want to touch on a few points that Susan brought up, the fact about how there has been such a drastic increase by 35, 36 percent in the air traffic over the New York corridor, and yet there has been an even more significant decrease in the manpower levels of air traffic controllers, and you would think perhaps this can be explained by the fact that the technology has been improved so much we do not need as many air traffic controllers, but as Senator Bennett has pointed out, the technology is not up to par.

In fact, my understanding is that some of the technology is so antiquated that IBM does not even make the replacement parts for the equipment any more. That is how old this technology is, how outdated it is, and how antiquated it is.

Now, on a number of occasions I visited New York TRACON, I have visited La Guardia tower, and I have seen firsthand these air traffic controllers routinely work 6-day workweeks, they put in countless hours of overtime, I have observed radar terminals that were unmanned and other positions that were designed for two controllers being staffed by only one.

When I was out at the New York Center last month I was surprised to see controllers still using grease pens and plotting boards to map the position of planes under their surveillance.

The fact is, as Senator D'Amato said, these are tragedies waiting to happen. Thank God we have the outstanding personnel we do have among the air traffic controllers, but the bottomline is, there is only so long we can put off the inevitable, and the inevitable will be tragedy.

As Susan Molinari pointed out, in the last 6 months alone there has been 30 percent increases in near misses. I mean, 30 percent increase in near misses, and for the FAA to write that off as some sort of a statistical aberration I think shows the type of shortsightedness that is perhaps the root of this problem overall.

We have to address it. This hearing is absolutely vital in helping us come to a way to address it, and I certainly look forward to working with the members of this committee and also my New York colleagues, Senator D'Amato and Congresswoman Molinari. At least for the next 6 or 7 weeks, Susan, I look forward to working with you, and then I look forward to going on her TV show and explaining it to the public at large, how terrible the situation is in New York.

But very seriously, this is a vital matter that must be addressed, Senator, and I just want to thank you for convening this hearing today and as you said before, we have to save lives. We are talking about human lives, and no responsibility of a Member of Congress or a Member of the U.S. Senate can be more vital than saving American lives, and that is what we have to do, and that is what this hearing is all about.

I thank you, Senator.

Senator SHELBY. We now have Hon. Dan Donovan. He is the chief of staff of Guy Molinari, borough president, Staten Island, Long Island.

STATEMENT OF DAN DONOVAN

Mr. DONOVAN. The borough president regrets that he cannot be here to give this statement personally, and he has asked me to read the following:

Good morning. I am Staten Island Borough President and former Member of Congress Guy V. Molinari. I welcome the opportunity to share with you my thoughts on air traffic control staffing. Air traffic controllers are a special breed. They are dedicated professionals. No matter how difficult an assignment is given to them, the controllers will find a way to make it work. They are the ones most competent to identify problems in the system. I am therefore going to share with you their evaluation of the air traffic control system, particularly as it relates to the New York region.

As you know, in 1981 President Reagan fired 11,400 air traffic controllers for participating in an illegal strike called by the PATCO union. At that time, we were told that the FAA would rebuild the system within a relatively short period. Here we are, 16 years later, and staffing remains at less than desirable levels at many of our major and minor air traffic facilities throughout the country.

At the New York Center, prior to the 1981 strike there was a total of 514 controllers, including 405 FPL's, full performance level air traffic controllers.

Recently, the FAA and the union have agreed that the permanent staffing levels for controllers should be set at 374, and that a minimum of 335 controllers should be hired at that center by the end of the next fiscal year.

However, recent inventories show there are now only 281 controllers at New York Center, 229 of whom are fully qualified. That is a 45-percent reduction from 1981.

While it is true that the FAA has transferred some air space to other centers, you should also know that air traffic has increased 36 percent since the 1981 strike. What, then, do the controllers tell us?

In 1985, the General Accounting Office conducted an extensive survey of almost all air traffic facilities in the country. Seventeen percent of the controllers rated the system as poor or very poor nationwide. Forty-two percent said that the shortage of FPL's strongly hindered or somewhat hindered the safety of the air traffic system. Ninety-one percent believed the total number of FPL controllers was somewhat lower or much lower than needed.

In 1989, at my request, GAO conducted another survey entitled, "Aviation Safety. Serious Problems Continue to Trouble the Air Traffic Control Work Force." That title alone conveys a strong message.

Again, 16 percent of the controllers warned that the system was poor or very poor, virtually unchanged from 1985. Sixty-five percent believed they were handling too much traffic, and 43 percent indicated their morale was low, with even 36 percent of firstline supervisors labeling their morale low as well.

In the last few months, with the assistance of GAO and Congresswoman Molinari's office, I conducted a similar survey at New York Center. A total of 182 air traffic controllers responded and revealed the following.

On the critical issue of safety, 40 percent rated the overall safety of the air traffic system as poor or very poor, more than double the national finding in 1985 and 1989. Ninety-three percent of controllers said the shortage of developmental controllers puts the flying public in danger. Ninety-seven percent stated that the shortage of FPL's strongly hinders or somewhat hinders safety. Ninety-three percent of the controllers said that they were handling much more or somewhat more traffic than they should during peak hours.

And surprisingly—not surprisingly, excuse me, 84 percent said morale at New York Center was very low, or low, more than double the national figure from 1989.

Despite the many studies and many warnings in the past 16 years, the FAA has failed in its very important mission to provide adequate staffing of air traffic controllers, not only in the New York Center but in many other facilities nationwide. Too frequently, controllers pose the question of, does it take a midair collision to give us relief?

You might ask, what options are available? There have been different experiments tried by the FAA. They tried a 20-percent pay differential increase in 1989, which met with a fair amount of success. When the pay incentive was reduced to 12 percent, it did not work. Many of the controllers in the New York Center now are seeking transfers, since they do not come from the New York region. If the FAA does not implement adequate pay incentive programs, the only other solution is the proposal suggested by the NATCU Union, embark on an aggressive employee recruitment program among local residents. These are people with roots in the community, and they are less likely to seek a transfer out of State.

The proposal would have them serve 2 years at the center and then be assigned to the Oklahoma City Academy. When they graduate, they will be reassigned to the New York Center, and that would help alleviate the present problem where controllers are seeking transfers to their home region.

Let me close by saying that for too many years, I have been very troubled by this shortage of adequate staffing at many of our air traffic control facilities. I have lost faith in the FAA, and am convinced that only intervention by Congress will answer the problem. I am afraid that failure to act more aggressively will ultimately lead to tragedy, and that is something I am sure we all want to avoid.

Thank you, Mr. Chairman.

Senator SHELBY. Senator D'Amato, I take it from your testimony and the others here today and other information we have that it

is obvious that with the staffing issues, with the equipment failures and near failures in the New York-New Jersey area, the problem is getting a lot worse. It is not getting better. That is a given, is it not?

Senator D'AMATO. Mr. Chairman, yes, absolutely, you are right.

Senator SHELBY. If it is, if we accept that, what actions would you suggest, in addition to additional training, that FAA should take to rectify the problems in the New York-New Jersey area?

Senator D'AMATO. The first thing I think they should do is come in to see the Congress, the leadership of the Congress, and tell them that they have an important proposal. I would do this on a bipartisan basis, and explain to the leadership why it is in various areas obtaining proper staffing levels is such a problem. I do not know what the situation may or may not be in other high-cost and high-traffic areas.

Senator SHELBY. Like Atlanta, or Chicago?

Senator D'AMATO. Maybe Chicago, yes, or Los Angeles, because I would imagine you have the same kind of thing taking place. We should reinstitute a plan that would reward those who are going to work under these extraordinarily difficult situations, at least for the near future. We should reinstate a pay differential.

That would have to be explained with candor to the various leaders so that they would understand, and so this would not look like anything other than what it really is intended to do, that is, to retain people. If we do not, why would someone want to stay here or in any one of these high-cost, high-traffic regions, when they could go to an area—and I am not going to mention any particular area of the country—where one-tenth of the flights come in, and they get paid the same? You have to address the problem where you have one-half the staff looking to transfer out.

We also need to address the recruiting program. There are a number of wonderful technical schools that work in the area of training people to become pilots in the aviation industry. Recruit people from the New York-New Jersey region, from the area schools and in sufficient numbers to fill air traffic controller positions. The FAA just started a pilot program. Do you know how many people they are going to recruit? Ten. It is a joke.

If you look at how many people will be retiring, the FAA indicates that they think it is something in the nature of 211 people, but the GAO says, oh, no. It is going to be 560 by the year 2001, 2002. In other words, much more than what the FAA is anticipating. They always underestimate the problem.

And by the way, let me tell you what is happening at the training school in Oklahoma. Do you know what these turkeys did? As a matter of fact, they make turkeys have a bad name. Turkeys would not operate this way. It is incredible.

Anyway, here you have a nationwide shortage of fully trained people, and what does the FAA do, they close the training school whenever they have to save a couple of bucks. They should close the headquarters. Throw some people out of the headquarters. Do not close the training school which turns out these people. We need to know how many times in the past years they have done this.

And then they come to the Appropriations Committee, and Senator Lautenberg tries to find more money, and you, Mr. Chairman,

try to find more money to keep the training school open. That is where these turkeys go to save money. Incredible. Stop the outside contracts. Stop this kind of nonsense. This is poor, disastrous management.

Senator SHELBY. Congresswoman Molinari, do you have any comment?

Ms. MOLINARI. I would just reaffirm that obviously local recruiting is something that is very important to those of us in the region. Pay incentives have to be implemented to solve the immediate crisis, and the overall problem has to be dealt with in terms of long-term planning.

The situation that Senator D'Amato just described only results in the fact that we have no training pipeline. We may stick our finger in the dike for today and tomorrow, and then you know, 3 years from now we are back to where we started.

It is clear that management has the tools to make these projections, and if they are really concerned about air passenger safety, they would account for that with regard to the way they deal with training. That has never been done.

Senator SHELBY. Congressman King.

Mr. KING. I would just reaffirm what Senator D'Amato said. There does have to be some form of pay incentive.

Also, Senator, I think it is important to realize that one of the jobs of air traffic controllers is to train new controllers, and when they are overworked to begin with, it is hard for them to go about and do the necessary training that is required, and that inevitably slows down the training process, so I think all this is just a vicious circle we are going in.

Senator SHELBY. Senator Lautenberg.

Senator LAUTENBERG. Thanks, Mr. Chairman. Obviously, I listened with interest to the criticism of the system by my colleagues, for whom I have respect, and I tried to relate the often referenced analogies between how you run a business and how you run FAA or other Departments of Government.

I remember the time—I was not in the Senate at the time. I was running a company in New Jersey, that area, and I remember how pleased a lot of people were when they kicked out all those controllers. They had performed an illegal action, and they were gone, and there was almost—I would have to describe it as gloating, pleasure, happiness. We paid those suckers back.

Well, I would tell you, I listened to the criticism again, tried to be objective, and I ask, if it was your company, and you were breaking out of the windows, and breaking out of your capacity, would you say, for crying out loud, let us cut down the number of customers. We cannot take care of them. We are up to here.

If it was a theater you would not jam the place so full that if there was a fire or an incident, that you could not get out of there. If it was a swimming pool in a municipality you would not put so many kids in there just because there was a line outside. You would put up a sign—I have seen signs at the beaches, Long Island. No room. No parking. On your way.

Well, maybe it is time, and I would ask any of my colleagues at the table, do you want to cut down the volume of air traffic that we are carrying? What do you think?

Senator D'AMATO. Well, in essence, Senator, that is exactly what is taking place, because they are holding you for 3 hours, or they are delaying for 45 minutes, and they are putting people in huge lines, so that is what is taking place.

And I said to you initially, I said, oh, I am much more happy to wait the 3 hours than to put myself in more danger.

Senator LAUTENBERG. Ride Amtrak.

Senator D'AMATO. That is one alternative. But, the FAA is doing two things. Not only are they delaying, which I say, fine, as opposed to flying into a place where you may have a power outage, and the controllers cannot operate their equipment, but in addition, they are still operating the system in a dangerous manner, one that is absolutely not acceptable.

Senator LAUTENBERG. I would say this, that we have a comparison, if one wants to make one, the size of the theater and the amount of airspace. You can only fit so much traffic, and as opposed to a reaction, or perhaps it ought to be an action, and I am going to pursue this for a minute, because I want someone in here to say, enough. We cannot handle it, and you, airline A, B, and C, you are just going to have to limit the number of flights that you have.

Well, I mean, it is easy to sit here and scream about how dangerous and how casual, and how turkeyish, and what we want to do. These are not assassins. These are people who are trying to do a job, for crying out loud, and yes, we have made mistakes, and the mistakes have been as much on this side of the table as out there, when it comes to funding.

No; get outside contractors. We do not want any more Government bureaucracies managing our—give them the outside contractors, until the outside contractor screws up, and then we say, we have no control over those outside contractors.

I think we have to make up our minds. Do we believe in a Government that can handle its responsibilities, or do we just want to sit by and curse out everybody who tries their best to do a job?

This space may be a little bit dangerous. My kids fly in there, my daughter, my grandchild, Susan's child flies in that space. Why? It is because fundamentally we believe, despite some problems, that it is a darned good system, and we want it to continue to operate.

I would rather—if I am laying on my back in the street someplace, and they call up EMS and they dial 911, they say, hey, we need a technician, this guy's out cold, I would rather have them send a partially trained EMS person than no one, say we do not have fully trained—we are in a situation, my friends, one that requires our cooperation, just as well as pointing a finger.

And yes, I will tell you, FAA has been screwed up for a long time, and Congressman King, I tried to give FAA equipment. I was in the computer business. To give it to—rather, to give it to charities as a contribution. They would not take it, because it costs more to maintain it than the value of the equipment that FAA was using.

I do not want to lay off any of the blame that falls FAA's way, but some part of it really is on this side of the table.

And when it comes to allocating resources, when it comes to saying, listen, we just cannot handle that traffic, we cannot go any further, we have so much airspace, 35 percent increase in aviation constitutes all kinds of changes.

It is not simply that it is just 35 percent more, because if you could widen the airspace, if you could build larger airports—how many times have you had an occasion when you land in La Guardia, or Newark, or Washington, DC, and you sit and wait for a gate almost as long as the flight takes.

So the system is overburdened, and the question that we want to decide is whether or not, instead of just pointing fingers, we are going to do whatever we can to fix it by saying to Continental and American and United and Delta and Northwest, hey, guys, what you have got to do is you have got to cut back on your traffic, and then we will see what the American people say. That will be the real test.

It is easy to get them on your side when all you are doing is belting out criticism. See if the American people say, OK, if I cannot make my reservation today and it takes 2 weeks in advance to make it, I am going to be satisfied with that kind of a system.

No, my friends; this is a thing that we are all in together. Nobody is exempt. What we want to do is make sure that FAA has the resources. I would like to make sure FAA has a chief executive that is responsible for his or her actions. To maintain their job, that is the exclusive criteria.

I am with the party that has got the executive now. I would prefer that no Chief of our Government has the right to appoint an FAA Chairman, Chairperson, because I do not think that when the job requires the kind of long-range planning that this does—and I come out of a fairly good-sized company. We had 16,000 people when I left it. Decisions that had to have long-range results had to have long-range planning and long-range supervision, and you do not change skippers in the middle of the flight.

So I think, Mr. Chairman, I am glad to hear what is happening, but when you have an FAA Administrator turn over—we have seen them. They have come from the military, they have come from business, good performers, but they are gone before the projects begin to show their weakness.

We spent $2 billion on a program that absolutely failed with one of the finest companies in America, one of the finest. If you said, who is the best name, electronics and computers and so forth, the name springs to mind. We spent $2 billion with them and had no positive result, $2 billion out the window like that, so maybe we ought to stop managing this thing so closely, make our demands, provide the resources, and let the people who have to run it, run it.

Senator SHELBY. Senator Lautenberg, we are not here for blame. At least, I am not here to call names and say who is to blame, but we are here seeking solutions, and to prevent problems in the future.

We are interested in safety. I will work with you and other members of the committee to see that the FAA has the resources to hire, also to buy the proper equipment. We owe it to the American people to put safety above everything as far as airline passengers

are concerned, because we are, as you point out, all passengers, and we are family, and we are in it together.

Senator Domenici.

Senator DOMENICI. Mr. Chairman, since I have to leave shortly, I want to spread across the record, if I might—it will just take me 2 minutes. Senator Lautenberg and I are on the same side in putting this budget together.

Senator SHELBY. Well, as I said, I am glad both of you are here today. You both are members of this subcommittee and you run the Budget Committee.

Senator DOMENICI. I want to make sure that everybody knows, whatever the President requested for the FAA, we gave him. There was no effort to cut anything in the FAA budget. First, transportation was created as a priority item, a priority function of Government.

This particular area of Government was funded in the following manner. FAA operations, the President asked for $5.1 billion. We gave him that. Facilities and equipment, he asked for $2 billion, we gave him that—$2 billion.

Research and development, he asked for $200 million, we gave him that.

The airport improvement program was one area that Senator Lautenberg was very, very tough on, and we wanted to make sure we were doing as much as we could. Actually the President asked for $1 billion, we gave him $1.5 billion, so the total spending for the FAA is in excess of what the President asked for.

Mr. Chairman, you have some latitude in terms of moving these numbers around, whether it be the airport improvement program or another FAA account. If the committee wants to provide some programs less and put more in something else, that is the function of this subcommittee.

Senator SHELBY. If the Senator would yield, I am going to be working with Senator Lautenberg to make sure that we move the money to safety, and safety and nothing else.

Senator DOMENICI. I make this point because some people assume that when we put a budget together that we do not accept the administration's priorities and fund them to the maximum level where there have been problems.

This one and many others were funded at the President's level, assuming that the executive branch knows more than we do, at least for starters, as to what we ought to fund and where the problems are. I ask that my chart showing FAA funding in the budget agreement appear in the record.

Senator SHELBY. It will be made part of the record without objection.

[The information follows:]

FAA FUNDING IN THE BIPARTISAN BUDGET AGREEMENT

The Bipartisan Budget Agreement contains annual funding increases for the Federal Aviation Administration (FAA). Annual increases of three percent are assumed for FAA Operations, Facilities and Equipment, and Research, Development, and Engineering accounts.

These assumptions are the same as the FAA's budget request for these programs.

For the Airport Improvement Program (AIP), the capital construction account of the FAA, spending is frozen at its 1997 level of $1.46 billion through 2002. The

President's budget request had been to reduce this program to $1 billion in 1998 through 2002.

Total FAA funding will increase from its current $8.5 billion to $8.8 billion in 1998 under the Bipartisan Budget Agreement.

The Bipartisan Budget Agreement did not include the Administration's request to make the FAA fully funded by user fees beginning in 1999. The agreement does not include any new user fees for the FAA as proposed by the President.

[Dollars in billions]

	1997	1998	Five-year totals
FAA operations	$4.9	$5.1	$27.4
Facilities and equipment	1.9	2.0	10.5
Research and development	0.2	0.2	1.1
AIP	1.46	1.46	7.3
Total FAA spending	8.5	8.8	46.3

Senator DOMENICI. I thank the delegation from New York for appearing. I think you made a good case, and from my standpoint every now and then we need appearances like this to recall some of the serious problems we have got and get on with trying to solve them.

Thank you, Mr. Chairman.

Senator SHELBY. Senator Bennett.

Senator BENNETT. I cannot add anything to this. I think our colleagues have been very exhaustive, and I appreciate their coming.

Senator SHELBY. Senator Faircloth.

Senator FAIRCLOTH. Thank you, Mr. Chairman. I do not know that I can add a lot to what has been said. I apologize for coming late, but the thing that has bothered me, and I have been concerned about it right much, and I had Mr. Donahue and Mr. Mims from the FAA over in the office one day this week to talk about how we spent over $3 billion on this advanced automation system.

Senator LAUTENBERG. Far more, but $1 billion we know is pure waste.

Senator FAIRCLOTH. And yet we talk about money for training people. Now, I would think $2 billion would train a lot of people.

The people that did this purchasing for the FAA were not severely punished. They were transferred from further purchasing, after $2 billion, and Senator Lautenberg, I do not question that IBM and Big Blue has a great reputation, but for 10 years and $3 billion, they fiddled with this thing, and nothing happened except a total catastrophe, so what do they do, they sell the division that was building it.

Now, if that is not cutting your losses and getting rid of your bad publicity, I do not know what it is. I do not know who we go back to. IBM no longer even owns the thing.

Now, that might be—in the private sector that is known as taking a dive in the onion dip—taking cover.

So we talk about money, but somehow there has got to be responsibility for the money, and you try to trace this thing, and everybody gives you a plea of insanity. Nobody knows what happened, how you could spend $3 billion—$1 billion we could have been better to put in a pile and burn on the runway. It would have

given us more light than what we have gained by a $3 billion fiasco.

So when we talk about more money, that has been a Government problem forever, because no matter what the problem is, no matter how much stupidity or how much waste, pour more money in it and it has got to get better.

Now, I do not know whether IBM has any responsibility in this thing or not, but it would appear to me that they did. Any time that you waste $3 billion of the taxpayer's money, somebody has to have some responsibility, and be responsible, other than the pitiful statement that we transferred a few of the purchasing agents out of purchasing. That is the weakest excuse I have ever heard for throwing away $3 billion.

Mr. Chairman, I thank you.

Senator SHELBY. Thank you.

Thank you all for coming here. I know it has been exhausting. It gets a little warm, gets a little hot in here, but this is a worthwhile hearing, because I believe it points out what we need to do here in this committee, that is to make sure, Senator D'Amato, that the agency is properly funded, and then that they are properly accountable for what they do in hiring and buying equipment and everything that goes on with the safety of our traveling public.

Senator D'AMATO. Well, Mr. Chairman, let me thank you, and let me say, if I seem to be unduly harsh, I make no apology, absolutely none.

Let me tell you something. Look at the record, and when you look at the record, you see a pattern of persistent misallocation of resources. The training school should be turning out more people, absolutely. They should have been doing that years ago.

I did not say it is just the management that is in now, and of course you do not even have an Administrator. This has been a continuing pattern. I am not going to make any apology here.

And this business about whether or not you have too much traffic in the air, of course you do if you do not have enough people to work the traffic, and of course, when you are working people overtime. Of course, when you have a guy who is covering twice the area and twice the responsibility. Of course it is dangerous when you do not have sufficient technicians.

Just look at what happened yesterday. I do not have to be here to apologize for what took place at National Airport yesterday. We are all accountable for this, and indeed, I believe that if it were not for the Congress of the United States and your oversight, Mr. Chairman, this situation would have been worse. I commended you, Senator Lautenberg, for your attempt to handle this, but let me tell you what is taking place is that the situation has deteriorated, notwithstanding the promises that have been made by the FAA.

Now, that evaluation comes from the men and women who man these systems—good, decent, hardworking people. Also, I think we have to ask, how is it that a tower went out at 8:35 at one of the busiest airports in the Nation, National Airport, and did not come back online until 4:15? When I indicate what took place, I have to tell you, I do not make any apologies.

But, I have to ask why do we have so many problems with our current system? We talk about the delays, of course, and that is

why the planes were backed up. But if there was only one isolated example, then fine. These things happen. But this is not isolated. It is becoming more routine. Hence, Mr. Bolerjack's letter of warning.

I did not make that letter up. That gentleman meant every single word, and if you had him here now, he would have you think that this is the safest, the best operational situation that we ever had. Why do you think? Because the bosses are on his back. He is a good man.

I did not make up when he said that "increases in operational errors and deviations have reached levels of grave concern. The reduction of operational errors and deviations is our No. 1 priority. I regret I must impose such a short deadline for this submission." I have only taken three little sentences out. This is real.

Now, we have not come forth without there being a constructive suggestion as it relates to dealing with this, both short term and long term. Long term, you have got to see that the facilities for training people, whether they be the technicians or the controllers, are operating at full staffing levels and are operating and increasing the capacity as opposed to decreasing capacity. You cannot get away from that.

We are going to have to take those men and women and get them into the facilities, get them trained as quickly as possible, not just to meet a critical situation today, but for the future as well. Long term, we are going to have to see to it that where we have some of these areas where we have a difficult time getting the needed amount of staff that we meet our responsibility. I am not saying that because it happens to be in the New York/New Jersey area. Whether it is in Chicago or Los Angeles, we must ask how do we keep the people we have and how do we attract new applicants?

One of the ways is to go to the great technical schools that we have, as well as the universities and colleges where young people who live in the area and can train in the industry can be recruited. In this way, the likelihood of them staying in the area as opposed to coming in de novo is much greater. It makes common sense.

So I suggest that there are a number of alternatives, as opposed to what is taking place now, because the status quo will lead to trouble.

Senator SHELBY. The status quo is too dangerous.

Senator D'Amato, I want to tell you that this committee is going to do whatever it takes to properly fund the FAA, and we are also going to have oversight and make sure that this money that we send is spent for safety and safety and safety. The American people deserve nothing less.

Thank all of you for coming. If you want to join us, you can. I am sure you have got a busy schedule.

Senator D'AMATO. Thank you, Senator, and I want to thank you for your kindness and your cooperation, and I think that this committee can play a very important role in seeing to it that the resources that you do allocate are properly used, and that they do not close down the training center.

Senator SHELBY. And that we not waste billions of dollars of the hard-earned money of the taxpayers in buying services that are never used, as Senator Lautenberg pointed out. Thank you.

Senator D'AMATO. I thank the Chair.

Ms. MOLINARI. Thank you very much.

Senator D'AMATO. I thank the members of the subcommittee.

PANEL 2

NONDEPARTMENTAL WITNESSES

STATEMENTS OF:

BARRY KRASNER, PRESIDENT, NATIONAL AIR TRAFFIC CONTROL ASSOCIATION

DAVID BARGER, VICE PRESIDENT-NEWARK, CONTINENTAL AIRLINES

JACK JOHNSON, PRESIDENT, PROFESSIONAL AIRWAYS SYSTEM SPECIALISTS [PASS]

HENRY BROWN, NEW YORK SYSTEMS MANAGEMENT OFFICE, PASS

RAYMOND D. MALDONADO, FAA CONTROL TOWER, NEWARK INTERNATIONAL AIRPORT

TOM MONAGHAN, FAA CONTROL TOWER, JOHN F. KENNEDY INTERNATIONAL AIRPORT

DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

STATEMENT OF MONTE BELGER, ACTING DEPUTY ADMINISTRATOR

ACCOMPANIED BY RON MORGAN, DIRECTOR, AIR TRAFFIC SERVICE

INTRODUCTION OF WITNESSES

Senator SHELBY. Our next panel will be Mr. Barry Krasner, president, National Air Traffic Control Association; Mr. David Barger, vice president, Continental Airlines, Newark, NJ; Mr. Jack Johnson, president, Professional Airways System Specialists; Mr. Henry Brown, New York Systems Management Office; Mr. Raymond Maldonado, FAA Control Tower, Newark International Airport; Mr. Tom Monaghan, FAA Control Tower, Kennedy International Airport; Mr. Monte Belger, Acting Deputy Administrator, Federal Aviation Administration; Mr. Ron Morgan, Director, Air Traffic Service, Federal Aviation Administration.

This is a big panel. I know you are eager to get started, and we are eager to hear you. All of your written testimony will be made part of the record in its entirety, and if you would take about 3 or 4 minutes apiece to just orally suggest what you think we need to do, and we will listen to you. That will give us some time for some questions.

We will start with Mr. Barry Krasner.

STATEMENT OF BARRY KRASNER

Mr. KRASNER. Good morning, Mr. Chairman. I would like to thank you for the opportunity to address this subcommittee. I think what I found is in listening to all that was said before, I found myself going and frantically crossing things out that have al-

ready been said. So if you will bear with me, I will try to give you a little bit of a summary.

I represent the National Air Traffic Controllers Association, which is the organization that represents the Nation's air traffic controllers. The individuals I brought with me today, and that would be Ray Maldonado, who is a controller at Newark Tower; Tom Monaghan, a controller at Kennedy Tower; and Chris Bond, who is a controller at New York Center. These are truly the frontline controllers, and while I will deliver you the formal statement, then they are certainly available for any questions you may have, since they are the ones who work in the trenches, so to speak.

I would like to begin by echoing Senator Lautenberg's statement, because I never miss an opportunity to do this in talking about the air traffic controllers. I believe this Nation's air traffic controllers have justifiably earned the reputation of operating the safest and most efficient system in the world. And I appreciated hearing it from the good Senator from New Jersey, and I certainly hope that you and the members of the committee concur with this assessment and will certainly help us to build in these accomplishments, not only for the air traffic system but for the entire aviation community.

STAFFING SOLUTIONS

I come here today, and I want to talk about a number of issues. I have a lot more in my formal testimony. What I am really going to do, I guess, in this part is focus more on the staffing part, and I want to offer you some solutions, which we believe are viable solutions to the problem.

As Senator D'Amato said, this is not a new issue. In 1970, DOT Secretary Volpe charged the Carson Commission to study the air traffic controller career. In this study, Carson wrote that the system has experienced serious shortcomings, that the existing system will not change for a number of years. In the meantime, the controller will continue to bear a heavy burden in making an understaffed and underfinanced system work. This was in 1970. We are 27 years later, and it could have been written today.

I think as far as staffing goes, I think we have to be real clear on one thing. Insufficient staffing does impact current aviation safety. Now, we do believe that it limits future growth in aviation, it absolutely limits it. And growth in aviation accounts for too much of the gross national product for us to take this situation lightly.

As said before, air traffic operations have increased 36 percent since 1981. Controller numbers have continually decreased. Firstline supervisor numbers, on the other hand, are up over what they were. So we do not have to worry about being supervised, we only have to worry about who there is to supervise.

We believe the only thing that we can find to account for the lower numbers is the failed AAS system, which we heard a little about before. The only thing we could assume is that the system was meant to work under less controllers, there was never an intent to raise those numbers up again, and that after the failure of the AAS system we simply adopted that mode and never raised

those numbers back up again to the system we have now, which is the system we had prior to that.

Now, the GAO put out a report, 97–84, entitled "Aviation Safety: Opportunities Exist for FAA to Refine the Controller Staffing Process." That was published in April 1997. As part of that report, GAO cited some impediments to staffing facilities at required levels. A few of those impediments were limited ability to recruit staff locally, so that is a recognized problem. And another one was limited hiring in recent years has not kept the pipeline full. That, too, is a recognized problem.

I think one of the points that we are missing is the FAA has—well, starting in 1981, when there were 11,400 controllers fired, we had to replace a whole new work force. In doing so, we have since managed the FAA on the backs of the youth of those people. But most of those people were hired between 1981 and 1986, and we have to understand that if that is the case, given their retirement when they are eligible, then by the year 2009, 80 percent of the air traffic controllers in this system will be eligible for retirement. If we do not start hiring that pipeline now, then we are in serious trouble, especially when you consider it takes 3 to 5 years to train an air traffic controller once they leave the academy in Oklahoma City.

But the other point that I really wanted to make very strongly is while I appreciate the issue in New York, this is not a local problem. This is nationwide. New York happens to be the one that is high pressure enough to hit the media, high pressure enough to get before the Congress. But are we to forsake Van Nuys, CA, or Aspen, CO, or Meridian, MS, simply because they do not have the clout to find themselves on the front page of the New York Times? I think we do ourselves a great travesty if we do not look at this as a nationwide problem.

We have different problems in New York, and they center around retention of people, because clearly people do not want to be there because of the cost of living, unfamiliarity—except myself because I am from there—but that clearly is a problem. So you have to have a multifaceted kind of approach to it.

If you are going to bang that, Mr. Chairman, then I will end it before you do.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Krasner. We will insert your complete statement in the record.

[The statement follows:]

PREPARED STATEMENT OF BARRY KRASNER

Chairman Richard Shelby and members of the subcommittee, we are members of the National Air Traffic Controllers Association (NATCA) which represents over 14,000 air traffic controllers of the Federal Aviation Administration (FAA). I want to first thank you for this opportunity to appear before the appropriations subcommittee on transportation and also thank you for your past support of our issues.

NATCA's mission is to guarantee and improve aviation and air traffic safety, serve as an advocate for air traffic controllers, and promote competence and pride within our profession. We are also responsible for promoting technological advances, providing reliable and accurate information for air traffic controllers, and serving as a credible source of information for this committee, the traveling public, and the news media. Our goals include protecting the lives of aviation travelers, preserving

expensive equipment, and reducing mishap frequency and severity. The nation's air traffic controllers have justifiably earned the reputation of operating the safest and most efficient system in the world. I hope you and the members of the committee concur with our assessment and will help us to build on these accomplishments to enhance not only the air traffic system, but the entire aviation community.

In 1970, Department of Transportation Secretary Volpe charged the Corson commission to study the air traffic controller career. In it, Corson wrote, "This system has experienced serious shortcomings". . . and that the "existing system will not change for a number of years. In the meantime, the controller will continue to bear a heavy burden in making an understaffed and underfinanced system work." It is difficult to tell that this statement was made 27 years ago because not much has happened to improve the working conditions of the air traffic controllers.

The issues we would like to talk to you about today include staffing shortages in the New York area and across the country, and equipment shortfalls with regard to air traffic control technology.

STAFFING

Insufficient staffing impacts current aviation safety and will limit future growth in aviation. For example, since 1981, air traffic operations have increased 36 percent while the number of critical, front-line air traffic controllers has decreased by 1,914. These controllers represent an effective margin of safety and efficiency. To date, the only explanation for this deficiency we have found is the failure of the Advanced Automation System (AAS), which anticipated the need for fewer controllers when deployed. We can attest to the fact that today's controllers are showing the strain of chronic six-day work weeks, increased workload, and intense traffic conditions. In many cases, due to sector capacity, severe restrictions are imposed on air traffic to ensure safety. In certain air traffic sectors on a given day, controllers are stretched to the limit. This Congress recognized the controller staffing inadequacies and ordered FAA to request a study of the agency's staffing standard. The GAO report (97–84), entitled "Aviation Safely: Opportunities Exist for FAA to Refine the Controller Staffing Process," was published in April 1997. GAO cited FAA's impediments to staffing facilities at required levels, including: 1) holding funding to relocate and hire controllers until the end of the fiscal year, 2) limited ability to recruit staff locally, and 3) limited hiring in recent years has not kept the pipeline full.

The FAA has managed the current air traffic control system at the expense of the youth of 14,343 air traffic controllers, most of whom were hired between 1981 and 1986. To increase staffing levels to meet projected growth, it is imperative to recruit, select and train the air traffic controllers of the future now. In the best-case scenario, 80 percent of the controllers on duty today will become eligible for retirement by 2009; therefore, we must be prepared to completely replace the current work force over the next 12 years. With the current shortage of staff, the aviation system is subject to a decreasing margin of safety and increased delays and inefficiencies as controllers are forced to cope with increasing traffic volume and density—as they have for the past three decades.

Following is a breakdown of the 36,464 Air Traffic Services employees as of September 1996. In total 23,904 employees provide air traffic control operational services, support for those who actually provide air traffic control services, managerial and/or supervisory functions, administrative/operational support of field facilities, regions and headquarters, or other administrative assistance.

17,080	Controller Work Force (CWF)/Safety Work Force (includes line controllers and supervisors)
+6,824	Other Than Controller Work Force (OTCWF)/Non-safety
23,904	**Total CWF and OTCWF**

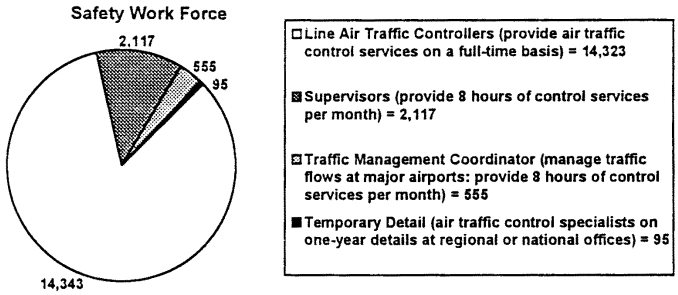

Figure 1: Total Safety Workforce = 17,080 (includes 14,343 line air traffic controllers)

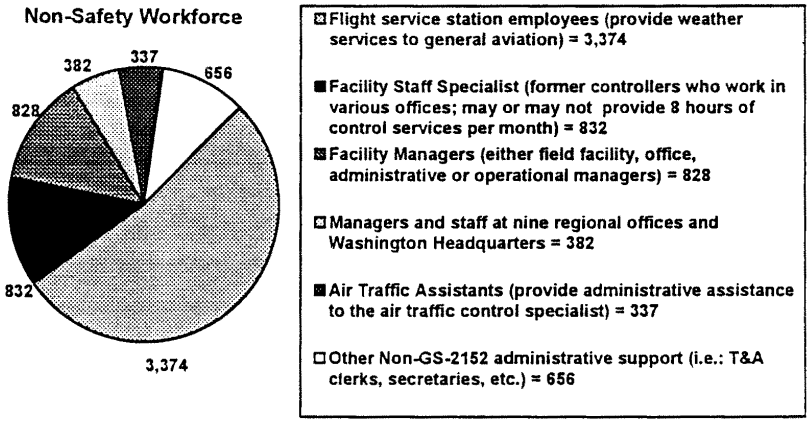

Figure 2: Total Non-Safety Workforce = 6,824

The FAA continues to misrepresent the true air traffic controller numbers by using misleading terminology. It claims to have 17,080 employees in the controller work force. However, when you remove supervisors and traffic management coordinators (who work air traffic control positions for only 96 hours per year), the controller work force drops to a true number of 14,343. The shortage of staff is further aggravated because full performance controllers must train developmental controllers in addition to working the airspace. In 1970, the Corson commission wrote, "The shortage of staff is further aggravated by the presence in busy facilities of a plethora of untrained developmentals whose training adds substantially to the workload of journeyman." I ask this committee and this Congress to be the ones to finally fix the long-standing training problems.

Prior to the 1981 PATCO strike, there were 16,220 line air traffic controllers, 2,121 supervisors and 169 traffic management coordinators, for a total of 18,510. Since 1981, the number of flights has increased by 36 percent system wide. The number of controllers today is only 14,343. The reason for this decline, aside from

neglecting to fully staff after the strike, is primarily due to early buy-outs offered only to managers, supervisors and office staff whose vacancies were then back-filled from the air traffic controller ranks.

As of April 1997, the New York En Route Air Traffic Control Center has had a dangerously low number of air traffic controllers. The FAA and NATCA have since signed an memorandum of understanding in which the FAA agrees to staff the center with 294 controllers by the end of fiscal year 1997 and 339 by the end of fiscal year 1998. This is a sign of progress on the complex issue of staffing numbers. The work ahead lies in solving the day-to-day problems of training and retention of work force. The answer we have proposed to the FAA is establishing a local hire program to recruit trainees from the New York area who want to remain in the area (see attached brief). FAA responded there is no need to adopt our proposal at this time because its solution—an influx of Midwestern students and former PATCO controllers is adequate. We disagree. Not only do you continue to breed a work force of individuals whose primary goal is to leave New York but also this method only exacerbates an already deficient training program. This training program is deficient because, for example, some have been stuck on the data positions for more than a year and have not had the opportunity to advance in the program. And, there are some who have been in the training program three to four years and have yet to certify. At a fully-staffed facility with a focused training program, training should be complete within two years; however, at an understaffed facility such as New York it can take up to six years. Staffing, together with the apprenticeship program, is the solution. NATCA's proposed apprenticeship program requires a two year commitment on the data control position—after which the FAA will send them to the academy for training and subsequent return to New York center as an air traffic controller. This helps the FAA by immediately removing the largest impediments in the training process and also allows the employee to gain confidence, experience and a comfort level in dealing with air traffic. This will help ensure successful completion to full performance level in an environment which now claims a minimum failure rate of 20 percent.

We would like a four to five year test period of the apprenticeship program. We believe this to be the answer, but the FAA refuses to explore it as a solution to New York's staffing problems. It has established a local hire program in San Juan—so why would we assume this is not a viable solution for New York?

Staffing shortages are by no means a problem solely characteristic of the New York area, they are indicative of a nationwide problem. For example, at the Meridian Approach Control in Mississippi, staffing shortages have impacted flight service for both the military and the public. In 1994 and 1995, the facility was authorized 17 full performance level controllers. In 1997 it was only authorized 14, but today it has only nine in actuality. The staffing is so limited that controllers cannot open positions—they have three, but are, at best, only staffed to operate two, and regularly only open one sector without enough staff to provide a second. On occasion, they have had the Memphis and Atlanta centers hold aircraft due to saturation of airspace. Saturation occurs most frequently when the Navy is flying missions and there is only one sector to monitor 13 frequencies at a time. Meridian approach control, in contrast, has plenty of supervisors, just not enough staff to supervise. The controllers they do employ operate on a massive overtime budget just to keep the two sectors working.

The fiscal year 1997 budget called for hiring 500 air traffic controllers. The FAA's historical attrition rate for the GS–2152 series (23,904) has been approximately 10 percent per year of those eligible. It is anticipated that 250 GS–2152 series employees will leave due to attrition in 1997. The recent GAO report (97–84) is concerned that FAA is overestimating the number of expected retirees; however, our numbers are based on the best information available and we need to get prepared for this eventuality because it takes three to five years to train FPL air traffic controller candidates. Also, the air traffic controller training program today has a minimum failure rate of approximately 20 percent. So, if the FAA hires 500 air traffic controller candidates today, with 250 lost to attrition and 100 training failures. we will have a net gain of approximately 75 full-performance level air traffic controllers in each of the years 2000 and 2001.

Between 2002 and 2007, 12,000–14,000 GS–2152 series employees will be eligible for retirement. Statistically speaking, the air traffic controller ranks will decline at an alarming rate starting in 2002. If you consider the lengthy training cycle necessary and the fact that we are currently understaffed by nearly 3,000 air traffic controllers, the critical need to immediately begin a massive hiring process is obvious.

Controllers are already stretched to maximum productivity and maximum workload levels. They run the safest, most comprehensive air traffic system in the world

with access 24 hours a day, 365 days a year. Yet, the number of controllers is lagging far behind the growth in air traffic volume. Clearly, something must be done to increase the staff of full-performance level air traffic controllers. We ask this committee to do everything in its power to increase funding for more controllers and increased staffing levels. The FAA can insert additional controllers on an MOUR but, without funding for across-the-board hiring, controllers will not be hired. Congress is a vital link to adequate staffing.

Productivity is at its highest ever for every full performance level controller—the same number of controllers are handling 36 percent more aircraft today than in 1981, so solutions must be found elsewhere. Some proposals include hiring controllers at the beginning of the fiscal year, instead of using the funds for other projects; reclassification of current grade levels and pay to a more equitable formula; hiring former PATCO employees; hiring air traffic assistants locally; and moving contract tower controllers to larger, busier facilities since they have experience.

The solution, for the vast majority of the country, is to accept the joint NATCA and FAA working group proposed standards, supported in earlier discussions with Office of Personnel Management (OPM) staff. It states the terminal and en route air traffic controller is a unique occupation requiring a classification standard that focuses on duties unique to the occupation, and distinguish the various levels of controller work with related levels of controller pay.

The current classification standard for air traffic controllers is over 18 years old. As a result of occupational changes in the control environment and substantial increases in the volume of air traffic over this period of time, the classification standard has become outmoded. It is now a deficient and inappropriate measure of the differences in the degree of difficulty among positions and the knowledge, skills, abilities, responsibilities, and accountability of controllers assigned to various control facilities throughout the country. The application of the current standard and related compensation system: 1) is based solely on volume of traffic. It does not recognize other complexities associated with the control of traffic; 2) results in all en route controllers located at centers within the contiguous 48 states having the same full-performance level (FPL) grade and pay, with huge differences in the demands on the air traffic controller depending on the center to which he/she is assigned; 3) provides no incentive—in fact, there is a disincentive—for controllers to move to hard-to-staff, more complex facilities; 4) results in large differences in annual pay for small differences in traffic; 5) results in no difference in annual pay among controllers where there are large differences in traffic density; and 6) does not provide coverage for controllers assigned to some categories of facilities (e.g. tower with BRITE, up/down terminals, CERAPS). The present standard is also non-specific in nature and permits manipulation of controller duties for classification purposes regardless of safety and/or efficiency consequences.

The proposed standard is unique to air traffic controllers (and closely related positions) and is easily understood. While pay for the proposed grades has not yet been determined, the reaction of all those personnel briefed about the proposed rankings of facilities (absent definitive FPL salary amounts) is that they provide internal equity. In addition, the proposed standard addresses and corrects deficiencies in the current standard by: 1) acknowledging the varying complexities associated with the different controller functions and different environments. It assigns different weights to the various types of control exercised, different categories of airspace, varying mixes of type of traffic, and other factors pertinent to the six categories of terminals. It also assigns different weights to departing/arriving aircraft, transitioning traffic, overflights, Visual Flight Rules (VFR) advisories, etc. in the centers; 2) providing at least 10 FPL grade levels instead of the current five. This, together with the new classification criteria, will assure that there will be an adequate incentive for controllers to move to the most difficult, hard-to-staff facilities; 3) there will not be significant differences in controller duties without an appropriate difference in controller pay; 4) there will not be minor differences in controller duties with large differences in controller pay; 5) all categories of control facilities will be specifically and appropriately addressed in the standard and related compensation system; and, lastly, 6) there will be at least three different FPL grade levels for controllers assigned to centers and each of the six categories of terminals.

We implore this committee to ensure adequate funding is provided for this new classification and compensation system. As you will recall, this committee requested that NATCA and FAA develop a new personnel system in the fiscal year 1996 transportation-appropriations bill (Public Law 104–50). Without additional compensation the new classification system will not work. Adequate funding is necessary to ensure that the goals and incentive of optimal staffing are met.

Current forecasts estimate a 5 percent annual increase in air traffic for the next 10 to 15 years. Without significant improvements, our present system will simply

be unable to cope with future demand. Further inefficiencies will result as the need to maintain the safety margin becomes even more critical. There is serious concern about the number of controllers that will be required to support current demands, let alone future growth.

TECHNOLOGY AND EQUIPMENT

The second issue I want to address is air traffic control technology and equipment. After many years of documented problems, the FAA must modernize the ancient air traffic control infrastructure. The equipment used by air traffic controllers is antiquated and fraught with increasing failures of critical safety technological components. The equipment that today's air traffic controllers must rely on, such as the Host computer system, surveillance radar and other navigational aids, are part of a system that regularly experiences failures and is at least 10 years behind in technology and procedures. At present, there are 20 en route centers with an average age of 35 years, and 50 major towers, average age 27 years. Equipment failures, overhaul, relocation and modifications caused approximately 1.4 million hours of outages in fiscal year 1994; in fiscal year 1995 the number grew to almost two million and over 2.5 million hours in fiscal year 1996. These delays come at a high cost—it is estimated that the 25 airports with greater than 20,000 hours in delays in 1995 each had $32 million in delay costs (Aviation System Capacity Plan).

The safety of today's air traffic control system relies mainly on the human element—the air traffic controller and the airways facilities technicians that continue to work very hard under adverse conditions to keep our deteriorating infrastructure functional. With no new workload-reducing technology in the foreseeable, each air traffic controller will work 62 percent more traffic than existed in 1981.

A major hindrance to the development and implementation of advanced equipment is that controllers—the end users—are not consulted enough in the development process. NATCA is concerned about the lack of human factors considerations in developing future technology and procedures. Air traffic controllers and their current work environment deserve careful study to accurately determine future requirements in both technology and ergonomics. It is absolutely necessary to establish a central authority to coordinate both the developing technology and attendant human factors issues. Presently, these responsibilities are separate and unequal within the FAA.

Projects currently underway demonstrate the need for a coordinated effort regarding new technology. For example, ergonomic factors may result in deployment delay of Display System Replacement (DSR). Another example is the National Route Program (NRP) which clearly demonstrates how not to implement a new procedure without modeling and analytical support. System development designed without the influence of controllers and human factors expertise will inevitably create hurdles down the road which will affect cost, schedule or performance, if not all three.

Most of the new technology merely replaces old unreliable equipment without adding to system capacity and in some cases actually increase controller workload. One small example, is the Voice Switching Communications System (VSCS), originally designed for use with the AAS equipment, hinders controllers' ability to post, read and mark flight progress strips.

In the early 1990's, the FAA initiated a program known as the Oceanic Automation System (OAS). The goal of the OAS was to develop and deploy interim replacement equipment at Oakland and New York Air Route Traffic Control Centers' oceanic areas. The OAS is nearing its final phase, with the final installation scheduled for late this year. Unfortunately, even after deployment of the OAS, our oceanic controllers are left using grease pencils. tissue and plotting boards.

In contrast, since the inception of the Center TRACON Automation System (CTAS), controllers have worked with Ames Research Center in production and development. It is the only piece of equipment in a long time that will be beneficial to air traffic controllers from a capacity standpoint. In Dallas/Ft. Worth CTAS is allowing controllers to handle 20 more aircraft per hour—a substantial productivity increase.

On February 12, the National Research Council released their report titled "Flight to the Future: Human Factors in Air Traffic Control," which concluded that human factors activities within the FAA are fragmented. We agree, and would add that human factors considerations, too often, come too late in the acquisition process to prevent the kind of mistakes that were made in the 1980's with AAS. Without the proper human factor focus and necessary resources to support it, the mistakes made in AAS are destined to be repeated. One key system, Standard Terminal Automation Replacement System (STARS), is an example of where a coordinated human factor approach would significantly increase the chances of the FAA deploying an

operationally-suitable system. Controllers were involved in STARS too late to help in the system's development, and, when they were included, were instructed by the agency to focus on fixing the system because it is unusable in its current state. These late changes to STARS have led to significant cost and schedule overruns. The June 6 issue of Aviation Daily said that the FAA informed Raytheon Electronic Systems that they are putting STARS in "high risk status" because of delays.

In its report, the National Research Council concludes that user participation is necessary for effective system development, but it is not a substitute for specialized human factors knowledge. It recommends that representative users and human factors specialists be included on product development teams and that the user inputs be systematized to the design process according to human factors test and evaluation procedures. We agree. We have long recognized that, while we are the world's best air traffic controllers, we are not world class system designers or human factors experts. We ask this subcommittee to direct the FAA to include early and significant participation by controllers in a coordinated human factors analysis in the development and deployment of air traffic control automation systems.

Presently, the air traffic is truly dependent on the professional and dedicated men and women who are responsible for the day-to-day operations of the system. However, due to inadequate support technology, the system is restrictive and creates significant problems for both controllers and the entire aviation community. Systemwide, the success of the process depends on the human element interpreting data generated by ancient technology which in some areas, creates instances where capacity is exceeded and aircraft must endure convoluted flight paths to maintain safety.

NATCA focuses on controller errors and the associated human factors. Presently, the system has about 750 reportable operational errors per year. This number has declined over the years from a high of approximately 900. However, the system must continue to strive for zero errors.

The FAA has a comprehensive system that tracks operational errors and this data will give the committee a valuable insight on the error rate for the entire air traffic system. Also, the FAA is able to issue reports on errors for any given air traffic facility. I do not have sufficient data to submit to the committee. I suggest the committee request the specific data from the FAA.

Controller errors constitute serious events that affect the safety of the entire air traffic system. Controllers desperately need decision support tools to cope with the increasing volume and demands of aircraft operations. Additionally, there needs to be a scientific study accomplished that focuses on human factors and why controllers commit errors. Numbers and types of errors can provide useful information, but do not identify the reasons for a controller's actions, nor how to prevent repeat errors.

Controllers need the tools to provide for increased capacity—without the necessary tools, both safety and capacity will be compromised. The impact of the aviation industry on the economy is $947 billion and is projected to be $1,446 billion by 2010—while the total "cost" of present air traffic service is only $3.9 billion—a small price to pay.

Cost savings in the near-term may increase risk in the long-term. Additionally, the following elements must form the cornerstone of any discussion:

—Safety is paramount—any proposal which could compromise safety must be rejected.
—Alternative funding strategies must be developed and implemented.
—Control, governance and oversight of the FAA must remain a government responsibility.
—Employee union involvement is essential for success of any transition.

These discussions will require much effort and great cooperation to become reality. Having said this, I cannot overstate the specific requirement: NATCA's position regarding change is "safety first!"

In conclusion, NATCA is prepared to play an even greater role in aviation safety; to strive for constant improvement in all aspects of aviation safety; to build coalitions with other nations and organizations to promote positions on safety and technology issues; and to work with the Executive and Legislative branches of government and the aviation industry for continual improvement of the national airspace system.

Thank you, Mr. Chairman and committee, for your time and consideration of our important issues. I will be happy to answer any questions.

[CLERK'S NOTE.—The attachments to Mr. Krasner's statement will not appear in the hearing record, but are available for review in the subcommittee's files.]

STATEMENT OF DAVID BARGER

Senator SHELBY. Mr. David Barger, Continental Airlines. Mr. Barger, if you will briefly sum up your oral statement, your written statement, if any, will be made part of the record.

Mr. BARGER. Thank you very much.

Good morning, Mr. Chairman and members of the subcommittee, and I certainly will summarize my written testimony, and thank you for submitting that for the record.

I am joined here by Jay Salter, our Continental vice president for operations out of Houston. Continental has hubs in Newark, Houston, and Cleveland, and several people were talking about Newark today, and it is only our Newark hub which imposes onerous delays on our overall system. My purpose today is to accomplish three tasks: One, to express Continental's strong support for the FAA work force, which provides the Nation's air carriers with a safe air transport system; two, to highlight flaws in FAA procedures and equipment priorities that leave Newark at a distinct disadvantage when it comes to air traffic management and delay issues; and three, most importantly, to advocate for a complete redesign of the New Jersey and New York airspace as soon as this is possible.

In the past year, Continental has won several awards which highlight the kind of quality service that we deliver to our customers. All these awards were accomplished with virtually the same personnel that have been in place at this airline over the past years. We believe that the similar case exists at the FAA in a similar position. FAA personnel are well trained and dedicated to maintaining a safe air transportation system here in the United States. Unfortunately, they do not have the tools and the resources they need to get the job done effectively, and therefore, despite their best efforts, they are unable to deliver a reliable and a consistent product.

Senator Lautenberg has gone to great lengths to work with the FAA, Continental, and other airlines which serve New York to identify and put in place the equipment, personnel, and procedures that can improve the air traffic control situation at Newark. We are grateful for his efforts. Frankly, it is only when he highlights an installation's schedule or prioritizes an item that the FAA adheres to any reasonable timeframe; for example, Senator Lautenberg, for the authorization and procurement for the instrument landing system on one of our long parallel runways in 1994, which is just installed this year, and again, on behalf of Continental we certainly thank him.

PROBLEMS WITH FAA INSTALLATION AND PROCEDURES

Despite these successes, I want to detail just a few examples of our frustration with the FAA's procedure to install valuable procedures and/or equipment that could improve the air traffic control system. We know that the FAA is committed to trying to improve the efficiency of the airspace system in the New York region, and we support any and all efforts made to achieve that goal. But the priorities and methods by which the Agency goes about accomplishing this goal are sometimes flawed.

Consider the following, and I will give you two examples that were submitted out of the five. First of all, if you consider the integrated terminal weather system [ITWS]—ITWS is a thunderstorm microburst detection and forecast movement system. Delay savings at Newark are estimated to be approximately 3,566 hours in delay minutes for Continental, alone. Unfortunately, installation of ITWS at Newark is not FAA's top priority, despite the extraordinary delays caused by thunderstorms in the New York area.

Discouraged by the FAA's protracted installation schedule, the airlines, in conjunction with the port authority, are proceeding with an independent procurement of this equipment at a cost of over $3 million. However, the picture here gets more complicated because the ITWS component is dependent on terminal doppler weather radar, commonly known as TDWR. Newark's TDWR is yet to be commissioned due to a manufacturing defect, and the fact that the TDWR's for JFK and La Guardia are caught up in a protracted environmental review process. Frankly, ITWS installation in the New York/New Jersey area will be ineffective without additional terminal doppler weather radar coverage.

Also, along the lines of ITWS, when you take a look at departure sequencing and engineering developmental models commonly known by the acronym DSEDM, as I mentioned in the previous example, thunderstorms cause severe disruptions to airline operations in the New Jersey and New York area. A root cause of the significant delays is FAA's inability to expeditiously develop and issue alternative routings which safely avoid the weather. This deficiency is due to the lack of automation equipment to handle the administrative burden of revising flight times. FAA needs to automate the departure pit at New York Center, as the existing equipment and procedures have been in use for over 20 years. To date, we have seen no evidence of the needed automation, and now the thunderstorm season is upon us once again.

Let me move on to my third and final point, and in closing and summarizing, at Continental we certainly feel that it is very important that this group take a very hard look and that the FAA take a very hard look in terms of a new redesign of the airspace serving the Northeast corridor. Before I close, I want to reemphasize that as frustrated as we have been with some of these automated and equipment issues, we are proud of the ongoing partnership we have attained with the FAA in our region. We appreciate all the FAA has done on behalf of Continental and our passengers. This partnership has had a positive impact.

Mr. Chairman, once again, I appreciate this opportunity to testify. Any attention paid to the New Jersey/New York airspace is welcome. Any action taken to bring in new equipment, hire additional personnel, or initiate innovative airspace design is even more welcome.

Jay and I would be happy to answer questions at the end of today's presentations. Thank you.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Barger. We will insert your complete statement in the record.

[The statement follows:]

PREPARED STATEMENT OF DAVID A. BARGER

Good Morning Mr. Chairman and Members of the Subcommittee. On behalf of my 37,500 colleagues at Continental Airlines, I want to thank you for giving me the opportunity to speak to you this morning. My name is David Barger and I am Vice President for the Newark hub, Continental's second largest hub. Jay Salter, Continental's Vice President for Operations Administration is accompanying me today. Continental is the nation's fifth largest airline with hubs in Newark, Houston and Cleveland but it is only our Newark hub which imposes consistent and onerous delays on our overall system. My purpose today is to accomplish three tasks: 1) to express Continental's strong support for the FAA work force which provides the nation's air carriers with a safe air transport system; 2) to highlight flaws in FAA procedures and equipment priorities that leave Newark at a distinct disadvantage when it comes to air traffic management and delay issues; and 3) to advocate for a complete redesign of the New Jersey/New York airspace as soon as it is humanly possible to complete.

In the past year, Continental Airlines has won several awards which highlight the kind of quality service that we deliver to our customers. These awards include Airline of the Year from Air Transport World, back to back J.D. Power Awards for Flights over 500 miles from Frequent Flyer Magazine and Best International Business Class by SmartMoney Magazine. All of these awards were accomplished with virtually the same personnel who were a part of this company when we did not operate on time or produce a reliable or consistent product. As our Chairman and CEO Gordon Bethune has said repeatedly, there were always good and talented people at Continental—they just needed to have good tools, a good plan and ample resources to get their jobs done. My point is simple—we view the FAA to be in a similar position today—there are plenty of good people to be found at the FAA. They are well trained and dedicated to maintaining a safe air transportation system here in the United States. Unfortunately, they do not have the tools or the resources they need to get their jobs done effectively and therefore, despite their best efforts, they are unable to deliver a reliable and consistent product to our mutual customers—the traveling and shipping public.

While we have been frustrated in the past with staffing levels at the Newark Tower, the New York TRACON, and the New York Air Route Traffic Control Center, we believe the FAA has begun to turn that issue around. Our single recommendation on the issue of staffing would be to urge the FAA to consider using the new personnel rules to establish a program where future air traffic controllers are hired locally. Our experience in the New York region is that many controllers who are brought in from across the country (whether they be rehires or newly graduated from college) are somewhat overwhelmed by the complexities of the New York system and its environs. Once they are fully trained, in many cases, they want to return to the area of the country from which they came. Hiring locally would mean that controllers would enter the job with a pre-existing commitment to the region—once they are fully trained, they might be more likely to stay in the area and those of us who serve the New Jersey/New York region would benefit from leaving a more seasoned and permanent work force.

For the balance of my statement, I would like to focus on equipment and procedures as they relate to delays at Newark International Airport. As you may have read in your local papers, Newark has just reclaimed the dubious honor of being the airport with the greatest number of air traffic control delays in the country. According to FAA statistics, delays at Newark more than doubled from 14,004 in 1995 to 28,454 in 1996. Newark's airport neighbors did not fare much better with La Guardia placing third and JFK placing 6th. Certainly there is a great deal of traffic moving in and out of these airports—on just one day last week, Newark had 1,400 operations; La Guardia had 1,080 operations; Kennedy had 1,060 operations; Teterboro had 750 operations; and White Plains had 765 operations. Our friends at the FAA will tell you that Continental's schedule does not help the Newark delay problem but in fact we regularly structure our schedule to minimize congestion and we frequently seek suggestions from FAA to make our operation more efficient. Nevertheless, the volume of operations in the New Jersey/New York airspace every day does not and should not justify the delays that we endure at Newark—rather the volume of passengers and cargo should serve as a challenge to the FAA to ensure their best equipment and their best personnel are devoted to delivering the safest, most efficient and reliable air traffic control service.

Let me explain why we care about delays. Not only is every minute of delay an inconvenience for our passengers, every one minute of delay costs Continental Airlines $28. This is a significant financial burden to impose on a company and it is an even greater logistical burden to impose on our employees as they try to cope

with the operational challenges that result from these endless delays—delays which are endemic to Newark in good weather and bad. I think my point is clear—it is unacceptable for the nation's ninth largest airport to be the nation's most delayed airport in seven out of the last ten years (and for the record, in the last twelve years, Newark has never been better than the third most delayed airport in the country!). Now, the issue is what can be done to fix this problem?

Senator Lautenberg has gone to great lengths to work with the FAA, Continental and the other airlines which serve Newark to identify and put in place the equipment, personnel and procedures that can improve the air traffic control situation at Newark. We are grateful for his efforts—frankly, it is only when he highlights an installation schedule or prioritizes an item, that the FAA adheres to any reasonable timeframe. For example, we can thank Senator Lautenberg for the installation of the Instrument Landing System for the commuter runway which was installed after a lengthy delay. We can also thank Senator Lautenberg for the authorization and procurement of the Instrument Landing System funded by this Committee in 1994 which was installed earlier this year on one of Newark's parallel runways.

Despite these successes, I want to detail a few examples of our frustration with the FAA's procedures to install valuable procedures and/or equipment that could improve the air traffic control system. We know that the FAA is committed to trying to improve efficiency of the airspace system in the New York region and we support any and all efforts made to achieve that goal. But the priorities and methods by which the agency goes about accomplishing this goal are sometimes flawed. Consider the following:

Example No. 1.—The FAA intends to install the Aircraft Situation Display equipment in the Newark Tower later this year. This equipment shows all the air traffic operating in the national airspace system and will permit air traffic facilities to more accurately predict arrival and departure demand and enable them to more efficiently manage the system. This equipment has been available for at least four years and will be of great use to the Newark Tower. What is beyond comprehension is the fact that Newark, which is first in delays, is last on the list of major airports to receive the equipment.

Example No. 2.—Information Display System-4 (IDS–4)—This equipment provides the controller with an accurate/timely display of critical information for operations in the entire New York Air Traffic Control system. The good news is that this equipment is also scheduled to be installed later this year. The bad news is that this equipment has been available at other locations for several years and that the next generation of this system has already been installed at the new TRACON at DFW, an airport that does not have anywhere near the delay problems as Newark.

Example No. 3.—An Instrument Landing System for Teterboro Runway 19. The installation of an ILS on Teterboro Runway 19 will eliminate conflicts between existing ILS approaches at Newark and Teterboro—presently, these procedures cannot be run simultaneously. FAA's attention to this project has been less than aggressive and in fact, they are just re-starting the environmental process after a lengthy delay.

Example No. 4.—The Integrated Terminal Weather System (ITWS). ITWS is a thunderstorm-microburst detection and forecast movement system. Delay savings at Newark are estimated to be approximately 3,566 hours (and a reduction in costs of $5.6 million) for Continental alone. Unfortunately, installation of ITWS at Newark is not FAA's top priority despite the extraordinary delays caused by thunderstorms in the New York area. ITWS will not be commissioned at Newark until 2002. Discouraged by the FAA's protracted installation schedule, the airlines, in conjunction with the Port Authority, are proceeding with an independent procurement of this equipment at an expected cost of over $3 million. However, the picture here gets more complicated because ITWS is dependent on Terminal Doppler Weather Radar (or TDWR). Newark's TDWR has yet to be commissioned due to a manufacturing defect and the fact that the TDWR's for JFK and LaGuardia are caught up in a protracted environmental review process. Frankly, ITWS installation in the New York/New Jersey area will be ineffective without additional TDWR coverage. By the way, the Committee should be aware that the accident that spawned microburst research and the development of TDWR and ITWS occurred at JFK.

A fifth and final example.—Departure Sequencing Engineering Development Model—DSEDM. As I mentioned in the previous example, thunderstorms cause severe disruptions to airline operations in the New Jersey/New York area. A root cause of the significant delays is FAA's inability to expeditiously develop and issue alternate routings which safely avoid the weather. This deficiency is due to the lack of automation equipment to handle the administrative burden of revising flight plans. FAA needs to automate the departure pit at New York Center as the existing equipment and procedures have been in use for twenty years. In fact, a recent inter-

nal FAA operational assessment report (October 1996) recommended quick introduction of automation at the New York Air Traffic Control Center departure "pit" (the coordination sector) to enable FAA to reroute aircraft more efficiently. To date we have seen no evidence of the needed automation and now the thunderstorm season is here again. We believe equipment and software associated with DSEDM, a developmental program, could be adapted and deployed for evaluation at the New York Center within six months of FAA authorization. Clearly, delays at Newark and the other New York airports will not decline significantly until this problem is addressed.

Each of these five examples serves as proof to us that the FAA, through their own process of setting priorities, is unintentionally contributing to Newark's delay problems. In our business, when we identify a problem critical to our operations, we apply the resources necessary to address that problem. And in fact, we have done so on several occasions at Newark. In this case, though the FAA's own statistics show that Newark has been the most delayed airport, we are not convinced that the FAA necessarily applies a "best efforts" approach. When they have the opportunity to install equipment that might reduce delays, such as those cases I have just cited, they have allowed projects to languish.

But let me move on to my third and final point. While much of this equipment would provide some relief to the delay problem in the New York airspace, we believe that a comprehensive redesign of the airspace holds the greatest promise for improvement. We are not alone in this belief. In a recent letter sent to FAA Managers in the Eastern and New England regions from the National Air Traffic Controllers Association (NATCA) Presidents in Boston and New York Centers, NATCA said "While there may be some short term solutions to pressing needs, it must be understood that they are just that, short term. The airspace system cannot function on a regular basis with a patchwork of interim fixes. These short term solutions must be part of a comprehensive well planned, permanent design that will accommodate existing and future technologies." We agree. It is absolutely imperative that this review be conducted with participation from all segments of the system as well as the communities. This is not a project that should be allowed to languish—it should receive the very highest priority within the FAA from both a funding and a personnel perspective. NATCA is right—all other fixes are just a temporary fix. I hope this Committee will add its voice to the chorus of support for radical overhaul of the New York airspace.

Before I close, I want to reemphasize that as frustrated as we have been with some of these equipment issues, we are proud of the ongoing partnership we have attained with the FAA in our region. We appreciate all that FAA has done on behalf of Continental and our passengers. This partnership has had a positive impact. Last Fall, with FAA's assistance, Continental assumed control of the taxiway system adjacent to Terminal C. It may not sound like much, but this action enabled Continental to improve the movement of aircraft in and around the ramp and tarmac. Furthermore, the FAA and Continental are cooperating on the design of the new Air Traffic Control Tower at Newark so that a ramp control facility could be placed in this space, at our expense. With these and other positive examples of the power of the airline/FAA partnership, Continental looks forward to the day when Newark is not consistently on the top of the list of our nation's most delayed airports.

Mr. Chairman, once again, I appreciate this opportunity to testify. Any hearing or any attention paid to the New Jersey/New York airspace is welcome—any action taken to bring in new equipment, hire additional personnel or initiate innovative airspace design is even more welcome. Jay and I would be happy to answer any questions you may have at this time.

STATEMENT OF JACK JOHNSON

Senator SHELBY. Our next panelist is Mr. Jack Johnson, president, Professional Airways Systems Specialists.

Mr. JOHNSON. Good morning, Chairman Shelby and members of the subcommittee. I will try to rapidly go through my points.

I am Jack Johnson. I am the president of the Professional Airways Systems Specialists. We represent over 10,000 FAA employees, including systems specialists more commonly known as technicians, safety inspectors in the flight standards area, and also the pilots who fly for the FAA. PASS is the exclusive representative for all those people. In today's testimony I will try to focus on how all

of this discussion about the air traffic control system relates to the folks that we represent.

As you are hearing about air traffic controllers, I would like you to remember that the air traffic controller's right hand is the FAA technician, and the FAA technicians have been there for years and years maintaining the obsolete equipment that is currently still in use by the FAA, and the air traffic controllers' confidence has always been there with the airways facilities technicians.

As Senator D'Amato said, we have gone from about 11,600 technicians to about 6,000 technicians, while we have gone from about 19,000 facilities and pieces of equipment to about 40,000. That is an awful lot of change, and we seem to be going in the wrong direction. As you heard Senator D'Amato say, this group of people, dedicated as they are, are very, very stressed. They do not have the people there, they do not cover all the shifts anymore, there is overtime that we are needing, the training dollars are just not there anymore, and our biggest problem is that they do not have people in the pipeline to fill for the 38 to 50 percent of the technicians that will be retiring over the next 3 to 5 years.

The poor planning and decisionmaking by the FAA around the advanced automation system has created a situation where we have the right work force for the wrong FAA air traffic control system. As you heard from Senator D'Amato, staffing decreases have forced the agency to adopt a costly and dangerous alternative to in-house maintenance—contracting out the maintenance. I would offer to you today that you cannot—you cannot—contract out the safety of your families, of the American people, and the national airspace system. That is not a good alternative. It is bad for Government, and it is bad for business.

In 1996, the existing 29 maintenance contracts cost the airway facilities piece of the FAA $47 million. The generated workload for that contracting maintenance was 503 employee years. If you equate that to the cost of the maintenance by the in-house staff, that would give us over 700 employee years. Typically the FAA will contract out the first few years of maintenance in order to get the training for the technicians out in the field.

The FAA just recently contracted with Raytheon to put in the standard terminal automation system [STARS], and we believe that while we are concurrently running the old system with the new system, there is a better way to train than to send everybody out to Oklahoma City one or two at a time. We can train right in the facility on the new equipment while it is being tested to make sure that it is going to do the job.

Mr. Henry Brown is seated next to me today. He is the technician from New York, and I would like to give him enough time to speak today, but I would also like to say that any questions that you might have, we will be glad to answer them, and we have submitted written testimony. Thank you.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Johnson. We will insert your complete statement in the record.

[The statement follows:]

PREPARED STATEMENT OF JACK JOHNSON

Chairman Shelby and Members of the Subcommittee: Good morning. My name is Jack Johnson, and I am the National President of the Professional Airways Systems Specialists (PASS). Seated next to me is Henry Brown, an Environmental Systems Specialist and PASS Representative from the New York Air Route Traffic Control Center. Mr. Brown will testify on FAA staffing, training, and equipment problems in the New York area. Thank you for inviting us here today.

As the exclusive representative for over 10,000 Systems Specialists, Flight Inspection Pilots, and Aviation Safety Inspectors working for the Federal Aviation Administration (FAA), PASS has a strong interest in FAA staffing levels. The services that our members perform range from systems maintenance, installation, and certification, to aviation and flight inspection. These dedicated men and women have a direct impact on the commercial and general aviation industries and on the safety, the efficiency, and the reliability of the air traffic control system.

Earlier this gear, PASS provided testimony to this Subcommittee on the FAA's Fiscal Year 1998 budget request, including information on each of our bargaining units. Today's testimony will focus specifically on our Systems Specialists—the men and women who form the backbone of the air traffic control system. We will explain how the FAA's choices to cut staffing and training, to contract out, and to attempt modernization without appropriate planning are misguided, waste money, and jeopardize the future safety and reliability of the National Airspace System (NAS).

STAFFING

Airway Facilities (AF) Systems Specialists (or Technicians, as they are more commonly known) are primarily responsible for the maintenance, repair, and operation of the air traffic control system. Yet, because their positions are not as visible as those of the Air Traffic Controllers, Systems Specialists are often overlooked. By no means, however, are they any less important; in fact, FAA Systems Specialists are the only people authorized to certify the operation and safety of facilities and to return the systems to service.

Just as critical to the safe operation of the air traffic control system are the FAA's Air Traffic Control Specialists employed in the agency's Flight Service Stations (FSS) throughout the country. These employees are represented by the National Association of Air Traffic Specialists (NAATS), and they provide pre-flight weather and flight planning information, in-flight updates, and aeronautical facility data to commercial, military, and general aviation pilots.

Today, there is a major shortfall in both AF an FSS staffing. In 1981, for example, 11,600 Systems Specialists were responsible for maintaining 19,000 FAA facilities and equipment. As of September 30, 1996, the entire field maintenance work force (including supervisors, managers, Systems Specialists, and support personnel) totaled 8,209;[1] there are now nearly 40,000 FAA facilities and equipment.

Meanwhile, between 1981 and 1995 (the most recent period for which the agency has provided accurate data), the FAA has systematically downsized the personnel working at its flight service stations by almost one thousand individuals: from some 3,500 to roughly 2,500. During this same period, the number of FSS management and supervisory personnel assigned to Flight Service has been reduced by only six through 1995.

The FAA's staffing standards indicate that an AF work force of 11,815 Technicians, logistical and support staff personnel, supervisors and managers will be needed for the current fiscal year. Yet, an analysis of AF staffing levels shows that, on average, each of the nine FAA regions experienced a 13.2 percent decline in staffing between fiscal year 1992 and fiscal year 1996. Ironically, FAA Headquarters and the Technical Center show a 72.63 percent staffing increase during this same timeframe.

Recently, at the request of Vice President Gore and the White House Aviation Safety and Security Commission, PASS calculated the number of FAA employees directly engaged in systems maintenance, as opposed to those who support systems maintenance. As of December 5, 1996, only 5,888 Airway Facilities employees provided hands-on maintenance of the entire National Airspace System (NAS). The FAA's staffing breakdown follows:

[1] Department of Transportation, Federal Aviation Administration, Administrator's Fact Book, November 1996.

	Fiscal year 1996
Field Maintenance: Employees in the Systems Management Offices (SMO), and Atlantic City and Oklahoma City Centers. They provide maintenance and certification of facilities, engineering, program and administrative support, management, and supervision	8,209
Planning and Technical Support: Employees located in Regional Offices, Centers, and FAA Headquarters. These employees manage national programs by providing engineering and program analysis, resource management, and administrative support	1,090
Total Operations (Systems Maintenance) Staffing	9,299

The true distribution of systems maintenance staffing, however, includes the number of supervisors and managers, the number of employees in support positions, and the number of employees directly engaged in maintenance of the NAS. PASS obtained the following data by contacting FAA field and regional offices directly:

	Fiscal year 1996
FAA Headquarters: Including Atlantic City and Oklahoma City Centers	885
Regional Offices: This includes regional offices only, without headquarters elements	841
SMO Offices: Includes the technical, program, and administrative support for the System Support Centers (SSC's), as well as the first-line supervisors of the field maintenance employees	1,685
AF Employees Providing Hands-On Maintenance of the NAS	5,888
Total Operations (Systems Maintenance) Staffing	9,299

As you can see, a very different picture is painted when "systems maintenance" staffing is distributed by operational structure. What this shows is the number of systems maintenance employees assigned to hands-on maintenance jobs is approximately 63 percent of the total systems maintenance work force. It is no wonder that AF overtime usage in fiscal year 1996 increased by fifteen percent for the systems maintenance work force.

Following is a breakdown of Airway Facilities staffing levels at selected SMO's nationwide. It is important to remember that the on-board staffing figures are inclusive and that the FAA does not track the number of Technicians that perform hands-on maintenance of the system. The on-board staffing levels below include at least 22 percent overhead; generated staffing refers to the amount of people the FAA calculates are needed to maintain all of the equipment in the SMO.

Liberty SMO: Includes JFK, La Guardia, Newark, Stewart, Islip, Teterboro, Morristown, Caldwell, and White Plains airports. Also: Riverhead Long Range Radar (LRR), New York Tracon, and New York Center. Generated Staffing, 377; Authorized Staffing, 275; On-Board Staffing, 266; and Retirement Eligible, 40 by end of fiscal year 1998.

Independence SMO: Includes Philadelphia, Syracuse, Allentown, Trenton, Atlantic City, Harrisburg, Wilkes Barre, Scranton airports. Also: facilities in Eastern New York (excluding New York City), eastern Pennsylvania, and New Jersey (excluding Newark). Generated Staffing, 309; Authorized Staffing, 228; On-Board Staffing, 208; and Retirement Eligible, 20 percent.

Pittsburgh SMO: Includes Greater Pittsburgh, Erie International, Buffalo International, Rochester International, Roanoke, Charleston, Huntington, Clarksburg, Allegheny County, Lynchburg, State College, Martinsburg, and DuBois airports. Also: Bedford LRR, Oakdale LRR, Clearfield LRR, Pittsburgh Tracon, Lambs Knoll, and Altoona Flight Service Station. Generated Staffing, 297; Authorized Staffing, 216; On-Board Staffing, 196; and Retirement Eligible, 20 percent by end of fiscal year 1997.

Los Angeles SMO: Includes Burbank, Los Angeles, Van Nuys (busiest general aviation airport in the world), Inyokern, Palmdale, Oxnard, Camarillo, and Santa Barbara airports. Also: Edwards Air Force Base, R2508 (military test range), Los Angeles Center, High Desert Tracon, 10 long range radars, and Hawthorne Flight Service Station. Generated Staffing, 327; Authorized Staffing, 202; On-Board Staffing, 200; and Retirement Eligible, 40 percent (Center), 30 percent.

Chesapeake SMO: Includes Andrews Air Force Base, Washington National, Dulles, BWI, Richmond, Norfolk, Charlottesville, Salisbury, Patrick Henry, Manassas, and Shenandoah airports. Also: Leesburg Center, Leesburg Flight Service Station, and Baltimore Tracon. Generated Staffing, 312; Authorized Staffing, 249; On-Board Staffing, 255; and Retirement Eligible, 40+.

Within a 1995 cost-benefit analysis for the NAS Infrastructure Management System (NIMS), the FAA acknowledged that "service and system management efficiencies will not make up for the shortfall in available AF personnel during the period 1997 through 2001. (Note: The shortfall in service and system management effectiveness will result in a reduction of overall AF facility and service operational availability.)"[2] Given the known impact of this staffing shortfall, why does the agency plan to hire only 25 additional Technicians in fiscal year 1998?

FAA management's poor planning and decisionmaking have led to today's staffing problems. First, the agency calculated the field staffing reductions that it believed the now defunct Advanced Automation System (AAS) would achieve. Then, it cut the field maintenance staff by not hiring Technicians to fill the pipeline. But the system never materialized.

Had the agency fulfilled the AAS promise, we may now have the correct number of employees. However, the agency terminated the AAS project, leaving us with the right work force for the wrong air traffic control system. Consequently, the use of overtime has increased; restoration times have grown; open watches are commonplace; contractor maintenance costs have skyrocketed; and training dollars have been slashed.

Mr. Chairman, if just one-fourth of the overhead in Airway Facilities (defined as support, managerial, or supervisory support not directly engaged in NAS maintenance) was converted to the true maintenance work force, it would mean 850 more employees in the pipeline who are eventually trained to maintain the NAS. This would be a fifteen percent increase in the number of field Technicians available to help keep our skies safe.

CONTRACTING OUT

Unfortunately, staffing decreases have forced the agency to adopt a costly and dangerous alternative to in-house maintenance—contracting out. The FAA is allowing maintenance on the NAS—which is an inherently governmental function—to be performed by private contractors. PASS believes the agency's decision to contract out the installation, repair, maintenance, and certification of FAA systems and equipment vital to the safe operation of air traffic is both bad government and bad business.

Both the FAA and the General Accounting Office have estimated that the agency would save approximately $45,000 per staff year if it utilized its in-house staff rather than contractor staff. Not only is contracting out more expensive to the agency, it is also counterproductive to the agency's mission. In fact, in testimony last year before Congress, the GAO concluded that one of the prime factors hindering the FAA's ability to bring new ATC systems on-line is its "inadequate oversight of contractor performance."[3]

In fiscal year 1996, the existing 29 maintenance contracts cost Airway Facilities $47,700,000. The generated workload for contract maintenance for fiscal year 1996 was 503.8 employee years (or "the number of people that would be required if FAA employees were to perform this workload in-house.") This equates to $94,680 per employee year.

Now, if this maintenance was actually done in-house, using the FAA's labor rate for Systems Specialists, $68,000 per employee year or 701.5 employee years of work could be realized. This equates either to a net increase of 198 Systems Specialists to be used in areas of staffing shortfalls or a net savings to the FAA of $13,433,600 for the same amount of work.

Typically, the FAA will contract out the first few years of maintenance of a new system simply because it cannot train our Technicians fast enough to support these new systems. Despite the fact that Congress legislated personnel and acquisition reform to give the FAA greater flexibility, the agency has failed to reform training.

Recently, the FAA contracted with Raytheon for the installation and maintenance of the Standard Terminal Automation Replacement System, or STARS, as it is commonly known. This system will replace aging radar display systems, controller workstations, and related equipment at about 170 FAA terminal ATC facilities by February 2005.

Assuming that Raytheon will perform most site preparation and installation work, the STARS contract is estimated to be worth $2.2 billion—$940 million for facility and engineering and $1.3 billion to operate and maintain the system. According to

[2] Federal Aviation Administration, Cost-Benefit Analysis of the National Airspace System (NAS) Infrastructure Management System (NIMS), October 1995. (Final Draft Copy).

[3] Kenneth Mead, Director, Transportation Issues, "Issues Related to FAA Reform," (General Accounting Office, August 2, 1995.)

the General Accounting Office (GAO), STARS costs could increase by $529 million over FAA's baseline.[4]

Just last week Aviation Daily reported that FAA officials overseeing implementation of STARS have told Raytheon they propose to elevate STARS software development to "high risk status" because of delays in meeting milestones. According to the article, a March report shows software development to be 75 percent behind schedule. "It is unclear how Raytheon could recover with the existing plan that increases in both size and complexity with each incremental build," the FAA told Raytheon.

Clearly, Technicians and Controllers should have been given hands-on involvement in this project from the onset; instead our roles have been limited. As such, PASS fully expects that the STARS project—like most FAA modernization efforts—will run over budget and take longer for deployment. Consequently, the agency will raid resources from other programs to cover the shortfalls.

The FAA is also missing the opportunity to save money by giving on-site training on STARS to AF Technicians. When appropriate, on-site training can save time and money because the cost of sending an instructor to one site, or a group of sites, is much less than sending fifteen or twenty Technicians to the Oklahoma City Academy.

STARS will be deployed with the current automation system, which would make on-site training of AF Technicians for a project of this magnitude not just appropriate, but extremely cost effective. However, the FAA has said it will contract out the first year of maintenance for STARS because it can't train enough people in time to assume the maintenance.

How long will this excuse be acceptable? Why would the agency spend millions of dollars on the STARS contract when the agency's AF Technicians can bring systems online faster and cheaper? The Display Complex Channel Rehost (DCCR) program, for example, was completed on time and $3 million under budget. The Voice Switching Control System (VSCS) was also commissioned on time and on budget. Technicians were responsible for both projects.

Until now, PASS has addressed contracting out as merely a "numbers" issue—or as a costly "Band-Aid" for the FAA's true staffing problems. We would now like to explain the dangers and the safety shortfalls that contracting out generates, for it is common knowledge at FAA facilities that contractors will always place their company's needs before the FAA's safety mission.

The National Airspace System is not just one piece of equipment. The NAS is a complex system which includes thousands of different smaller systems, many of which interface with one another. When contractors come into an FAA facility to maintain a piece of the NAS system, they often do not understand the effect they can have on the intricacies of the whole system and on the safety of the flying public.

AF Technicians have a proven track record, while private contractors often have failed to measure up to this high standard. An example of the satisfaction that FAA Technicians provide is evidenced in a letter to the FAA dated April 30, 1997. Mr. George Larson, Airport Director of the Jackson Hole, Wyoming Airport Board, writes:

"The Jackson Hole AWOS has been maintained by FAA Technicians for a considerable amount of time. It is evident that the maintenance performed by your people is far, far superior to the services performed by the previous contract with Qualmetrics.

Since AWOS is not the most reliable weather system available, it is extremely important to our Airport, commercial air carriers serving this airport, and all general aviation pilots that we can promptly and expertly repair our AWOS when necessary. Your Technicians always provide us with that assurance, unlike the previous outside contract effort."

Because our Systems Specialists work with the NAS equipment everyday and are the only people who can certify the systems, they understand the need to exhibit caution and to communicate with others before performing any maintenance on a system. There are also rules that Congress has imposed on our work force, such as strike prohibitions, that are not imposed on contractors. These rules help to ensure the safety of the air traffic control system. Increased demand on the NAS, combined with the attrition of the current work force, make it impossible to explain why the FAA would want to hire contractors instead of permanent workers.

Until contractors can guarantee immediate restoration and quality service—which PASS maintains will never happen—the FAA must return all maintenance to its

[4] Gerald Dillingham, Associate Director, Transportation Issues, General Accounting Office, "Air Traffic Control: Status of FAA's Standard Terminal Automation Replacement System Project," March 1997.

own personnel. The idea of having anyone outside of Airway Facilities employees conducting installation and operation of systems impacting live air traffic is unacceptable. The maintenance and operation of NAS systems that are used to separate traffic or to maintain safety are inherent governmental functions, whether the FAA owns the systems or not.

MODERNIZATION EFFORTS

Any discussion on air traffic control staffing levels must include a section on modernization, for without adequate Technician staffing levels and support, FAA modernization efforts will fail. For fiscal year 1998, the facilities and equipment (F&E) budget request is a three percent decrease from the fiscal year 1997 enacted level. F&E employees are directly involved in systems engineering and design. They are critical to the agency and will play a key role in modernization. PASS steadfastly believes that cutting the F&E budget is neither safe nor responsible.

There are now 2,869 new FAA systems and equipment (designated by the agency as units) in FAA storage/warehouses. In several instances, cuts in F&E funding are cited as the reason why delivery has been delayed to the field. For example, there are currently 439 Communications Facilities Enhancement radios (UHF and VHF transmitters/receivers) in storage. The project cost is $3,736,000. The reason for delay is cited by the FAA as "F&E funding shortfalls caused by cutbacks in funding for establishment or relocation of communications facilities."[5]

Similarly, because of "partial F&E funding provided in fiscal year 1996," 64 Doppler VHF Omnidirections Range (DVOR) systems are in storage. These systems cost $108,000 each for a project cost of $6,912,000. Unless F&E is funded at higher levels, more and more new systems will sit in boxes awaiting delivery to the field. Meanwhile, the current systems will age, and modernization goals will fail. The FAA has reached a stage where incremental improvement is not sufficient.

The White House Commission on Aviation Safety and Security found that the FAA's "proposed schedule for modernization is too slow to meet projected demands, and funding issues are not adequately addressed." This has been the case for years. Since the early 1980's, the FAA's modernization program has experienced substantial delays and cost overruns.

PASS believes the FAA can succeed in modernizing the air traffic control system by building on its proven strength—its employees. The same ingenuity and perseverance that now enable the men and women of PASS to keep the NAS running is what is needed to bring the FAA into the 21st century. Instead of telling these employees—who are stakeholders in the system—how they must change to be part of the future, the FAA should be asking its employees to show the agency the future.

According to the GAO, "in organizations with more constructive cultures, employees are more likely to involve others in decisions affecting them, openly share information, and resolve differences collaboratively." In the FAA, however, "ineffective coordination has caused the agency to acquire systems that cost more than anticipated and look longer to implement."[6]

PASS employees are a vital part of developing the future NAS and are the FAA's best insurance that this new system will work as advertised. But FAA management excludes its Technicians and Controllers—who are the subject matter experts in the field and the end users of the product—from devising and developing ATC modernization solutions and plans. Instead, they are merely asked to help implement management's plan.

CONCLUSION

PASS firmly believes that the status quo is no longer feasible. The FAA simply cannot maintain the world's safest airspace with shrinking budgets and reduced staffing levels. Nor can it turn over its maintenance responsibilities to contractors, masking the decision as cosmetic cost savings. The bottom line is that contracting out costs taxpayers many times more than what it costs the government to have federal employees provide the same services.

Senator Shelby and Members of this Subcommittee, PASS urges you to mandate that the FAA immediately increase Technician staffing levels, revamp training programs, and eliminate the costly practice of contracting out. These changes will lead to increased productivity and will ensure the safety and efficiency of the National Airspace System.

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[5] FAA Storage/Warehouse Report, February 19, 1997.

[6] John H. Anderson, Jr., Director, Transportation Issues, General Accounting Office, "A Comprehensive Strategy is Needed for Cultural Change at FAA," August 22, 1996.

Thank you for your time and consideration. I would be more than happy to answer any questions that you may have.

STATEMENT OF MONTE BELGER

Senator SHELBY. The next witness is Mr. Monte Belger. He is the Acting Deputy Administrator, Federal Aviation Administration.

Mr. BELGER. Thank you, Mr. Chairman. I do have a prepared statement, and my staff has armed me with a barrage of numbers and statistics and data, but I would prefer just to take my time to talk to you about some of the things that have been discussed this morning.

First, there is no question that there is no disagreement between FAA management and the Air Traffic Controllers Union or the PASS Union in terms of these fundamental issues that we have talked about today. No one wants to fix this problem more than senior FAA management. No one wants to fix this problem more than I. I have spent an extraordinary amount of my personal time on the New York issues. I have been to the center, I have been to the TRACON, I have visited with Congresswoman Molinari, and have tried my best to understand from the big picture where we are there. And I am not here today to appease the committee nor to tell you that everything is OK, because it is not.

Senator SHELBY. Excuse me. I hope you are not here to appease us, but I hope you are here to tell us how you can fix a problem before we have a huge airline disaster in this country.

Mr. BELGER. I am going to do that, sir.

Senator SHELBY. I believe that is part of your responsibility.

Mr. BELGER. Yes, sir.

Do we have enough controllers at the New York facilities? The answer is no. Are we satisfied with either the staffing levels or the status of the equipment in the New York area? The answer is no. We will not be satisfied, I will not be satisfied, until we reach the target levels that we have established for staffing at each one of the facilities; will not be satisfied in the equipment area until we install the new computer systems in the center, which is on schedule and on budget and will happen in 1999 at the New York Center. I will not be satisfied until we complete the installation of the terminal automation modernization in all the terminals throughout the country. That will happen starting in the 1999 to 2003 timeframe.

Are we doing all that we can? I think we are. I do not think that we can install the new equipment any more quickly than the current schedule that we have. Are we doing all we can in the staffing area? I think we are. Do we have an agreement with the Air Traffic Controllers Union on target levels for staffing at the New York Center and the New York TRACON? Yes, we do. It is in Mr. Krasner's statement, although he did not refer to it, but we have an agreement for the first time in the history of relationships between the FAA and NATCA, and we are reaching those target levels. And the data is in the statement, and I will be glad to provide specific numbers, but we are committed to meeting those target levels at the New York Center and the New York TRACON at the end of this year and at the end of 1998.

AIR TRAFFIC CONTROLLER INCREASE

We will hire this year and next year, if our budget request for fiscal year 1998 is favorably received, 1,300 new controllers. That is more than we hired in the 5 previous years combined. We have the flexibility and the opportunity now to aggressively respond to these problems. We are not just hiring people, we are doing things as was suggested by the previous panel to build a pipeline in the New York metropolitan area from which we can draw, so that we are hiring people who want to be in that area. We want to hire people who want to be there. We want to hire people who have ties there, who do not want to go there and get trained and get the grade and go somewhere else. We want to hire people who want to be there in the New York and the New Jersey area.

We instituted last year, at my direction, what we call a co-op program, working with Dowling College and the College of Aeronautics at La Guardia, through which college students will come to the facilities to work part time. They get credit for it, and we hire them when they graduate, that clearly prepares them for the future. Do we have enough people in that program now? No; but it is just getting reinstituted after it was cut years ago by the FAA. We are also expanding the college training initiative program, which is a group of universities that train controllers for us, and we are trying to get colleges in the New York metropolitan area to do that.

Senator Lautenberg correctly admonished us to just do it. I think we are doing our best to just do it, and I am committed to doing that. Senator Lautenberg suggested that perhaps one of the things that might be looked at, and I can assure you we are looking at it, is potentially readjusting some of the work load and the airspace to equitably put the workload where the people are—and we are aggressively looking at that, and that is a potential option.

Is the air traffic control system in New York/New Jersey area safe? Well, of course it is. It is absolutely safe. My daughter just recently moved to Boston after living in Montclair, NJ, for several years. She flew out of Newark regularly on her business. That is the ultimate test for me. It is safe. At the end of the day, we will be judged by how safe the system is.

Do we agree with some suggestions that were made in the first panel that the pay system for both controllers and engineers and technicians ought to be changed so that it more accurately reflects the complexity and the value of the service provided? Yes, we do. And given the flexibility that we have in the personnel reform, we are doing that. We are working aggressively with both NATCA and PASS to develop new classification standards and pay schemes that will acknowledge that an individual working at the most complex facilities ought to be paid more than one working at a less complex facility.

But I should also put a balance to this whole discussion, and then I will pause, although I could speak for hours about the things that were said this morning. We have to put some counterbalance to this discussion. At the same time we are doing those things I said, are we also, as good stewards, looking at how we can reduce and control our operating costs? And yes, sir, I can assure you that we are.

I just spent a day and a half—a full day and a half—with the National Civil Aviation Review Commission, which was chartered by the Congress to look at how the FAA should be funded in the future. They, appropriately, are very concerned about our growing and escalating operating costs. We all should be concerned. NATCA should be concerned, PASS should be concerned. I can assure you I am concerned. We have to solve these problems in a way that also controls our growing operating costs.

This is not easy, but I can assure you all, I can assure the committee, and I can assure the American public, that we are committed to doing both those things, providing the safest system that we can. I want our air traffic controllers and technicians to have the very best equipment in the world, but we also have to do it in a way that is responsible to the taxpayers, and do the best we can to control our costs.

Thank you, sir.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Belger. We will insert your complete statement in the record.

[The statement follows:]

PREPARED STATEMENT OF MONTE R. BELGER

I welcome the opportunity to appear before you today to discuss the important issue of air traffic controller staffing. We in the FAA firmly believe that the primary reason that the United States is able to operate the world's safest and most complex air traffic control system is because of the excellent performance of the technicians and air traffic controllers who operate the air traffic system 24 hours a day. We are committed to maintaining an adequately sized and properly trained controller work force.

During the 1980's, the FAA hired large numbers of controllers as we rebuilt the controller work force from the strike of 1981. By 1992, the controller work force had been rebuilt, and at a level of 17,982, was several hundred controllers over the controller work force staffing standard requirement.

From 1993 through 1996, the controller work force was reduced primarily as a result of our successful initiative to contract the low activity level I airport traffic control towers. Once this initiative is completed, we will have effectively reduced the controller work force requirements by approximately 1,000 for an annual savings of approximately $25M, with no adverse impact on safety. During this period, controller hiring averaged only 100 per year because we were also reassigning approximately 200 controllers per year from the closed level I towers to higher level facilities.

The limited hiring over these years exacerbated staffing imbalances among some facilities. By the end of fiscal year 1996, the controller work force was at 17,080 including 14,360 air traffic controllers, 2,162 first line supervisors, and 558 traffic management coordinators. In the same period, the other-than-controller work force was reduced 24 percent from 8,959 in fiscal year 1992 to 6,824 at the end of fiscal year 1996.

The fiscal year 1997 budget recognized that the controller work force had to start growing again because there soon would no longer be controllers available from closing level I towers, and because of increases in forecasted traffic, new equipment, training, and retirements. Starting in fiscal year 1997, we plan for several years of increases to the controller work force to keep pace with increasing air traffic activity. This plan calls for the controller work force to increase to 17,300 in fiscal year 1997, with 14,560 air traffic controllers, and our fiscal year 1998 budget submittal requests a further increase to 17,800. This means we plan to hire 1,300 controllers in fiscal year 1997 and fiscal year 1998. The 1,300 includes the 750 increase in the size of the controller work force and 550 to replace attrition expected in fiscal year 1997 and 1998.

This growth means that annual controller hiring will be 500 in fiscal year 1997 and approximately 800 in fiscal year 1998. We fully expect to meet the hiring tar-

gets for fiscal year 1997, and we ask for your support to fund our request for hiring in fiscal year 1998.

The new controller hires will come from a variety of sources including former controllers, who became eligible for consideration for reemployment after President Clinton removed the ban on their employment with the FAA, veterans, cooperative education students, and graduates of the College Training Initiative.

We are concerned about maintaining adequate staffing at some large, complex facilities such as those in the New York area. In order to encourage controllers to move to these major facilities and to retain those already there, we implemented an interim incentive pay of 10 percent at seven key facilities in the New York, Chicago, and Oakland areas. In addition, after in-depth review of staffing requirements at the New York area facilities and the Washington Air Route Traffic Control Center, we have signed agreements with National Air Traffic Controllers Association (NATCA) on appropriate staffing levels for Washington Center, New York Center, and New York TRACON. We are targeting the fiscal year 1997 and fiscal year 1998 controller hires to ensure that the staffing levels agreed to are achieved. In the first eight months of fiscal year 1997, we have hired 31, 31, and 14 new controllers in the Washington Center, New York Center, and New York TRACON respectively.

We have focused on the New York facilities in the past few years. Even though the national CWF staffing levels decreased by 5.0 percent since 1992, staffing in the New York facilities increased by 3.4 percent, a net difference of 8.4 percent.

Operational errors are up at New York Center and New York TRACON. However, past studies have shown that there is no statistical significance between staffing and operational errors. These studies have indicated the following "key factors" generally exist in operational errors:

—Sectors were not combined when the incident occurred.
—The controller was working five to six aircraft.
—The controller's last day off was usually 2 days prior to the incident.
—The incident occurred in the third hour of the workday and overtime was not a factor.

One other area I would like to touch on briefly is the controller staffing standard. The controller staffing standard has been developed and refined over many years. It uses complex algorithms that calculate the controller staffing requirements facility by facility. It considers the amount of aircraft a controller can handle, the air traffic activity, and the number of sectors of airspace in use and various shift times. It also makes adjustments for the 7-day operations and the amount of time controllers are not available for work for such reasons as sick leave, annual leave, training, medical checks, union activity, work groups, and details. Finally, it calculates staffing requirements based on the 90th percentile day. That means it provides staffing adequate to handle activity on a facility's 37th busiest day of the year.

On the national level, the staffing standard is very accurate. It is less accurate at an individual facility and we estimate the facility accuracy to be plus or minus 10 percent. That is why we primarily use the staffing standard to support budget and resource requirements at the national and regional level. Regional Air Traffic Division managers consider local facility requirements along with the controller staffing standard when allocating controllers to specific facilities. The staffing standard is updated annually with the latest information on changes in air traffic activity projections and facility characteristics.

There have been several outside reviews of the controller staffing standard. The latest review was recently conducted at the direction of Congress by the National Research Council which is part of the National Academy of Sciences. The report was completed in April 1997. Its general findings were that the strategies for sampling, data collection, and model design are geared to the development of national staffing estimates and do not necessarily provide accurate predictions of staffing requirements at individual facility levels. Although the National Research Council found that it was unlikely that the staffing standard could be modified to provide precise stand-alone estimates of facility staffing requirements, it did make some recommendations for improving the process for determining staffing requirements. These recommendations included: Strengthening the headquarters staffing estimation process; developing a uniform regional approach for estimating facility staffing; establishing a headquarters oversight process for resolving differences between regional and headquarters estimates of staffing at specific facilities; and developing performance measures for testing the validity of facility staffing estimates. We agree with most of the National Research Council's recommendations and are already taking action on its suggestions.

In summary, let me reiterate that we are committed to maintaining adequate controller staffing levels to ensure continued safe and efficient operation of the air traffic control system. Your continued support, particularly for our fiscal year 1998 re-

quest to increase the size of the controller work force to 17,800, is essential if we are to meet that commitment.

Thank you for giving me the opportunity to appear before you, and I will be happy to answer any questions.

STATEMENT OF RAYMOND MALDONADO

Senator SHELBY. Mr. Maldonado, do you have a statement to give? If you would highlight, Mr. Maldonado, your statement, the whole statement will be in the record. Do you have anything to add?

Mr. MALDONADO. Well, let me first just say, Mr. Chairman and committee members, thank you for the invitation, privilege, and opportunity to speak before you this morning. I have been employed by the Federal Aviation Administration since 1989, and I am extremely proud of the work that I do and the profession that I have chosen. Air traffic controllers are the cornerstone of what should be the safest and most efficient air traffic system in the world. While I will not say that the system is unsafe, I will say that it is not as safe as it could or should be. Of course, this all relates, in my opinion, to some of the staffing problems and equipment problems that have hindered that distinction.

My draft was submitted, I guess. I am prepared to answer questions or offer testimony in the area of equipment, delays, and certainly staffing, to the best of my knowledge.

PREPARED STATEMENT

Senator SHELBY. We appreciate that, and I am sure we will have some. We will insert your complete statement in the record.

[The statement follows:]

PREPARED STATEMENT OF RAYMOND D. MALDONADO

Mr. Chairman and committee members, thank you for the invitation, opportunity and privilege to appear before you this morning. My name is Raymond Maldonado, I am an Air Traffic Control Specialist at the Newark Air Traffic Control Tower in New Jersey. I have been employed by the Federal Aviation Administration since 1989. Today I speak before you as the Newark Tower Representative of the National Air Traffic Controllers Association.

I am extremely proud of the work that I do and of the profession that I have chosen. Air Traffic Controllers are the cornerstone of what should be the safest and most efficient air traffic system in the world. While I will not say that the system is unsafe, I must say that it is not as safe or efficient as it could or should be. Controllers are the professionals that organize and expedite the flow of air traffic, and most importantly we prevent collisions between aircraft operating in the system.

Newark Tower operates 24 hours a day, 365 days a year providing air traffic control services to the aviation customers of Newark Airport, and radar service within a 6.5 mile radius of the airport. In 1991 Newark Tower had approximately 30 Air Traffic Control Specialists, the overtime budget was approximately $40,000 and the airport conducted roughly 380,000 operations. In 1996, five years later, Newark Tower had 27 working Air Traffic Control Specialists, the overtime allocation for fiscal year 1996 was $21,800 and the airport conducted over 454,000 operations. That translates to a 10 percent DECREASE in controller staffing, a nearly 50 percent DECREASE in overtime allocations, and an INCREASE of almost 20 percent in air traffic. Mr. Chairman, please believe me when I say that a lack of air traffic controller staffing, and the resources necessary to augment these shortfalls are a recipe for disaster.

Since 1991 the FAA has conducted four separate staffing studies designed to determine the staffing needs of Newark Tower. All of the studies called for staffing levels at or above Newark Tower's current authorization. The most recent study was a collaborative effort between NATCA and the FAA. It recommended the staffing level of controllers necessary to provide the level of service expected by the users

of Newark Airport should be between 37 and 41 specialists. Although authorizations have recently been adjusted, staffing levels for full performance level controllers throughout the NY/NJ metropolitan area still remain at approximately 70 percent of the authorizations.

Newark Tower currently staffs eight operational positions. A two week study conducted by NATCA in May 1996, revealed that four of those control positions, that is one half of the positions at Newark Tower, were combined with another control position almost 12 hours each day, between 7 a.m. and 11 p.m., our high traffic period. In the fall of 1996 a Federal Aviation Administration Operational Assessment Team stated in their report "critical positions were combined during some heavy traffic periods, the CBA (radar) position was closed and service was denied", and lastly they concluded that "combining positions appears to be the standard operating practice at Newark Air Traffic Control Tower". I assure you that even during periods of moderate traffic, combining two or more control positions under the responsibility of one Air Traffic Controller is not desirable nor is it safe.

The combining of positions dramatically increases workload and drastically diminishes the level of service and safety being provided. The FAA's own "Operational Error Reduction Plan" calls for the de-combining of positions which will help accomplish increased safety and efficiency. Additionally, the FAA's Operational Assessment Team also recommended the splitting or de-combining of critical positions. In July 1996 I myself was assigned the responsibilities of three air traffic controllers. It was because of this overburden that an aircraft under my control, inadvertently entered into and flew unmonitored approximately 10 miles through the most complex airspace in the world—directly above the island of Manhattan. When positions are combined because of inadequate staffing levels, relief breaks are reduced, time on position soars, and inattention to detail occurs. No one wants or needs a fatigued controller directing his or her flight, unfortunately in the NY/NJ metropolitan area this is the case more often than not. When controllers are overburdened, the safety of the flying public is compromised.

At facilities around the country that are short staffed, air traffic services are frequently denied or reduced and ultimately the end results are delayed flights. To our aviation customers, we know time is money. However it is only through the combined efforts of adequate staffing and reliable equipment that we can work to reduce delays.

A May 30, 1997 Newark Star Ledger article cited a Port Authority Study that states "delays cost EWR airport users 100 million dollars annually. Delays at all 3 of the major New York airports are estimated to cost the users 215 million dollars annually".

Although there are many future technological initiatives and equipment installations scheduled for Newark Airport, designed to help reduce delays, many of those initiatives such as Converging Runway Display Aid (CRDA) and Terminal Doppler Weather Radar, are months if not years away from actual implementation.

Our nation's Air Traffic Controllers service the world. The impact of an overburdened system is felt far beyond the boarding gate. Members of Congress have helped to raise awareness and have been instrumental in helping correct some of the problems throughout our air traffic system. While there is a tremendous amount of work that still needs to be done in other areas such as incentives, retention, hiring and technology, I am confident that with your support and assistance we can re-establish the type of air traffic system that our flying public expects and deserves.

Once again, thank you for your time, consideration and the opportunity to speak before you today.

STATEMENT OF TOM MONAGHAN

Senator SHELBY. Mr. Monaghan, do you have a statement to make?

Mr. MONAGHAN. Yes, Senator.

Senator SHELBY. I am sure we have got some questions. Your written statement will be made part of the record, if you have one.

Senator LAUTENBERG. You are in the Kennedy tower, is that right, Mr. Monaghan?

Mr. MONAGHAN. Yes, I am.

Chairman Shelby and members of the subcommittee, I am Thomas Monaghan, of the National Air Traffic Control Association. I am a control specialist at Kennedy tower and the NATCA representa-

tive for New York/New Jersey metropolitan control towers. These are some of the issues that have been affecting towers over the last couple of years.

The understaffing at smaller towers in the region, which traditionally provided staffing for the larger towers, being so low, in some cases it has taken up to 2 years once we do identify a controller, say at a Teeterboro tower to go to a Newark tower, 2 years to get that controller to that tower. In some cases at Kennedy I think it also took about 2 years. So we are not able to respond fast enough to the outflow of controllers from the metropolitan towers. And La Guardia tower, 60 percent of the controllers there are certified. They have lost 16 controllers over the last 3 years. They are going to lose another five this year. So in some cases we are moving the problem around.

The incentives that have been often mentioned have never been in place at the control towers in metropolitan New York/New Jersey area. So we just move it. And we need to have the most experienced people at all levels of the system. The same level of safety is necessary at the airports, TRACON, and center airspace.

When I did call around, just to try to get a handle on the attrition rate at other areas of the country, it seems that at Chicago O'Hare, where the incentive is in place at the tower, they suffer on average, maybe some years 4, some years none, but an average of 2 controllers a year move into other positions; as compared to La Guardia tower out of 33 controllers losing the 16 plus 5 coming up. That has to undermine the experience level both of the controllers who are working the traffic, and as they are also training the other controllers coming in.

So you have 2-year experience level controllers teaching people just coming into the system. In this airspace, in this complexity, it suffers errors not lightly. I mean, everything is threading the needle, and you have to have people with the experience level necessary to see this.

It is not that the controllers do not have the talent. It is not that they do not have what it takes. It is that often we just keep training them and they keep repeating the same errors. And it is very frustrating to people.

Senator SHELBY. Why? Why do they keep repeating the same errors?

Mr. MONAGHAN. Because as soon as they get to the experience level, sir, they move out either into FAA management, another locality, or a radar facility on Long Island, and then we start the whole process over again.

Senator SHELBY. OK. I see.

PROBLEMS WITH AIR TRAFFIC CONTROL

Mr. Belger, I want to assure you over at FAA from my standpoint as the chairman of this subcommittee, and Senator Lautenberg I believe would agree with this, I hope so, that we are going to do on this subcommittee everything we can—everything—to see that FAA is properly funded, that there will not be a shortage of money, because safety should not be bought and sold, not the safety of our traveling public in America. Would you agree with that?

Mr. BELGER. Absolutely. I think you have been responsive.

Senator SHELBY. And to use your words, we are not here to appease you, but we are here to assure you that we are going to work together to see that that is done. There cannot be ever any substitute for safety.

I realize that you have got to have trained quality personnel, you have got to pay them, you have got to keep them any way you can once they are trained. I think the American people deserve nothing less.

Now, are the problems, Mr. Belger, that have been outlined here today by the first panel and some of the others, dealing with New York and New Jersey areas, also common to some extent around the country in some of the busy airports like Chicago, Atlanta, Dallas, Los Angeles?

Mr. BELGER. The equipment problems that have been discussed today are common throughout the entire country. The equipment in the centers is old. It needs to be replaced. And as I say, we have a plan to do that. The equipment in the radar approach control facilities is old. It needs to be replaced, and we have a program to do that. And I believe we are doing that as quickly as we can.

In my opinion, the staffing situation is probably more acute in the New York area than it is in other locations. That is not to say that we do not have some staffing shortages in other locations, but a combination of factors make it very difficult to recruit as rapidly as we would like.

RECOMMENDATION ON COLLISION AVOIDANCE SYSTEM

Senator SHELBY. Mr. Belger, on a different topic, one of the recommendations I understand was made by the National Transportation Safety Board is for the FAA to require that all cargo plains be equipped with a collision avoidance system known as traffic advisory and collision avoidance system. These systems are currently required, it is my understanding, on all passenger planes carrying 10 or more people, is that right?

Mr. BELGER. Yes, sir; that is correct.

Senator SHELBY. The need to assess whether some type of collision avoidance system should be installed on cargo planes was highlighted, you recall, last month when a UPS cargo plane came within 7 seconds of colliding with Air Force One. Can you tell us if the FAA is reviewing whether air cargo aircraft, which there are a lot of in the country and in the world, should be required to be equipped with some type of collision avoidance system, and if not, why not?

Mr. BELGER. Yes, sir; we are reviewing that. That is very active on our plate. We have several petitions from groups asking us to require the use of collision avoidance systems on cargo aircraft.

Senator SHELBY. That is just common sense, is it not?

Mr. BELGER. There are two questions: One, should we require today the existing technology, TCAS, on cargo aircraft? And I should also say there are other types of aircraft on which we do not today require collision avoidance systems, either, business jets, business general aviation, the high end of general aviation we do not require today either. There is also a new technology which I have been told that the cargo industry is absolutely committed to, which is called the ADSB, which also provides a collision avoidance

system that will be compatible with the satellite technology of the future.

But the short answer is we are reviewing that. I expect that the Administrator will make some public decision regarding those petitions very soon, and I can assure you it is high on our priority list for review.

I can also say that I have seen an accident investigation report from the instance you referred to that occurred in the Shannon, Ireland, airspace, and the conclusion of the Irish investigative authorities, from the report I saw, was there was no collision potential in that incident even if——

Senator SHELBY. But it was reported that way, was it not?

Mr. BELGER. It was reported, yes, sir. A lot of things are reported for whatever reasons not necessarily related to the facts. But yes, sir; and we take all of those incidents very seriously, and we obviously followed up and found out what the Irish authorities learned from that incident.

EQUIPMENT FAILURE

Senator SHELBY. Mr. Belger, from your knowledge of the equipment failures occurring at the New York and New Jersey facilities—maybe it is New York—is this an increasing problem, or one which your organization, the FAA, is making progress toward correcting?

Mr. BELGER. As I said, we are not satisfied with where we are, but I do believe that we are making extraordinary progress. If you recall, a couple of summers ago we had a rash of incidents in the centers, a very significant one in the New York Center, that were caused by power outages. We have since that time replaced what we call a power conditioning system, which is nothing more than a super complex power conditioning system much like you would have on your computer to purify commercial power. In every one of the centers we have now done that. Those new systems are in place, and they are there.

We had problems also several years ago in the summer with five centers in particular that had the very oldest radar processing computers in the centers. The Administrator at that time made a decision to do a quick $60 million replacement program of those computer systems. That has now been done. This new interim computer system is in place in the five centers.

Senator SHELBY. But you do have backup power?

Mr. BELGER. Oh, absolutely. Absolutely, we have backup power.

Senator SHELBY. So if you had a power shortage, it should not affect you?

Mr. BELGER. I am one who says that any time we have to go to a backup system there is some degradation in service, we lose some capability. But I will also tell you that I think the backup systems are such that we will not let it get to the point where it causes a safety problem.

AIR TRAFFIC CONTROLLERS

Senator SHELBY. We received testimony this morning from the controllers at the New York facilities. They are working an extraordinary amount of overtime. Does this mean that most controllers

at the New York area and New Jersey facilities are working 50 to 60 hours a week, or more, and if so, is this safe? This is a highly stressed job.

Mr. BELGER. It is an extraordinarily important and stressful job. I think the scenario that we are seeing at New York Center is a safe scenario, as I have said before. I have asked Mr. Morgan, who is the Director of our Air Traffic Service, to look closely and analyze the staffing and the overtime situation at the New York Center, and with your permission I would ask him to answer the question more specifically.

Senator SHELBY. Mr. Belger, one last——

Mr. BELGER. I am sorry. I have asked Mr. Morgan to look at that very closely. With your permission, I would like for him to answer specifically.

Senator SHELBY. Let us hear him.

Mr. MORGAN. Good morning, Mr. Chairman.

In looking at the overtime situation at New York Center, what we have found is that we do use a significant amount of overtime. The two primary reasons for that overtime usage is to enhance our training capability. It takes more people when you use controllers to train than it does to just operate the facility.

Second, we have an agreement with the National Air Traffic Controllers Association to be able to allow them a certain period of time through the summer months that they are guaranteed leave, and it is our obligation, our commitment, to make good that memorandum that we have with them.

The particular overtime usage that we have, what we find is that the overtime is usually a voluntary type activity with the controller work force. At times it is mandated, but it is usually volunteers who utilize the overtime. When they are assigned 6-day workweeks, what we have found is that 60 percent of the controllers actually work a 6-day workweek when they are assigned. Others will combine that 6-day assigned workweek with either a day of annual leave or, if required, a day of sick leave, and what we find is that the other 40 percent are working less than a 6-day workweek, even though they are assigned that period of time.

Senator SHELBY. We appreciate that.

Mr. Belger, some airports that do not currently qualify for a contract tower have suggested a call-sharing partnership in which the FAA and the local airport would split the annual operating costs of a contract tower. This type of partnership between the FAA and the local airports could enhance aviation safety at a minimum cost to the FAA. What are your thoughts about this?

Mr. BELGER. I am very much in favor of those types of arrangements.

Senator SHELBY. This would also affect a lot of medium-sized cities.

Mr. BELGER. I am very much in favor of those types of arrangements, particularly if it will provide a service in the form of an air traffic control tower that we otherwise could not provide because it does not meet our criteria.

Senator SHELBY. Senator Lautenberg.

Senator LAUTENBERG. Thanks, Mr. Chairman.

Mr. Belger, and all of you, I am sorry that everybody did not have the opportunity to testify, but we have your statement in the record, and that will be examined thoroughly, and I tell you that we only lost the opportunity to hear the charm of your voices.

Senator SHELBY. And the substance of their statement.

Senator LAUTENBERG. Well, that is going to be in the record, I hope.

Senator SHELBY. That is right.

AIR TRAFFIC CONTROL SCHOOL

Senator LAUTENBERG. I want to ask you, Mr. Belger, you have heard some of the concerns expressed, and one of the things that was kind of addressed turkey roost was this school in Oklahoma. Now, to be candid, you and I both discussed this in a meeting that we had, and you gave me a reason as to why that facility was not being used. Can you, in short form, tell us why? And you did say that you are now using local educational institutions to try and grow controllers in the vicinity in which they are going to live after they get their jobs. So tell us about that.

Mr. BELGER. Yes, sir; from 1992 until this fiscal year, we hired into the controller work force, new controllers, on the average of less than 150 a year. Most of those that we did hire during that period were graduates of the college training programs that I spoke about, and those graduates go directly to the facilities where they begin on the job training, because they have already been trained in the universities on the basic principles of air traffic control.

The other category of folks that we hired from during those years were former military controllers and others who did not have to go through the basic training. We literally hired virtually no one. I will not say no one, but virtually no one at the entry level where they had to come up through the FAA's traditional training program. So that is the reason that we did not have an active ongoing initial training program at the academy.

I do believe that the reference in the first panel to closing down the training academy, although it was not perfectly clear to me, I do believe the reference was to airway facilities training for our technicians and engineers, and the decision was made earlier this year because of funding priorities to cancel some training courses—cancel all training courses. When I learned about that decision in a matter of 2 days we found the money and turned those courses back on.

But the short answer to your question is we have not had an initial training program because we have not been hiring people from those sources.

Senator LAUTENBERG. You have not been hiring people. Is it a necessary part of your development for controllers to have that facility?

Mr. BELGER. No, sir.

[Additional information follows:]

Since fiscal year 1992 the demand for controller trainees entering the system, who require developmental training, has been very low. The FAA has been meeting the hiring requirements through the College Training Initiative (CTI) program and, for the past couple of years, with rehired PATCO controllers.

During this same timeframe we have had a continuing (at times an increasing) need to provide advanced or post journeyman level training. While the CTI program

has met the demand for new hire training, the Academy has met the need for other types of training as well as courseware development and maintenance for ongoing resident courses at the Academy and field developmental training.

As the demand for increased hiring rises we plan to expand the CTI program to facilitate hiring from the local commuting area. And, we are developing a systematic approach for hiring ex-military controllers to take advantage of their background in air traffic control so that training time will be reduced to a minimum. We also plan to "spool" the Academy up to accomplish new hire developmental training. Our goal is to accomplish developmental training in a cost efficient manner while ensuring that all training needs are met.

Senator LAUTENBERG. How much does it cost to operate it?

Mr. BELGER. I can provide that sir, but I do not have that data with me.

Senator LAUTENBERG. Does anyone have it?

[No response.]

Mr. BELGER. We certainly can provide it.

[The information follows:]

The following information is regarding the Air Traffic Division only—not the FAA Academy as a whole. The cost to operate the fiscal year 1997 Air Traffic Training Program (AMA–500) includes the following: $3,312,000 is allocated for the per diem/travel for students; and $14,691,000 is allocated to support 126 FTE's and about 110 contractor FTE's.

Listed below is a partial list of accomplishments that will be made with the fiscal year 1997 dollars: 2,000 resident students trained; 24 percent initial qualification/developmental controller training 76 percent advanced/post journeyman level training; development/maintenance of 31 resident courses; development/maintenance of 36 non-resident conventional courses; development/maintenance of 20 CBI courses; development of the Precision Runway Monitor (PRM) system training simulator; development of site specific tower simulator capability; and development and support of the Technical Center tower simulator.

HIRING OF AIR TRAFFIC CONTROLLERS

Senator LAUTENBERG. For the information of the people within our voice and those who will examine the record, the fact is that it was a conscious decision not to reduce the number of controller recruits, but rather a decision to try and expedite better training and more familiarity with the area where a controller trained finally would be assigned. Is that the right phrase?

Mr. BELGER. That is true in part. The other fact is because of a variety of reasons we just were not hiring.

Senator LAUTENBERG. Now, you were not hiring because you did not want to or because you did not have them to hire?

Mr. BELGER. We did not have the money. We did not have the resources to hire more.

Senator LAUTENBERG. But you were hiring controllers during this period of time.

Mr. BELGER. Like I said, on the average of 150 or so, roughly, during that period. Now, I do not want to mislead. Do not let that statement that I said, we did not have the money, be any implication that I am blaming anybody. It is just that that is where we were.

Senator LAUTENBERG. I think it is important to understand what took place.

Mr. BELGER. That is where we were.

Senator LAUTENBERG. You said that advances in technology have brought about the need for fewer controllers to handle increased air traffic. What kind of advances are we talking about?

Mr. BELGER. If I said that, I was wrong. I am not sure I said that.

First of all, let me back up. If you go back to 1981——

Senator LAUTENBERG. I am sorry. No; you did not say it.

Mr. BELGER. Yes, sir; thank you. I do not think I agree with that.

Senator LAUTENBERG. It was Mr. Hinson. I just was testing your memory. [Laughter.]

It was Mr. Hinson who I wrote to, and I expressed concern about the decline of the size of the air controller work force and so forth. In response, he cited the improvements in technology, and I just wonder whether you can specify whether in fact maybe that statement was accurate at one time and not now.

Mr. BELGER. I certainly do not want to disagree with Mr. Hinson, the former Administrator, and so I would have to look at the context. But there have been improvements in technology which to some extent—in my opinion a very small extent, though—have improved our productivity over the years. The big increases in productivity over the years, if you go back to 1981, I think are the result of a better traffic management capability that we have today than we did in 1981.

But let me answer your question for the future. People talk about productivity, they talk about how are we going to be more productive in the future. The fact of the matter is the air traffic control work force today is extraordinarily productive—extraordinarily productive.

Senator LAUTENBERG. Have they picked up their capacity to handle the job significantly?

Mr. BELGER. Absolutely. Absolutely.

Senator LAUTENBERG. Is there a measurement by which we could——

Mr. BELGER. Yes, sir; I do not have it with me.

Senator LAUTENBERG. Is it 10 percent, 20 percent, or is it 26 percent?

Mr. BELGER. I will not state a number because I honestly do not remember, but I have a chart that shows operations per controller, and it shows it steadily going up.

Senator SHELBY. Would you furnish that for the record?

Mr. BELGER. Yes, sir; absolutely.

[The information follows:]

The attached charts show operations per controller work force (CWF) and operations per air traffic control specialist (ATCS). The data are presented for air route traffic control centers and airport traffic control towers. Data are actual for fiscal years 1993 to 1996 and estimated data for fiscal years 1997 and 1998.

The operations data for airport traffic control towers include instrument operation totals for air carrier, air taxi/commuter, general aviation, and military operations.

The air route traffic control center data include the number of instrument flight rules aircraft handled for air carrier, air taxi/commuter, general aviation, and military.

The CWF consists of air traffic control specialists (ATCS), first-line supervisors, and traffic management coordinators (TMC).

For May 1997 the CWF numbers were:

ATCS's	14,253
First-line Supervisors	2,208
TMC's	583
Total CWF	17,034

TABLE 38.—INSTRUMENT OPERATIONS AT AIRPORTS WITH FAA TRAFFIC CONTROL SERVICE

[In millions]

Fiscal year	Air carrier	Air taxi/ commuter	General aviation	Military	Total
Historical [1]					
1991	13.5	9.5	18.1	4.0	45.1
1992	13.4	9.9	18.2	4.1	45.6
1993	13.6	10.4	17.7	3.9	45.6
1994	14.3	10.8	18.0	3.7	46.8
1995	14.6	10.8	18.1	3.5	47.0
1996E	14.7	10.6	17.7	3.3	46.2
Forecast					
1997	15.1	10.7	17.8	3.2	46.8
1998	15.4	10.9	18.0	3.1	47.4
1999	15.8	11.1	18.1	3.1	48.1
2000	16.3	11.4	18.3	3.1	49.1
2001	16.7	11.7	18.4	3.1	49.9
2002	17.1	11.9	18.6	3.1	50.7
2003	17.5	12.2	18.8	3.1	51.6
2004	17.9	12.4	18.9	3.1	52.3
2005	18.3	12.6	19.1	3.1	53.1
2006	18.8	12.9	19.3	3.1	54.1
2007	19.2	13.1	19.5	3.1	54.9
2008	19.7	13.3	19.6	3.1	55.7

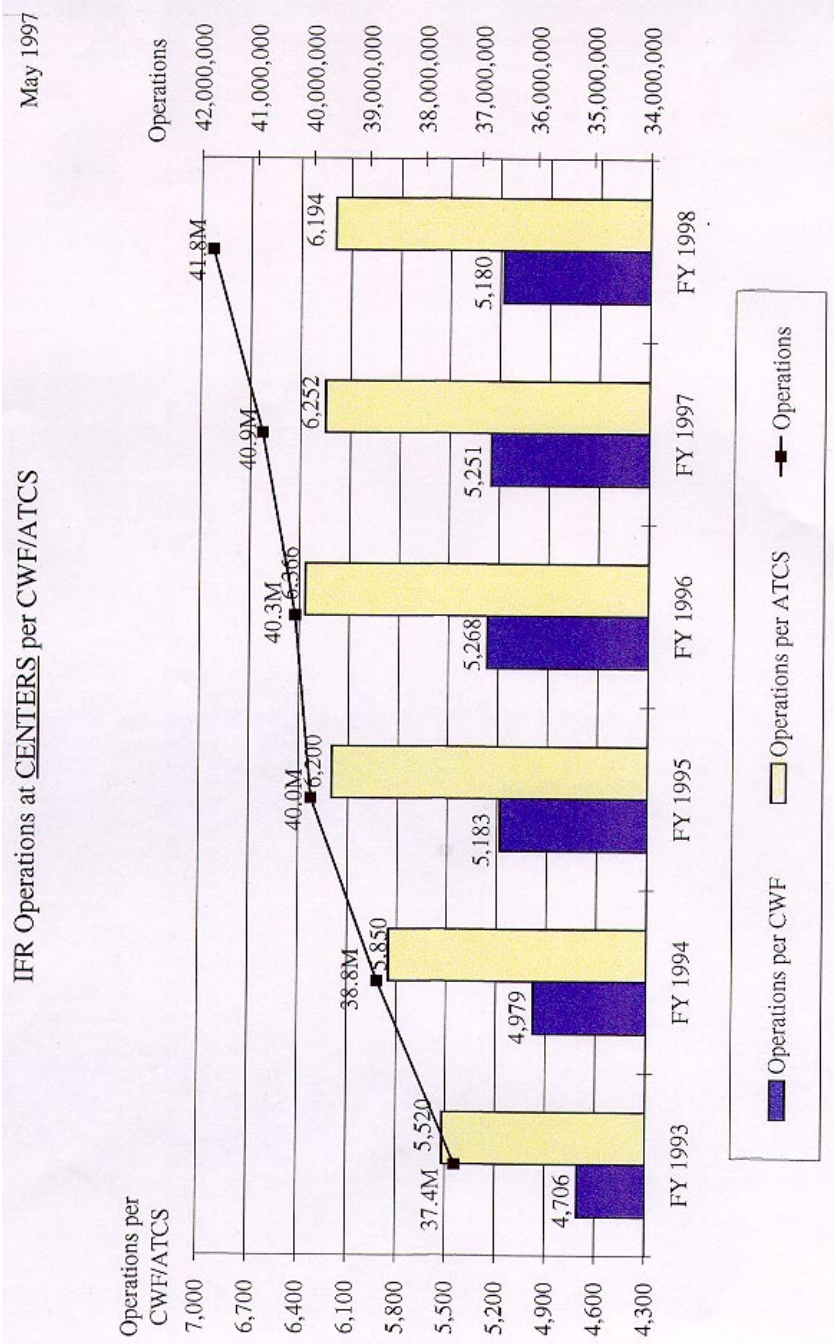
[1] Source: FAA Air Traffic Activity.

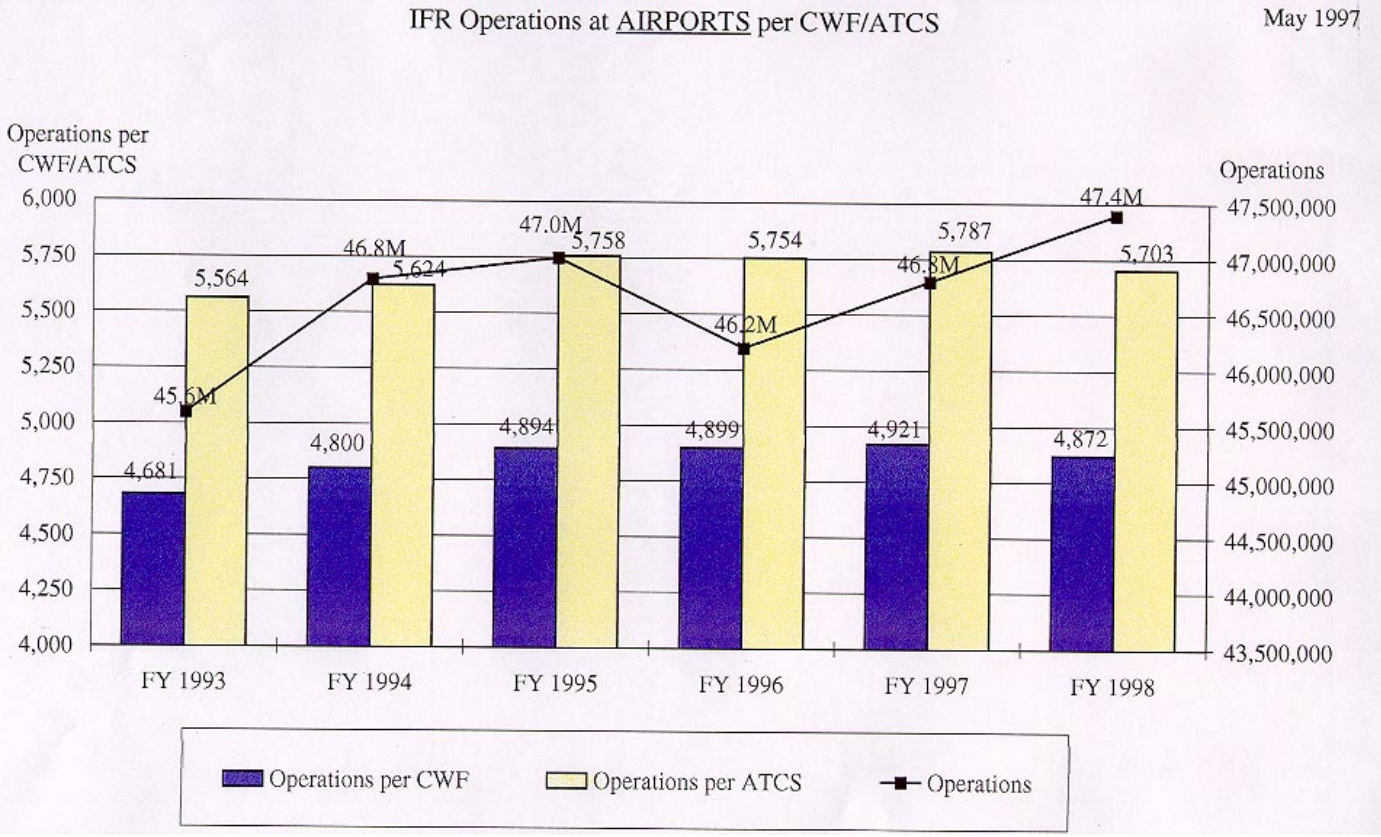
TABLE 40.—IFR AIRCRAFT HANDLED AT FAA AIR ROUTE TRAFFIC CONTROL CENTERS

[In millions]

Fiscal year	IFR aircraft handled				
	Air carrier	Air taxi/ commuter	General aviation	Military	Total
Historical [1]					
1991	18.2	5.5	7.3	5.1	36.1
1992	18.2	5.8	7.3	5.1	36.5
1993	19.0	6.2	7.4	4.8	37.4
1994	20.0	6.6	7.7	4.6	38.8
1995	20.9	6.9	7.8	4.4	40.0
1996E [2]	21.9	6.6	7.8	4.0	40.3
Forecast					
1997	22.4	6.9	7.9	3.7	40.9
1998	23.0	7.1	8.1	3.6	41.8
1999	23.6	7.2	8.1	3.6	42.5
2000	24.4	7.4	8.1	3.6	43.5
2001	25.0	7.5	8.3	3.6	44.4
2002	25.4	7.7	8.3	3.6	45.0
2003	26.2	7.8	8.4	3.6	46.0
2004	26.8	8.0	8.6	3.6	47.0
2005	27.4	8.1	8.6	3.6	47.7
2006	28.0	8.3	8.6	3.6	48.5
2007	28.6	8.4	8.8	3.6	49.4
2008	29.2	8.6	8.8	3.6	50.2

[1] Source: FAA Air Traffic Activity.
[2] Due to an accounting change in 1996, approximately 360,000 operations at the New York ARTCC were shifted from Air Taxi/Commuter to Air Carrier.
Note: Detail may not add to total because of rounding.


IFR Operations at CENTERS per CWF/ATCS
May 1997
Operations per CWF/ATCS
Operations
7,000
6,700
6,400
6,100
5,800
5,500
5,200
4,900
4,600
4,300
42,000,000
41,000,000
40,000,000
39,000,000
38,000,000
37,000,000
36,000,000
35,000,000
34,000,000
37.4M
38.8M
40.0M
40.3M
40.9M
41.8M
4,706
4,979
5,183
5,268
5,251
5,180
5,520
5,850
6,200
6,306
6,252
6,194
FY 1993
FY 1994
FY 1995
FY 1996
FY 1997
FY 1998
Operations per CWF
Operations per ATCS
Operations


IFR Operations at AIRPORTS per CWF/ATCS
May 1997
Operations per CWF/ATCS
Operations
6,000
5,750
5,500
5,250
5,000
4,750
4,500
4,250
4,000
47,500,000
47,000,000
46,500,000
46,000,000
45,500,000
45,000,000
44,500,000
44,000,000
43,500,000
4,681
5,564
45.6M
4,800
5,624
46.8M
4,894
5,758
47.0M
4,899
5,754
46.2M
4,921
5,787
46.8M
4,872
5,703
47.4M
FY 1993
FY 1994
FY 1995
FY 1996
FY 1997
FY 1998
Operations per CWF
Operations per ATCS
Operations

Mr. BELGER. Now, I will say, though, for the future, when we get this new infrastructure in place, when we get the new computer systems in the centers and we get the new computer systems in the terminals, then we will be able to, from a software standpoint, add a lot of functional capabilities which will have enormous productivity improvements. And when I say productivity improvements, I do not necessarily mean fewer controllers, I mean the ability to handle more aircraft.

OPERATIONAL ERRORS

Senator LAUTENBERG. You said earlier, and I just want to confirm, we have a larger number of operational errors than we have had in the past. Does it challenge the integrity of the system? Is it a modicum or a lot less safe than it was 10 years ago, 12 years ago? I am asking you that in the context of increased traffic, more activity, not only increased traffic but the controllers are concerned in the towers about ground movements and trucks on the airport, et cetera, et cetera. So with that, tell me.

Mr. BELGER. Well, a couple of facts first. If you look at operational errors nationwide first, for example, in 1996 there were 760 operational errors, last full year. The previous year there were 778. The previous year, 790. So you see a gradual decrease in operational errors. Now, that is in spite of increased traffic. So the rate of operational errors per 1,000 or 100,000 movements is going down, and that is a good trend. That is a very good trend. The air traffic control system is safer today than it was yesterday. It is safer than it was 10 years ago. It will be safer tomorrow because of the new equipment and things that are being added to the system.

It is also more complex. With increased operations comes increased complexity. So the challenge to our air traffic controllers and the challenge to us is to keep up with that. And we will not, as we have said repeatedly, we will not be able to keep up from an efficiency standpoint if we do not get these tools in place to keep up with an industry that is growing dramatically.

If you look at Newark, for example, for years publicized as one of the most delayed airports in the country, it is also today one of the fastest growing airports in the country. That presents a tremendous challenge.

STAFFING OF AIR TRAFFIC CONTROLLERS

Senator LAUTENBERG. It does, and I was on the Pan Am 103 study, and I have spent a lot of time with the information about TWA 800. The Pan Am 103 study, Senator D'Amato and I shared the investigation, we were in Lockerbie, Scotland, and we are very much concerned. And I fly a lot in the second seat, and I test the control system by talking every now and then. I get someone who sounds like they are talking a different language than I am, but maybe that is the way I sound to them.

But I can tell you, Mr. Chairman, and I fly through a busy space, I get quick response, I get lots of good alerts, traffic here and traffic there and where they are, and there is plenty of traffic around. I have problems spotting it sometimes, but they are letting me know that it is happening. And I come down to this: Can we continue to

overload—let me modify that—to load the system up without creating a condition that might have an occasional operational error? Not accident. Not accident. Because what we are doing is satisfying the public demand.

I can tell you that shortly after the accident, Mr. Chairman, Pan Am 103, known to be sabotaged, people were making commitments like the alter promises, I call them. Oh, I do not mind getting to the airport 2 hours and waiting. No, sir; if that plane is going to be safer, that is what I want to do. And when my kids are going to travel, I want them to be there 2 hours. And that lasted about 2 weeks, Mr. Chairman, because pretty soon people wanted it just the way they loved it—get your baggage to the curb, have the skycap take it away, get in the airplane, 5 minutes left to go, hey, that was not bad, yesterday I made it by 3 minutes.

The fact of the matter is that people make demands of the system. And I say to you—and I do not put this as a question, I do not want to put you on the spot. If we had less traffic, then obviously the work force, et cetera, could accommodate this with a significant breadth of comfort. But nobody wants to say that. Nobody wants to suggest that we are going to say to the business people, the recreational travel, the school traveler, that OK, you are only going to be able to fly three times a day Boston to New York, or three times a day Washington to New York.

So we are demanding an awful lot, and I think part of that has to be included in the discussion so that we know what is taking place.

Mr. Maldonado, between 1990 and 1996 Newark's air traffic jumped 32 percent while controller staffing decreased by 10 percent. Last year at this time the authorized level for controllers was 27. This year, however, the authorized level is 34. Now, I have assurances from FAA that Newark will be fully staffed by the end of September. Do you think that 34 is the right number of controllers for the Newark tower?

Mr. MALDONADO. Well, I am glad you raise that point. Mr. Belger mentioned that Newark airport is one of the fastest growing airports in the country. From a working air traffic controller's standpoint, I can tell you that that is very true. That is true.

Between 1991 and 1996 there have been approximately four staffing studies, staffing studies which were designed to determine the staffing needs for the airport at that time. One of those studies was a collaborative effort between the FAA and NATCA. That was the most recent one, and that was the only study that took into account future demands of the airport. That report stated that the need for air traffic controllers would be somewhere in the area of 40, or upward of 40, 41 controllers.

Senator LAUTENBERG. So even if we were able to be staffed at the current suggested levels, you think that we would actually need more than that target?

Mr. MALDONADO. Absolutely.

Senator LAUTENBERG. Mr. Belger.

Mr. BELGER. The target, as you accurately stated for Newark, for this year is 35. There are actually today 31 on board.

Senator LAUTENBERG. Thirty-one?

Mr. BELGER. Thirty-one on board. These are air traffic controllers. Now, it does not consider supervisors or others, 31 versus a target level of 35. And we have committed to you that we will meet that 35 by the end of this fiscal year.

Now, given the number of folks that we will hire next year, assuming our budget request is favorably received, we will have the ability to increase staffing at airports and at approach control facilities and at centers where the traffic justifies it. And if need be, we will do that.

Senator LAUTENBERG. So then you are not locked in at 34, 35?

Mr. BELGER. Oh, no, sir; no.

Senator LAUTENBERG. You could agree with Mr. Maldonado that maybe 40 is the required number to manage what we have got there?

Mr. BELGER. I will certainly agree to look at it, agree that air traffic will look at it with the local employees, who obviously know it better than we do in the headquarters, and make the right decision.

Senator LAUTENBERG. Well, we will take a look together, because I want to keep it in mind, and I think we ought to do that.

Yes, Mr. Maldonado.

Mr. MALDONADO. I would like to just provide you with the most current numbers. Right now Newark tower has 33 air traffic controllers in the building. Twenty-five of those are journeymen or full performance level controllers. Eight of those are training.

Senator LAUTENBERG. How many of those are up for retirement in the next couple of years, do you know?

Mr. MALDONADO. I believe approximately four. And I am sorry, that is within the next—I believe within the next 5 to 10 years, approximately four of those.

Senator LAUTENBERG. Oh, so that situation is manageable.

Mr. MALDONADO. Yes.

Mr. BELGER. Thank you. My data was the end of April, so you are right. Thank you for being more accurate.

Senator LAUTENBERG. We will have a chance to chat, as we do over the year, and I look forward to working with you, and I would say to all of you who work for FAA in the towers, either in inspections or what have you, you do a good job. I want you to keep on doing a good job. I want you to be honest if you have criticisms, if you have complaints, speak up, because it is the responsibility that you have. And barring anything else, we are going to try to give you the resources, we are going to try and give you the equipment, try and give you the process that you can operate by.

Mr. Brown, did you want to say something?

STATEMENT OF HENRY BROWN

Mr. BROWN. Yes, Senator; if I could impose myself upon the panel for just a second. I came down to testify in front of this esteemed group, and have not had the opportunity to do that, and I understand my written testimony will be placed within the record.

Senator SHELBY. Absolutely.

Mr. BROWN. But I feel my testimony in front of you would take on a different flavor, and it is unfortunate at this point that hear-

ing the questions and the responses from the other members at the table that my testimony would change dramatically at this point.

I would like to say that it seemed to have taken a decidedly air traffic controller turn. I am a technician. I am kind of the lowest person on the food chain, where the rubber meets the road, and I think it would have been beneficial to this group and this body to hear what I have to say.

Senator LAUTENBERG. I want to say this to you: I listened very carefully to what Mr. Johnson said, and I looked at his testimony, and we will, I promise you, look at yours. The staff will review it.

I use the term controller as a generic thing. Forgive me. I recognize that the technicians—today we heard about a power outage up in New York—I do not know whether that is true, Mr. Belger—yesterday a power outage here. You folks have a responsibility to work with those, have you not?

Mr. BROWN. Yes, sir; and I wanted to make comment about the answer to the power outage that was up in New York, because I am an environmental systems specialist. That is my job. I am a critical power systems specialist.

Senator SHELBY. Mr. Brown, would your testimony disagree with Mr. Johnson's testimony in any way?

Mr. BROWN. No, sir; I do not.

Senator SHELBY. What did you want to say?

Senator LAUTENBERG. Because now you have piqued our curiosity.

Senator SHELBY. Absolutely. [Laughter.]

Tell us what you want us to know. This is why you are here.

Mr. BROWN. Most of this has been covered by the rest of the members of the panels. From a purely New York perspective, and I appreciate the fact that Senator D'Amato and Congressmen Forbes and King came up to visit us to discuss this issue, we are running 40 percent under staff in the systems specialist area.

Senator LAUTENBERG. You have 60 percent of the people you need, you are saying.

Mr. BROWN. We have 63 percent, actually. These are the people that keep the equipment running for the air traffic controllers, and I would like to give you a visual, and the visual would be that you are flying in from Florida, you have come from visiting your mother, you are in thunderstorms, you have—I was buoyed by the fact that Mr. Belger said that he has agreed with NATCA to go ahead and make sure that their staffing needs are met, but we do not have that agreement with PASS and Mr. Belger, but you are flying into New York and you are in thunderstorms and you are reading the paper and you have got a fully staffed air traffic controller facility and they are handling traffic, and then they are looking at nothing. They have no scopes, they have no communications with the aircraft, and you are on that airplane, and it is 4:15 in the afternoon and it is a Friday afternoon, which is the busiest air traffic time in the New York area.

That scenario, we had. We had that scenario on May 25, 1995, when we lost one-third of the radar scopes at New York Center and we lost one-third of the communications to the aircraft for an entire 15 minutes. An aircraft traveling at 350 miles an hour goes a long way in 15 minutes. The saving grace to that problem was the fact

that it was late at night, there was very low air traffic, we managed to combine sectors to pick up what we needed to get, so we did not really run into a problem. Luck saved us there.

We are on the verge of being out of luck, and that is the point I am trying to make. If we have fully staffed air traffic controllers——

Senator LAUTENBERG. What do we have to do to correct that? Have back up—redundant power systems? What do we have to do?

Mr. BROWN. It had nothing to do with the redundant power system. The power system that failed was the brandnew ASEPS power system that has been installed. I was a member of Senator Paul Simon's blue ribbon report panel on that particular incident, and we made recommendations and I made recommendations as a specialist in that field on what needed to be done. Those things were not done. There are modifications that need to be made to that system.

Senator LAUTENBERG. I would ask you to submit your recommendations to this committee.

Senator SHELBY. We would like to hear it. If they were not done, we want to know why they were not done.

Senator LAUTENBERG. I used to run a computer company, and we had generators that were never used, but were always there in case we needed them, and when you are talking about sitting up there and not being able to get a response that says I do not know where you are, what is your altitude, where are you, what is your heading, well, here I am, and you are trying to figure out with a pencil and piece of paper where the other guys who were calling in almost screaming the same thing.

I just want to ask, if I may——

Senator SHELBY. Go right ahead.

REDESIGN OF AIRSPACE

Senator LAUTENBERG. Mr. Barger, thanks very much for coming and your patience. You have said that a comprehensive redesign of the airspace around the city, around New York/New Jersey, holds the greatest promise for improvements and minimizing delays at Newark. Now, how can the redesign of the space improve the air traffic capability and reduce delays? Would a redesign of the airspace automatically trigger a new series of outcries from surrounding communities regarding air noise?

When he finishes, Mr. Maldonado, listen carefully because I am going to ask you. We need to do this in a hurry because the chairman has been too gracious, and he is going to run out of patience.

Mr. BARGER. Senator, I appreciate the question. Really, from Continental's perspective, certainly the staffing issue has been discussed in the first two panels today. That was the first item we put forth. And also, we have touched on technological advancements, some that are out there today, some that are developing. That is in the testimony, as well, that we believe makes a great deal of sense, that the FAA take a very hard look at in terms of increasing technological capability in the Northeast region, specifically at Newark Airport.

Along those lines, a third piece, and everything has to be done in terms of partnering and working together, taking a comprehen-

sive look at the airspace to allow for things such as new technologies, which would again increase efficiencies.

Senator LAUTENBERG. That would shorten the space between aircraft, right?

Mr. BARGER. Yes; absolutely, it would. And we have certainly seen some advancements with, for example, global positioning. We are certainly seeing advancements with aircraft situational display.

Senator LAUTENBERG. How would that make a difference in the use of the airspace? I mean, here we are, now the power of the ground control—not the ground control, but the TRACON still has the airplane, and they know where they are.

Mr. BARGER. All of it really creates greater efficiency. And when we take a look at Newark Airport, just a clarification, we are actually at a level of operations at Newark Airport right about 1,450 per day that actually there used to be about 10 years ago, before some consolidations 10 years ago. So really, taking a look at the airspace in conjunction with technology and staffing, it really just creates better efficiencies and just tighter paths of aircraft up in our region.

Senator LAUTENBERG. Is a longer runway going to help?

Mr. BARGER. Well, a couple of things, and you touched on noise, and I certainly do not want to let that go away, because really——

Senator LAUTENBERG. I cannot.

Mr. BARGER. Absolutely—the whole issue of redesign also would take that into consideration, as well, combined with the new generation aircraft which is a quieter aircraft, and so there are many pieces that have to be taken in combination.

And just your comment on the longer runway, the extension certainly will help in terms of our runway 4 left 22 right. We look forward to expanding the outboard runway at some point in the future, as well.

Senator LAUTENBERG. Thanks, everybody.

NEW YORK TRACON INCIDENT

Mr. BELGER. Could I take less than 1 minute to respond to your question in the sense of full disclosure? We did have an occurrence in New York this morning. It was at the New York TRACON, and I will tell you what I know based on the note I was handed when we came up here, so that is all I know.

We were testing the new converging runway display aid [CRDA], which is a new software program we are trying to install to be used at Newark to improve the sequencing and spacing for arrivals. We were testing it at the TRACON. There was a problem as a result of the testing that we were doing, and that caused us to lose some of the capability.

I do not know any more than that at this point, but I can certainly give you all the details.

It was a software problem.

Mr. BROWN. Mr. Chairman, if I may beg your indulgence for 1 minute, please.

Senator SHELBY. Go ahead.

Mr. BROWN. The FAA announced this morning they are going to hire 100 new controllers in the New York area. That is four times as many as they are going to hire for 1998 in systems specialists

technicians. They are going to hire 1,300 controllers in 1998. They are going to hire 25 technicians.

Our pipeline is absolutely dry. We have nobody out there training in the technician area.

Senator LAUTENBERG. Mr. Brown, you are invited to come to my office—not at this moment—make an appointment, come in, if Senator Shelby——

Senator SHELBY. I will be glad to see him, too.

Senator LAUTENBERG. We will join in, and we want to talk to you. So follow on.

Senator SHELBY. We want to make sure that you, the technicians that make all the equipment run and keep it up and everything that goes with it, have the training and the personnel to make and feed the whole controller system.

Mr. BROWN. Yes; which is our need so we can supply the product we are supposed to supply to the air traffic controllers.

Senator SHELBY. Absolutely, because without you, they will not be able to function.

Mr. BROWN. That is correct.

Senator SHELBY. Thank you, gentlemen.

PANEL 3

NONDEPARTMENTAL WITNESSES

STATEMENTS OF:

CHARLES BARCLAY, PRESIDENT, AMERICAN ASSOCIATION OF AIRPORT EXECUTIVES, ALSO REPRESENTING AIRPORTS COUNCIL INTERNATIONAL

PHIL BOYER, PRESIDENT, AIRCRAFT OWNERS AND PILOTS ASSOCIATION

EDWARD BOLEN, PRESIDENT, GENERAL AVIATION MANUFACTURERS ASSOCIATION

INTRODUCTION OF WITNESSES

Senator SHELBY. Our last panel will be industry representatives, Mr. Charles Barclay, president, American Association of Airport Executives; Mr. Phil Boyer, president, Aircraft Owners and Pilots Association; and Mr. Edward Bolen, president, General Aviation Manufacturers Association. Mr. Barclay is also representing the Airports Council International here today.

Gentlemen, I know it has been a long morning. I think we have had a spirited hearing and a well-attended hearing, perhaps an intense hearing. All of your written testimony will be made part of the record in its entirety. You have had the benefit of the other testimony. If you will sum up what you want to say as briefly as possible, I think we would appreciate it.

Mr. Barclay, please proceed.

STATEMENT OF CHARLES BARCLAY

Mr. BARCLAY. Thank you, Mr. Chairman. I just would like to make two points about our testimony, and the first is to try to put the AIP request that we have before the committee in perspective.

The major cost driver for airports, of course, in the system is how many passengers there are. In the past 5 years we have seen passengers grow by over 20 percent. That is over 100 million new passengers in the system, while we have decreased our investment in airport infrastructure by over 20 percent.

In the next 5 years we are looking at another 165 million passengers coming into the system, but we are looking at an FAA request for a 31-percent decrease, on top of the 23-percent decrease we have had in the last 5 years.

Senator SHELBY. What does that mean? What does that mean, Mr. Barclay?

Mr. BARCLAY. We have gone from $1.9 billion down now to $1.45 billion, and thanks to the committee, they held it up there last year. The administration is saying take that down to $1 billion, but we are going to wind up, over that 10-year period of time, with the

equivalent of the population of the United States added onto the existing system flying.

Senator SHELBY. Tell the American people, and they will be watching this now, what this means, though. What is the significance of this?

Mr. BARCLAY. Right. And that is part of the perspective we want to build. The second largest economy in the world fits in a land mass the size of New England. Japan can use roads and railroads to run their internal economy.

Senator SHELBY. But we cannot.

Mr. BARCLAY. The United States, four time zones wide, has to have a high capacity, highly efficient air traffic control and airport system, or we simply cannot move goods and people and resources to compete.

Senator SHELBY. Our economy will not function without air.

Mr. BARCLAY. And that relative importance to us is going to get more important as more products speed up to keep up with semiconductor product cycles. So the speed of movement is driven for us by our economy.

We are investing less in infrastructure than any other G–7 country. And one of the points we have tried to make to the folks on the Budget Committee is that if you reduce the Federal deficit at the expense of creating an infrastructure deficit you have not done future generations any good at all.

Senator SHELBY. Mr. Barclay, let me just agree with you on what you are saying. We cannot afford to do that. We will not only reach a point and probably have diminishing returns. It is foolish. It is very foolish not to build the infrastructure, including air safety and everything that goes with it, is it not?

Mr. BARCLAY. Absolutely. We have to leave future generations the tools to create wealth in their society and to compete in a world economy. And in fact, most economists will tell you, the good type of debt to leave future generations by any country is debt for facilities that create wealth over the term of their indebtedness.

Senator SHELBY. But we are not creating debt here. We have got the money. It is a question will the Congress have the will to spend it in the right way, and the right way is always infrastructure and safety, is it not?

Mr. BARCLAY. Absolutely. Let me give you some comparisons, Mr. Chairman. The Government of Malaysia at Kuala Lumpur for one new airport is spending $3.8 billion. Munich, for one new airport, spent $6 billion. The Government of Hong Kong, a country with one-fiftieth of our economy, is spending $25 billion for one new airport, while we are sitting here debating a $1 to $1.5 billion program for 3,300 airports nationwide, after we have just discussed how important this capital system is to running our whole economy.

So if you just look at the scale of things, this perspective is very important to try to get through to the whole institution of Government. We know this committee understands that.

Our specific request is to please keep AIP as high as possible, at least to this year's level. We know that is difficult in this atmosphere, but the 31.5-percent request of the administration just will not work. Small airports in particular will be devastated. But

things like the noise program will be severely slashed, and it is that kind of program that we need to help get us the capacity at the larger airports, and from a safety point of view and a security point of view, the Gore Commission had recommended $500 million more in spending for airport security, but then the administration reduced the request for AIP by $500 million, and that just does not make sense.

Senator SHELBY. It does not make any sense.

Mr. BARCLAY. GAO found that for safety and security alone each year the needs are about $1.4 billion.

Senator SHELBY. But that is the least thing we owe to the American people, and the people from other countries that are coming to this country, and thinking they are coming safely. We should make sure they are safe, should we not, to the best of our ability?

Mr. BARCLAY. Absolutely, Mr. Chairman.

Thank you.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Barclay. We will insert your complete statement in the record.

[The statement follows:]

PREPARED STATEMENT OF CHARLES M. BARCLAY

Mr. Chairman and members of the subcommittee: I am Charles Barclay, President of the American Association of Airport Executives. I am pleased to be here today to present the views of AAAE and the Airports Council International-North America (ACI–NA) regarding fiscal year 1998 appropriations for the Federal Aviation Administration (FAA).

ACI–NA's members are the local, state and regional governing bodies that own and operate commercial service airports in the United States and Canada. ACI–NA member airports serve more than 90 percent of the U.S. domestic scheduled air passenger and cargo traffic and virtually all U.S. scheduled international travel. AAAE is the professional organization representing the men and women who manage primary, commercial service, reliever and general aviation airports which enplane 99 percent of the passengers in the United States.

To begin our testimony, we would like to thank this subcommittee, for its efforts on last year's bill. We recognize that the subcommittee was faced with the very difficult task of allocating too few federal resources among too many competing demands. We also want to express our gratitude for the full committee's decision last year to increase the AIP allocation from $1.4 billion to $1.46 billion after $60 million in increased outlays were made available as a result of the Congressional Budget Office "scoring" of the measure. Last year's enacted level for the Airport Improvement Program (AIP) of $1.46 billion represented a $10 million increase over the previous year. The fiscal year 1997 enacted level of $1.46 billion represented the first time in five years that the program received a funding increase, however modest. We recognize that in fiscal year 1998, you will be faced with a similarly difficult task in allocating resources.

Your task was not made any easier by the submission of the Administration's proposed aviation budget for fiscal year 1998. Of particular concern to the airport community is the proposal to reduce funding for the Airport Improvement Program by $460 million in a single year—a 31.5 percent reduction! This massive reduction in funding for airport safety, security, capacity and noise projects directly contradicts the Administration's aviation safety rhetoric. To further confuse the situation, less than one week after the submission of this budget request, the White House Commission on Aviation Safety and Security, headed by Vice President Gore, recommended spending an additional $500 million over five years on aviation security capital projects. We have yet to understand how these funds would be made available and from what source.

For the past two years, the Administration has recommended an artificially low AIP request and Congress has moved to increase funding for the program above the Administration's request. Unfortunately, Congress must once again restore funding

beyond the Administration's request if the AIP program is to remain viable and the safety and security projects that are needed across the country are to move forward.

INVESTMENT IN AIRPORT INFRASTRUCTURE IS VITAL

In order to achieve the goal of balancing the federal budget by 2002, Congress must continue to make difficult choices regarding hundreds of programs throughout government. Without significant entitlement reform, this task moves from the category of extremely difficult to nearly Herculean. Airports agree that as a part of this process, every program in the federal government needs to be "scrubbed" to ensure that not a single federal dollar is wasted and that the return on investment of federal funds is as significant as possible. We believe that funding airport infrastructure should, and does, score very high on those measures. But we must also remind the Congress, that aviation dollars are supposed to be dedicated fees paid into the aviation trust fund by the passengers and other users of the aviation system for the purpose of funding capital investment in a national aviation system. Therefore, every effort should be given to fully spending these revenues for the airport and air traffic control improvements that are desperately needed.

Airports are "economic engines" that generate and support local economic development by providing complete transportation services, stimulating business activity and investment, and creating jobs. As an example, Mr. Chairman, there are 15,000 jobs on or within 2 miles of the Huntsville International Airport and 28,600 indirect jobs. This example, of course, is repeated throughout the country many times over.

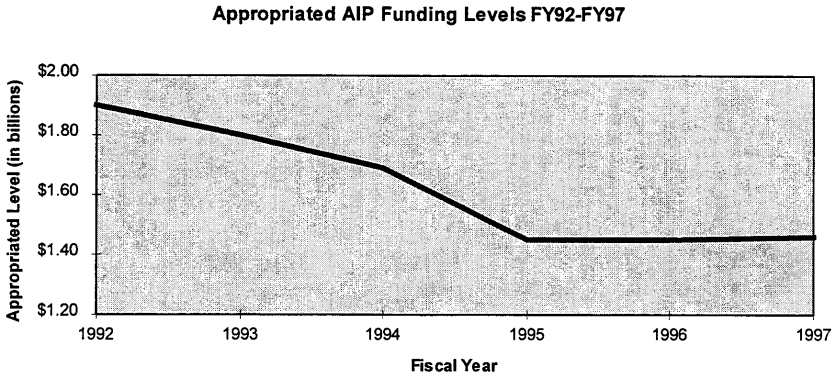
Today, the air transportation system is the linchpin of our national and local economies, essential to the safe transportation of people and goods, both domestically and internationally. As we move toward global economic competition, airport capacity in the United States is increasingly critical to our national economy. Germany and Japan may be our largest economic competitors, but in terms of size and geography, each can produce goods and services internally with modern systems of roads and railroads. The United States, due to its size and geography, must have an efficient, high capacity airport system to move its people and resources in order to compete. Ironically, we are in danger of seriously under-investing at a time when we can least afford it. With the expenditure of discretionary funds so constrained by the federal budget, we as a nation should maximize those expenditures on investments that will help our economy grow and on aviation facilities that will be available for use today, tomorrow and for years to come. We must build the infrastructure that will allow not only our generation, but our children and grandchildren the opportunity to compete and prosper in the global economy.

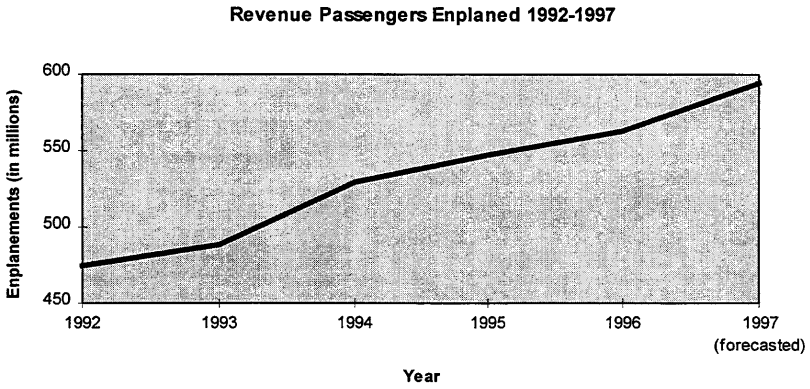
Since airline deregulation in 1978, the number of passengers using the domestic aviation system has exploded. Last year, around 575 million passengers were enplaned in the United States. In 1994, 528 million were enplaned and in 1993, 488 million were enplaned. The FAA projects that by 2002, the year we are hoping to achieve a balanced federal budget, that number will grow to 740 million and it will go over the 800 million mark sometime in 2005.

Already, we have significant capacity and delay problems in our system. Currently, there are 22 airports that are seriously congested, experiencing more than 20,000 hours of delay or more per year. These delays cost the airlines, alone, over half a billion dollars a year and impose tremendous costs and disruptions to millions of passengers and businesses. FAA forecasts that unless major airport capacity investments are made, this number of congested airports will grow to 32 in less than 10 years.

This means that over the next several years, as we move toward a balanced budget, we also have to somehow make sure that there is sufficient investment in our nation's airport infrastructure to handle not only the current passenger traffic but an additional 200 million passengers by the year 2002. This will be a major challenge. We as a nation cannot afford the billions of dollars in annual delay costs and lost productivity to the airlines, air travelers and businesses, nor can we afford to weaken our economic competitiveness abroad, by settling for an inefficient and inadequate air transportation system.

Congress has set a target date of balancing the federal budget by 2002. In this context, it is worth noting that it generally takes at least 5–7 years to undertake and complete an airport development project. That means that as politically difficult as it may be to provide an increase in airport construction funding in today's budgetary environment, it is absolutely imperative that Congress do just that. Without the increased investment, we cannot realistically hope to close the existing investment gap and will have no chance to build the infrastructure to meet the increased demand that will be placed on the system during this time period. We must act now. If we wait, the funding gap will be impossible to close.





AIRPORT CAPITAL DEVELOPMENT NEEDS CONTINUE TO GO UNMET

ACI–NA and AAAE have conducted numerous surveys to assess the capital development funding needs of all airports throughout the United States. The latest survey we conducted (in 1996) showed that U.S. airports required more than $10 billion each year over a six-year time period—at least $60 billion for needed capital improvement and capacity expansion projects. Of this $10 billion a year, only 60 percent ($6 billion dollars) are projects defined as eligible for AIP funding.

These projects are essential to increase capacity, improve safety and security, reduce delays for the traveling public, reduce aircraft noise for communities surrounding airports, help pay for unfunded federal mandates and regulations, and to build and improve facilities that will promote air service competition and the industry's economic health.

In April of 1997, the General Accounting Office (GAO) completed a report on airport development needs. The results of the GAO validated the AAAE/ACI–NA survey results. AAAE/ACI–NA have argued that total airport capital development needs in the U.S. are at least $10 billion a year; and GAO found $10.129 billion a year. AAAE/ACI–NA have argued that of that $10 billion a year, $6 billion is AIP-eligible; and GAO found $6.110 billion.

Still, for some, however, it has become popular to question the needs of the airport community. It is instructive to look at the numbers. In 1996, the aviation trust fund appropriation for airport construction projects (AIP) was $1.46 billion. Local airport passenger facility charges generated about $1 billion in 1996. Combine these two revenue streams and airports receive less than $2.5 billion dollars of the $6 billion dollars needed each year that is acknowledged as eligible for federal funding. This is less than half of that total. We know of no organization that questions whether there are $6 billion a year in AIP-eligible projects (this figure has been corroborated

by FAA and GAO), although some have an interest in questioning how necessary some of these projects are. There should be no question that this is a solid figure and these projects are indeed necessary.

However, for the sake of argument, suppose the airport community has overestimated our needs by as much as 25 percent, that would reduce the $6 billion figure to $4.5 billion. In that case, AIP and PFC funds combined would still be $2 billion less than what is needed. If airports overestimated our needs by a whopping 50 percent, the need would still be $3 billion, which is $500 million a year below what is funded by the combination of AIP and PFC revenue today. The point of these examples is to show that arguing over "needs" might be a useful exercise if the federal government were in a position to double the current funding for airport development. At the levels of federal involvement that exist today, or those contemplated in the future as a result of today's budgetary climate, however, this argument over "needs" misses the mark badly. Rather, it instead appears to be a convenient mechanism to provide justification to cut AIP in order to fund other programs.

A similar issue emerges within the FAA allocation. AIP has already shouldered a major portion of the funding reductions in the FAA over the past four years. We were greatly encouraged two years ago when the House Transportation Appropriations subcommittee recommended, and the full House approved, a funding level of $1.6 billion for AIP. This represented the first funding increase in four years and airports believed that if funding reductions were necessary in FAA, they would finally come from somewhere other than AIP. We were equally discouraged, however, when at the eleventh hour of the process, airports lost the proposed $150 million increase in order to fund bonus pay for air traffic controllers. Once again, the AIP level was negatively affected by other funding priorities within the agency.

AIP FUNDING

Mr. Chairman, by any rational measure, airports have lost ground in recent years. If Congress permits the AIP program to be reduced further, without giving airports additional tools to raise needed funds, the national system of airports we enjoy and rely on today will be jeopardized. Under the new authorization law passed by Congress last year, an AIP appropriation of at least $1.46 billion is necessary to avoid triggering across-the-board reductions in entitlement funding to primary airports and the allocations to general aviation, reliever and non-primary commercial service airports. This $1.46 billion figure is approximately a billion dollars below the authorized level, which Congress and airports believe is a justifiable level.

Once again, AIP has been targeted for reduction by the Administration. The Administration's request of $1 billion for AIP for fiscal year 1998 would severely undermine the integrity of the program. Last year's FAA reauthorization legislation passed by Congress modified formula allocations in light of today's constrained federal budgetary climate. The Administration has submitted a budget proposal with a funding level that simply does not work. Below is a chart which shows: 1) how AIP funds were allocated in fiscal year 1996 under the old allocations; 2) how AIP funds are allocated in fiscal year 1997 under the new allocations (assuming Congress moves to reinstate the airport and airway excise taxes); and 3) how AIP funds would be allocated in fiscal year 1998 under the Administration's budget proposal.

COMPARISON OF AIP FUNDING IN FISCAL YEARS 1996, 1997, and 1998

Funding category	Fiscal year—		
	1996	1997	1998
Appropriation limitation	$1,450,000,000	$1,460,000,000	$1,000,000,000
Primary airports	428,226,519	525,435,591	392,445,465
Cargo [1]	38,945,243	36,500,000	18,459,909
Alaska supplemental	10,672,557	10,672,557	10,672,557
"States" allocation [2]	159,148,385	270,100,000	136,603,326
Carryover entitlement	91,056,641	61,866,629	61,866,629
Noise [3]	181,250,000	143,540,158	20,830,466
Reliever	48,000,000	([5])	([5])
Commercial service	21,750,000	([5])	([5])
System planning	10,875,000	([6])	([6])
MAP [4]	26,000,000	18,521,311	2,687,802

COMPARISON OF AIP FUNDING IN FISCAL YEARS 1996, 1997, and 1998—Continued

Funding category	Fiscal year—		
	1996	1997	1998
Small Airport Fund:			
Non-hub airports	58,186,123	61,594,971	46,753,291
Non-commercial service	29,093,061	30,797,485	23,376,645
Small hubs	14,546,531	15,398,743	11,688,323
Subtotal Small Airport Fund	101,825,715	107,791,199	81,818,259
C/S/S/N	249,187,455	214,179,417	205,961,690
Remaining discretionary	83,062,485	71,393,139	68,653,897
Grand total	1,450,000,000	1,460,000,000	1,000,000,000
Total percent reduction in entitlements	23.26	.....	26.16

[1] Cargo: 3.5 percent in fiscal year 1996; 2.5 percent in fiscal year 1997.
[2] States: 12 percent in fiscal year 1996; 18.5 percent in fiscal year 1997, including general aviation, relievers and non-primary commercial service airports.
[3] Noise: 12.5 percent of total AIP in fiscal year 1996; 31 percent of discretionary AIP in fiscal year 1997.
[4] MAP: 2.5 percent of total AIP in fiscal year 1996; 4 percent of discretionary AIP in fiscal year 1997.
[5] See "States".
[6] Eliminated.

As one can see from the chart, funds for primary airports (entitlement allocations based on enplaned passengers) would be significantly reduced—by 26.16 percent. Funds for general aviation, reliever and non-primary commercial service airports would be reduced by an even greater proportion. And of major concern, set-aside funding for noise projects would be reduced from $143 million to $20 million! As a point of reference, in fiscal year 1996, California and Texas received $22 million and $24 million respectively; and 28 of the 50 states received at least $1 million in noise funding.

As noted above, at the Administration's proposed level of $1 billion, entitlement allocations would be cut by 26.16 percent. By law, the minimum entitlement allocation is set at $500,000 and the maximum allocation is capped at $22 million. This allocation is made by formula, based on the number of enplanements at each facility. As part of the Administration's budget proposal, non-hub airports would receive their full entitlement allocation, which, if adopted, would cause entitlement allocations for hub airports to shrink by an even greater percentage.

If one assumes that this proposal is not adopted and instead a percentage reduction in entitlement funds are spread evenly across airports of all sizes, what would be the result? At the smallest primary airports across the country this would have a dramatic impact. Rather than receiving the $500,000 at each of these smallest facilities, they instead would receive only $369,200 this year—a reduction of over $130,000. At airports in places such as Dothan, Alabama or Morgantown, West Virginia, it is almost impossible to make up for the loss of over $130,000 a year. In the state of Alaska alone, there are at least 20 airports that fall into this category, which would result in a loss of $2.6 million!

The implications for somewhat larger airports are equally striking, since this 26.16 percent reduction would not be limited to the smallest airports. The entitlement allocation received by all primary airports would be reduced by this amount. Again, a few examples are illustrative of the potential revenue loss. Albuquerque, New Mexico would lose almost $400,000. Spokane, Washington would lose almost $300,000. Salt Lake City, Utah would lose more than $750,000. Newark International, Pittsburgh International and Lambert-St. Louis International would all lose over $1 million (attached is a chart comparing selected fiscal year 1997 allocations with fiscal year 1998 allocations, assuming a $1 billion program). And if Congress adopted the Administration's requested level and the proposed language protecting entitlements for smaller airports, these reductions would be even larger.

Since the larger airports are almost exclusively user-funded, those users who are now paying a portion of their taxes to fund the aviation trust fund and its airport capital grants, will now have to pay again for the needed improvements. This does not even begin to deal with the need to accommodate projected growth at any level. Simply put, current funding levels for the AIP program are inadequate to meet the

needs of the system today, and with every day that goes by, we are falling further behind. The airport community needs an AIP funding level around $2 billion a year to help fund needed safety, security, capacity and noise projects. At minimum, last year's level of $1.46 billion is necessary to ensure that we do not fall further behind. We must act now to close the gap between the needs of the system and what the federal aviation trust fund contributes to meet those needs. Simultaneously, Congress must begin to focus on other, non-federal means to enable airport operators to generate adequate funds for capital improvement projects, to make up for the shortfall in AIP funding and to begin bridging the gap between airport funding sources and needs.

Before closing Mr. Chairman, we also want to bring two additional items to your attention. First, we note the importance of the Contract Tower program. It is imperative that Congress fully fund and expand the FAA Contract Tower program where appropriate. This program enhances safety, provides significant savings to the FAA and increases economic productivity at the 128 airports that are currently participating in the program. The future viability of this program is important, particularly in light of the runway collision involving a commuter aircraft at a non-towered airport last year in Quincy, Illinois.

And finally, we are very concerned about the proposal in the National Airspace System Architecture to transfer responsibility for current and future visual navigational aids, presently owned and operated by the FAA, over to the airport community. The existing strain placed on airports from shrinking AIP funds leaves no obvious source of funding for either the maintenance of the current equipment nor the acquisition for replacement technologies as we transition to satellite-based navigation by the year 2005. Accordingly, we ask the committee to prohibit the FAA from taking this action.

Mr. Chairman, we look forward to working with you and other members of the subcommittee and the staff to fashion a bill this year that balances the competing needs of the entire transportation community fairly. Clearly, it won't be an easy job. We appreciate your leadership and I would be happy to respond to any questions you or other members of the subcommittee may have.

AIRPORT IMPROVEMENT PROGRAM ENTITLEMENT COMPARISON CHART

State/Member/Airport	Funding levels—	
	Fiscal year 1997 at $1.46 billion	Fiscal year 1998 at $1 billion
ALABAMA		
Sen. Richard Shelby		
Sen. Jeff Sessions		
Cong. Earl Hilliard:		
Birmingham	$2,145,086	$1,583,932
Dannelly Field	881,741	651,078
Total, Cong. Hilliard	3,026,827	2,235,009
Cong. Callahan: Mobile Regional	1,187,651	876,961
Total, Cong. Callahan	1,187,651	876,961
Cong. Bud Cramer: Huntsville Intl.-Carl T. Jones Field	1,472,835	1,087,541
Total, Cong. Cramer	1,472,835	1,087,541
Cong. Terry Everett: Dothan	500,000	369,200
Total, Cong. Everett	500,000	369,200
Total, Alabama	6,187,313	4,568,712

AIRPORT IMPROVEMENT PROGRAM ENTITLEMENT COMPARISON CHART—Continued

State/Member/Airport	Funding levels—	
	Fiscal year 1997 at $1.46 billion	Fiscal year 1998 at $1 billion
NEW MEXICO		
Sen. Domenici		
Sen. Jeff Bingaman		
Cong. Richardson:		
Four Corners Regional	550,680	406,622
Santa Fe County Municipal	500,000	369,200
Total, Cong. Richardson	1,050,680	775,822
Cong. Steven Schiff: Albuquerque Intl	1,521,611	1,123,558
Total, Cong. Schiff	1,521,611	1,123,558
Cong. Joe Skeen:		
Cavern City Air Terminal	500,000	369,200
Roswell Industrial Air Center	500,000	369,200
Total, Cong. Skeen	1,000,000	738,400
Total, New Mexico	3,572,291	2,637,780
PENNSYLVANIA		
Sen. Arlen Specter		
Sen. Rick Santorum		
Cong. Bud Shuster:		
Altoona-Blair County	500,000	369,200
DuBois-Jefferson County	500,000	369,200
Total, Cong. Shuster	1,000,000	738,400
Cong. John Peterson:		
Bradford Regional	500,000	369,200
University Park	620,584	458,239
Total, Cong. Peterson	1,120,584	827,439
Cong. Paul Kanjorski: Wilkes-Barre/Scranton	961,854	710,233
Total, Cong. Kanjorski	961,854	710,233
Cong. Frank Mascara: Pittsburgh Intl	6,487,897	4,790,663
Total, Cong. Mascara	6,487,897	4,790,663
Cong. Philip English: Erie Intl	733,273	541,449
Total, Cong. English	733,273	541,449
Cong. Joseph Pitts: Lancaster	500,000	369,200
Total, Cong. Pitts	500,000	369,200
Cong. Paul McHale: LeHigh Valley Intl./Allentown	1,589,513	1,173,696

AIRPORT IMPROVEMENT PROGRAM ENTITLEMENT COMPARISON CHART—Continued

State/Member/Airport	Funding levels—	
	Fiscal year 1997 at $1.46 billion	Fiscal year 1998 at $1 billion
Total, Cong. McHale	1,589,513	1,173,696
Cong. Tim Holden: Reading Regional	500,000	369,200
Total, Cong. Holden	500,000	369,200
Cong. Joe McDade: Williamsport-Lycoming County	500,000	369,200
Total, Cong. McDade	500,000	369,200
Cong. John Murtha:		
Johnstown-Cambria	500,000	369,200
Westmoreland County	500,000	369,200
Total, Cong. Murtha	1,000,000	738,400
Cong. Tom Foglietta: Philadelphia Intl. (PFC) [1]	2,955,343	2,182,225
Total, Cong. Foglietta	2,955,343	2,182,225
Cong. George Gekas: Harrisburg Intl	1,770,965	1,307,681
Total, Cong. Gekas	1,770,965	1,307,681
Total, Pennsylvania	19,119,429	14,117,786
MISSOURI		
Sen. Christopher Bond		
Sen. John Ashcroft		
Cong. Roy Blunt:		
Joplin Regional	500,000	369,200
Springfield Regional	1,246,947	$920,746
Total, Cong. Blunt	1,746,947	1,289,946
Cong. Karen McCarthy: Kansas City Intl	1,943,253	1,434,898
Total, Cong. McCarthy	1,943,253	1,434,898
Cong. James Talent: Lambert-St. Louis Intl. (PFC) [1]	3,955,176	2,920,502
Total, Cong. Talent	3,955,176	2,920,502
Cong. Kenny Hulshof: Columbia Regional	500,000	369,200
Total, Cong. Hulshof	500,000	369,200
Total, Missouri	8,146,376	6,014,546
WASHINGTON		
Sen. Slade Gorton		
Sen. Patty Murray		
Cong. Norm Dicks: William R. Fairchild Intl	500,000	369,200

AIRPORT IMPROVEMENT PROGRAM ENTITLEMENT COMPARISON CHART—Continued

State/Member/Airport	Funding levels—	
	Fiscal year 1997 at $1.46 billion	Fiscal year 1998 at $1 billion
Total, Cong. Dicks	500,000	369,200
Cong. Doc Hastings:		
Tri-Cities	838,482	619,135
Grant County	500,000	369,200
Pangborn Memorial	500,000	369,200
Yakima Air Terminal	583,534	430,882
Total, Cong. Hastings	2,422,016	1,788,417
Cong. Jim McDermott: Seattle-Tacoma Intl. (PFC) [1]	3,526,868	2,604,239
Total, Cong. McDermott	3,526,868	2,604,239
Cong. Jack Metcalf:		
Bellingham Intl	724,571	535,023
Friday Harbor	500,000	369,200
Total, Cong. Metcalf	1,224,571	904,223
Cong. George Nethercutt:		
Pullman-Moscow Regional	500,000	369,200
Spokane Intl. (PFC) [1]	1,130,710	834,916
Walla Walla Regional	500,000	369,200
Total, Cong. Nethercutt	2,130,710	1,573,316
Total, Washington	9,804,165	7,239.395
UTAH		
Sen. Orrin Hatch		
Sen. Robert Bennett		
Cong. James Hansen:		
Wendover	500,000	369,200
St. George Municipal	500,000	369,200
Total, Cong. Hansen	1,000,000	738,400
Cong. Merrill Cook: Salt Lake City Intl. (PFC) [1]	2,942,941	2,173,068
Total, Cong. Cook	2,942,941	2,173,068
Total, Utah	3,942,941	2,911,468
NORTH CAROLINA		
Sen. Jesse Helms		
Sen. Lauch Faircloth		
Cong. Cass Ballenger: Hickory Regional	500,000	369,200
Total, Cong. Ballenger	500,000	369,200
Cong. Eva Clayton:		
Pitt-Greenville	500,000	369,200
Kinston Regional Jetport	500,000	369,200

AIRPORT IMPROVEMENT PROGRAM ENTITLEMENT COMPARISON CHART—Continued

State/Member/Airport	Funding levels—	
	Fiscal year 1997 at $1.46 billion	Fiscal year 1998 at $1 billion
Craven County Regional	500,000	369,200
Total, Cong. Clayton	1,500,000	1,107,600
Cong. Howard Coble: Piedmont Triad Intl	2,398,158	1,770,800
Total, Cong. Coble	2,398,158	1,770,800
Cong. Bob Etheridge:		
Rocky Mount-Wilson	500,000	369,200
Moore County	500,000	369,200
Total, Cong. Etheridge	1,000,000	738,400
Cong. David Price: Raleigh-Durham Intl	2,984,416	2,203,693
Total, Cong. Price	2,984,416	2,203,693
Cong. Walter Jones: Albert J. Ellis	500,000	369,200
Total, Cong. Jones	500,000	369,200
Cong. Sue Myrick: Charlotte/Douglas Intl	6,746,561	4,981,661
Total, Cong. Myrick	6,746,561	4,981,661
Cong. Mike McIntyre:		
Fayetteville Regional/Grannis Fld	816,421	602,845
New Hanover Intl	875,246	646,282
Total, Cong. McIntyre	1,691,667	1,249,127
Cong. Charles Taylor: Asheville Regional	1,113,947	822,538
Total, Cong. Taylor	1,113,947	822,538
Total, North Carolina	18,434,749	13,612,219
NEW JERSEY		
Sen. Frank Lautenberg		
Sen. Robert Torricelli		
Cong. Frank LoBiondo: Atlantic City Intl	1,268,870	936,934
Total, Cong. LoBiondo	1,268,870	936,934
Cong. Donald Payne: Newark Intl. (PFC) [1]	4,065,241	3,001,774
Total, Cong. Payne	4,065,241	3,001,774
Cong. Chris Smith: Mercer County	500,000	369,200
Total, Cong. Smith	500,000	369,200

AIRPORT IMPROVEMENT PROGRAM ENTITLEMENT COMPARISON CHART—Continued

State/Member/Airport	Funding levels—	
	Fiscal year 1997 at $1.46 billion	Fiscal year 1998 at $1 billion
Total, New Jersey	5,834,111	4,307,908
WEST VIRGINIA		
Sen. Robert Byrd		
Sen. Jay Rockefeller		
Cong. Alan Mollohan:		
Benedum	500,000	369,200
Morgantown Muni-Walter L. Bill	500,000	369,200
Wood County/Gill Robb Wilson	500,000	369,200
Total, Cong. Mollohan	1,500,000	1,107,600
Cong. Nick Joe Rahall:		
Tri-State/Milton J. Ferguson Field	518,658	382,977
Greenbriar Valley	500,000	369,200
Total, Cong. Rahall	1,018,658	752,177
Cong. Robert Wise: Yeager	966,732	713,835
Total, Cong. Wise	966,732	713,835
Total, West Virginia	3,485,390	2,573,612
MARYLAND		
Sen. Paul Sarbanes		
Sen. Barbara Mikulski		
Cong. Roscoe Bartlett: Washington County Regional	500,000	369,200
Total, Cong. Bartlett	500,000	369,200
Cong. Gilchrest:		
Baltimore-Washington Intl. (PFC) [1]	2,374,189	1,753,101
Salisbury Wicomico County Reg	500,000	369,200
Total, Cong. Gilchrest	2,874,189	2,122,301
Total, Maryland	3,374,189	2,491,501
NEVADA		
Sen. Harry Reid		
Sen. Richard Bryan		
Cong. John Ensign:		
McCarran Intl. (PFC) [1]	4,068,437	3,004,134
North Las Vegas Air Terminal	500,000	369,200
Total, Cong. Ensign	4,568,437	3,373,334
Cong. James Gibbons:		
Elko Municipal-JC Harris Field	740,592	546,853
Reno/Tahoe Intl. (PFC) [1]	1,438,209	1,061,974
Total, Cong. Gibbons	2,178,801	1,608,827
Total, Nevada	6,747,238	4,982,161

AIRPORT IMPROVEMENT PROGRAM ENTITLEMENT COMPARISON CHART—Continued

State/Member/Airport	Funding levels—	
	Fiscal year 1997 at $1.46 billion	Fiscal year 1998 at $1 billion
WISCONSIN		
Sen. Herbert Kohl		
Sen. Russ Feingold		
Cong. Ronald Kind:		
Chippewa Valley Regional	500,000	369,200
LaCrosse Municipal	673,780	497,519
Total, Cong. Kind	1,173,780	866,719
Cong. Gerald Kleczka: General Mitchell Intl. (PFC) [1]	1,403,510	1,036,352
Total, Cong. Kleczka	1,403,510	1,036,352
Cong. Scott Klug: Dane County Regional-Truax Fld	1,704,792	1,258,818
Total, Cong. Klug	1,704,792	1,258,818
Cong. David Obey:		
Central Wisconsin	691,410	510,537
Rhinelander-Oneida County	500,000	369,200
Total, Cong. Obey	1,191,410	879,737
Cong. Thomas Petri: Wittman Regional	500,000	369,200
Total, Cong. Petri	500,000	369,200
Cong. Jay Johnson:		
Outagamie County	889,936	657,129
Austin Straubel Intl	1,150,107	849,239
Total, Cong. Johnson	2,040,043	1,506,368
Total, Wisconsin	8,013,535	5,917,194

[1] (PFC) indicates a large or medium hub airport is collecting a PFC and 50 percent of the airport's entitlement is returned to the Small Airport Fund.

STATEMENT OF PHIL BOYER

Senator SHELBY. Mr. Boyer.

Mr. BOYER. Well, Mr. Chairman, I am going to just submit my formal remarks.

Senator SHELBY. They will be made part of the record, without objection.

HOW SYSTEM IS PAID FOR

Mr. BOYER. Great. They cover a wide range of topics, but I would like to concentrate—we have talked all morning about how to do it. I would like to talk just a moment about how we pay for it, because there has been an ongoing debate about how we do pay for this system. The administration has made it clear in this next

year's budget $300 million would come from user fees, and by fiscal year 1999 that the entire FAA budget would come from user fees.

As you know, I represent the Aircraft Owners and Pilots Association. These are the pilots of general aviation aircraft. We use the smaller airports, but do use the system on occasion that we have talked about all morning.

Senator SHELBY. That fuels a lot of small- and medium-sized business, does it not?

Mr. BOYER. Absolutely. It provides about $44 billion to the economy that we were just discussing. And one of our concerns, like yours all morning, is safety. Just how safe is a system in which you begin to charge for individual uses of the system rather than very passively through a passenger ticket tax for the airlines, or for our members through a very, very passive fuel tax that is paid for at the pump? And with the permission of your new clerk and yourself, I would like to illustrate that with a short videotape.

Senator SHELBY. You go right ahead, sir.

[A videotape was played.]

Mr. BOYER. It is merely a coincidence that Senators Lautenberg and D'Amato are really responsible for much of the geography that is covered in this short 48-nautical-mile flight. But as you can see, in addition to all the cost for the fuel tax, the maintenance, the insurance, and the other requirements on a general aviation operator, this flight in this example using Reason Foundation numbers, these we did not invent, would have cost an additional $71.18.

Senator SHELBY. Do you have this in your record today?

Mr. BOYER. Yes.

Senator SHELBY. Thank you.

Mr. BOYER. And the critical factor that I think we have been talking about all morning—how does this affect safety when you begin to pay for a weather briefing, pay for use of the instrument system?

There is one example that you have been very helpful on this committee, and that is the pledge of the FAA to charge user fees to overlying airports or foreign governments, and they were given that authorization, about $75 million, for this fiscal year. And the FAA consistently says no, we are not going to charge general aviation operators, mainly these would be Canadian operators. When they first announced the charges, they do have some charges that we cannot even figure out how it would be economical to collect them for GA airplanes.

We applaud this committee, by the way, for its attempt in trying to stipulate that your intent when this was established was not to charge the small airplanes, and the reason I bring this up, even though it is a Canadian problem, is that Canada is now setting up their own private air traffic system, and they have told us that if you charge our small airplanes we will turn around and do the same to you.

Senator SHELBY. They are going to reciprocate.

Mr. BOYER. That is exactly right.

Thank you, Mr. Chairman.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Boyer. We will insert your complete statement in the record.

[The statement follows:]

PREPARED STATEMENT OF PHIL BOYER

Mr. Chairman, my name is Phil Boyer, and I am President of AOPA Legislative Action.

AOPA Legislative Action enjoys the financial support of 340,000 dues paying members. Together with our affiliated organization, the Aircraft Owners and Pilots Association, we promote the interests of those who contribute to our economy by taking advantage of general aviation aircraft to fulfill their business and personal transportation needs. More than half of all pilots in the United States are members of AOPA, making it the world's largest pilot organization.

Mr. Chairman, I am pleased to have the opportunity to offer our input in the process of funding our nation's aviation needs. Today I would like to offer an overview of our thoughts on funding priorities and a promise that we will continue to provide our input and support during the appropriations process.

I would like to begin with our views on charging user fees for FAA services in the context of the President's fiscal year 1998 budget request. Then I would like to discuss the most pressing appropriations issues we have identified at this time—clarifying the intent of Congress with regard to foreign aircraft overflight fees, funding the Airport Improvement Program in an era of declining federal budgets, continuing transitional funding of Loran as a backup to the Global Positioning System, and assuring a smooth transfer of the aeronautical charting function between government agencies.

The FAA, Congress, and the aviation community have all spent many years struggling with the airway system modernization effort. In the last two years, both the FAA and Congress have completed several worthwhile initiatives that will move modernization forward.

Thanks to the Subcommittee's leadership, Mr. Chairman, Congress adopted legislation freeing the FAA from most federal personnel and procurement rules. Because of these reforms, the FAA is now equipped to transform itself into a more efficient and effective agency.

With these significant advances in place, the debate concerning airway modernization has shifted prematurely from "how to do it" to "how to pay for it." Dictated by the goal of balancing the federal budget, the FAA, Congressional leaders, and the industry have already begun considering the financing issue. To the extent funding will be a problem in the future, what will be needed are innovative approaches, not drastic, hasty solutions.

Yesterday, the House Ways and Means Committee began consideration of the tax component of the reconciliation legislation. Chairman Archer's package includes some restructuring of the aviation excise tax structure. However, the mark is more notable for what it does not contain. It does not include drastic new user fees; instead, it allows general aviation to continue to contribute to the aviation trust fund through the taxes on aviation gasoline and jet fuel. The message is clear: the Administration's request for user fees is way out of line. We hope this Committee will follow suit by rejecting the $300 million in user fees the Administration proposes in its budget request for fiscal year 1998.

FAA FUNDING IS ADEQUATE

Last year, this Committee established and provided funding for the National Civil Aviation Review Commission (NCARC) to seek a rational solution to the FAA's funding needs. However, the Clinton Administration chose to brush aside this Committee's reasonable and rational approach to the question of future funding needs of the FAA. Instead, the Administration has jumped the gun by requesting $300 million in new unspecified user fees for fiscal year 1998 and a 100 percent user-funded system in the following fiscal year.

By prejudging the work of the NCARC, and failing to appoint a general aviation representative to the Commission as the law required, the Clinton Administration is cynically ignoring the will of the people as expressed through Congress. This Administration is determined to impose destructive new fees on the aviation industry before finding any evidence that they are needed. The Administration has put the cart before the horse. For more than a quarter of a century, user excise taxes have adequately funded our aviation transportation system and generated a surplus for

the aviation trust fund. The steady, reliable source of revenue allowed this Committee to adequately fund the FAA during that time. Thanks to this Committee, we enjoy the safest and best aviation system in the world.

User fees are nothing more than new taxes. As the representative of the interests of general aviation pilots and aircraft owners nationwide, we are obviously concerned about the tremendous impact user fees would have on our members. In fact, a closer examination of the budget proposal shows the Administration also proposes to change the definition of "user fee" to one which no longer holds a direct link between the fee and the service rendered.

However, my concern extends beyond our own members and their pocketbooks. User fees would bring with them substantial liabilities that would upset the entire air transportation system. Any system of direct charges to users is sure to require a large and costly bureaucracy to collect, a politicized system for setting the fees, and possible threats to safety because of the unavoidable disincentive raised by imposing user fees. And we would oppose any mechanism that reduces the essential role of this Committee in the process of providing resources to the FAA and setting its spending goals and priorities.

The original justification the Administration used for requesting user fees was a scare tactic—the FAA claimed it would experience a $12 billion shortfall as Congress moved to balance the budget by 2002. We are now two years into that seven-year budget-balancing process, and I would like to pose some questions for the Administration. Has the Appropriations Committee failed to provide the FAA with adequate funding since it proclaimed the $12 billion crisis? Has the Appropriations Committee ever failed to provide the FAA with adequate funding? The answer to both questions is, "No."

CURRENT AVIATION TAX STRUCTURE IS MOST COST-EFFECTIVE

At the request of AOPA Legislative Action, the House Treasury Appropriations Subcommittee requested detailed information from the Internal Revenue Service (IRS) as to the exact costs of administering the current aviation excise tax system. We think the information provided by IRS is significant and cautionary in terms of establishing a fee based collection system. As you may know, Internal Revenue Code sections 4261 and 4271 impose the taxes on air transportation. In fiscal year 1996, less than 24 full time equivalents (employees), costing the Internal Revenue Service approximately $1.7 million, certified collections of aviation transportation taxes. That's over $5.5 billion raised with $1.7 million!

We think any new funding system that replaces the excise taxes should not exceed this $1.7 million collection cost. However, I can say with confidence that user fees wouldn't come close. In fact, the FAA says it will require $1 million a year alone to collect the $75 million in fees on foreign aircraft that fly over U.S.-controlled territory that it began charging last month. Imagine translating that $75 million to $8 billion or more—the amount needed for a 100 percent user fee-funded system, and you get $160 million in collection costs, which is 100 times the cost of collecting the excise taxes. In Europe, simple user fees based on weight and mileage are charged on en route traffic. Yet even these relatively easy-to-calculate fees can cause six month delays in billing. The Administration contemplates a much more complicated user fee scenario.

Consistent with the goal of a balanced budget, we think there are constructive and honest ways to deal with any funding problem which may arise in the outyears. One of our ideas is called "Linked Financing." Instead of using fancy new definitions and complex scoring changes, and handing the FAA a blank check as user fees would do, Linked Financing works within the traditional tax and appropriations structure and existing congressional budget procedures to provide FAA with the resources it needs.

OVERFLIGHT FEES

Another important issue that has emerged recently is the implementation of fees for foreign aircraft which fly over the U.S., but neither take off from nor land on U.S. soil. The Committee allowed FAA to develop an overflight fee schedule as part of the fiscal year 1997 bill. Most foreign countries charge a modest fee when U.S. or other airliners fly over their airspace, so the Act took advantage of this untapped source of revenue.

The resulting overflight fee schedule developed by the FAA includes overflight fees for general aviation flights in addition to commercial flights. While the law does give the FAA latitude in deciding which overflight costs may be recovered, we do not believe this Committee intended to require fees for international overflights by general aviation aircraft.

There is clear evidence that Congress did not intend to impose overflight fees on general aviation. The Congressional intent of the legislation was demonstrated in floor debate, which was limited solely to discussion of fees on commercial air carriers. At no time were fees on general aviation discussed.

On April 16, 1997, the leadership of the House Transportation and Infrastructure Committee, and its Aviation Subcommittee, wrote to Acting FAA Administrator Barry Valentine. In the letter, they said "[i]mposing a fee on general aviation was certainly not our focus when we drafted the Federal Aviation Administration Reauthorization Act."

On April 30, 1997, this Committee adopted an amendment offered by Sen. Gorton to the fiscal year 1997 emergency supplemental appropriations bill which amends Public Law 104–264 to exempt GA from foreign overflight fees. The amendment was later dropped in conference for technical reasons.

An overflight fee levied on general aviation would likely provide only a tiny proportion of the total revenue generated by the fees, and even the FAA admits that such fees could have serious safety implications. We request the continued assistance of this Committee in clarifying for the FAA that Congress did not intend that foreign overflight fees be levied on general aviation aircraft.

AIRPORT IMPROVEMENT PROGRAM

Let me turn now from the general funding issue to a specific program that is bound to experience significant changes. The Airport Improvement Program is a model of success for federal involvement in national transportation infrastructure improvements. AIP is an important program that must continue as a means of ensuring a national system of public airports able to connect rural America with the larger commercial service airports in major metropolitan areas.

The Airport Improvement Program also offers an opportunity for significant savings. With perhaps as little as $1 billion annually, coupled with increased reliance by primary airports on Passenger Facility Charges (PFC's) and other financing resources, a refocused AIP program would more efficiently address the financial needs of non-hub commercial service and general aviation airports providing vital community access to the air transportation system. We believe this approach offers the most cost-effective use of shrinking federal funds.

As you know, overall AIP funding levels have declined steadily since 1992. During the same period that aggregate AIP grants have declined, the proportion of that aid received by the large primary airports increased from less than a third in the 1980's to three-quarters of total AIP funding in 1994—all at a time when larger airports began tapping into the substantial potential of locally imposed passenger facility charges.

Funding of large primary airports at this increasingly higher level is coming at the expense of the smaller non-hub and general aviation airports which communities depend on as their link to the air transportation system. However, these smaller airports have the least access to other sources of capital. Most primary airports can and do levy passenger facility charges, and PFC revenue accounts for a greater and greater share of primary airport resources. Large airports also can finance capital improvements through bond issues.

For these reasons, we believe the Committee should consider refocusing the priorities of the Airport Improvement Program by allowing large airports to increase the PFC amount they charge and targeting remaining AIP funds to help smaller airports meet their needs.

LORAN C

AOPA Legislative Action appreciates the Committee's strong support in recent years for steps prompting action on initiatives to take advantage of the substantial investment made by the federal government and users in Loran C and the compatibility the technology has with the Global Positioning System (GPS). Loran is a well-proven, cost-effective, and highly reliable system. In view of uncertainties about the Coast Guard budget, there has also been bipartisan support in Congress for the DOT to consider joint, shared funding arrangements among the various modes that benefit from the use of Loran technology.

AOPA Legislative Action is among the most vocal advocates of an early transition to GPS as the sole means of aerial navigation. However, we believe it is essential that Loran be available until it is proven that GPS can meet the sole-means-of-navigation requirement. Recent developments have indicated that reliance on GPS as the sole means of navigation will be further delayed. Nevertheless, some DOT and FAA officials to advocate early termination of Loran. This Committee has been explicit in its direction to the DOT and FAA regarding the need for Loran, but DOT,

FAA, and other agency officials refuse to listen. Users clearly want Loran to back up GPS, but these same officials seem willing to ignore safety and the strong backing of virtually every segment of the user community.

We want to emphasize the importance of continuing funding for operating and upgrading Loran. The Loran system is a cost-effective complement to GPS. It is compatible with GPS and can easily serve as a backup navigation technology in the event of any GPS problems. It would be short-sighted to place all our hopes on GPS without such a backup. Since Loran equipment is already installed in more than 100,000 general aviation aircraft, it is the most logical choice.

We appreciate the Committee's previous support for our position regarding Loran. We hope the Committee will again support continued funding of Loran, with funding shared among agencies of the DOT.

TRANSFER OF AERO CHARTS FUNCTION

As you know, AOPA Legislative Action has urged special attention to aeronautical charting improvements several times during the past decade. We have targeted specific charting enhancements which improved the utility of aeronautical charts and ultimately translated into a safer flying environment for general aviation pilots. Thanks to the past efforts of this Committee, funding was secured on several occasions to ensure that FAA could implement these enhancements and enable the pilot community to realize direct and immediate safety benefits.

We are now working cooperatively with the FAA, DOT and the National Oceanic and Atmospheric Administration (NOAA) to address a more general problem which has threatened to force the elimination of at least some important aeronautical charting products altogether. While FAA determines most of the content and format of aeronautical charts, the charts themselves are actually produced and distributed by NOAA. Serious funding shortfalls during the past several years have caused the agency to reexamine its mission and priorities, and the aeronautical charting function has been directly impacted. In the past, we have successfully worked through the appropriations process to develop short-term fixes for NOAA's funding needs. Now, we hope we can work with the Committee to find a long-term solution for this problem.

Acting in response to an investigation of this issue by the Inspectors General of the Departments of Commerce and Transportation, the fiscal year 1998 Administration request proposes to transfer responsibility for producing and distributing aeronautical charts from NOAA to FAA in a two-step process. In fiscal year 1998, the Administration proposes that NOAA operate the program for FAA on a reimbursable basis, with the program being completely transferred to the FAA in fiscal year 1999. Others suggest that the program be relocated to the Department of Transportation or other agencies. AOPA's priority is to continue to provide the high quality charting services that our members have relied upon for many years.

If the charting program is transferred from NOAA to another agency, there will be transitional issues which must be worked out between the two agencies and in Congress. It would require authorizing legislation and other adjustments at the beginning of the budget process before a transfer can occur. We know that there will be significant concerns about the source of funding for the program if it is transferred to another agency. We want to work with you to ensure that adequate funding is provided, whether from this Subcommittee or from the Commerce and Justice Subcommittee, so that the receiving agency does not have to absorb any additional costs.

SUMMARY

To summarize, AOPA Legislative Action believes that the current aviation excise tax system is sufficient to adequately fund the FAA, making user fees unnecessary. We urge the Committee to reject the Administration's request for user fees.

We urge the Committee to continue to provide the necessary resources to small airports, especially those that lack alternative sources of revenue.

We request the assistance of this Committee in clarifying for the FAA that Congress did not intend that foreign overflight fees be levied on general aviation aircraft.

We hope the Committee will again support continued funding of Loran as a backup for GPS.

Finally, we want to work with the Committee to ensure that adequate funding is provided, whether from this Subcommittee or from the Commerce and Justice Subcommittee, for the proposed transfer of aero charting functions from NOAA so that the receiving agency does not have to absorb any additional costs if the transfer is carried out.

That concludes our testimony. I appreciate the opportunity to present our views to the Committee. AOPA Legislative Action is pleased to remain involved in the appropriations process throughout the congressional session, and we will gladly offer further comments on specific funding items as the need arises.

STATEMENT OF EDWARD BOLEN

Senator SHELBY. Mr. Bolen, of the General Aviation Manufacturers Association.

Mr. BOLEN. Thank you, Mr. Chairman, and I am going to be brief and submit my statement for the record.

Just to follow up on a couple of things, you and Mr. Boyer talked a little bit about the importance to general aviation and the development it brings to small and rural communities.

USER FEES AND FUEL TAXES

Senator SHELBY. We talked a little, but I believe it is very, very important to America and to our economy. There are a lot of airports in America that serve small- and medium-sized cities that the only air traffic in there is business planes, small- and medium-sized business planes that are so important to the local economy, and the companies that operate in and out.

Mr. BOLEN. And not only do they help drive the economies in a lot of these small and rural communities, general aviation is also a primary training ground for the commercial airlines. And it also is an industry in the United States that contributes positively to our Nation's balance of trade. So it is a very vital segment of a very vital air transportation system.

I guess the point that I would like to make is that general aviation, the entire general aviation community, feels very strongly that we should pay to use our national air transportation system. And we feel that the way we pay now, which is through a fuel tax, is the best, and we would like to see it be the only way that general aviation contributes.

Senator SHELBY. It has worked, has it not?

Mr. BOLEN. It has worked.

Senator SHELBY. And it is uniform.

Mr. BOLEN. And it combines with the general fund contribution, which helps cover the military's cost of using the system, cover some of the safety and regulatory costs of the FAA, and it reflects the public benefit that is inherent in this air transportation system. And those two mechanisms are just very, very good.

As Phil mentioned, the general aviation community very much opposes user fees to either supplement or replace the current fuel tax system. And I think Phil's video was very, very good, but I would like to follow that up. That is something that was based very much on the real world.

I submitted as a part of my testimony a letter I received from a French pilot. And that French pilot talked about some of the charges he has. In addition to the ones that we saw in the video tape he also has noise charges and lighting charges and ramp charges, it goes on and on. And the conclusion of the French pilot are an unbearable impediment to the development of general aviation in France, that it is depressing businesses there, that it is making aviation more and more only for the very wealthy, and his

admonishment to us was I hope the Americans will fight hard against these user fees, because if they do not, general aviation will be grounded. And I think not only from that perspective, Phil talked a lot about the safety perspective, and I think that is very important. The FAA itself has stated that user fees can have the potential to discourage safety.

I would like to just relate a story that was told by the chairman of GAMA last year at our industry review when he talked about when he was flying in Germany, which does have user fees, and he went up with a young student pilot and they were going to practice touch and go's, practice takeoffs and landings. And he went up with the pilot and they came down, and when they got within a few feet of the runway they began to ascend. And he did not want to be rude, so he did not say anything, but when it happened again he said, you know, we are here to practice takeoffs and landings. Why are we not touching down? And the woman pilot said, well, in Germany we charge 12 marks every time the wheels touch the ground, so we do not really put them down here. We try to get virtual takeoffs and landings. And, Mr. Chairman, that is just not in the best interest of safety.

Senator SHELBY. Slipshod training, is it not?

Mr. BOLEN. Absolutely. And the ramifications are very serious.

I think also when you look at fuel taxes versus user fees from the Government's point of view, the current excise taxes are very efficient to collect. They do not have a lot of collectors, administrators, auditors, you are not trying to collect from 600,000 pilots and 180,000 planeowners. You are simply collecting from a handful of fuel companies.

Senator SHELBY. Would the user fees raise more revenue, or would our current system raise more revenue?

Mr. BOLEN. Well, I think our current system can more efficiently raise revenue than a user fee. There has been a study that was done. We are currently spending—the FAA currently spends, I believe it is $1.7 million to collect $5.5 billion in excise taxes. To collect $75 million in foreign overflight fees, the fees that Phil talked about, they are going to spend $2 million to set up the system, and another $1 million a year to collect it. So just from an efficiency standpoint, that is very clear. And as I mentioned, we also have, with a lot of taxes in the United States, a compliance problem. You do not have that problem with fuel taxes.

We have a system in Europe where actually software is sold to help people negotiate around some of the places where the charges are the highest.

Senator SHELBY. How to beat the system.

Mr. BOLEN. Yes; and then from a taxpayer's point of view, we really like the fuel taxes because they are easy to understand, there is not a lot of paperwork, they are not intrusive, and they are not subject to bureaucratic manipulation. In the area of certification, where my manufacturers deal a lot, the foreign governments that charge certification fees, because they are paid on an hourly and per person basis, they often take in Europe much longer to complete the task and use a lot more people to complete the task than they do here in the United States. They simply are manipu-

lating the fees that are coming in. And then they have got flat fees, they are raising them much faster than the rate of inflation.

So I do not want to take a lot of your time, but we believe and feel very strongly that the fuel taxes are the best method, and we would like to see them remain the only method.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Bolen. We will insert your complete statement in the record.

[The statement follows:]

PREPARED STATEMENT OF EDWARD M. BOLEN

INTRODUCTION

Mr. Chairman, Senator Lautenberg and members of the subcommittee, thank you for the opportunity to testify today. My name is Edward M. Bolen, and I am President of the General Aviation Manufacturers Association (GAMA). GAMA represents 53 general aviation aircraft, engine, avionics and component parts manufacturers throughout the United States.

GENERAL AVIATION

As this subcommittee well knows, general aviation is defined as all aviation other than commercial and military aviation. It is the backbone of our air transportation system and is the primary training ground for the commercial airline industry. It is also an industry that contributes positively to our nation's balance of trade.

General aviation aircraft range from small, single-engine planes to mid-size turboprops to the larger turbofans capable of seating as many as 19 passengers. These planes are used for everything from emergency medical evacuations to border patrols to fire fighting. They are also used by individuals, companies, state governments, universities and other interests to quickly and efficiently reach the more than 5,000 small and rural communities in the United States that are not served by commercial airlines.

STATE OF THE INDUSTRY

Given the importance of general aviation to our nation and its economy, it is a pleasure for me to be able to report that the industry is healthier today than it has been in well over a decade. The action taken by Congress to revitalize the industry by limiting the product liability exposure of manufacturers is working. Employment and production are up at virtually all of GAMA's member companies. More new models of general aviation aircraft will be introduced to the market between now and the year 2000 than were introduced in the past ten years. Our companies are investing in plants and equipment and new research and development projects. Several are working with NASA to develop a new generation of aircraft engines. In addition, the industry has just begun the largest program in aviation history designed to generate new student pilots—GA TEAM 2000.

GENERAL AVIATION AND FAA FUNDING

The Clinton Administration has proposed that the Federal Aviation Administration (FAA) be given the authority to raise $400 million of its total fiscal year 1998 budget from "user fees." Approximately $100 million in user fees are to come from an expansion in the current FAA charges on foreign overflights. The Acting FAA Administrator has indicated that at least a portion of the remaining $300 million in user fees would come from some type of charge on "turbine-powered general aviation."

The grant of fee authority to the FAA represents a very serious threat to the future of general aviation in the United States. For that reason, the industry is asking the subcommittee to deny the Administration's request and instead, continue to fund the FAA through a combination of aviation excise taxes and the General Fund contribution.

Mr. Chairman, general aviation currently pays a 21.9 cent per gallon federal tax on jet fuel and a 19.4 cent per gallon federal tax on aviation gasoline. These taxes are universally supported by industry. In fact, the entire general aviation community believes that the general aviation fuel taxes are the BEST, and should be the

ONLY mechanism through which the users of general aviation fund the Federal Aviation Administration.

The general aviation community is also united in its support for a continuation of the General Fund contribution to help fund such things as the FAA's safety and regulatory functions. For decades, Congress has recognized that a strong and safe air transportation system benefits all members of the general public regardless of whether or not they ever set foot on an airplane. That "public benefit" has been consistently reflected in the contribution of General Fund revenues toward FAA operations.

The strength of general aviation's support for fuel taxes and a continued General Fund contribution is matched only by the strength of its opposition to user fees. This opposition is not based merely on philosophy but real world experiences that have clearly demonstrated the negative impact fees have on general aviation.

Attached to my testimony is a copy of a letter that was recently faxed to me by a general aviation pilot in France. It is an extraordinary letter that I hope every member of the subcommittee will take time to read. The letter describes the fees this pilot is confronted with in France, including noise fees, lighting fees, ramp fees, en route fees, approach fees, etc.

The pilot says that the ever growing list of fees are "an unbearable obstacle to development of general aviation and air commerce in France and in Europe." He goes on to say "The aviation businesses are heavily depressed and a number of pilots, flight schools, aircraft sales and air carriers are disappearing at a dangerous rate. Aviation is more and more reserved to the wealthiest people."

The letter concludes with the pilot saying "I hope that Americans involved in aviation understand how important it is to fight hard against these proposed user fees. If implemented, these charges may ground them sooner than the expectation."

WHY GENERAL AVIATION FUEL TAXES ARE BETTER THAN USER FEES

At GAMA, we agree with the French pilot that the general aviation fuel taxes are better than user fees.

From a Safety Perspective:

—Fuel Taxes Do Not Adversely Impact Safety. According to the FAA, user fees can discourage the safe practices of pilots (see Federal Register, March 20, 1997). For example, if user fees are charged for weather updates, talking to control towers or filing flight plans, some pilots will seek to avoid the fees by refusing these services. The general aviation fuel taxes do not discourage safe practices.

Last year, at GAMA's Industry Outlook Press Conference, the President of Jeppesen, Horst Bergmann related one of his experiences with user fees in Germany. Mr. Bergmann was flying with a young general aviation pilot who announced that she wanted to practice her takeoffs and landings. Mr. Bergmann said the airplane descended to just a couple of feet above the runway and then began to ascend. Miffed, Mr. Bergmann asked the pilot why she did not touch down. She responded, "In Germany, there is a 12-mark charge if your wheels hit the ground, so people here don't really touch down when practicing takeoffs and landings." From a safety standpoint, we want people to put their wheels on the ground when practicing takeoffs and landings. "Virtual landings" are not in the best interest of safety.

From the Government's Perspective:

—Fuel Taxes Are Inexpensive For The Government To Administer. The government collects the fuel taxes from a handful of fuel companies rather than 600,000 pilots and 180,000 aircraft owners. This allows the taxes to be collected without a large and expensive bureaucracy of collectors, administrators, auditors and accountants.

Just last year, the country of Mexico announced that it found the administration and collection of user fees to be so complex and expensive that it was replacing its system of user fees with a fuel tax.

—Fuel Taxes Are Difficult for Taxpayers to Avoid. Because the fuel taxes are included in the amount charged for fuel, compliance with the tax is extremely high. This is not the case with user fees.

Earlier I referenced Mr. Bergmann, the President of Jeppesen, regarding safety. It is also worth noting when discussing user fees that Mr. Bergmann also mentioned a service his company provides which shows companies the routes they can take when flying in Europe to minimize user charges. In other words, his company has found a market niche helping people avoid user fees.

—Fuel Taxes Approximate Use. There is no more simple and accurate way to distinguish between heavy and light users of the system than to measure the amount of fuel burned.

From the Taxpayer's Perspective:

—Fuel Taxes Are Easy to Pay. Unlike fees, paying the fuel taxes is not an administrative hassle or paperwork nightmare. The taxes are simply included in the price of the fuel and paid at the time of purchase.

—Fuel Taxes Are Well Established. The general aviation fuel taxes have been in existence since 1970 and they have proven to be reliable revenue generators. Today, the entire general aviation community believes the fuel taxes are the best way for our industry to contribute to the funding of the Federal Aviation Administration.

—Fuel Taxes Are NOT Subject to Government Manipulation. In some foreign countries, the civil aviation authorities charge for their services with a per person and/or a per hour fee. When this happens, it is not unusual for government to use more people than necessary and take longer than necessary to complete the task. Governments which charge a flat fee for a service tend to raise the fee faster than the rate of inflation.

CERTIFICATION IN A USER FEE ENVIRONMENT

One particular type of user fee that GAMA member companies have had to deal with repeatedly is the certification fee. As a result, I would like to focus some of my comments today on that important regulatory process.

Since 1926, the Federal Aviation Administration or one of its predecessors has been charged with "certifying" the manufacture of all aviation products. FAA certification does not signify that a given product is better than the competition or even safer than the competition. Instead, its sole purpose is to ensure that aviation products do not pose an unreasonable safety risk to the public.

Although it is the public—not the manufacturer—who benefits from the certification process, those of us in aviation are very interested in working with the FAA to constantly improve safety. Consequently, we devote a great deal of time and resources to the certification process.

It is estimated that approximately 90 percent of all costs associated with the certification process are borne by the manufacturer. According to the Challenge 2000 report by Booz, Allen & Hamilton commissioned by the FAA, the agency's Office of Regulation and Certification could actually improve safety under a flat or declining budget by placing more administrative responsibility for regulatory compliance in the hands of those manufacturers with a proven culture of safety while maintaining a high level of involvement and oversight in key phases of development programs.

From a practical standpoint, allowing manufacturers to absorb even more of the costs of the certification process is preferable to forcing them to make cash payments to regulators through user fees. For one thing, costs absorbed by manufacturers through delegation cannot be manipulated by bureaucrats looking to generate fee revenue. For another, it does not put a toll booth between manufacturers and regulators when important matters of safety are at stake. Economists know that if you place a tax on an activity, an incentive is created for less of that activity to occur. Placing a tax on manufacturers for sharing information with the FAA will discourage the free flow of safety information.

From a philosophical standpoint, certification is a government function that benefits the general public. As such, this function should be paid for with general taxpayer revenues. To ask a manufacturer that is operating in accordance with all regulations to pay for what is, in essence a safety audit, would be similar to asking a taxpayer who has prepared his or her returns in a legal manner to pay for the cost of an IRS audit.

A final point on certification fees is that, because manufacturers must cover all of their costs of production or go out of business, it is the owner/operator that ultimately is forced to pay for all of the costs associated with certification. In this respect, certification fees would function as a type of Valued-Added Tax (VAT). The owners and operators of general aviation aircraft understand this reality and that is why they have joined with manufacturers in opposing certification fees.

CONCLUSION

General aviation is a vital link in our air transportation system and an important engine for our economy. Today, after years of decline, the industry is finally on its way to recovery.

The entire general aviation community believes that the general aviation fuel taxes are the BEST, and should be the ONLY mechanism through which the users of general aviation fund the Federal Aviation Administration. After all, the fuel taxes are well established, they closely approximate how much one uses the system,

they are easy to pay yet difficult to avoid, and they are inexpensive for the government to administer.

Supplementing or replacing the general aviation fuel taxes with a new system of "fees" could, even according to the FAA, discourage the safe practices of pilots. Fees could also restrict the growth of the industry in the same manner they have restricted general aviation in Europe and the other parts of the world where they have been tried.

If Congress determines that general aviation needs to pay a larger portion of the FAA's costs than it is currently paying, it should work with industry to determine what can be done without reversing the gains that have been made since passage of the General Aviation Revitalization Act. Congress should not, however, give up on a system that works and turn to a system that could be anti-growth and anti-safety.

LETTER FROM RÉMY BOUIN, MEMBER, CESSNA OWNER ORGANIZATION

Athis-Mons, April 27, 1997.

DEAR AVIATION FRIENDS: As a Cessna 172 owner and CPL–IR pilot flying in France I am very interested in the debate over user fees taking place in the USA.

France is one of the most active general aviation countries in the world (around 10,000 aircraft and 60,000 active pilots for 57 million citizens) and the following testimony on what is happening over there (and in fact in most European countries) might be of help to those in your country fighting against implementation of user fees to fund the FAA.

From the end of WW2 to nowadays France has gradually drifted from an aviation system (ATC, Met, airports, regulatory aviation authorities . . . etc.) that was entirely funded by taxpayer money to one that is almost exclusively paid by aviation users.

It is not a great surprise to say that this evolution has a very negative impact on our aviation industry be it on general aviation or on commercial air transportation. Not only because of the higher costs that have to be beared by the aviation community but because of the fact that the other means of transportation needs have continued to be generously paid by taxpayers (discrimination).

Let me depict more precisely how our aviation system is financed:

The French equivalent of FAA (called DGAC).—This administration is tasked with approximately the same duties as FAA with the exception of technical oversight over aircraft maintenance and of aviation weather services which are responsibilities of semi-pivatized agencies. French FAA is responsible for ensuring En route control, approach control and tower control at around 100 airports in the country.

The budget for this administration in 1997 has been voted at 8 billion francs (1.40 billion dollars) and is almost entirely funded by aviation user fees (that go to the aviation fund) which are mainly:

En route fees.—Those fees are to be paid by aircraft with MTOW over 2,000 Kg (4,400 lb) flying IFR whatever the operation (private or commercial). The rate for this fee is a factor of the distance flown and MTOW.

Approach control fees.—Those fees are to be paid by aircraft with MTOW over 2,000 Kg (4,409 lb) flying IFR whatever the operation (private or commercial) and landing at airports where approach and tower control are provided. This fee is established as a factor of MTOW. This aviation fund is also fed by an aviation tax on airline tickets that is supposedly aimed at financing airport security. It is also funded by other fees established for pilot licensing, tie-down and hangar at administration-managed airports, avionics annual check . . . etc.

The airports.—Most airports in France are run and funded by Chambers of Commerce with the busiest of them receiving subsidies from the aviation fund. Consequently these entities are authorized to charge very high fees in order to recover their expenses: landing fees, lighting fees, ramp fees, hangar fees, handling fees, passenger fees, airport re-opening fees (most airports in France are not open 24 hours) and fuel fees.

Oversight of aircraft maintenance and airworthiness.—A civil aviation safety agency (GESAC) has been established some years ago to cheek aircraft maintenance operations. This agency is authorized to establish fees that aircraft owners must pay each time this administrative agency signs a paper.

The noise tax.—This tax is to be paid by aircraft flying out of "busy" airports to the environment protection agency.

The aircraft property tax.—Must be annually paid to the general fund. None of this money is invested in the aviation system. It depends on the horsepower and ranges from 175 $ to 2650 $.

The fuel.—This is one of the most taxed items in this country. Currently a 100 LL gallon is priced between 5$ and 6$ excluding fees that airports are authorized to charge on fuel. These sky-rocketing taxes go directly to the general fund and are not used for aviation purposes.

The sales tax on aviation services and products.—It is currently set at 20.6 percent and goes directly to the general fund with no use for aviation.

The National Weather Service.—This semi-privatized agency has the monopoly on any weather service be it for farmers or aviators. The French equivalent of the FAA is not tasked with providing aviation weather services to pilots. This administration gives money from the aviation fund to the NWS to establish and maintain aviation weather services. As the aviation fund is mainly paid by IFR users, met is free for them but not for VFR pilots. As an example talking to a briefer costs 2$ plus 0.5$ each minute spent talking with him.

These ever growing taxes and fees are an unbearable obstacle to development of general aviation and air commerce in France and Europe. The aviation businesses are heavily depressed and number of pilots, flight schools, aircraft sales and air carriers are disappearing at a dangerous rate. Aviation is more and more reserved to the wealthiest people and as a consequence tends to be less and less popular amongst citizens.

The fact that VFR flights and IFR flights with aircraft with MTOW below 4,400 lb don't pay any en route and approach fees is good and bad at the same time:

—Good because it gives some "oxygen" to this part of aviation which is already overwhelmed by aviation taxes.

—Bad because as this part of aviation doesn't contribute at all to the aviation fund, nothing is done to build and improve general aviation airports. On the 420 public airports in France, only 30 percent have an instrument approach and 6 percent are accessible 24 hours.

Airlines want their fees invested only on the few airports where they fly. Moreover our national airspace system and air traffic control system are more and more designed to meet the only needs of air carriers. IFR route structures don't take into account the problems of general aviation IFR flights (icing, low speed, low altitudes . . . etc.) and radar services to VFR flights are virtually non-existent.

New regulations coming soon as mandatory B–RNAV equipment, 8.33 khz channel spacing and mode S transponder don't take care of the burden on general aviation. Right of general aviation to fly to busy airports doesn't exist any more with prohibited access for single engine aircraft and implementation of class A airspace.

Met services are very expensive for VFR pilots and once again are mainly designed to meet the needs of airlines. This is certainly one of the reasons why general aviation in this country has one of the worst accident rates in the world.

In conclusion on this part, the fact that VFR and light IFR aviation is not charged with En route and approach fees means that this aviation is only tolerated in this country but should not be too demanding because this exemption could be stopped at any time.

Moreover some airlines are not happy at all that these users don't pay ATC fees. They require that each flight whatever the MTOW should pay the same cost for the same distance flown because they say the burden on the ATC system is the same.

The implementation of ATC user fees (in 1972 for En route fees and 1990 for approach fees) and the fact that not a single cent of taxpayer money goes to the aviation system has had other bad side effects as for example:

—The bureaucracy implemented to establish the invoices for ATC fees is paid by the users and is extremely expensive. A tax system on fuel, ticket sales and airfreight bills is far more simple and cost efficient.

—Pilots prefer to fly VFR to avoid IFR fees, which has sometimes dramatic effects.

—VFR flight is prohibited in more and more airspace, so users are compelled to pay fees (for example airspace above 11,500 Ft in northern France is prohibited to VFR flights since 1992).

—No airport improvement program which leads to a shortage of runways and terminals. The consequence is that air transportation development is halted by lack of airport slots.

—Development of air taxi, regional airlines, business aviation and low-cost carriers is very limited because of these fees.

—Airlines pay the same amount of fees whatever the number of passengers or quantity of freight. So when times are hard to fill aircraft, user fees can literally kill an operator. The ticket tax is fair because it is directly linked to the economic shape of the airline. When times are hard, dues are lower, and when business is good dues are fair.

Sorry for this long explanation, but here is a real example of the costs associated with an IFR typical business trip on a Cessna 340 between Paris Toussus le Noble executive airport and Toulouse-Blagnac airport (300 NM southwest of Paris):

1. Departure from Toussus le Noble early in the morning: Lighting fee=34 $
2. En route fee for the 300 NM trip: 90 $
3. Approach fee in Toulouse: 15 $
4. Landing fee in Toulouse: 32 $
5. Lighting fee in Toulouse: 32 $
6. Ramp fee in Toulouse for 12 hours: 3.5 $
7. Noise fee for departure from Toulouse: 10 $
8. Lighting fee for departure from Toulouse: 32 $
9. En route fee back to Paris-Toussus le Noble: 90 $
10. Approach fee in Paris-Toussus le Noble: 15 $
11. Landing fee at Toussus le Noble: 13 $
12. Lighting fee at Toussus le Noble: 34 $

So this trip costs 368.5 $ in fees and taxes, without the handling fees if services of an FBO are used and without the taxes on fuel. The same IFR trip on my Cessna 172 costs me 148.5 $ in fees because as explained above IFR aircraft below 4,400 lb don't pay ATC fees for the time being

At airports not opened 24 hours, re-opening service costs me between $50 and $300 depending on the airport.

During my flight training for CPL–IR in the USA, I had the opportunity to discover the extraordinary quality of your aviation system (ATC, airports, weather services, FBO's, flight service stations . . . etc.) which is almost everytime provided free. This aviation system is probably the best in the world and it seems that the five excises taxes financing the Airway and Airway Trust Fund are doing an extraordinary great job.

Of course you do have some problems, but you can be sure that they are no problems compared to those aviation people must deal with in this country and Europe.

I really enjoyed your perfect aviation system and I think it would be foolish to destroy something that works greatly.

The U.S. way of funding aviation is for European general aviation pilots the living example of the funding system that politicians should establish in Europe to foster civil aviation.

I hope that Americans involved in aviation understand how important it is to fight hard against these proposed user fees. If implemented, these charges may ground them sooner than they expect.

I hope this letter brings useful information to you. Do not hesitate to contact me if you need more information and testimonies on this subject. I wish you good luck in this important battle to keep aviation strong in your country.

Yours faithfully,

RÉMY BOUIN.

USER FEES AND TAX

Senator SHELBY. Mr. Barclay, your testimony notes that the administration has requested only $1 billion for AIP in 1998. I might note that the budget request amendment we received early this week does not request—does not request—any additional AIP funding for 1998. Can you walk the subcommittee briefly through what the impact of this cut would mean to the various categories of funding within the AIP program?

Mr. BARCLAY. I can, Mr. Chairman. If you take a look at entitlements first, the amount of money the airports get from passengers, those would be cut about 26 percent. In the case of Huntsville, that would be about $385,000; in the case of Birmingham, about $560,000. Each of the smallest airports in the system would lose about $130,000 with that cut.

Cargo funding would be cut by more than 50 percent. The small airport funding, we are talking about the relievers and general aviation, would be cut by 50 percent under the current formulas.

Noise is cut 85 percent. Noise funding goes from $143 million to $20 million for the whole country, and the military airport program goes from $18 million to $2 million.

So the current formulas that we just put into the law in the authorizing committees last year simply do not work at the $1 billion program.

Senator SHELBY. Mr. Boyer, what are your thoughts, how would you feel about a system where the airlines could pay user fees directly to the FAA, but general aviation would continue to pay the fuel tax which would be appropriated by Congress? That is a bifurcated system, anyway.

Mr. BOYER. That is being debated on several fronts right now, and I guess our greatest concern is it sets up two classes of users. And as you said, general aviation provides a significant benefit, particularly for rural areas. But what happens then if one group of people pay through a fuel tax, others pay these user fees, first of all, I have never seen anything stet, so therefore Congress would someday perhaps look and say, well gee, this group is not paying user fees, perhaps we can raise more money this way, so there is an obvious trend toward that that occurs.

The other thing that could happen is we would have two classes of users and we would begin to look at areas in which we would begin discriminating against those users. Well, you cannot use this airspace because you only pay a fuel tax, you do not pay a user fee.

I think our country has worked, as you have said, for 30 years, 20 years under deregulation, under the present system of a passenger ticket tax, for those who pay——

Senator SHELBY. It has worked has it not?

Mr. BOYER. That is right.

Senator SHELBY. Yesterday, the House Ways and Means Committee began consideration of the tax component of the reconciliation bill. Mr. Boyer are you supportive of the committee's approach to alternatives to the ticket tax and its treatment of general aviation?

Mr. BOYER. Well, to put it backward, we certainly support their treatment of general aviation. It goes along with the theory of a fuel tax is efficient. And they have taken a creative approach to how to fund the system, keeping in place a passenger ticket tax modified with a head fee.

It is up to Congress to debate that, but what it does not do is set up two classes of users, or user fees versus fuel tax. So therefore, we applaud their efforts at this point and continue to watch the debate.

Senator SHELBY. I understand from your comments, Mr. Bolen, that you favor the general aviation tax that we just went through. However, since you represent here today general aviation manufacturers, would it be accurate to say that the manufacturers do not pay the fuel tax and therefore do not contribute to the funding of the FAA?

Mr. BOLEN. Let me make two comments on that, sir. First of all, the manufacturers already assume about 90 percent of the cost related to the certification process. We do that through administrative stuff and through staffing. So we are already bearing the brunt

of 90 percent of the cost of the certification process. So that is being paid.

Senator SHELBY. That is a lot of safety there, is it not?

Mr. BOLEN. Yes; but I would also like to point out that obviously as manufacturers we have got to pass along the cost of doing business or cease to exist. If we do not charge enough for our products to cover the cost of creating them, we go out of business. And that is something that the pilots, represented here by Mr. Boyer, understand, and they have been supportive of this, as well.

If you try to go back and build in cost on the manufacturers, it in essence works as a value-added tax for the customers at the end of the day. And they do not want to pay it that way, we do not think it is the best way, and we also do not think it is in the interest of safety, because what those fees would end up doing is putting a tollbooth between manufacturers and regulators, and anyone will tell you, if you tax something you are going to get less of it, and we do not want to reduce that communication between manufacturers and regulators.

SUBCOMMITTEE RECESS

Senator SHELBY. Gentlemen, I know it has been a long morning. It is in the afternoon now. Senator Lautenberg was going to try to get back. He had some other commitments. I want to leave the record open for any questions that he or any of the other Senators might want to submit in writing.

Thank you for being here, and this hearing is recessed.

[Whereupon, at 1 p.m., Thursday, June 12, the subcommittee was recessed, to reconvene at 10:58 a.m., Thursday, July 17.]

DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1998

THURSDAY, JULY 17, 1997

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:58 a.m., in room SD–124, Dirksen Senate Office Building, Hon. Richard C. Shelby (chairman) presiding.

Present: Senators Shelby and Lautenberg.

PANEL 1

DEPARTMENT OF LABOR

RAILROAD RETIREMENT BOARD

STATEMENT OF STEVEN BARTHOLOW, DEPUTY GENERAL COUNSEL ACCOMPANIED BY FRANK BUZZI, CHIEF ACTUARY

OPENING REMARKS OF SENATOR SHELBY

Senator SHELBY. The subcommittee will come to order. Sorry about the delay, but when you have three back to back votes it just happens.

The purpose of our hearing today is a very specific one—to get to the facts with respect to Amtrak's payments to the Railroad Retirement Account. The subcommittee's fiscal year 1998 transportation appropriation bill currently includes $283 million for Amtrak operating assistance, which is the same level as in the House Appropriations Committee-reported bill. The administration has requested $344 million and Amtrak has requested $387 million.

Funded within the subcommittee bill are two elements of Amtrak's operating assistance identified in the administration's request: $202 million for the general operating subsidy to support day-to-day operations of Amtrak; and $82 million for tier II railroad retirement benefits that Amtrak is obligated to pay by law, but are greater than the tier II benefits collected by former Amtrak employees.

The only difference between the subcommittee level and the administration's request is $61 million, which the Federal Railroad Administration's budget submission mysteriously describes as "a portion of the amount Amtrak is required to pay to the Railroad Retirement Board for the benefits of its employees."

Correspondence between Congresswoman Molinari and OMB Director Raines suggests that Amtrak may not, in fact, need the money for that purpose. The statements displayed on the panel to the right addressing this issue are from Amtrak and from the Office of Management and Budget. They appear to me to be inconsistent.

Amtrak's current calculations assume, as part of its corporate liability, those liabilities which are mandated by statute to be paid by employees of Amtrak.—OMB Director Raines' May 23, 1997, Letter to Chairman Susan Molinari.

It is Amtrak's position that the excess RRTA liability should be fully funded by the Federal government and not considered a part of Federal operating support.—Amtrak's Fiscal Year 1998 Federal Grant Request.

I believe this subcommittee ought to be given accurate information about how funds it is being asked to appropriate will be used. This hearing is intended to get that information.

Our first witnesses will be from the Railroad Retirement Board. We hope those witnesses can give us a simple explanation of the Railroad Retirement Account and of what Amtrak must pay for that account, from what sources, and for what purpose.

Then we will have a panel including witnesses from the Office of Management and Budget, the Department of Transportation, and Amtrak. Our questions for each of those witnesses will be simple: What are the components of the $61 million in mandatory payments in the President's budget that the House and the Senate subcommittee have not provided? Are they legitimately within the definition of excess payments and not otherwise financed? Do the budget justifications that have been provided to this subcommittee accurately reflect those components?

The subcommittee had not originally planned to hold this hearing, and subcommittee members have a full Appropriations Committee meeting today, as well as other commitments they have made. In view of that, I propose to dispense with a lot of opening statements from our witnesses, although we will be happy to include in the record any written statements our witnesses wish to provide.

Further, I would ask that each of our witnesses today answer clearly and concisely the questions they are asked. I believe those questions will be simple ones that will have simple answers. We will also limit each subcommittee member to 10 minutes to ask questions and hear the witnesses' answers. With the cooperation of the witnesses, each subcommittee member will be able to get the information the member wants and we will be able to complete this hearing in a reasonable amount of time and get to other commitments.

Senator Lautenberg.

STATEMENT OF SENATOR LAUTENBERG

Senator LAUTENBERG. Mr. Chairman, thanks very much for agreeing to delay full committee markup so that we can hold this hearing to review in greater detail the financial needs of our national passenger rail system, Amtrak. Again, I want to note, Mr. Chairman, that you have been interested in hearing all the sides of this and were willing to hold this extra hearing when we are jammed, as you have noted.

I think it is essential that we convene to review this issue since the appropriations bill put before this subcommittee 2 days ago has a cut of almost $300 million, 34 percent, from the 1997 appropriation for Amtrak, and these drastic cuts are contained in a bill that provides a historic boost in the overall level of funding for the Department of Transportation.

I also think that it is essential that we demystify the confusion that surrounds Amtrak's participation in the Railroad Retirement System. But we cannot do that without discussing the likely ramifications of Amtrak going into bankruptcy if we do not revisit the funding levels in the appropriations bill. Amtrak covers a large percentage of its annual operating costs, a larger percentage than any national passenger railroad system in the world. As the Senator from Utah observed during Tuesday's markup, no national railroad is able to completely cover the operating costs entirely through farebox revenues.

It is for that reason that this subcommittee makes an annual appropriation to cover the operating losses of Amtrak. Amtrak has made great strides in reducing costs and its operating losses, but over the last 3 years this subcommittee has reduced Amtrak's operating subsidy even more rapidly, leaving Amtrak with a larger and larger deficit. That is why Amtrak is in such tenuous financial condition, and that is the reason why the funding level we set for Amtrak's operating budget this year will likely mean the difference between the continuation of Amtrak and bankruptcy.

I am not just throwing out words. I come out of the business community, as does my colleague, the chairman of the subcommittee. We do not flout the notion of a bankruptcy to use it as a scare tactic. That is the reality.

We are going to begin our hearing this morning with witnesses from the Railroad Retirement Board, and as we look into the specific issue as to how Amtrak budgets for its railroad retirement costs. I think it is critical to point out that this subcommittee does not make an explicit appropriation for Amtrak's retirement costs. We make an annual appropriation to cover the total operating cost, which includes of course the railroad retirement costs.

For the coming fiscal year, Amtrak will be required to make the appropriate contribution for railroad retirement tier I and tier II payments as determined by the Railroad Retirement Board. That amount of money is expected to be $342 million in 1998. Under law, there is nothing that Amtrak can do to make any amount of that debt go away. Amtrak will be required to pay that $342 million whether we give them an operating subsidy of $387 million, the level that Amtrak has requested, or $283 million, the level proposed by the House Appropriations Committee and our chairman.

Beginning in 1991, at the request of both the House and the Senate Appropriations Committees, Amtrak developed a methodology to present what it calls its excess railroad retirement costs. Those excess costs are the amount of funds that Amtrak must pay to the Railroad Retirement Board for retirees that never worked for Amtrak. That is the structure. In each year since 1991, at the direction of the Congress, Amtrak has shown these figures and discussed their methodology in their annual budget submitted to the House and Senate Appropriations Committees.

Suddenly in 1997, the House and the Senate subcommittees have taken exception to the manner in which Amtrak calculates this figure. Now, I am not here to say that Amtrak's calculation is right or wrong. I have not done the arithmetic.

I am here, however, to point out that it does not matter one bit if the retirement cost for these ghost employees is $10 million lower and the retirement costs of Amtrak employees are $10 million higher. They are both expenses of the corporation. The bottomline is affected the same way.

Amtrak will be required to write a check for $342 million to the Railroad Retirement Board in the fiscal year 1998, and there is nothing in our discussion that can change that. I believe our witnesses this morning will confirm that fact. It is ludicrous to maintain that Amtrak is using some budget gimmickry to squirrel away $61 million and that this subcommittee can take that funding away with no harm to the railroad.

An analogy for the typical family budget might be as follows. Some people might argue that the purchase of my children's school clothes count against my family's clothing budget. Some might argue that it should be counted against my family's educational expense. But the fact is I cannot send my kids to school naked. I have to buy the clothes no matter what expense category they come from.

The real question before this subcommittee, the question that will be before the full committee on Tuesday, is whether we are going to appropriate sufficient funds to keep Amtrak out of bankruptcy in fiscal year 1998. It is my view that if this committee is going to establish a budget that will shut Amtrak down, then we ought to just say: We are turning the key; we are shutting down.

It is a tough issue, and I appreciate very much the chairman's observations made on Tuesday regarding the viability of the Northeast corridor and the fact that our passenger trains in the Northeast corridor cover a greater percentage of its costs than those in the other corridors in the Nation. Indeed, certain trains in the Northeast corridor are profitable.

But as Amtrak will testify this morning, it is not feasible to simply cut Amtrak's operating budget and state in the report that the funds are provided only for the Northeast corridor. Amtrak is one corporation and Amtrak's debts and liabilities from all its rail corridors will not disappear on October 1 when the new fiscal year begins.

If it is the desire of the Senate to only fund Amtrak operations in the Northeast corridor, then it will require a massive authorizing bill to restructure the corporation. We cannot move that kind of legislation on our annual appropriations bill.

Notwithstanding the views of my colleague from Utah, whose views I respect—he has had an involvement he talks about with Amtrak from the day of its inception back in the early seventies—I do not think the Senate is ready to terminate Amtrak everywhere but in the Northeast corridor. And if we are not ready to do that, we need to fund the railroad in a fashion such that it can cover its bills.

I close, Mr. Chairman, with this statement. I know how hard you have worked, and you have been very fair, to try to balance all the

needs that this subcommittee has. The best way to balance it would be if we had a flush of money someplace.

Senator SHELBY. It would.

Senator LAUTENBERG. But we do not have, and therefore we have to work and skimp and perhaps change things, because we just do not have the resources to do it. But one of the things that we do have to uphold is our contractual obligations. There is not much that we can do about that.

I see the statements that were taken from Frank Raines' letter to Susan Molinari. I worked with Mr. Raines on negotiating the budget and he is a man who has a lot of knowledge. But I think that in this case he is in error there, or else we are not looking at the full context of what he said, or he, frankly, just did not, as they say around here, get it.

So Mr. Chairman, I thank you. I hope that we will give our witnesses from Railroad Retirement a couple minutes just to explain the situation and make sure that in the process of questioning that we do not miss an important part.

Senator SHELBY. Thank you, Senator Lautenberg.

As I said earlier, your written statements will be made part of the record. I will give you as much time as you want, but I want to get into some questions.

We have with us today Mr. Steve Bartholow, Deputy General Counsel; and Mr. Frank Buzzi, Chief Actuary, of the Railroad Retirement Board. We appreciate you being with us today.

RAILROAD RETIREMENT SYSTEM EXPLAINED

Mr. Bartholow, could you describe the Railroad Retirement System as your organization administers it? How does the Railroad Retirement System compare, for example, to Social Security?

Mr. BARTHOLOW. The Railroad Retirement System is a comprehensive federally administered retirement program for railroad employees and their families. Simply stated, I think, the Railroad Retirement Act replaces the Social Security Act for the railroad industry. The Railroad Retirement Act provides retirement and disability benefits for railroad employees and also provides benefits for——

Senator SHELBY. But only railroad employees? Nobody else?

Mr. BARTHOLOW. Railroad employees and their families and survivors. Well, let me just add to that. There are affiliated companies with railroads that are covered employers, and employees of those affiliated companies under certain circumstances are covered as well.

Senator SHELBY. Like what?

Mr. BARTHOLOW. If you had a company that did leasing of railway cars and it was owned by Conrail, for example, then the employees of that company would be covered as well.

Senator SHELBY. OK.

Mr. BARTHOLOW. During fiscal year 1996 the Railroad Retirement Board paid benefits under the Railroad Retirement Act totaling approximately $8.1 billion to nearly 818,000 beneficiaries.

Benefit payments under the Railroad Retirement Act are funded primarily by employer and employee payroll taxes, transfers from the Social Security trust funds under the financial interchange sys-

tem with that program, and also trust fund investments and the earnings that we earn on those investments.

Although the Railroad Retirement System has been around since the midthirties, in 1974 Congress restructured the Railroad Retirement Act to more closely coordinate the Railroad Retirement System with the Social Security System. In doing so, it provided that the basic railroad retirement annuity would be computed in two components or tiers. The tier I benefit is a benefit that is computed based upon an employee's combined railroad retirement and Social Security covered employment, and in making that computation we use the benefit formulas in the Social Security Act. So as a general rule that benefit is the amount that the person would receive if all of his or her service were covered under the Social Security Act.

The Railroad Retirement Act of 1974 also provides for the payment of a tier II benefit, which is a benefit that is computed solely on the basis of railroad service and is computed on the basis of a computational formula in the Railroad Retirement Act itself that looks at an employee's average monthly compensation and years of railroad service.

The Railroad Retirement System is similar to Social Security in concept and also provides similar types of benefits. As I indicated earlier, in fact, the tier I benefit is generally the benefit that the person would receive if he or she were covered under the Social Security Act.

DESCRIPTION OF TIER I BENEFITS IN EXCESS OF SOCIAL SECURITY BENEFITS

However, this is not always the case. Where the eligibility conditions between the Railroad Retirement Act and the Social Security Act differ, the tier I annuity component under the Railroad Retirement Act may exceed the benefit that would be payable under the Social Security Act. This amount in excess of what would be payable under the Social Security Act is commonly referred to as the non-Social Security equivalent tier I benefit.

The two largest categories of beneficiaries where this occurs are occupational disability annuities under the Railroad Retirement Act, for which there is no comparable benefit under the Social Security Act, and also early retirement payments to employees who have 30 years of service in the railroad industry. They can retire at an earlier time than under the Social Security Act. So until such person would actually be entitled to a benefit under the Social Security Act if covered under that act, any payments that are made by the Railroad Retirement Account are non-Social Security equivalent level benefits.

Social Security equivalent tier I benefits, the ones that are identical to the Social Security benefit, are paid from the Social Security Equivalent Benefit Account, while non-Social Security equivalent tier I benefits, like tier II benefits under the Railroad Retirement Act, are paid from the Railroad Retirement Account. So there is a difference between Social Security equivalent level benefits and non-Social Security equivalent level benefits in terms of the payment source for those benefits.

Another difference between the Railroad Retirement System and the Social Security System is that railroad retirement benefits are

generally higher than their Social Security benefit counterparts. For example, at the end of fiscal year 1996 the average age retirement benefit payable to career railroad employees under the Railroad Retirement Act was $1,565 per month. The average for all rail employees at that time, career and noncareer, was $1,175. This compares to the average retirement benefit under the Social Security Act, which was $725 per month at that time.

Can I provide any more information?

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Bartholow. We will insert your complete statement in the record.

[The statement follows:]

PREPARED STATEMENT OF STEVEN A. BARTHOLOW AND FRANK BUZZI

Good Morning. My name is Steven Bartholow and I am Deputy General Counsel of the Railroad Retirement Board. With me is Frank Buzzi, Chief Actuary of the Railroad Retirement Board. We appreciate the opportunity to appear before you this morning.

It is our understanding that the Subcommittee has requested testimony from the Railroad Retirement Board concerning the nature of the benefits that the Board pays and how those benefits are financed in order to assist the Subcommittee in its consideration of authorizing appropriations for Amtrak.

Before specifically discussing railroad retirement benefits and the particular status of Amtrak under the railroad retirement program, perhaps it would be helpful to provide some general background information about the Railroad Retirement Board and the programs that the agency administers.

The Railroad Retirement Board is an independent agency in the executive branch of the United States Government. The Railroad Retirement Board administers the Railroad Retirement Act and the Railroad Unemployment Insurance Act. Under the Railroad Retirement Act, the Railroad Retirement Board pays retirement, disability, and survivor benefits based on employment in the railroad industry, including employment with Amtrak. Funding for these benefits is derived primarily from taxes imposed on railroad employers and employees under the Railroad Retirement Tax Act, funds transferred under the financial interchange with the social security system, and investment earnings from the trust funds. During fiscal year 1996, the Railroad Retirement Board paid some $8.1 billion in benefits under the Railroad Retirement Act to nearly 818,000 beneficiaries.

The Railroad Retirement Tax Act imposes an employment tax on all railroad carriers engaged in interstate commerce, including Amtrak, and certain other railroad employers. The Railroad Retirement Tax Act is administered by the Internal Revenue Service and taxes imposed under that Act are collected by the Service. The Railroad Retirement Tax Act imposes a Tier I tax on employers and employees equal to the tax payable by employers and employees under the Federal Insurance Contributions Act. In addition, the Railroad Retirement Tax Act imposes a Tier II tax on employers at the rate of 16.1 percent of the annual maximum taxable compensation and a Tier II tax on employees at the rate of 4.9 percent of the annual taxable amount. Although the payroll tax obligation on employers and employees is higher under the Railroad Retirement Tax Act than under the Federal Insurance Contributions Act, the benefits provided under the Railroad Retirement Act are more generous, generally, than those available under the Social Security Act. For example, at the end of fiscal year 1996, the average age annuity being paid under the Railroad Retirement Act to career rail employees was $1,565 a month and the average for all retired rail employees was $1,175 a month. The average retirement benefit payable under the Social Security Act at the end of fiscal year 1996 was $725 a month.

The Railroad Retirement Board was created in the 1930's by legislation establishing a retirement benefit program for the nation's railroad workers. Private industrial pension plans had been pioneered in the railroad industry; the first industrial pension plan in America was established on a railroad in 1874. By the 1930's, pension plans were far more developed in the railroad industry than in most other businesses or industries; but these plans had serious defects which were magnified by the great depression.

The economic conditions of the 1930's demonstrated the need for retirement plans on a national basis, because few of the nation's elderly were covered under any type

of retirement program. While the social security system was in the planning stage, railroad workers sought a separate retirement system which would continue and broaden the existing railroad programs under a uniform national plan. The proposed social security system was not scheduled to begin monthly benefit payments for several years and would not give credit for service performed prior to 1937, while conditions in the railroad industry called for immediate benefit payments based on prior service.

Legislation was enacted in 1934, 1935, and 1937 to establish a railroad retirement system separate from the social security program. Such legislation, taking into account particular circumstances of the rail industry, was not without precedent. Numerous laws pertaining to rail operations and safety had already been enacted since the Interstate Commerce Act of 1887. Since passage of the Railroad Retirement Acts of the 1930's, numerous other railroad laws have been enacted.

While the railroad retirement system has remained separate from the social security system, the two systems are closely coordinated with regard to earnings credits, benefit payments, and taxes. The financing of the two systems is linked through a financial interchange under which, in effect, the net of payroll tax cost of railroad retirement annuities that are equivalent to social security benefits is reinsured through the social security system. The purpose of this financial coordination is to place the social security trust funds in the same position they would be in if railroad service were covered by the social security program instead of the railroad retirement system.

Legislation enacted in 1974 restructured railroad retirement benefits into two tiers, so as to coordinate them more fully with social security benefits. The first tier is based on combined railroad retirement and social security credits, using social security benefit formulas. The second tier is based on railroad service only and is comparable to the pensions paid over and above social security benefits in other heavy industries.

Let us turn now to the structure and nature of the benefits provided under the Railroad Retirement Act. As noted previously, the basic annuity under the Railroad Retirement Act is comprised of two components, known as tiers. The Tier I component of a railroad retirement annuity is computed using an employee's combined railroad retirement and social security covered employment and the computation is made using social security benefit formulas. In most cases, the Tier I benefit payable under the Railroad Retirement Act is the precise amount that would be payable under the Social Security Act. Such benefits are commonly referred to as social security equivalent benefits. In the case of certain beneficiaries, however, Tier I benefits payable under the Railroad Retirement Act exceed the amount that would be payable under the Social Security Act. Such additional amounts are commonly referred to as non-social security equivalent benefits. Tier II benefits payable under the Railroad Retirement Act are computed using an employee's railroad service only and are computed under benefit formulas in the Railroad Retirement Act. The Act also provides for the payment of supplemental annuities to certain career railroad employees, vested dual benefits to certain employees who had a vested status to both social security and railroad retirement benefits prior to 1975, and lump sum payments in certain cases.

Social security equivalent benefits are payable from the Social Security Equivalent Benefit Account, which is funded by Tier I railroad retirement taxes and transfers from the social security trust funds pursuant to the financial interchange. Both non-social security equivalent Tier I benefits and Tier II benefits are payable from the Railroad Retirement Account, and are funded by Tier II railroad retirement taxes.

The two largest categories of beneficiaries who receive non-social security equivalent Tier I benefits are: 1) persons who have been found to be occupationally disabled from work in their last railroad occupation but do not meet the social security definition of disabled; and 2) employees with 30 years of railroad service and their spouses. The Social Security Act has no benefit comparable to an occupational disability annuity; accordingly, the entire Tier I annuity component of an occupationally disabled employee, who does not meet the social security definition of disabled, is a non-social security equivalent benefit. Employees with 30 years of railroad service may retire as early as age 60 with an age-reduced Tier I benefit and as early as age 62 with no age reduction. Under the Social Security Act, age-reduced benefits may not begin prior to age 62 and full age benefits are not payable until age 65. Thus, the amount of any Tier I railroad retirement annuity paid to an individual prior to age 62 is a non-social security equivalent benefit and in the case of an employee who retires at age 62, the amount by which his or her benefit would have been reduced for early retirement under the Social Security Act is a non-social security equivalent benefit. There are several other categories of beneficiaries where the

Tier I benefit exceeds the amount that would be payable under the Social Security Act by reason of an inconsistency in entitlement qualifications, but these categories comprise only a small portion of the cost of non-social security equivalent benefits.

As noted earlier, railroad retirement benefits are financed primarily by taxes imposed on railroad employers and employees, by financial interchange transfers from the social security trust funds, and by trust fund earnings. In recent years, a portion of the railroad retirement tax obligation of Amtrak has been paid on behalf of Amtrak from funds appropriated to the Secretary of Transportation. These tax payments from appropriated funds are designed to cover what Amtrak alleges to be an "excess" railroad retirement tax obligation. The alleged "excess" tax obligation is the amount of tax in excess of the benefit payments made to Amtrak employees and their families. Let me state here that it is the position of the Board that neither Amtrak nor any other railroad pays an "excess" tax. As an employer under the Railroad Retirement Tax Act, Amtrak is obligated to pay the full amount of taxes imposed on railroad carrier employers just like all other covered employers. Amtrak is treated no differently than any other rail employer except that part of its tax obligation is paid by the Secretary of Transportation out of appropriated funds.

As to the question concerning the appropriate method of calculating Amtrak's so-called "excess" railroad retirement tax obligation, let me make it clear that the Railroad Retirement Board has no responsibility for making that calculation or for reviewing the calculation once made. However, the Board has, since fiscal year 1992, provided Amtrak with annual estimates of the benefits to be paid to former employees of Amtrak and their families to assist in making this determination. These estimates have been broken out by annuity component as follows: 1) social security equivalent Tier I benefits; 2) non-social security equivalent Tier I benefits; 3) Tier II and lump sum benefits; 4) railroad retirement supplemental annuity payments; and 5) railroad unemployment and sickness insurance benefits. Although the Railroad Retirement Board has no responsibility with respect to the method of computing the amount of Amtrak's so-called "excess" tax obligation, it is the position of the Board that Amtrak's full tax liability must be paid under any circumstance.

That concludes my prepared remarks. Mr. Buzzi and I would be happy to answer any questions that you may have.

AMTRAK'S RETIREMENT AND TAX LIABILITY

Senator SHELBY. Is Amtrak statutorily required to pay the same retirement taxes that other railroads pay?

Mr. BARTHOLOW. The simple answer is, yes. As a carrier engaged in interstate commerce, Amtrak is an employer under the Railroad Retirement Act, the Railroad Unemployment Insurance Act, and the Railroad Retirement Tax Act.

Senator SHELBY. What are those taxes? Can you explain the employer and the employee shares that they pay?

Mr. BARTHOLOW. OK. The basic employer tax under the Railroad Retirement Tax Act is comprised of two parts. The tier I tax is levied at the same rate and on the same amount of compensation as taxable under the Federal Insurance Contributions Act. The tier I tax rate currently is 7.65 percent, and the non-Medicare portion of this tax applies to compensation up to $65,400 per year. That is the same for both employers and employees for the tier I tax.

The employer tier II tax is levied at a rate of 16.1 percent and applies to compensation up to $48,600 per year. The employee pays a tax of 4.9 percent on that same compensation base.

Senator SHELBY. When any railroad pays its retirement taxes, does it go into a pool system like the Social Security or do the taxes tie directly to that retirement's particular employees, similar to a 401[k] plan in a private company?

Mr. BARTHOLOW. All taxes collected under the Railroad Retirement Tax Act are deposited to the railroad retirement trust funds. In those funds they are commingled with taxes from all other taxpayers and they are not designated for any particular——

Senator SHELBY. They are pooled, then.

Mr. BARTHOLOW. They are pooled. They are not designated for any particular employer or any particular employee.

IS AMTRAK'S CALCULATION OF EXCESS PAYMENTS ACCURATE?

Senator SHELBY. Mr. Buzzi, each year Amtrak requests $142 million for what the railroad represents to us as excess payments, which Amtrak defines as the difference between their tier II pension plan tax responsibilities and what the Railroad Retirement Board pays to former Amtrak employees. If for the sake of argument we assume that the excess payments construct is legitimate, does Amtrak's calculation of these excess payments accurately reflect all benefits paid by the Railroad Retirement Board to Amtrak employees and, if not, how much and what types of costs are they not including in their calculations?

Mr. BUZZI. Sir, the calculation does not include an estimated $18 million of non-SSEB tier I payments in fiscal year 1998. These payments are made from the Railroad Retirement Account to former Amtrak employees and their dependents, and they are financed through tier II payroll taxes.

Senator SHELBY. Is Amtrak leaving out $18 million in non-Social Security equivalent benefit payments from their calculations?

Mr. BUZZI. Yes; that calculation does not include the $18 million.

Senator SHELBY. Thus underestimating the amount of benefits that the Railroad Retirement Board pays out; is that correct?

Mr. BUZZI. It does not reflect all of the benefits paid out of the Railroad Retirement Account, that is correct.

Senator SHELBY. Since the Railroad Retirement Board considers this a legitimate benefit, should it not be considered an excess payment by Amtrak?

Mr. BUZZI. Based on my understanding of the calculation, this is a payment that is made by the Railroad Retirement Board, yes.

Senator SHELBY. Senator Lautenberg.

Senator LAUTENBERG. Thank you, Mr. Chairman.

ADJUSTING RAILROAD RETIREMENT POLICY

Just to be certain that I understand it fully, can Amtrak legally adjust its railroad retirement policy? Can it control it?

Mr. BARTHOLOW. From the tax standpoint?

Senator LAUTENBERG. Sure.

Mr. BARTHOLOW. No, no; it is liable for the full amount of the tax imposed under the Railroad Retirement Tax Act.

Senator LAUTENBERG. Is there any relationship to your knowledge whatsoever between the level of funding that we, this subcommittee, provides Amtrak and the obligation of its annual payment for railroad retirement?

Mr. BARTHOLOW. None whatsoever. The amount of the tax obligation of Amtrak—or the appropriation, rather, has no bearing on the tax obligation of Amtrak.

Senator LAUTENBERG. We still owe that, that money?

Mr. BARTHOLOW. Amtrak would owe whatever its tax obligation is. Whatever appropriation would be made for that purpose and paid on behalf of Amtrak would reduce that obligation by that amount.

Senator LAUTENBERG. In the committee report accompanying the transportation appropriation bill there is an assertion that Amtrak has overstated its liability for railroad retirement. The report says: "It is clear to the committee that the overpayment should be immediately discontinued," the asserted overpayment.

Based on this directive in the committee report, will Amtrak then have the flexibility to discontinue any part of its annual payment to the railroad retirement?

Mr. BARTHOLOW. No.

Senator LAUTENBERG. In order to limit Amtrak's railroad retirement liability by the $61 million that has been deducted from their operating grant, would we have to change the law?

Mr. BARTHOLOW. Yes; you would have to amend the Railroad Retirement Tax Act in some way, I guess, to relieve Amtrak of some degree of its obligation and liability under that act.

Senator LAUTENBERG. If Amtrak is relieved of this $61 million liability, who would have to pick up the cost for the retirees?

Mr. BARTHOLOW. Well, Mr. Buzzi, do you want to address that?

Mr. BUZZI. In the short term it is likely that railroad retirement taxes would not need to be changed immediately, although over the long term the benefits must be funded and in the long term the benefit costs would be absorbed by the other railroads. Ultimately, these costs would be absorbed.

Senator LAUTENBERG. Thank you very much.

Mr. Chairman, thank you.

PANEL 2

DEPARTMENT OF TRANSPORTATION

STATEMENT OF HON. MORTIMER L. DOWNEY, DEPUTY SECRETARY

OFFICE OF MANAGEMENT AND BUDGET

STATEMENT OF HON. JACOB LEW, DEPUTY DIRECTOR

NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK)

STATEMENT OF HON. THOMAS M. DOWNS, PRESIDENT AND CHIEF EXECUTIVE OFFICER

ACCOMPANIED BY TIM GILLESPIE, VICE PRESIDENT, GOVERNMENT AND PUBLIC AFFAIRS

INTRODUCTION OF WITNESSES

Senator SHELBY. I have another panel. Thank you, gentlemen. The Honorable Jacob Lew, Deputy Director of the Office of Management and Budget; the Honorable Mort Downey, Deputy Secretary, U.S. Department of Transportation; Mr. Tom Downs, President and CEO, Amtrak. If you gentlemen would come forward.

Your written statements, if any, will be made part of the record in their entirety and I will go right into some questions.

COMPONENTS OF AMTRAK'S OPERATING SUBSIDY

Mr. Downey, what are the components of $61 million in mandatory payments in the President's 1998 budget that the House committee and the Senate subcommittee have not provided?

Mr. DOWNEY. My understanding of that, Mr. Chairman, is that they include employee contributions and another element of what the Retirement Board people spoke to as the non-Social Security equivalent benefit. But I would make the point that the request from the administration was for a total operating subsidy to Amtrak. In the total of $344 million, it included the ability to use these toward mandatory or other retirement payments, but did not specifically direct funds to those.

Senator SHELBY. Mr. Lew, I am going to ask you the same question. What are the components of the $61 million in mandatory payments in the President's 1998 budget that the House committee and the Senate subcommittee have not provided?

Mr. LEW. I would like to amplify Mr. Downey's answer. The President's budget did not distinguish the different payments. It calculated a subsidy payment for Amtrak——

Senator SHELBY. Why did it not distinguish?

Mr. LEW. The calculation of the Amtrak subsidy relates to the expenses paid by Amtrak and the expected revenue. As the pre-

vious witnesses and as Senator Lautenberg noted in his introductory remarks, the technical distinction being made as to where these payments should be categorized in no way affects the bottomline. It does not affect the subsidy amount required by Amtrak to prevent bankruptcy.

So we fundamentally do not have a difference in opinion as to what the total amount needed is.

Senator SHELBY. But we have a difference on what you say the funds can be used for, though.

Mr. LEW. Well, if I may, a lot of discussion has been had around a letter dated May 23——

Senator SHELBY. Sure.

Mr. LEW. A paragraph of which is posted there. I fear that the letter has been read very selectively. The letter underscored the budget request and the need for the full budget request. The fact that there is a difference in how to categorize certain funds is really a technical scoring issue, which we do have some differences about. OMB has a view that perhaps is different from Amtrak's. It is an issue that in no way affects the bottomline.

AMTRAK'S REQUIREMENTS

We were asked a very specific question. We responded to it. The answer has now been taken out of context. In no way has OMB ever suggested that there has been any exaggeration in Amtrak's requirements, and the $61 million is very much necessary.

The analogy that Senator Lautenberg made is a very appropriate one. We would be moving it from one box to another, but Amtrak needs that $61 million. The payments to the Railroad Retirement Board are statutory. You would have to go in and amend the Railroad Retirement Tax Act and a decision would have to be made on how to allocate that burden to other payers. It is not impossible to do that, but the appropriations language does not do that. It would have the effect of leaving Amtrak short of cash.

Senator SHELBY. Well, we understand that. But what we are trying to do is, if you say something is something, it ought to be that.

LEGITIMACY OF AMTRAK'S CHARACTERIZATION OF EXCESS PAYMENTS

Are these components legitimately within the definition of excess payments and not otherwise financed?

Mr. LEW. Our view is that the excess payment is part of the analysis. The question of benefit is part of the analysis. We see there as being employee benefit. We therefore categorize it differently. But we in no way question——

Senator SHELBY. Why do you categorize it differently?

Mr. LEW. The question is whether a tax is being paid on behalf of an employee. If it is being paid on behalf of an employee, there is presumed to be benefit to the employee and it is treated as a current operating expense. That is a view.

There is a legitimate difference here. It is a difference that in no way suggests that Amtrak has in any way cooked its books or created an obligation that does not exist. It is not relevant if there is a single appropriation for operating expenses. For example, if you were truly to conform to the letter that Director Raines sent, you

would perhaps decrease your appropriation by $61 million in one place and increase it by $61 million in another place.

It is a legitimate expense of Amtrak. The fact that it fits in a different box in no way undermines the legitimacy of the payment. It is a payment due under the Railroad Retirement Acts.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Lew. We will insert your complete statement in the record.

[The statement follows:]

PREPARED STATEMENT OF JACOB LEW

Mr. Chairman and distinguished members of the Subcommittee. I am Jack Lew, Deputy Director of the Office of Management and Budget. After my brief statement I will be happy to answer your questions.

This past Tuesday, the Subcommittee met to consider the appropriations for the Department of Transportation and Related Agencies. As part of this consideration, the Subcommittee addressed the question of the appropriate level of operating assistance for Amtrak. During both this Subcommittee's and the House Appropriations Committee's consideration of operating assistance for Amtrak, questions have arisen about a May 23, 1997, letter written by OMB Director Frank Raines to Chairwoman Susan Molinari of the House Transportation and Infrastructure Subcommittee on Railroads. This letter discussed the technical question of how to best measure the increment between Amtrak's corporate liability for contributions to the Railroad Retirement Board and benefits received by retirees who are not Amtrak employees. I ask that a copy of this letter be made an official part of the Subcommittee's record in considering this issue.

We stand behind the May 23, 1997, letter. This letter states that Amtrak needs $344 million in operating assistance in fiscal year 1998. In that letter, while explaining the technical details of Amtrak's contributions to the Railroad Retirement Board, we emphatically and strongly reaffirmed our support for the full $344 million in operating funds for Amtrak in fiscal year 1998. Director Raines wrote:

> "These funds are an integral part of Amtrak's efforts to remain viable. Although we differ with Amtrak over the minor technical issues you raise in your March 19 letter, our differences in no way affect our commitment to the funding level sought in the President's budget."

Portions of this May 23 letter have been cited by the House Appropriations Committee and this Subcommittee to support an operating level for Amtrak in fiscal year 1998 of $283 million, or $61 million lower than we seek in the President's budget. These citations of the May 23 letter are selective and do not accurately represent the Administration's position.

The May 23 letter notes that Amtrak mistakenly includes certain expenses of doing business in the category of so-called "excess retirement" costs. The letter notes that these expenses are salary costs for Amtrak but not salary costs properly allocated to the so-called "excess retirement" category. Accordingly, even though Amtrak has misclassified these costs and allocated them to the "wrong" category, these costs remain expenses of the Corporation and the total expenses of the Corporation remain unchanged.

In determining how much operating support Amtrak needs in fiscal year 1998, the Administration, in formulating its budget, evaluated the gap between Amtrak's projected revenues and expenses. In 1998, as in every year where the Federal government has provided operating subsidies to Amtrak, the operating assistance is meant to help close the gap between Amtrak's expenses and revenues. This assistance is not the only way we expect Amtrak to try to close the gap between expenses and revenues. We expect Amtrak to pursue new business opportunities such as the recently signed deal to lease use of the Northeast Corridor for telecommunications ventures and to cut expenses by pursuing efficiencies in business activities. Nevertheless, regardless of the steps Amtrak takes to close this gap (whether cost cutting, or revenue increases), each dollar of the $344 million in Federal assistance goes to close the gap.

As part of Amtrak's expenses, it must, under current law, like all railroads, remit tax payments to the Railroad Retirement Board (RRB) to cover the costs of the corporation's share of railroad retirement taxes and it must remit tax payments to the

RRB to cover amounts withheld from employees' paychecks to fund retirement benefits. Amtrak must remit over $300 million each year to the Railroad Retirement Board. The size of this remittance will not change regardless of the level of operating support provided by this Subcommittee and regardless of how Amtrak characterizes its corporate liability to the Railroad Retirement Board. The amount of this remittance is calculated under the provisions of the Railroad Retirement Act.

The decision by this Subcommittee and the House Appropriations Committee to reduce Amtrak's operating level by $61 million below that level sought by the President guarantees that some expense, whether a portion of the over $300 million owed to the Railroad Retirement Board, a portion of the millions of dollars in costs of train operations, a portion of the millions of dollars in costs of facilities operations, or a portion of the millions of dollars in other costs, will not be met. The failure to fund this $61 million places Amtrak in jeopardy of not being able to carry out its planned operations for fiscal year 1998. The consequences of not funding this $61 million could result in the insolvency of Amtrak—at a cost to the taxpayers far greater than the $61 million in dispute.

Our appropriations request recognizes an essential fact—the $344 million total operating assistance amount is fungible. Our request for $344 million in operating assistance goes only part way in permitting Amtrak to cover its expenses of doing business. Because these funds are fungible, we anticipate that the $344 million in funds would cover a series of expenses owed by Amtrak. Our proposed appropriations language does not earmark portions of the operating assistance to cover specific expenses—whether they be train operations, employee salaries, advertising costs, or costs owed to the Railroad Retirement Board.

Let me add one more point—we feel that our May 23, 1997, letter accurately describes the amount that Amtrak's liability to the Railroad Retirement System exceeds the benefits received by non-Amtrak employees. We do not think that Amtrak's description in its budget submission to Congress is completely accurate. As we stated there, Amtrak's inclusion, as part of its calculation of its corporate liability for railroad retirement taxes, improperly included $43 million in payments for which employees are liable. We view Amtrak as acting as a withholding agent in this case and that these withholdings are liabilities of the employees, not Amtrak. Further, we feel that Amtrak has improperly excluded, as part of the calculation of benefits received by its employees, $18 million in so-called non-Social Security Equivalent Benefits which are paid to Amtrak retirees. The inclusion of the $43 million in employee liabilities and the exclusion of the $18 million in retiree benefits has led to Amtrak overstating the level of excess retirement benefits by $61 million.

Even so, Amtrak, OMB, and DOT share a common view that Amtrak has enormous costs of doing business and that it cannot meet them through its revenues alone. The $344 million in operating assistance the President seeks is the appropriate level. We hope this Subcommittee will agree. With only $283 million in operating assistance, not the $344 million in federal operating assistance sought in the President's budget, we do not think that the necessary funds will be available to support the current national passenger rail system.

We look forward to working with the Subcommittee and full committee in identifying possible offsets within the Committee's mark to allow full funding of Amtrak's operating needs. This full funding is necessary to avoid the unacceptable alternative of possible insolvency. I would be happy to answer your questions.

AMTRAK'S CALCULATION OF EXCESS PAYMENTS

Senator SHELBY. Mr. Gillespie, what are the components of the $61 million in mandatory payments in the 1998 budget that the House committee and the Senate subcommittee have not provided?

Mr. GILLESPIE. Mr. Chairman, first let me apologize.

Senator SHELBY. That is OK.

Mr. GILLESPIE. Mr. Downs was called to another meeting in the Senate, but he should be on his way back.

The way Mr. Lew calculated this is very similar to the way we would describe it. We have an Amtrak tier II payment that is called Amtrak's liability. That is about $138.5 million estimated for fiscal year 1998. The employer tier II tax liability is about $42.1 million for fiscal year 1998. And the Amtrak supplemental tax liability is about $17.8 million. The total tier II is about $198 million or about $200 million that we pay.

We then subtract the amount that is paid to Amtrak beneficiaries. That is about $57 million.

The two things that you talked to the other witnesses about, with respect to the $60 million, is that $42 million and about $18 million that we did pay, and that we include in our calculation, and that is done by Amtrak primarily as a result of the House Appropriations Committee report language that, if you have not seen it, I will read the one or two sentences that describe that calculation. This is fiscal year 1991 DOT appropriations bill report. It says:

"The committee directs Amtrak to then estimate the total amount of Amtrak payments into the two trust accounts and to provide the committee with its estimate of excess railroad retirement" and then they say parenthetically "Tier II and supplemental benefits"—"payments and railroad unemployment insurance benefits."

That is the basis that we used to calculate this payment since 1991, and that calculation is what we have been submitting to this committee since then.

ACCURACY OF BUDGET JUSTIFICATION PRESENTATION

Senator SHELBY. Do you believe that the budget justifications that have been provided to this subcommittee accurately reflect these components?

Mr. GILLESPIE. Yes, sir.

Senator SHELBY. Do you, Mr. Downey?

Mr. DOWNEY. Yes; they do, and they have been consistent over the years.

Senator SHELBY. Mr. Lew?

Mr. LEW. I think that the budget itself——

Senator SHELBY. Would it not be better to say what things are more accurate, and there would be no misunderstanding?

Mr. LEW. Sometimes there is a distinction that does not make a difference, and I think this is a case where it is a distinction that for the purpose of the appropriation does not make a difference. We have a lot of technical discussions——

Senator SHELBY. Why does it not make a difference?

Mr. LEW. It would make a difference if it affected the bottomline requirements of Amtrak. But since it does not, it is a question of scoring and obligation. The budget itself, the fat appendix document, does not break it out. The only place it is broken out is in a supporting document which is submitted by the agency.

There has for years been a discussion about how this should be treated. We have never stopped the agency from sending that up. The fact that there is an ongoing discussion of how it should be treated is important and were there to be a policy decision to move it from a discretionary to a mandatory it would be relevant. Should there be a decision to decrease the amount of the total appropriation and to allocate it between the two different accounts, it would be relevant.

But if it is appropriated as a single amount, it is not relevant, which is what we proposed in the President's budget. So yes, we think that the representations that have been made are correct. There are technical issues on how to support the $344 million that

reasonable people can discuss without changing the conclusion that $344 million is the right number.

Senator SHELBY. So basically you are saying that the budget justification does not make a difference? That is what we use to appropriate Federal funds, is it not?

Mr. LEW. Oh, no, no; I would never say that the budget justification does not make a difference. But I would suggest that there is——

Senator SHELBY. Well, what are you saying if you are not?

Mr. LEW. There is often detail provided in the budget justification that is of technical significance that does not affect the bottomline requirement of dollars, and were the budget justification to change and were that $61 million reallocated to another category the bottomline total would not change by one penny. So it is a difference, but it is a difference that does not really change the bottomline. It just moves the categories. The subtotals would be different; the total would be the same.

Senator SHELBY. But should not in the budget we reflect what things are really for? I guess that is what I am getting at.

Mr. LEW. Well, I think that——

Senator SHELBY. Rather than come up with some term that probably confuses.

Mr. LEW. I think we agree on this, Senator Shelby. To the extent that we were asked a question by Congresswoman Molinari, we answered it very directly. If we had realized what we were getting into, maybe we should not have answered it so directly, because frankly I feel like our words are being twisted and used against us.

Our letter clearly said that we strongly support our original budget and that the technical issue we were addressing has nothing to do with the bottomline requirements of Amtrak. The quote on the wall is being repeated over and over and over again, mischaracterizing the administration's position. That, frankly, is more troubling to me than the question of the technical characterization of details in a justification that do not change the bottomline requirement.

This is a tempest in a teapot. There is no issue here.

INCREASED CLARITY NEEDED

Senator LAUTENBERG. Mr. Chairman, would it have helped, do you think, if we had a separate line with the operating expenses that indicated the cost for the railroad retirement?

Senator SHELBY. Sure it would help. I think, Senator Lautenberg, anything would help that would keep us out of being confused or thinking we were misled in any way. Clarity of writing, clarity of budget, is very important, not only to us as appropriators, but to the people who interpret these documents, including writing letters. Right?

Mr. LEW. Sure, absolutely.

Senator SHELBY. You use technical detail in the justification for $42 million that is being paid for by the employees; is that what you are using?

Mr. LEW. Well, there are several different documents that went up. The Federal Railroad Administration budget contained the aggregate totals the way the budget did. There were other documents

that came out that broke it out differently, which drew this distinction that the larger budget documents did not.

The issue as the representatives from the Railroad Retirement Board set them out are really the issue, and the question is are these or are these not benefits to the employee? And if they are benefits they belong on one side of the line; if they are not benefits, they belong on the other.

I think we probably do have a little bit of a difference between OMB's view of which side of the line they should go on as opposed to perhaps Amtrak's. But the reason I say it is a distinction without a difference is we agree that the dollars are there.

Senator SHELBY. That is a good phrase, a distinction without a difference. But oftentimes it does make a difference. It makes a difference on what line it is because we interpret it differently.

Mr. LEW. It may be that this technical difference has led to a misinterpretation, and that is why we are testifying here today.

Senator SHELBY. Well, how do we straighten this out? Clarity is very important, is it not?

Mr. LEW. I think the way to straighten it out, frankly, is to start with the bottomline and work up, because the way the budget is constructed for Amtrak, it does not take account of all of the—it is not worked from all the details down. We look at a stream of expenses for Amtrak. We look at a stream of revenues for Amtrak. The stream of expenses are governed by in this case the Railroad Retirement Tax Act, which puts an obligation on Amtrak, which unless Congress amends the Railroad Retirement Tax Act, they have to pay.

Now, how you categorize some of the payments under the Railroad Retirement Tax Act has caused some confusion. We say that there is a benefit, therefore it is an expense. Others say there is not a benefit, therefore it is excess retirement costs. It does not change the fact that the tax is due.

If I have a tax due and I disagree with my accountant as to what line of the 1040 it should go on, it does not mean I do not owe the tax. I owe the tax. Amtrak owes this tax. It pays the tax. All we are discussing is which side of the ledger to put it on.

If Congress wants to get into the issue of how much taxes Amtrak should pay, it is a very complicated policy question. You will be faced, or the authorizing committee would be faced, with decisions as to how to allocate a burden. There is no doubt that Amtrak is paying part of the cost of the retirement of employees who are not Amtrak employees, who are not there now. That is true at other railroads as well. Should the tax not be paid by Amtrak, the tax would still ultimately have to be paid and the implicit assumption is that it would be shifted to other freight carriers. That may be a decision Congress wants to make, but it is a policy decision of some consequence in terms of our transportation policy.

I would suggest that the question of how Amtrak should internally book its tax payments is a very different one from what the amount of the tax payment is and what the consequences to the Railroad Retirement Board would be if the tax was not paid, and the issues have been conflated. The question of how Amtrak books it internally has been turned into should Amtrak pay it, and that

is an error. Amtrak has to pay it and nothing we have ever said suggests otherwise.

Senator SHELBY. Senator Lautenberg.

Senator LAUTENBERG. Thank you very much, Mr. Chairman.

Since I have 10 minutes, if either of the three of you or all three of you would like to make a 2-minute statement, I would be happy to have it, and then answer my questions quickly thereafter. Anybody?

Mr. Downs, welcome. And Downey is not little Downs. [Laughter.]

Mr. DOWNS. It is a diminutive.

Senator LAUTENBERG. We have Downs, now we have Downey.

Mr. DOWNS. It is the Irish factor.

Senator LAUTENBERG. Is there anything that you would like to say in capsule form?

Mr. DOWNS. I did have my statement entered into the record and the only thing that I would add is that, however this came to be, I considered it to be nothing more than a tempest in a teapot when it started because I believed then, I believe now, we were following in best of intentions the direction given us by the House Appropriations Committee in language in fiscal year 1991.

Senator LAUTENBERG. Right.

Mr. DOWNS. We have had that reaffirmed every year. As I said half in jest, that if I am in this much trouble as a corporation for having tried to follow the language direction in an appropriations bill, I promise I will not do it again.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Downs. We will insert your complete statement in the record.

[The statement follows:]

PREPARED STATEMENT OF THOMAS M. DOWNS

Mr. Chair and Members of the Subcommittee: I appreciate your taking the time to allow us to fully explain the impact of the proposed funding level for Amtrak operating support and Excess Railroad Retirement payments (RRTA), as provided in both the House and Senate Fiscal Year 1998 Department of Transportation and Related Agencies Appropriations bills.

First, as a matter of public policy, I see no reason why Amtrak should have to provide any funds to pay for retirement benefits for railroad employees who never worked for Amtrak. These obligations are totally unrelated to Amtrak and the business of providing a national passenger service.

The reality, however, is that the Internal Revenue Code mandates that in fiscal year 1998 Amtrak remit an estimated $342 million in RRTA payments: $140 million in Tier I and $202 million in Tier II. By law, this obligation must be met. (26 USC Section 3221, and 45 USC Section 231 et seq.)

The Railroad Retirement Board (RRB) will provide approximately $200 million of this amount to Amtrak retirees. The additional $142 million will go to railroad retirees who did not retire from, and perhaps never worked a day for, Amtrak.

Amtrak has no discretion in paying these obligations—it is a mandatory payment—and the retirees, by law, are entitled to receive it. Unless this Committee is ready to amend the Internal Revenue Code, it is a federal government obligation, and Amtrak is currently used as the conduit to meet those legal obligations.

Of the total payment, Amtrak will be paying an estimated $60 million in Tier II taxes for its own employees. The rest—the additional $142 million will be going to support the retirees of other railroads. Everyone here today should recognize excess mandatory payments as a substantial, albeit indirect, subsidy to the profitable freight railroad industry. As I think everyone here understands, payments to the Railroad Retirement Board are based on the current number of employees that are

on the payroll. Between mergers, downsizing and the freight railroads contracting out work, those with a more stable work force (i.e., the publicly supported passenger railroads like Amtrak and the commuter operations) absorb the brunt of these so-called excess railroad retirement costs. Everyone here should understand if we want to minimize taxpayer exposure for passenger operations, we should not ask the federal government to subsidize non-Amtrak retirement costs.

It is interesting to note that the pending merger which divides Conrail between CSX and Norfolk Southern will result in thousands of fewer railroad workers, and hence a loss of funds being paid into the Railroad Retirement Fund.

The fact is, Amtrak must abide by the current legal mandates. We advocate changing it. However, as long as it remains unchanged, no matter how these payments are categorized, our tax liability remains the same.

These payments can be characterized as "Excess Mandatory Payments", as they have been both in Appropriations bills and in Budget Requests submitted by this and previous Administrations. They can be characterized as operating support, which they have been, both in Appropriations bills and in Budget Requests submitted by this and previous Administrations. However, no matter how you characterize them the amount will not change, nor will the liability go away.

Amtrak calculates its excess mandatory payment in accordance with the direction of House Committee Report 101–584, which accompanied passage of H.R. 5229, the Department of Transportation and Related Agencies Appropriations Act for fiscal year 1991. It was then that the House Transportation Subcommittee recognized that these payments represented a cost that had nothing to do with the operation of passenger trains. It was simply a federal formula to determine payments.

In that Report Amtrak was directed by the Committee to: "estimate the *total* amount of Amtrak payments into the (Retirement) trust account(s) and to provide to the Committee an estimate of excess Railroad Retirement (Tier II and Supplemental benefit) payments . . . for the next fiscal year." (emphasis added)

Amtrak did that for the next fiscal year, and every year thereafter. This was directed by the Congress, and remained unquestioned by either the Office of Management and Budget (OMB) and the Department of Transportation. Seven years later, a question is being raised as to whether or not the employee and the employer contribution should both be counted as a corporate liability. Amtrak read at that time, and still reads, "total" to mean both the employee and the employer Tier II contributions.

If Amtrak were to be terminated, net railroad employment would probably decrease by the full number of Amtrak employees, and all Tier II payments now made by Amtrak would cease. But Railroad Retirement benefits to all former rail employees would continue. Hence Amtrak views the measure of its subsidy to the freight railroad retirement system as including both the employer and employee share of Tier II.

More important, however, is that when OMB did raise the question of employee contribution being included or excluded from the calculation, they did not ever dispute that this is a cost of running Amtrak—a cash outlay that Amtrak is required to make. In fact, they have strongly reiterated this in the May 23 letter, in the Statement of Administration Policy on the House Transportation Appropriations bill, and again today.

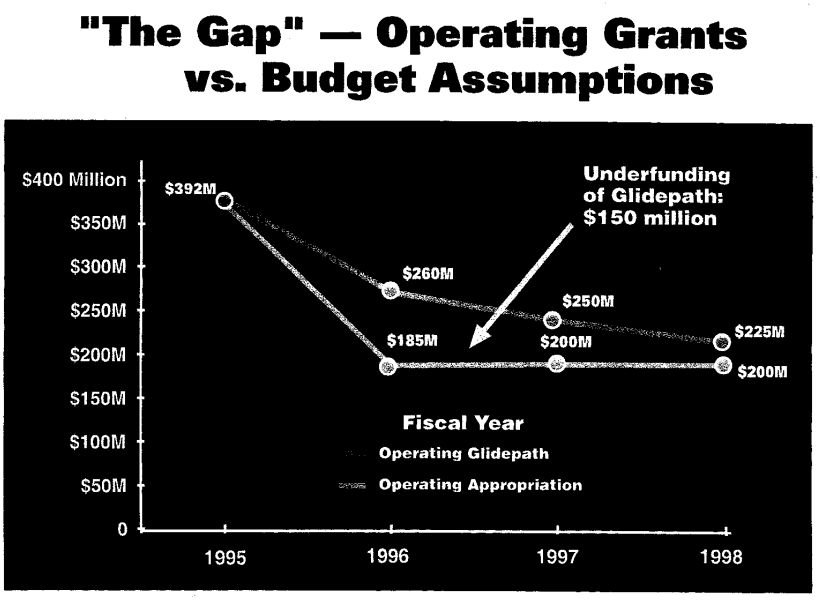
If this Committee feels that the Tier II employee contribution should not be part of the calculation, Amtrak will no longer include it. But what has to be realized is that this will not make that cost go away. Amtrak is liable for the $60 million, whether it's in the "operating" column or the Excess Mandatory RRTA" column.

The appropriate action to take in this case, if the Committee changes the methodology for calculating Excess RRTA payments, is to provide the requested level of funding for this year and begin the new methodology as part of the President's budget request for fiscal year 1999. The implications for Amtrak are of course far reaching: our Strategic Business Plan has us achieving operating self-sufficiency based on a number of assumptions—one of those assumption being the continued provision of full funding for excess mandatory payments. If this is to become an additional operating expense, the glidepath in our Plan must be adjusted accordingly in order for us to still be able to reach operating self-sufficiency in 2002.

The single most disastrous action this Committee could take is to decide, midstride, to change the methodology, reduce mandatory excess railroad retirement, and not increase the operating grant by a commensurate amount for fiscal year 1998.

Amtrak has requested $245 million for an operating grant for fiscal year 1998, and we need every penny of it. Right now this Subcommittee is providing $141 million. I can tell you that we will not survive fiscal year 1998—we will not have a national passenger rail system—on October 1, 1998.

I hope the Subcommittee will take that into account as you move toward mark-up by the full Committee on Tuesday.



AMTRAK'S FINANCIAL INTEGRITY

Senator LAUTENBERG. Mr. Downey, is there anything?

Mr. DOWNEY. Let me just associate myself with the point that Mr. Lew made. Amtrak needs these funds. The President's request for $344 million was based on what it needs to keep the railroad in its present form operating. However we categorize any of these payments, they are essential to the level of service that we think is necessary.

Senator LAUTENBERG. Mr. Lew, do you want to?

Mr. LEW. I have indicated what our view is, but I would just underscore what Mr. Downey just said. We should not lose sight of what the issue really is here. The issue is not $61 million. The issue is the financial integrity of Amtrak. We would welcome a discussion of the technical matters and to reach an understanding of how to deal with them. But we should separate the issues and one ought not to be used as a means to another end.

If the end is to reduce Amtrak's fiscal viability, that is a very different question from how you score payments on their ledger.

Senator LAUTENBERG. I agree, and I think, in deference to the chairman's request, he defines it as clarity. And I think you folks have to understand that in that request of his is to say: Hey, fellows, take it easy, show us what part is railroad retirement, show us what part is current operations, and let us decide, as opposed to having to make a case over what really is very, very little in my view.

If we did not, Mr. Downey, if we reduced that $344 million to something one-half that, less than that, what would be the first call on the money? Would it be the railroad retirement obligation?

Mr. DOWNEY. That would have to be paid ahead of anything else, and the ability to pay that and keep operating would call into question the solvency of the railroad.

Senator LAUTENBERG. So that demonstrates, I think, what happens. They have tended to lump all the current costs together and so it helped to make some confusion here, but I think that is easily straightened out.

Did Amtrak, Mr. Downs, or DOT for that matter, ever seek a legal opinion as to whether or not it was proper for Amtrak to account for employee contributions as part of the excess payments? If so, what was the determination?

Mr. DOWNS. I believe there was—I understand there was such a determination from U.S. DOT. I am not familiar with it, but——

Mr. DOWNEY. Senator, during the years in which the Congress specifically appropriated funds for excess railroad retirement based on calculations similar to those that have been presented this year, the Department did look at the legality of making the payments under those calculations and gave a legal opinion that these were appropriate uses of the funds as appropriated.

Senator LAUTENBERG. The term "excess payments," it even sounds like it is a bonus or something like that. I do not know whether we could change the terminology, but the fact is that it is a requirement under law and we have little or nothing to do about it except to say to the railroad: OK, stop operating and we will continue with those obligations.

COSTS OF AMTRAK BANKRUPTCY

As a matter of fact, one of the questions I wanted to ask Mr. Lew—as I mentioned at the markup on Tuesday, we had seen widely varying estimates of the cost to the taxpayer of Amtrak bankruptcy. Estimates range from $3 to $10 billion. That is quite a spread. Has OMB taken an independent look at this question and, if so, could you venture any kind of an opinion as to what realistically that figure might be?

Mr. LEW. Senator Lautenberg, I cannot give you an exact number. I have not seen an estimate. If we have done one, I would be happy to get it to you.

We have discussed the consequences, which would be very severe. It would be very disruptive to the transportation system. It would be very unfortunate as a policy outcome. The dollars are something we could perhaps calculate, but it is certainly the purpose of our budget proposals to prevent any kind of a situation that would call into question the fiscal viability.

Senator LAUTENBERG. The damage to the transportation system would be severe. Just again in capsule form, if you could tell me why? Where would the severity be felt?

Mr. LEW. I would defer to Mr. Downey in terms of transportation policy.

Mr. DOWNEY. Across the country service would be limited and access would be denied.

Senator LAUTENBERG. Limited on the railroad?

Mr. DOWNEY. Right, and denied to many communities. In the Northeast in particular, the consequences would be severe because Amtrak is the host railroad not only for its own services, but for a variety of commuter lines which, if Amtrak were unable to make its payments, might be unable to operate their services.

Senator LAUTENBERG. So the severity, however, would be how else do I get there, how else do they get there? I think it is 10,000 DC–9's to fly between here and Boston. The roads would be impossible. And of course, one need not talk about air quality these days to know what might happen.

I want to just make a point here. Mr. Downs, as we entered the subcommittee markup on Tuesday, your operating grant was almost $200 million, or 51 percent below the level you requested. The chairman, who has tried hard to work with all of us, agreed at the markup to increase the funding level to $283 million, which is still $104 million or 27 percent below the request.

If you are required to live with a final funding level of $283 million, what will be the impact on Amtrak's operations next year and what is the likelihood of further route eliminations or a complete shutdown of the railroad?

Mr. DOWNS. Senator, we will end this year with, our best projection is right now, negative, net negative cash of $82 million. We will borrow that from commercial banks. It means that we start over by taking one-half of our operating grant at the beginning of the year. If these operating numbers stay the way they are, one-half of our operating grant would equal the amount of money that we would need to pay off our temporary financing at the end of the year.

It would leave us with zero operating subsidy. We would probably run out of cash in January or February. That is called, the technical term is, "bankruptcy," and there are provisions that automatically click in after that, in law, that would force the liquidation of the company. I hate saying things like that because it sounds a lot like what people normally come to the committee and say: If we do not get the funding we will have to turn the lights out on the Washington Monument.

In this case we have bankers that own a lot of our commercial paper. We have short-term financing obligations to commercial banks. Those are all marketplace decisions and those decisions then rest in the private sector, not in the public sector, about outcome.

I cannot tell you that I could make, in all honesty, that I could figure out now how to make the company work longer than January, February if these numbers turn out to be the final operating numbers. We have been underfunded under the budget agreement for the last 3 years. Our net underfunding on our business plan was $150 million. We have eaten $70 million of that so far in additional plan actions. We are running out of rabbits. As a matter of fact, I think we have eaten all the rabbits. We cannot make it at this number.

AMTRAK'S NATIONAL RIDERSHIP

Senator LAUTENBERG. I would make mention of something. During Tuesday's markup, there was a lot of discussion as to whether

Amtrak performs any valuable service outside the Northeast. Since that time I have had a chance to review Amtrak's ridership figures and was surprised to see, Mr. Chairman, how many people ride Amtrak in other regions of the country.

In the West, for example, California has more than 6 million Amtrak riders. Oregon has one-half of a million. The State of Washington, almost 700,000. In the South, Virginia and Florida have about as many riders as New Jersey. And in the Midwest, Illinois has almost 3 million riders, Michigan 1.5 million, Missouri and Wisconsin each about 400,000.

In your experience, Mr. Downs, have the long-distance trains outside the Northeast seen any increase in ridership?

Mr. DOWNS. They are increasing in ridership. Our year to date over last year ridership is up about 3 percent and revenues are up about 9 percent over the same period last year.

But I would also speak to what other members of this body have told me about the value of long-distance service around the United States. Senator Burns has told me a number of times how valuable this service is for isolated rural communities in Montana. That is not necessarily reflected in the numbers, but it is important about the economies in places like Cut Bank, MT, or Havre, MT.

I hear the same thing from North Dakota. In particular, I hear from Senator Lott the value of this service to Mississippi, where he has said without a national system Mississippi and the Nation could not support a Northeast corridor, because there is a balance here about a national transportation system and national investments. He has said Amtrak is an important part of the economic future of Mississippi.

Those speak, I think, to other issues than simply the gross ridership numbers. It is about small urban and rural America on longer distance lines.

Senator LAUTENBERG. Thanks.

The ridership in New Jersey on and off, 1,250,000 people. So that we have Virginia and Florida with about as many riders as that. To close my session, Mr. Chairman, Utah, where Senator Bennett was talking the other night about the very late—the other day about the very late night passengers who get on or off in some remote places. There were 55,000 movements on Amtrak in Utah for the year 1995.

So, Mr. Chairman, I hope that the case is at least cleared and that we will be able to take a second look. Once again, I do want to thank you. The chairman has tried to be helpful. He has got a tough assignment looking for little kernels where the corn has hardly grown. So we are where we are.

ARE SOME RETIREMENT EXPENSES DOUBLE-COUNTED?

Senator SHELBY. Thank you, Senator Lautenberg.

What I have heard today is that, of the remaining $61 million between the current subcommittee mark for Amtrak operating assistance and the President's budget request level, that there is some question as to whether the money is justified for the purpose for which it was requested, in other words clarity. I know you go to the bottomline, all of you. You did, Mr. Lew.

To review, under the excess payment construct offered by Amtrak $18 million of the $61 million is related to an understatement of benefits being provided by the Railroad Retirement Board to retirees of Amtrak. We have heard from the Railroad Retirement Board that Amtrak's calculation fails to recognize all the benefits currently being provided to Amtrak retirees.

So even if we buy this concept of excess payments, you know, call it that, whatever, Amtrak I believe is overstating the size of the amount.

Second, the remaining $43 million relates to the current tax liabilities that are mandated by statute to be paid by employees. Appropriating the $43 million would be, I think, like appropriating funds to Senators' offices to pay for their employees' share of Social Security taxes. To provide that funding to Amtrak would be reimbursing Amtrak for a cost that the corporation does not bear liability for. This looks like budget padding to me.

It is not clear to me. I used the word "clarity."

Mr. LEW. Senator Shelby, could I try to clarify that?

Senator SHELBY. Let me finish and then I will recognize you.

I believe it is inappropriate to ask the taxpayers to pay Amtrak for costs that are already borne by Amtrak's employees or for a miscalculation. I would hope that Amtrak's budget justification will provide in the future a clearer—clarity—justification of what appropriations are to be used for. I think that is important, clarity. You know, you say the bottomline is the same, but it is a confusing presentation.

Go ahead, Mr. Lew.

PURPOSE OF FUNDS MUST BE CLEARER

Mr. LEW. That is a point well taken and we should all do as good a job as we can on all the budget justifications to give the committee and all the subcommittees the understanding that they deserve in terms of what the purpose of the dollars are.

Senator SHELBY. Help us and help the staff and help the public understand what this expenditure is for, is it justified, and the clarity of what it is really for.

Mr. LEW. The difference between those two elements is very important. The payment is justified. There is no doubt the payment is justified. If Amtrak has withheld as an employer, it still has to make a payment. The employee contribution is made by all employers—small businesses, large businesses, Amtrak. The payment goes from Amtrak to the Railroad Retirement Board.

When I say it is the bottomline, if you are looking at the total dollars that Amtrak pays and the total revenue that Amtrak brings in, there has to be enough to cover it. That is why it really does not make a difference whether one defines it as being a current expense, an operating expense, or as an excess payment in terms of the fact that the dollar has to be paid. It does make a difference in terms of the understanding, yes.

Senator SHELBY. It does make a difference in clarity.

Mr. LEW. Yes.

Senator SHELBY. It might not—just for the sake of argument, if I picked up your words, it might not make a difference on the bottomline. It might or it might not; I do not know. But it does

make a difference of what you call something. It is not always what you call it, but what it is.

Mr. LEW. I would welcome a discussion of how this categorization should work. I just do not want to leave any room for misunderstanding. Our view is that the obligation is there.

Senator SHELBY. That is why we are having this hearing today.

Mr. Downs.

Mr. DOWNS. Mr. Chairman, you know, there has been a lot of concern about whether or not we have accurately characterized these costs. I also want to, though, go back to the exact language in the fiscal year 1991 appropriations act. It says:

> The committee directs Amtrak to estimate the total amount of Amtrak payments into the two trust fund accounts and to provide to the committee its estimate of excess Railroad Retirement [Tier II and supplemental benefit] payments and railroad unemployment insurance benefits and repayment tax payments for the next fiscal year.

We have followed that language. If the committee chooses to change that language, I think that is more than appropriate and I would welcome a clarification through the Appropriations Committee language to put this issue to rest.

We have done our best to try to adhere to that language direction and the appropriations bill. We have done nothing other than that in the characterization of these costs. If we have erred, it was not continually raising this language direction from the Appropriations Committees back to Amtrak to get a reconfirmation. But we have had reconfirmation through the administration, through the U.S. DOT, of the appropriateness of this characterization.

It is appropriate for this committee to decide how those costs are classified, and I would welcome a clarification.

Senator LAUTENBERG. May I just say this, Mr. Chairman?

Senator SHELBY. Senator Lautenberg.

Senator LAUTENBERG. In 1991 when I was chairman, I did provide a separate appropriation using the current calculation. The House agreed to this approach, the current approach, and that is why Amtrak continues the budget this way.

So we heard from the chairman. I submit: Do not argue; do.

AMTRAK'S OBLIGATION UNDER CURRENT LAW

Senator SHELBY. Mr. Lew, help me here. Is what you are saying, is it that we could save the employees' share of the tax liability if someone other than Amtrak withheld the tax?

Mr. LEW. I am saying, as with any tax, policy can be made to reallocate tax burden. Under the current law, under the current law Amtrak has no choice. It has to pay the tax that is due. I am not recommending that Congress——

Senator SHELBY. Let me ask you this. Are we really reimbursing Amtrak for something that we should not be reimbursing them for? It looks that way.

Mr. LEW. No; I do not think so. I think that——

Senator SHELBY. Why?

Mr. LEW. When Congress wrote and the Railroad Retirement Tax Act was enacted into law, it set up a tax system to fund the railroad retirement payments. Amtrak is paying its share of that, just as any other carrier is. There are some freight carriers who are

paying more than they should, I am sure, than others, or they would argue that they are paying more than they should.

Senator SHELBY. Are the employees paying their share, too?

Mr. LEW. Well, in any system, just like Social Security, where there are employee withholdings, the employees are paying their share and it is being remitted through the employer.

Senator LAUTENBERG. How much of this is transmitting withheld deductions?

Mr. LEW. I can give you the numbers if you would like, Senators. The total amount that Amtrak pays as an employer, as a corporation, is $230.5 million. The total amount of payment by Amtrak as a withholding agent is $113.1 million.

Senator LAUTENBERG. That is employees' money——

Mr. LEW. That Amtrak is withholding.

Senator LAUTENBERG. Deducted from their wages——

Mr. LEW. Correct.

Senator LAUTENBERG. And forwarded. You are a custodian simply in that?

Mr. LEW. Just like any other employer. It is against the law not to pass on the payments that are withheld, so Amtrak has no choice.

Senator LAUTENBERG. You are a custodian. You are not asking for more money here because of that?

Mr. LEW. No, no; it would require rewriting and reallocating the burden of paying for the Railroad Retirement System, which I would submit is fairly substantial policy. I am not an expert on it. I do not know how I would recommend such an issue be addressed.

I would just say that it is not a question of Amtrak having any choice. They are bound under the current tax law, and all we are saying is that if they have to pay the tax that goes into their outlays, and when we calculate the subsidy required it is part of the calculation.

CLARITY IN BUDGET PRESENTATION NEEDED

Senator SHELBY. Mr. Lew, is it not important, though, to have clarity?

Mr. LEW. I agree about clarity.

Senator SHELBY. Now how are we going to get it?

Mr. LEW. We would be delighted to pursue this with your staff.

Senator SHELBY. Work with the staff.

Mr. LEW. Yes; absolutely. We have always been open to this discussion, and I only half facetiously suggest we may be too open to this discussion. We are delighted. OMB always encourages better understanding of these scoring issues, and if we get into a technical discussion we sometimes change our minds. I am not saying this is an area where we would, but we did not view this as a policy judgment. We viewed this as an attempt to get clarity.

Obviously, our attempt to get clarity has created something of an issue because it has been misread and I would argue perhaps selectively quoted.

Senator SHELBY. Could you work with the staff to try to clear up what we are trying to get at?

Mr. LEW. Sure.

Senator SHELBY. Which is really truth in budgeting, is it not?

Mr. LEW. We would be delighted to.

CONCLUSION OF HEARINGS

Senator SHELBY. Thank you, gentlemen. That concludes the hearings. The subcommittee will recess and reconvene at the call of the Chair.

[Whereupon, at 12:01 p.m., Thursday, July 17, the hearings were concluded and the subcommittee was recessed, to reconvene subject to the call of the Chair.]

DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1998

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

MATERIAL SUBMITTED BY AGENCIES NOT APPEARING FOR FORMAL HEARINGS

[CLERK'S NOTE.—The following agencies of the Department of Transportation and independent related agencies did not appear before the subcommittee this year. Chairman Shelby requested these agencies to submit testimony in support of their fiscal year 1998 budget request. Those statements and answers to questions submitted by the chairman follow:]

DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

INTELLIGENT TRANSPORTATION SYSTEM (ITS)

Question. We understand that the ITS program is continuing to expand to include an array of diverse groups and to serve numerous purposes. For example, do you plan on expanding your involvement with the Maritime Administration, the intermodal freight industry, the railroad industry, and FRA? If so, how is this reflected in the fiscal year 1998 budget request and the fiscal year 1997 spending plan?

Answer. The ITS program was established to explore, evaluate, and promote deployment of effective advanced transportation technologies and strategies, regardless of mode. Indeed, we have found that the integrated deployment of technologies across modes often provides the most benefits, to the widest cross section of transportation system users.

We have proposed a modest highway/rail intersection program within the fiscal year 1998 budget request to explore warning and control technologies and techniques with the potential to significantly reduce highway-rail crossing hazards. We also plan to propose a modest intermodal freight program in the fiscal year 1999 budget request, which will explore technologies and techniques for improving the safe, seamless, and efficient movement of intermodal freight.

The primary purpose of these modest programs is to determine the cost effectiveness of applying ITS technologies and strategies in new modal settings. If found to be cost effective, support for widespread deployment of these technologies and strategies will be more heavily emphasized within the program.

There are no projects funded within the fiscal year 1997 spending plan which directly support these program areas, although there have been some past investments in these areas (e.g. fiscal year 1996 development of Highway-Rail Intersection user service; fiscal year 1996 intermodal freight study), as well as continued devotion of Department staff to further exploring these areas.

Question. Has the program reached the point where you are serving too many transportation communities and needs? Would it be worthwhile refocusing your ef-

forts on only those user services and transportation problems which could be most cost effectively addressed with ITS monies?

Answer. We believe the current program balance among the various modes is appropriate. As noted above, the charge of the ITS program is to explore, evaluate and promote deployment of effective advanced transportation technologies and strategies, regardless of mode. The modest investments we are making and proposing to make in "new" modal areas of exploration will provide us with fundamental information on the cost effectiveness of ITS deployment for these modes. The vast majority of ITS program resources continue to be invested in those program areas which we already know to be very cost effective.

Question. How are you achieving a balance between the increased political support you gain by including numerous segments of the transportation community in the ITS program versus the benefits of funding only the most cost effective investments?

Answer. The implication in this question that we are trading political support for cost effective investment is inaccurate. As noted above, the charge of the ITS program is to explore, evaluate and promote deployment of effective advanced transportation technologies and strategies, regardless of mode. The vast majority of ITS program resources continue to be invested in those areas which we already know to be very cost effective. Political support for ITS from a wider cross section of the transportation community is a byproduct, not a goal, of the diversity of the program.

Question. If ITS is so cost-beneficial, why in your reauthorization proposal are you requesting $10,000,000 for training related to ITS? Won't the documented benefits of ITS catalyze additional investments without spending so much on training?

Answer. Because many transportation professionals are finding various ITS applications cost beneficial, the levels of deployment of individual components are steadily increasing. It this situation two issues are at stake: 1) Stewardship—federal funds are being used for implementation. Lack of experience and skill in designing, specifying, procuring and managing the implementation of these systems can lead to dramatic cost increases and waste of money. 2) Shaping the deployment. The components can be deployed as individual islands in the current paradigm of stove piped modes and agencies, or they can become a part of an information and communication platform that enables the bridging of this fragmentation, creating an intermodal "system of systems." This opportunity will be lost within about five years because the current rate of "isolated" deployment will have cast the die—unless we intervene with training. The professional capacity building effort is designed to address these two needs.

Question. Is FHWA spending about $5 million during fiscal year 1997 on professional capacity building? Were these monies derived from ISTEA or GOE? How was this amount arrived at and why does this activity need to continue? How much are you planning to spend on this area during fiscal year 1998? Why is the requested increase judged important?

Answer. The fiscal year 1997 budget for the Professional Capacity Building program is $5 million. Of that total, $2 million is GOE money and $3 million is ISTEA money. The $5 million will address training needs across ITS traffic management, transit management, traveler information and commercial vehicle operations program areas. The goal of the first year of the Professional Capacity Building Program is to educate the entire field staff of FHWA and FTA with some inclusion of NHTSA and FRA staff. As such, much of the fiscal year 1997 funding is allocated to distribution and presentation expenses. Other significant costs are for development of several specialty modules such as a short course on transit management and a four-day ITS system integration course.

Developing and providing this training initially to USDOT staff and soon thereafter to state and local agency personnel is crucial to the successful deployment of ITS applications. ITS is, in many ways, a fundamental shift from the traditional ways of conceiving, procuring, designing and installing transportation improvements. New skills are required in each of these areas. Without a significant skill building effort in a number of technical areas, ITS deployment efforts will be less efficient. USDOT projects that a number of metropolitan and rural areas will need technical training over the next few years. USDOT has historically been a leading provider of training to state and local agencies, and in the case of ITS technical training, the economies of scale allow the USDOT to more cost effectively develop training materials that are applicable to numerous agencies. Additionally, course materials will be made available through the Internet to promote the use of the information by universities and other educational institutions.

The current budget projection for fiscal year 1998 include a total of $10 million for training. This request is similar to the request (though not the appropriation) made in fiscal year 1997. Both requests reflect the urgency for massive retraining

that was reflected in the recent GAO report. Of that total, $8.75 million will support training for ITS travel management including traffic and transit management and traveler information and $1.25 million will support training in the commercial vehicle operation area. Much of the key technical training topics such as architecture, standards and telecommunication will be funded from the travel management portion of the funds even though those subject areas underpin the entire ITS deployment effort. The funds also support presentation of the courses, production of course materials, the services of a program manager, and logistical support for arrangement of course presentation.

The Professional Capacity Building Program is key to the success of ITS deployment and is a significant role for the USDOT.

Question. We understand that you are allocating Federal funds on scanning tours and on scholarships to ensure that State and local governmental leaders and traffic engineers and operators have a chance to visit exemplary ITS sites and to attend major ITS meetings and seminars. How much was allocated for these types of activities during fiscal year 1996 and fiscal year 1997? Please justify these expenses, explain their importance, and specify proposed funding levels for fiscal year 1998.

Answer. In fiscal year 1996 the FHWA allocated $150,000 to provide scholarships to state and local transportation professionals to review intelligent transportation systems operating in seven locations along the eastern coast of North America and to participate in the 1996 ITS World Congress in Orlando, Florida in October, 1996. Ten public agency transportation professionals participated in both the field review of deployed intelligent transportation systems and World Congress meetings. This funding also supported an additional twenty-two state and local transportation professionals to participate in the ITS World Congress sessions. This scholarship program was administered jointly by the Institute of Transportation Engineers and Public Technologies, Inc.

In fiscal year 1996, the FHWA provided $360,000 to support Executive ITS Scanning Reviews. The purpose of these reviews was to improve the awareness of the benefits and capabilities of integrated intelligent transportation systems by high level state and local officials, transportation decision makers and planning organization executives. More than 294 state and local executives participated in these scanning reviews representing highway and transit agencies, elected officials, and transportation planning professionals.

In fiscal year 1997, two special scanning tours were held in Atlanta. In two, two-day events more than 160 top officials toured ITS facilities and operations in the state, city and transit authority. In fiscal year 1997, the FHWA has again allocated $150,000 for the Scholarship program and $360,000 for the Executive ITS Scanning Review program. The scholarship program funds will be used to conduct a review of integrated intelligent transportation systems in a number of cities in the south and southwestern portions of the United States, similar to the fiscal year 1996 East Coast Review, and to support a limited United States representation from state and local agencies at the 1997 ITS World Congress meeting in Berlin, Germany. The Executive ITS Scanning Review program is again being jointly administered by the FHWA and FTA Regional Offices and will be used, not only to enable state and local decision makers to experience firsthand the capabilities and benefits of ITS, but also to provide the opportunity for these participants to meet with their peers at these sites to discuss the actions and support required to fund, implement and operate ITS applications.

The purpose of the ITS Scholarship program is to provide opportunities for some state and local government officials and transportation professionals to participate in an event that will give them maximum exposure to ITS technology, benefits, and issues in the least time and at least cost. Most of the work in developing and implementing ITS systems takes place at the state and local level. It is at this level that the needs for these systems are first identified and the projects to implement application of these advanced technologies take shape. Yet, state and local budgets do not support such travel. The USDOT believes that the use of these funds are essential to speeding the application and use of these ITS technologies through state and local ITS implementation programs.

The Executive ITS Scanning Review program was developed in 1996 in response to a request by FHWA and FTA field forces as a means of exposing high level state and local decision makers and transportation executives to the capabilities and benefits of ITS technologies. Many of these officials have heard of ITS but have no way to visualize or appreciate what it can do for their transportation problems and needs. The staff in the Regional Offices of FHWA and FTA work together to develop a concept plan for each review. The reviews are designed to highlight ITS technologies that are applicable to the interests and needs of the individual review executives. The reviews are intended to bring together the appropriate officials from

a full range of interested ITS partners, providing an opportunity for multi modal team building and awareness of ITS applications across all modes. These reviews also provide a forum for peer to peer discussions between officials interested in learning more about the "what and how" of ITS and their counterparts that have carried out the systems to address those issues. One example came as a result of the Atlanta scanning tours, where immediately following the tour, the top executive for a state DOT allocated much needed personnel resources to their local effort based on the demonstrated effectiveness and personnel needs illustrated in Atlanta.

Scholarship recipients and Scanning Review participants have evaluated favorably the professional benefits from participating in these programs. USDOT field staff has also strongly recommended the continuation of the Scanning program. Based on these recommendations and the continuing need to raise awareness and demonstrate benefits, we propose to continue these programs in fiscal year 1998 at the same funding level as in fiscal years 1996 and 1997.

Question. What is your strategic vision for the ITS Rural Program?

Answer. The vision for the Rural ITS program is to improve the safety and security of the rural traveler, especially given the differences with the urban environment. Similarly, isolation is a factor that impacts both the transportation disadvantaged and the economic vitality of the communities in Rural America, therefore reducing isolation is important. Additionally, as resources continue to become more scarce, using advanced technologies to improve the efficiency and productivity of operating and maintaining transportation services is crucial, especially given the high costs associated with rural transportation operations and maintenance.

Question. How are you planning to use the fiscal year 1998 funds that are requested for rural projects and related research?

Answer. In fiscal year 1998, we have requested $2 million for research and $5 million for operational tests. The project descriptions follow:

1. Development of Rural ITS Services—$1.9 million.—This will provide $1.9 million to continue the development of rural user services that will reduce traffic fatalities, reduce emergency medical response time, improve the efficiency and availability of rural transit services and improve the availability/quality of traveler information. This will be accomplished by resolving the technological and institutional issues through basic research and/or field trials targeted at the high priority needs in each of the seven critical program areas. The results of this effort will either lead to operational tests of specific user services or development of deployment guidance for rural transportation planners. This is a three year program initiated in fiscal year 1997 and is projected to end in fiscal year 1999; total cost is estimated to be $4.5 million with funding by fiscal year estimated as follows: fiscal year 1998, $1.9 million, fiscal year 1999, $2 million, fiscal year 2000, $600,000.

2. Analysis of Site Characteristics—$100,000.—This will provide $100 thousand to FTA to initiate an analysis of data previously collected to assess characteristics of rural transit systems and recommend appropriate APTS technologies based on site characteristics. The result of this project will be a guide for rural transit operators recommending specific ITS technologies will solve their site specific problems. This is a 1 year project with a total cost of $100,000.

3. Field Operational Tests—$5.0 million.—This will fund up to four operational tests of rural ITS user service groups. The specific evaluation goals will be developed during fiscal year 1997 in the Rural ITS elements definition for concepts determined to be critical to rural ITS implementation but requiring operational testing prior to deployment. Examples of potential test categories include:

—*Traveler safety and security.*—This project(s) will evaluate the effectiveness of promising technologies for the reduction of rural accidents and fatalities which were identified in the Development of Rural ITS Services Project. Candidate applications include roadway departure, animal vehicle collision, low-cost in-vehicle hazard warning systems, Variable Speed Limits using various algorithms (refine algorithms as appropriate) Surrogate evaluation parameters will be developed for crash reduction, cost effectiveness and deployability.

—*Rural infrastructure operations and maintenance.*—In fiscal year 1998 a sample of rural highway departments, representing different operating environments, will be analyzed to identify the operations where improved technologies, procedures and coordination of resources can reduce costs, and increase effectiveness within budget constraints. These projects will include a range of capital-intensiveness and suitability for operations of different sizes and extent of roadway and may include: Wireless Communication Requirements and Coordinated Rural Traffic Management.

—*Rural fleet operations and maintenance.*—This Operational Test will expand the Integrated Regional Fleet Management System to include other governmental services (e.g., police, fire, EMS and utilities) within a rural environment. The

fiscal year 1998 activity will permit two or more transit authorities within a region to integrate their services (vis-a-vis systems) into a regional transportation system that will be "seamless" to the customer and will be more efficient since a single dispatch center will be formed and operated, instead of multiple centers. This expansion will integrate other governmental services with the transit component so ITS infrastructure costs can be shared among users so to avoid duplication. This project will incorporate several high priority elements in developing the integrated regional fleet management system (both for transit initially and then for other governmental functions). This project is focused on rural applications, but has applicability to all areas with multiple fleets operating within a geographic area.

Question. How do you know that there is a balance between rural and urban ITS needs in your program?

Answer. In the past there has been greater research and deployment attention given to metropolitan and commercial vehicle ITS research than to rural. There was however reasonable balance with operational tests with well over ⅓ devoted to rural applications. Both the metropolitan ITS applications and commercial vehicle applications had the benefit of well over a decade of past research, making these technologies more "ripe" for deployment.

Recognizing the potential for rural applications, U.S. DOT launched a rural research needs and ITS opportunities assessment in 1995, that and early results of several ITS operational tests formed the basis of the rural strategic plan published in early 1997. In developing that plan we recognized that there were several rural technologies that were similar or identical to those in the metropolitan infrastructure, albeit with different applications. For example, many of the travel management and traveler information systems used for tourist information rely on the same technology as that used in metropolitan areas, but the type of information delivered is different, and strategies used for management is different.

We have proposed, both in the 1997 and 1998 budget a major increase in rural research and operational tests. These efforts will provide cost benefit information that will allow the department to more appropriately compare the potential payoff of rural vs. urban applications and perhaps adjust the balance between the two. In the meantime, several applications have proven themselves such as road weather information systems, travel information systems, and automated dispatch and tracking of rural para transit. Recognizing this we will encourage deployment of these applications thru the proposed deployment incentives program.

Question. What could be accomplished with additional funds provided beyond the requested amount for rural projects?

Answer. Additional funding would be used to conduct additional operational tests in the seven critical program areas: Traveler Safety and Security; Emergency Services; Tourism and Travel Information Services; Public Traveler Services/Public Mobility Services; Infrastructure Operating and Maintenance; Fleet Operating and Maintenance; and Commercial Vehicle Operations. This would allow us to evaluate systems at multiple environments. This is a critical evaluation factor because of the diverse climate and topography which characterizes rural America. The priorities are:

Rural emergency services.—This project will evaluate an Advanced Mayday System which combines communications technologies, AVL and dispatching methods with improved institutional arrangements between ISP's, PSAP's and EMS, to reduce response times, decrease morbidity and fatality, and improve the efficiency of emergency services in remote and rugged rural areas. Traveler MAYDAY service, direct emergency calls and calls from patrol agencies will be included. This project will determine if further reduction in emergency response can be achieved beyond faster notification.

Tourism and traveler information systems.—This project will evaluate the information collection and dissemination techniques (such as high speed AM subcarrier for broadcast messages in coordination with Herald Phase III) developed in fiscal year 1998 in the Development of Rural ITS Services Project. Testing will be conducted at 2 or more sites in order to evaluate the systems in different environments. Evaluation parameters will be developed to measure impact of traveler information on economic development, and the effectiveness of alternative dissemination techniques.

Rural infrastructure operations and maintenance.—Additional projects for this critical program area would be funded which include:

—*Appropriate traffic signal and traffic management systems.*—Evaluate the performance, architecture and cost effectiveness of these systems for small urban areas potentially linked to regional TMC's. Test and evaluate alternatives to extend surveillance from an urban TMC out into rural areas (besides CCTV); Test

and evaluate alternatives to measure A "short" link travel times (i.e., expand upon SDAS). Refine algorithms; and Test and evaluate alternatives to linking small-scale TMC/TOC's, including their linkage to an urban TMC/TOC. [Would first require defining the components of a small-scale TMC/TOC.]

—*Automated Management Systems*.—Evaluate the ability to reduce costs associated with operations and maintenance of bridge, pavement and roadside hardware.

Preliminary integrated systems.—The Rural Operational Test Program have been focused on the evaluation of single systems which address a critical program area need. Based on definition of integration measures associated with the ARTS infrastructure, field tests will be devised for one or more rural areas that will maximize the integration measures with substantially existing ARTS components, and will evaluate the increased operational and cost-effectiveness resulting from integration.

Question. What are the estimated total number and types of ITS standards that must be agreed upon to ensure interoperability? What remains to be done to research agreement on each standard?

Answer. The ITS National Architecture results indicated that to achieve national interoperability, there are 45 interfaces that need to be standardized. In addition, there are a number of interfaces requiring standardization to facilitate regional interoperability. As such, a rough estimate of the number of new standards required to ensure interoperability is somewhere between 50 to 100—the list is still evolving. Part of the problem in estimating the numbers is the level of granularity for which a particular standard is developed. Some groups combine activities and represent their results in a single standard, while others may prefer a greater partitioning, resulting in multiple standards. In some cases, additional standards are being identified as the interoperability requirements are better understood.

There are a number of different types of standards currently under development by the SDO's. These take the form as described below, and are being developed to provide both national and regional interoperability:

—*Communications*.—Standards relating to communications protocols in most cases already exist as industry standards. In a few cases, however, there are requirements to develop new or modify communications standards to support ITS applications. Examples are: Dedicated Short Range Communications (DSRC), Hi-Speed FM Subcarrier, and National Transportation Communication ITS Protocol (NTCIP).

—*Message sets*.—The national architecture program's focus was on the development of information flows among the various subsystems, in support of ITS user services. These information flows provide the foundation for the development of message set standards. It is expected that the majority of the standards development work will be in this area. Unlike communications standards, very little, if any ITS message set standards exist. Examples of the types of message set needing to be developed are: Mayday, traveler information, real-time transit information, etc.

—*Enabling*.—There are a number of standard activities that are supported by a common foundation. Enabling standards provide this foundation and in many instances, provide uniformity across application areas. Examples of such enabling standards are: data dictionaries, common formatting standards, location referencing, spatial database interchange, etc.

—*Other*.—There are additional needs not neatly fitting into any of the above categories. This would include such things as, safety and human factors, etc.

The activities involved in developing the standard and ensuring interoperability include: technical development (i.e., the committee process), consensus building (i.e., the balloting process), and in some cases operational testing. More specifically, the standards being developed will promote interoperability but not necessarily ensure it. Especially, in situations where multiple standards are expected to "play together" (i.e., the integration of multiple system elements). To ensure interoperability for this broader perspective, system level field testing may be required, for particular implementations.

What follows is a graphical depiction of the schedule for completion of each standard currently underway. The list is still incomplete in that additional standards are still being identified.

Standards Development Milestones (FY)

ACTIVITY/STANDARD DEVELOPMENT	SDO DOC#	1996	1997 Qtr 1 (O N D)	1997 Qtr 2 (J F M)	1997 Qtr 3 (A M J)	1997 Qtr 4 (J A S)	1998 Qtr 1 (O N D)	1998 Qtr 2 (J F M)	1998 Qtr 3 (A M J)	1998 Qtr 4 (J A S)	1999 Qtr 1 (O N D)	1999 Qtr 2 (J F M)	1999 Qtr 3 (A M J)	1999 Qtr 4 (J A S)
NTCIP Overview	NEMA TS3.1	✚												
NTCIP Simple Transportation Management Protocol	NEMA TS3.2	✚												
NTCIP Class B Profile	NEMA TS3.3	✚												
Truth-in-Labeling Standard for Navigation Map Databases	SAE J1663	✚												
Truck & Bus Practice Serial Data Communications Between Microcomputer and Heavy Duty Vehicle Applications	SAE J1708	✚												
Information Report on ITS Terms and Definitions	SAE J1761	✚												
A Conceptual ITS Architecture: An ATIS Perspective	SAE J1763	✚												
CVO Safety & Credentials Info. Exch.	ANSI TS285			✚										
NTCIP Global Object Definitions	NEMA TS3.4			✚										
NTCIP Actuated Controller Unit Object Definitions	NEMA TS3.5			✚										
Survey of Communications Standards for ITS	IEEE	▼			●	✚								
Credential Application	ANSI TS286			▲		◆ ✚								
Guide for Microwave Communications System Development: Design, Procurement, Construction, Maintenance and Operations	IEEE			▲										
Recommended Practice for the Selection and Installation of Fiber Optic Cable in Intelligent Transportation Systems' (ITS) Urban, Suburban, and Rural Environments as well as Transportation Operating Centers and Associated Campuses	IEEE			▲										
ITS Data Bus Architecture Reference Model Info. Report	SAE J2355	▼	●	❑ ▲		◆ ✚								
NTCIP Dynamic Message Signs - NEMA TS3.6	AASHTO	▼	●		❑▲◆✚									
NTCIP-Hwy Advisory Radio - NEMA TS3.7	AASHTO	▼			●❑	▲	◆ ✚							
Message Set Template for ITS	IEEE		▼		●❑	▲◆✚								
Standard for ITS Data Dictionaries/Specification	IEEE		▼		●❑	▲◆✚								
NTCIP-Env. Sensor Stations & RWIS	AASHTO	▼			●	❑▲	◆ ✚							
Message Set for External TMC Communications Phase 2, Bundle A	ITE			▼ ●		❑ ▲	◆	✚						
In-Vehicle Navigation and Related ATIS Communications Device Message Set	SAE J2256	▼			●	❑▲ ◆	✚							
NTCIP-Video Camera Control	AASHTO					❑								
Field Test Analysis Information Report	SAE J2372	▼				●❑▲	◆ ✚							
Stakeholder's Workshop Information Report	SAE J2373	▼				●❑▲	◆ ✚							
National Location Referencing Standard	SAE J2374	▼				●❑▲	◆ ✚							
Message Set for External TMC Communications Phase 2, Bundle B	ITE			▼	●	❑	▲ ◆	✚						
NTCIP-Center to Center	AASHTO	▼			●		❑ ▲	◆ ✚						
Commercial Vehicle Safety Reports	ANSI TS284			▼		●	❑	▲	◆		✚			
Standard for Message Sets for Vehicle/Roadside Communications (ETC&CVO)	IEEE	▼				●	❑▲	◆✚						

Standards Development Milestones (FY)

ACTIVITY/STANDARD DEVELOPMENT	SDO DOC#	1996	1997 Qtr 1 (O N D)	1997 Qtr 2 (J F M)	1997 Qtr 3 (A M J)	1997 Qtr 4 (J A S)	1998 Qtr 1 (O N D)	1998 Qtr 2 (J F M)	1998 Qtr 3 (A M J)	1998 Qtr 4 (J A S)	1999 Qtr 1 (O N D)	1999 Qtr 2 (J F M)	1999 Qtr 3 (A M J)	1999 Qtr 4 (J A S)
Standard for Dedicated, Short Range, Two-Way Vehicle to Roadside Communications Equipment: Physical Layer	ASTM	▼			●		❑	▲	◆	✚				
Standard for Dedicated, Short Range, Two-Way Vehicle to Roadside Communications Equipment: Data Link Layer	ASTM	▼			●		❑	▲	◆	✚				
ITS Data Bus Protocol	SAE J2366	▼					●❑	▲	◆	✚				
ITS Data Bus Gateway Recommended Practice	SAE J2367	▼					●❑	▲	◆	✚				
NTCIP-Weigh in Motion	AASHTO						❑ FY98 - TBD							
NTCIP-Video Detection Devices	AASHTO						❑ FY98 - TBD							
NTCIP-Vehicle Classification Devices	AASHTO						❑ FY98 - TBD							
NTCIP-Automatic Vehicle Identification	AASHTO						❑ FY98 - TBD							
On-Board Land Vehicle Mayday Reporting Interface	SAE J2313			▼			●	❑▲	◆✚					
ATIS Data Dictionary Standard	SAE J2353			▼			●	❑▲	◆✚					
ATIS Core Message List	SAE J2354				▼		●	❑▲	◆✚					
Standard for ATIS Message Sets Delivered Over High Speed FM Subcarrier Modulation	SAE J2369				▼		●	❑▲	◆✚					
TCIP - Transit Data Dictionary	ITE		▼			●		❑▲	◆	✚				
TCIP - Public Transit Vehicle Message Set	ITE		▼			●		❑▲	◆	✚				
TCIP - Transit Vehicle to Transit Mngt Center Msg Set	ITE		▼			●		❑▲	◆	✚				
TCIP - Transit Mngt Center to External Ctr Message Set	ITE		▼			●		❑▲	◆	✚				
TCIP - Remote Traveler Support Message Set	ITE		▼			●		❑▲	◆	✚				
NTCIP-Ramp Meters	AASHTO						●		❑▲	◆ ✚				
Traffic Management Data Dictionary	ITE	▼						●	❑ ▲	◆	✚			
ATC API Standard	ITE PP03.2	▼							●❑	▲	◆	✚		
ATC Controller	ITE PP03.3	▼							●❑ ▲◆		✚			
ATC Cabinet Standard	ITE PP03.1							▼		●❑▲	◆	✚		
Message Sets for Incident Mngt (EMS to TMC, E911)	IEEE			▼					●	❑ ▲		◆	✚	
ITS Data Bus Conformance Testing Standard	SAE J2368				▼						● ❑	▲	◆	✚
Standard for Navigation and Route Guidance Function Accessibility While Driving	SAE J2364				▼			●				❑▲	◆✚	
Standard for Navigation and Route Guidance Man-Machine Interface Transactions	SAE J2365				▼							●	❑▲	◆✚

June 17, 1997

▼ Begin Standards Development
● Draft Standard Completed
❑ Proposed Standard
▲ Balloting Process Initiated
◆ Endorsed Standard
✚ Published

Question. How is the Department effectively addressing the most critical technical and operational challenges affecting the innovation of ITS, including research, operational tests, and deployment components? How do you know these are the most critical?

Answer. U.S. DOT is pursuing a broad strategy which involves key assumptions of "sequencing". The assumptions are that (1) Several of the private sector technologies and services cannot be deployed without a basic ITS infrastructure. (2) There is little value in extending the state of the art in ITS infrastructure if the level of the state of the practice remains at a pre-ITS level. Thus in the past two years and in the coming three to five years our emphasis will be on supporting deployment of ITS infrastructure and investing in research in safety related in-vehicle technology. This basic strategy has been discussed at numerous ITS America Board meetings and the philosophy ultimately adopted in the articulation of the National Deployment Goal.

Within that broad strategy, we have developed road maps with the aid of support contractors skilled in systems management and subjected elements of the program to a variety of peer review exercises. These include a very formal review by the ITS America ATMS committee, a Professional Capacity Steering Committee, A National Academy Review of the AHS work this summer, intense review, and discussion of the CVISN roadmap by ATA, the ITS A CVO committee and by field implementers. We expect to subject our Intelligent Vehicle Initiative to similar industry and peer scrutiny.

Question. Is the Department appropriately balancing Federal investment among the various components of the ITS program, including research, operational testing, pre-deployment, and deployment activities?

Answer. Given the existing technical and operational challenges facing the program, we believe the current program balance is appropriate. We have proposed an approximate division of resources for fiscal year 1998 (including both contract authority and appropriated funds) of 25 percent for research and development activities; 13 percent for operational tests; 14 percent for deployment support activities such as standards and training development; 8 percent for crosscutting activities, such as program assessment and program support; and 40 percent for deployment incentives. This represents nearly an even balance between program activities designed to explore ITS technologies and strategies and program activities designed to support and deploy technologies and strategies which we know to be effective.

Question. Has the scope, diversity, and funding level of the ITS program surpassed DOT's capability to effectively manage this complex initiative? (Please take into account a variety of factors including personnel ceiling limitations, the progress made to date, scope and number of projects already underway, and the goals and objectives of the program.)

Answer. No. Given the personnel ceilings and number of projects underway, we have turned to the use of support contractors who bring expertise and experience in managing complex programs in NASA and the Department of Defense. Without funding for that management support the complexity of the program would exceed the current staffs' ability to manage it. With continuing support that we receive from these contractors, we are confident in our ability to effectively manage the ITS program, particularly with the management controls that have been implemented in the last two years. Overall funding amounts received for the program over the last several years have actually been relatively stable. Further, much of the management of the proposed incentives awards will be delegated to the FTA and FHWA field offices.

Question. The Department supports the expenditure of millions of dollars on outreach, public information, mainstreaming, training, and other activities aimed at promoting the innovation of ITS. Does the Federal Government's experience in innovation suggest that "pushing" technologies into marketplace works?

Answer. ITS is a manifestation of the information and communication revolution that is affecting every aspect of American life and every aspect of business and government. We are increasingly finding that once the benefits of a particular ITS application are demonstrated, it is generally accepted. Our focus now is on communicating benefits, training an industry that has a civil engineering base in ITS specification, management and procurement skills, and developing the incentive and technical base for integrated deployment. We do not believe that we are aggressively "pushing" this technology.

Question. Please specify the amount and purposes of all fiscal year 1996 and fiscal year 1997 monies to be allocated on systems architecture.

Answer. The details of allocated expenses for the Systems Architecture Program for fiscal year 1996 and fiscal year 1997 are as follows:

Funds for both fiscal years are:

[In thousands of dollars]

	Fiscal years—	
	1996	1997
Architecture technical support	485	.....
Architecture development	2,075	.....
Architecture deployment/implementation support	1,000	900
Architecture maintenance	525	2,500
Total	4,085	3,400

Architecture Technical Support (Engineering) was procured to technically review and support the development of the National Architecture products. This primarily consisted of an industry based Technical Review Team (TRT) composed of industry experts knowledgeable in the technical disciplines and technologies involved in the National ITS Architecture.

Architecture Development was the work actually performed by the Lockheed Martin and Rockwell International architecture development teams producing the National ITS Architecture products.

Architecture Deployment/Implementation Support is technical assistance from the architecture team to local officials which we will continue until we have provided sufficient training to the consultant community and state and local system integrators. As a top priority, the National ITS Architecture teams are currently working with the four metropolitan Model Deployment Initiative sites to facilitate the identification of common system interfaces where the sites may generate de facto standards. The CVO architecture team is conducting extensive architecture workshops with the 8 CVO model deployment sites to insure interoperability among the sites. The teams are scheduled to interface with other metropolitan planning organizations as their needs arise.

Architecture Maintenance is maintaining the National ITS Architecture documentation and data base in a current and useable form. Until we are through a transition to a full main streaming of the architecture, it will be maintained by U.S. DOT by a small element of the National ITS Architecture team. They will be responsible for providing support to a dynamic standards setting process and modifying the architecture as a result of experience gained from operational tests, the standards setting process and ITS research and development. New user requirements stemming from research will be incorporated into the architecture and updated materials made available in hard copy, on the Web, and via CD.

Question. Please breakout in detail the expected uses of the monies requested to advance the systems architecture during fiscal year 1998.

Answer. Funds for the fiscal year are as follows:

[In thousands of dollars]

	Fiscal year 1998
Architecture technical support	300
Architecture maintenance	2,500
Total	2,800

Architecture Technical Support (Engineering) is procured to technically review and to provide management support to the development of the National Architecture products. This primarily consisted of technical experts knowledgeable in the technical disciplines and technologies involved in the National ITS Architecture.

Architecture Maintenance is maintaining the National ITS Architecture documentation and data base in a current and useable form. Until we are through a transition to a full mainstreaming of the architecture, it will be maintained by U.S. DOT by a small element of the National ITS Architecture team. They will be responsible for providing support to a dynamic standards setting process and modifying the architecture as a result of experience gained from operational tests, the standards setting process and ITS research and development. New user requirements stemming from research will be incorporated into the architecture and updated materials made available in hard copy, on the Web, and via CD. In addition this includes technical assistance from the architecture team to local officials which we will continue until we have provided sufficient training to the consultant community and state and local system integrators. As a top priority, the National ITS Architecture teams are currently working with the four metropolitan Model Deploy-

ment Initiative sites to facilitate the identification of common system interfaces where the sites may generate de facto standards. The CVO architecture team is conducting extensive architecture workshops with the 8 CVO model deployment sites to insure interoperability among the sites. The teams are scheduled to interface with other metropolitan planning organizations as their needs arise. In addition this includes technical support by the Architecture teams in the generation and issuance of architecture related guidance documents to facilitate the understanding and use of the National ITS Architecture by various stakeholders in need of having the architecture used as a tool in ITS system integration and design. These documents provide an understanding of the application of National ITS Architecture products to the development of regional architectures and the design of ITS deployments. In addition, the documents provide design options, tradeoffs, lessons learned, best practices, etc.

Question. Please specify the amount and purposes of all fiscal year 1996 and fiscal year 1997 monies spent on standards work.

Answer. The following table and narrative describe the funding allocation for standards activities:

[In thousands of dollars]

Activity	Fiscal years—	
	1996	1997
Spatial data transfer standard	1,000	1,000
National transportation communications for ITS protocol	750	1,000
CVO standards	500	500
Traffic management system support standards		800
Transit management standards support		100
Standards development organizations (National Architecture)	2,000	3,700
Standards management support (JPL)	300	1,600
Dedicated short range communications		100
Core infrastructure standards	405	
Total	5,455	8,800

Spatial Data Transfer Standard.—This activity provides support to develop a spatial data location referencing system and define a Spatial Data Transfer profile for ITS, simulate the profile in computer models and provide technical support for the use of SDTS prototypes in operational tests (the actual operational test activity is not covered under this activity). This project will also coordinate numerous ongoing national and international transportation spatial database efforts with the ITS efforts, ensuring inter-operability among modes of travel.

NTCIP.—This activity supports, maintains, and refines the National Transportation Communications for ITS Protocol (NTCIP). This funding will cover four major areas: (1) continue the consensus building process required to establish NTCIP as a national ITS standard, (2) introduce additional traffic control devices into the standard, including environmental sensors (i.e., fog detectors, air quality sensors, etc.), malfunction management units, etc., (3) develop necessary interfaces to existing infrastructure therefore enabling the retrofit of already deployed equipment, and (4) establish and conduct an experimental plan to evaluate the NTCIP at various field sites.

CVO Standards.—This activity supports national coordination for acceptance of the proposed ANSI ASC X12 and EDIFACT standards and work with the appropriate organizations to refine and complete a majority of the appropriate standards. This will include coordination with CVSA, AAMVA, ITSA, HELP, I–75, CDLIS, IFTA, IRP, CVIS, SAFER, States, private industry and many other organizations.

Traffic Management System Support Standards.—This activity supports development and adoption of standards and guidelines directed towards traffic management systems. The deployment of ATMS encompasses the establishment of traffic control centers. The functionality within the control centers needs to allow for alternate computing architectures which can be configured based upon existing communications infrastructure and desired functionality. Standards that allow for the integration of vendor independent products, both hardware and software, will be required. These standards will create and sustain a broad-base market for manufacturers, facilitate the retrofitting of already deployed systems, and significantly increase the

life of traffic control systems. In turn, these standards will also provide interoperability and interchange ability of traffic control products.

Transit Management Standards Support.—This project supports activities to the International Standards Organization undertaken by the U.S. as the designated international lead country for public transit.

Standards Development Organizations (National Architecture).—This activity supports the Standard Development Organizations' efforts to obtain dedicated technical and administrative committee support to accelerate the standards development process. The technical support will consist of research projects, technology assessment activities, and testing of developed protocols and standards. Administrative support will consist of producing draft standards, supporting information facilitation among and within committees, and liaisoning with other activities such as research and development efforts, operational tests, and deployment. The focus of the standards development effort will be on interface standards resulting from the national architecture activity.

Technical Support.—This activity provides support for evaluating and monitoring projects generated from the standards cooperative agreements with SAE, IEEE, ASTM, ITE, and AASHTO. This includes participating in standards committee meetings, helping to identify critical standards activities, harmonizing the developing standards with the National Architecture, and harmonizing activities with international efforts.

Dedicated Short Range Communication (DSRC).—This activity is to help resolve technical and institutional uncertainties that have contributed to the lack of movement in the DSRC arena. While the actual standard is being defined within the standard development organization some additional support work, such as the development of migration strategies, that fall outside of standards development, needs to be developed.

Core Infrastructure Standards.—This activity originally was focussed on supporting traffic management related activities. A portion of this funding was used to initiate a traffic management data dictionary with the remainder supporting the general category of National Architecture interface standards.

Question. Will you assure this Subcommittee that the JPO will "step up to the plate" if the standards necessary for interoperability are not reached, soon?

Answer. We assume this question refers to the Department's willingness to take a more prescriptive role in the standards development process, if the consensus efforts currently underway bog down or reach an impasse. We believe there is already evidence of the Department's willingness to assume a stronger position through the experience with the development of the standard for interoperability of dedicated short range communications (DSRC). Last Fall, after the consensus process in the development of this standard had reached an impasse, the Department called the major industry and public sector players in the process together to discuss the Department's intent to establish a standard through rulemaking if the impasse continued. This and subsequent meetings led to an agreement amongst the industry representatives to draft a mutually acceptable standard and establish a forum and process to resolve impasse issues. This process is working well. A draft DSRC standard ready for ballot is expected to be complete by November 1997.

Question. After more than six year of controversy, does the ITS community have standards for dedicated short-range communications, which are critical to the program? Will it take this long to reach consensus on other critical standards?

Answer. The previous six years of controversy and slow progress surrounding the DSRC standards activities was due primarily to a lack of rigor and focus on the technical and institutional efforts. As a result of the SDO funding support from FHWA, more progress has been made in the last six months than has been made in the last six years. Current projections are to have a draft standard by the end of the year with compliant product available in 1999. Other standards are not envisioned to have to go through as lengthy of a process to reach consensus for the same reason we have been able to expedite the current DSRC activities. Federal funding support for technical and administrative assistance and public agency participation will help us avoid the lengthy "DSRC scenario" again.

Question. How much do you expect to spend on advancing the architecture and related standards work for each of the next three years?

Answer. The expenditures for architecture and standards activities for fiscal year 1997, fiscal year 1998, and fiscal year 1999 are defined below.

[In millions of dollars]

	Fiscal years—		
	1997	1998	1999
Architecture	5.0	2.8	5.4
Standards	8.25	11.5	14.5
Total	13.25	14.3	19.9

Since the completion of the ITS National Architecture in fiscal year 1996, there have been three major focuses of the Architecture effort. First, the Architecture technical team has been assisting the Standard Setting Organizations (SDO's) in the development of the standards requirements. Secondly, a major effort is under way to provide guidance documentation on the Architecture for use by State and local officials and transportation professionals. Finally, training materials on the Architecture have been developed to support the Professional Capacity Building program. The assistance to the SDO's will continue in fiscal years 1998 and 1999. Guidance materials will be completed in fiscal year 1998. In fiscal year 1999, there will be a new architecture effort to extend the architecture into vehicles in support of the Intelligent Vehicle Initiative currently being planned. There will also be a small initiative to extend the architecture to include the data collecting and planning functions of most transportation agencies.

The standards program is growing in importance to the deployment of ITS and the development of products for the ITS market. In fiscal year 1997, a number of the ITS standards will be available for use by the public and private sectors. By fiscal year 1998, we expect to have 42 new standards available for use by the industry. As a result of this activity, which will continue in fiscal year 1999, two new efforts will be initiated late in fiscal year 1998 and into fiscal year 1999. User guides will be prepared to assist transportation professionals in the implementation of the new standards. For a select few of the new standards where national interoperability as an essential element, such as the communications standard for credentialing commercial vehicles across state lines, a testing effort will be initiated to insure the necessary interoperability.

Question. Please submit for the record a copy of your latest ITS spending plan for both fiscal year 1997 and fiscal year 1998, showing the use of both GOE and other contract monies. Please be certain that comparable activities are presented in these tables.

Answer. The following table reflects the latest ITS spending plans for fiscal years 1997 and 1998:

FEDERAL HIGHWAY ADMINISTRATION INTELLIGENT TRANSPORTATION SYSTEMS—FISCAL YEAR 1997 AND FISCAL YEAR 1998 SPENDING PLANS

[In thousands of dollars]

Activity/project	Fiscal years—					
	1997			1998 [2]		
	GOE [1]	ISTEA	Total	GOE	ISTEA	Total
Research and development	28,455	4,600	33,055	33,000	12,500	45,500
Traffic management and software tools	2,771	.....	2,771	7,500	.....	7,500
Commercial vehicle operations	7,000	.....	7,000	.....	7,500	7,500
Crash avoidance research	7,000	.....	7,000	.....	12,500	12,500
Enabling research	4,500	.....	4,500	7,500	.....	7,500
Rural research	.....	.....	.....	2,000	.....	2,000
High risk research	.....	4,300	4,300	.....	.....	.....
Advanced fleet management research	300	.....	300	1,000	.....	1,000
Other R&D	5,784	.....	5,784	4,000	.....	4,000
Program assessment	1,100	300	1,400	.....	.....	.....

FEDERAL HIGHWAY ADMINISTRATION INTELLIGENT TRANSPORTATION SYSTEMS—FISCAL YEAR 1997 AND FISCAL YEAR 1998 SPENDING PLANS—Continued

[In thousands of dollars]

Activity/project	Fiscal years—					
	1997			1998 [2]		
	GOE [1]	ISTEA	Total	GOE	ISTEA	Total
Highway rail intersection innovative development research	.....	.....	.....	3,500	.....	3,500
Automated highway system	22,000	.....	22,000	.....	26,000	26,000
Architecture and standards	5,000	7,200	12,200	.....	13,000	13,000
Architecture	.....	3,400	3,400	2,800	2,800	
Standards	5,000	3,800	8,800	.....	10,200	10,200
Operational tests	55,042	5,050	60,092	.....	24,500	24,500
ATMS/ATIS	10,000	1,700	11,700	.....	.....	.....
Commercial vehicle operations (CVO)	12,500	1,000	13,500	.....	2,000	2,000
AVCSS	3,050	.....	3,050	.....	12,500	12,500
APTS	.....	1,350	1,350	.....	5,000	5,000
Model deployment	26,492	.....	26,492	.....	.....	.....
Training activities	2,000	.....	2,000	.....	.....	.....
Rural	1,000	1,000	2,000	.....	5,000	5,000
Evaluation/program assessment	2,000	100	2,100	9,000	.....	9,000
Mainstreaming	.....	10,050	10,050	3,000	19,000	22,000
Commercial vehicle operations (CVO)	.....	1,000	1,000	.....	.....	(3)
Advanced public transportation systems (APTS)	.....	450	450	.....	.....	(1)
Training (professional capacity building)	.....	3,100	3,100	.....	10,000	10,000
Planning/process guidance	.....	1,000	1,000	.....	4,000	4,000
Deployment technical assistance	.....	4,500	4,500	.....	5,000	5,000
Awareness and advocacy [4]	.....	.....	.....	3,000	.....	3,000
Program support	7,861	300	8,161	9,000	1,000	10,000
Corridors program	.....	71,700	71,700	.....	.....	.....
ITS deployment incentives program	.....	.....	.....	.....	100,000	100,000
National advanced driver simulator (NADS)	.....	14,000	14,000	.....	.....	.....
Grand total	120,358	113,000	233,358	54,000	196,000	250,000

[1] Amounts reflect $1.642 million reduction associated with the ITS share of $3 million ''Accountwide Adjustments'' shown on page 43 of Conference Report 104–785.

[2] Fiscal year 1998 amounts are those included in the Congressional Budget; spending plan will not be formulated until after fiscal year 1998 appropriations are enacted.

[3] Included in program categories below in fiscal year 1998.

[4] In fiscal year 1998 consists of activities formerly funded under items VIA, VIB, and VIE.

Question. How could the ITS program be improved to ensure that additional environmental and energy conservation benefits are realized? How could the measurement of these environmental benefits be improved?

Answer. Current ITS traffic management programs attempt to reduce energy and emissions by reducing speed variability, excessive accelerations and the exposure of travelers to congestion. Advanced travel information seeks to provide the consumer with real time trip time information via alternate routes and alternate modes. Informed choice will generally lead travelers to choose the fastest means of travel which is generally the least polluting.

We recognize that short-term success in reducing congestion will lead to more thruput capacity that will ultimately be consumed by growth in demand. While more vehicles will yield more pollution—the alternatives are worse. New capacity will consume precious land, and other environmental resources and lead to further sprawl which is less conducive to mass transit service. An ITS managed system—

while congested will smooth flow, and permit denser development. Over the long term ITS infrastructure will enable the use of congestion pricing to further manage the use of scarce road space.

Truly accurate predictions of the impact of surface transportation operations improvements are not possible on current transportation or air quality models. This was a key finding of a recent analysis done by the National Academy of Sciences. Both need substantial improvement.

Using current tools, the measurement of environmental benefits could be improved through field measurements and the institution of a coordinated modeling approach. Field measurements can be conducted through a sample of instrumented vehicles using both ITS technologies such as on-board GPS systems and cellular data links and other equipment to collect both vehicle operations and related emissions and fuel consumption data. The modeling approach should be sufficiently detailed to capture the reduction in accelerations from implementing ITS, while concurrently capturing the travel demand impacts of ITS.

The former impact on accelerations are to be calibrated using the measurements gathered from instrumented vehicles, while the travel demand impacts are to be captured using surveys.

The above approach is being pursued for both the energy and emissions impacts of metropolitan model deployments.

Question. Please estimate dollar amounts separately for fiscal year 1996, fiscal year 1997, and fiscal year 1998 that were used or planned for the education of kindergarten to twelfth grade students on ITS. Please further justify why this funding is of critical importance.

Answer. In 1996, $60,000 was provided to the TRAnsportation and Civil Engineering (TRAC) program for ITS education of middle and high school students. The TRAC program is a hands-on educational package that helps students use math and science to solve real-world problems in transportation and civil engineering. TRAC, a 6-year old program, is a joint AASHTO-FHWA effort consisting of a TRAC kit which stays in the classroom throughout the school year. This kit includes a DOS-based desktop computer, a set of analog-to-digital data collection probes, and printed lesson plans and student materials. Its goal is to encourage interest in careers in transportation engineering and related ITS disciplines. Special emphasis is given to those currently under represented in the field such as minorities and women. There are currently 400 participating schools in 23 States, Puerto Rico, and the Virgin Islands. In the current year, 83,000 students are making use of the TRAC program. As of July 1996, current demand for TRAC, as measured by teachers who have specifically requested the program in their classrooms, is in excess of 2,100.

No funding for this activity will be provided in fiscal year 1997 and no funds are included in the ITS budget for fiscal year 1998.

At the present time, a Business Plan for the Professional Capacity Building program is being developed that will assess the needs and will prioritize the limited resource dollars to meet future budget needs. The TRAC program will be considered as the needs and resources dictate.

Question. Is it correct that FHWA is not funding any work specifically to promote incident management coalitions during fiscal year 1997? In view of the cost effectiveness of this activity and the importance of building regional cooperation, what plans have you developed to advance this area? How much do you plan to spend during fiscal year 1998 on this topic?

Answer. Because incident management is part of a much larger ITS Infrastructure serving the entire metropolitan area for the management of all forms of travel, FHWA did not fund this activity in fiscal year 1997, per se. Instead the concept of coalition building for all players for the expanded ITS Infrastructure received a great deal of attention thru our training efforts, guidance, and our work with associations. Our concern with focusing exclusively on incident management, to the exclusion of a larger vision—is deployment of incident management programs in a stovepipe fashion.

Nevertheless, work is continuing with the National Incident Management Coalition in fiscal year 1997 with fiscal year 1996 funds. In fiscal year 1998 we plan to provide funding for the National Incident Management Coalition to continue their work. The proposed budget for this work in fiscal year 1998 is $188,000.

Question. What could be done during fiscal year 1998 to improve the state of technology of incident management? What amount do you plan to spend in this area during fiscal year 1998?

Answer. The application of advanced technologies to speed the detection and initial assessment of incidents is an area that can produce significant results in providing lifesaving assistance and/or reducing the impact that incidents have on our transportation systems. A number of advanced technologies can be applied to inci-

dent detection, each with their own strengths, weaknesses, costs and benefits. In fiscal year 1998, we propose to examine both existing and proposed surveillance systems and to provide a trade off type analysis of these systems in the areas of cost effectiveness, flexibility of application, compatibility with existing technologies, as well as overall maintenance and operational considerations. The intent of this work is not to select which surveillance system is better, but rather, to generate methodologies for practitioners to use in evaluating applicable technologies and selecting the system(s) that best meets their needs and budget. The proposed budget for this work in fiscal year 1998 is $250,000.

Question. What is the estimated annual level of expenditures on ITS by State and local governments? Please present any historical data that are available.

Answer. Through the existing FHWA Fiscal Management Information System (FMIS), we are able to track Federal-aid expenditures on four ITS components—traffic signal control systems, freeway traffic surveillance and control systems, motorist-aid systems, and highway information systems. In fiscal year 1995 (the latest year for which we have summary information), Federal-aid expenditures on these four components amounted to approximately $1 billion. Historical trend data is listed in the attached table, which indicates that the investment in these components has been growing rapidly.

When proposed changes to the FMIS system are implemented, and our ITS deployment tracking database is fully populated, we should be able to make more accurate estimates of State and local expenditures on ITS deployment.

	Fiscal years—				
	1991	1992	1993	1994	1995
Traffic signal control systems (including computerized systems)	$272,801,631.76	$317,244,058.92	$380,704,078.85	$452,151,298.78	$494,000,112.21
Freeway traffic surveillance and control systems	72,478,786.26	153,827,574.15	368,680,215.57	408,677,197.65	503,570,854.94
Motorist aid system	13,930,195.96	6,989,865.32	22,352,084.80	45,239,999.60	32,100,288.60
Highway information	13,078,923.29	15,997,416.38	16,513,740.64	20,738,932.13	25,432,206.01

Question. Please submit for the record a detailed breakout of how the fiscal year 1997 funds for model deployment were allocated. Specify the amounts and purposes of any supporting contracts.

Answer.

Travel management

A total of $20,312,000 in fiscal year 1997 funding for the ITS model deployment projects was distributed as follows:

—New York/New Jersey/Connecticut metropolitan area—$5,760,000.
—Phoenix, Arizona—$2,920,000.
—San Antonio, Texas—$2,544,000.
—Seattle, Washington—$9,088,000.

The funding was awarded to the model deployment projects through cooperative Partnership Agreements between the Federal Highway Administration and the appropriate State' Department of Transportation. The New York/New Jersey/Connecticut model deployment is a cooperative effort among the three participating States, with the New York Department of Transportation acting as the lead State for administration of the project funding. The Model Deployment Initiative is being managed jointly by FHWA and FTA.

A total of $1,805,000 is being used in fiscal year 1997 to support the selected metropolitan area Model Deployment projects, and to encourage the non-selected Model Deployment partnerships to continue with their ITS deployment plans. This support includes regular workshops to facilitate information exchange among the selected Model Deployment sites and to provide a forum to address crosscutting issues. An additional workshop will be conducted for the non-selected Model Deployment sites to encourage their continued pursuit of their deployment goals. The funding also provides technical assistance on the national ITS architecture, systems engineering and other issues relevant to both the selected and non-selected Model Deployment partnerships. The funding is allocated as follows:

—Model Deployment Quarterly Workshops—$105,000.
—National Architecture "Early Implementation" Support—$800,000.
—Deployment Assistance Workshops and Support—$200,000.
—Technical/Systems Engineering Support—$500,000.
—Program Management Software, Internet Site Support—$200,000.

Evaluation of the Model Deployment effort is essential to obtaining the total national program value from the this initiative. To avoid conflict of interest created by having a participant evaluate its own projects, two ITS Program Assessment support contracts were awarded, in part, to evaluate the benefits of the metropolitan Model Deployment sites. fiscal year 1997 funds allocated for this evaluation effort totals $3,300,000.

Commercial vehicle operations

For Commercial Vehicle Operations the plan for model deployment funding is to allocate approximately $500,000 to each of the nine pilot and prototype model deployment states. The model deployment states are Maryland, Virginia, California, Connecticut, Colorado, Kentucky, Michigan, Minnesota, Oregon/Washington. In addition, $5 million has been allocated to Technical Support for the CVISN pilot states to conduct CVISN program planning and coordination, CVISN system design refinement and extension, EDI standards development, CVISN interoperability testing, and architectural refinement and extension.

Question. Why does the JPO believe it is critical to spend $3.5 million on highway/rail grade crossings in the ITS program?

Answer. The importance of funding highway/rail grade crossings in the ITS program is to demonstrate that the train control system and the highway traffic management system correctly communicate with each other, based upon the recently completed ITS National Architecture for Highway/Rail Intersections. The system is expected to interconnect crossing warning systems with highway signal systems, Positive Train Control (PTC), and advanced traffic management systems deployed in most major cities in the U.S. The intermodal dynamic traffic control system will focus on corridor segments of special traffic flow (school buses, hazmat vehicles) and provide advanced information to warn drivers approaching a HRI of a train blocking a crossing. The highway-traffic management system can then reroute the traffic around the occupied crossings to minimize delays to motor vehicles.

There are two previous ITS investments involving highway/rail intersections. Both were earmarked projects. The first project involves the Vehicle Proximity Alert System (VPAS), which is designed to warn drivers of priority vehicles about the presence of approaching trains at rail crossings. The first phase of the project, which required several systems to be tested, has recently been completed. Phase two started in the Fall of 1996. A test plan has been completed by the Volpe Center. Both the states of Michigan and Washington have expressed an interest in becoming test sites. They are now developing proposals. Approximately $400,000 of the $1,000,060 allocated to the project has been spent to date. All of that is ISTEA funds.

The second project includes the development of a prototype integrated warning system for use at railroad/highway grade crossings. The purpose is to perform a demonstration of an integrated uniform time warning/ITS system on an electrified railroad. The demonstration will employ an Intelligent Grade Crossing System (IGC), working in concert with an Intelligent Traffic System (ITS) and a modified radio communications-based Automatic Train Control (ATC) system. It is being conducted by the New York DOT under an earmark of $4,625,000, all ISTEA funds. The first phase is complete. The second phase, hardware development, is expected to be complete by September 30, 1998. The field testing and final evaluation of the system is expected to be complete by the first quarter in 2000.

Question. What has been achieved with past ITS investments in this area?

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There are two previous ITS investments involving highway/rail intersections. Both were earmarked projects. The first project involves the Vehicle Proximity Alert System (VPAS), which is designed to warn drivers of priority vehicles about the presence of approaching trains at rail crossings. The first phase of the project, which required several systems to be tested, has recently been completed. Phase two started in the Fall of 1996. A test plan has been completed by the Volpe Center. Both the states of Michigan and Washington have expressed an interest in becoming test

sites. They are now developing proposals. Approximately $400,000 of the $1,000,060 allocated to the project has been spent to date. All of that is ISTEA funds.

The second project includes the development of a prototype integrated warning system for use at railroad/highway grade crossings. The purpose is to perform a demonstration of an integrated uniform time warning/ITS system on an electrified railroad. The demonstration will employ an Intelligent Grade Crossing System (IGC), working in concert with an Intelligent Traffic System (ITS) and a modified radio communications-based Automatic Train Control (ATC) system. It is being conducted by the New York DOT under an earmark of $4,625,000, all ISTEA funds. The first phase is complete. The second phase, hardware development, is expected to be complete by September 30, 1998. The field testing and final evaluation of the system is expected to be complete by the first quarter in 2000.

Question. Do you have a strategic plan to guide your activities specifically in this area.

Answer. An Action Plan on Rail-Highway Crossing Safety was developed by Federal Highway Administration, Federal Railroad Administration, Federal Transit Administration and the National Highway Traffic Safety Administration in June of 1994. The plan was developed to improve safety and prevent trespassing at highway-rail crossings throughout the nation. The plan was updated in March of 1996 by a Grade Crossing Safety Task Force appointed by Secretary Federico Peña The task force concentrated its attention on five problem areas, (1) Interconnected highway-rail signal and highway rail crossing warning devices, (2) Available storage space for motor vehicles between highway rail crossings and adjacent highway-highway intersections, (3) High profile crossings and low clearance vehicles, (4) Light rail transit crossings, (5) Special vehicle operating permits and information. In 1996 and early 1997 the ITS Joint Program Office and the Federal Rail Administration undertook a project to develop an ITS architecture for Rail-Highway Intersections. The architecture is complete and an update to the task force's plan is expected to occur in fiscal year 1998.

Question. Please compare your GOE expenditures for each of the last three years to the amounts appropriated for each ITS category of funds specified in the Conference report, as well as amounts earmarked by the House or Senate reports that were not objected to in either the Senate report or in the Conference report. Indicate the amount of carryover funds for each year by category and explain any deviations.

Answer. The following table compares actual and/or planned GOE obligations for each of the last three fiscal years (1995, 1996 and 1997) to the amounts for each ITS program area included in the annual conference reports. This table also reflects unobligated balances at the end of each of the aforementioned fiscal years by program category.

Any deviations between the funds actually used and/or projected to be used by program category is minor. If not for the rescission in fiscal year 1995 and unspecified "account wide reductions" reductions in fiscal years 1996 and 1997, funds actually used for each ITS program within the General Operating Expenses account would always falls within the 10 percent plus or minus variance historically allowed by the Committee.

FEDERAL HIGHWAY ADMINISTRATION INTELLIGENT TRANSPORTATION SYSTEMS—ANALYSIS OF FUNDING, GENERAL OPERATING EXPENSES

[In thousands of dollars]

Program category	Fiscal years—								
	1995			1996			1997		
	Dollars in report	Actual used	Unobligated 9–30–95	Dollars in report	Actual used [1]	Unobligated 9–30–96	Dollars in report	Actual used [2]	Unobligated 9–30–97
Research and development	35,000	35,512	2,529	37,479	36,166	2,237	29,000	28,605	.....
Operational tests	22,500	19,982	657	32,500	31,052	587	56,000	54,992	.....
Commercial vehicle operation	10,700	11,565	.....	14,500	13,750	435	.....	.....	.....
Automated highway system	10,000	8,990	.....	14,000	14,000	23	22,000	22,000	.....
Advanced technology application	15,000	14,466	.....	.....	.....	.....	.....	.....	.....
Corridors program	10,000	11,000	.....	.....	.....	.....	.....	.....	.....
Deployment support	.....	.....	.....	.....	.....	.....	.....	.....	.....
Program and system support	11,300	12,985	1,504	11,300	10,034,	1,096	8,000	7,761	.....
System architecture	.....	.....	.....	.....	.....	.....	5,000	5,000	.....
Congested corridors	.....	.....	.....	.....	.....	.....	.....	.....	.....
Model deployment	.....	.....	.....	.....	.....	.....	.....	.....	.....
Evaluation	.....	.....	.....	.....	.....	.....	2,000	2,000	.....
Mainstreaming	.....	.....	.....	.....	.....	.....	.....	.....	.....
National adv. driver sim. (NADS)	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	114,500	114,500	4,690	109,779	105,002	4,378	122,000	120,358	.....

[1] Fiscal year amounts exclude $4,777 in reductions associated with sec. 335 of Public Law 104–50.
[2] Fiscal year 1997 amounts exclude $1.642 M in ''Accountwide Savings'' (page 43 conference report 104–785).

Question. Please breakout in detail the amount of DOT funds that was spent in conjunction with the 1996 Olympic in Atlanta. Approximately how much private sector money was spent on ITS investments in or around Atlanta?

What were the lasting benefits of this investment? Will any fiscal year 1998 funds be spent in this area?

Answer. The Olympic and Paralympic Games were the world' two largest sporting events in 1996 both in terms of athlete and spectator attendance. The Atlanta games were the largest Olympics in history with average daily ticket sales exceeding 500,000 for all 17 days of the Games. In addition to its massive size, the Atlanta games were also unique in terms of the location of event venues. Most of the major venues were located in a 1.5 mile radius Olympic Ring centered in downtown Atlanta. The combination of these factors compounded by other issues like security, presented a major challenge for transportation operators during the Games period. Consequently, investment in transportation infrastructure to support the Games was heavy. However, the roadway, bridge, and most ITS projects had been previously planned and were accelerated to meet an Olympic deadline.

More than $800M was spent on 125 Olympic-related transportation projects throughout the State of Georgia, of which more than $660M was federally funded. More than $500M was spent on projects in the Atlanta metropolitan area. The generalized expenditures are as follows:

[In millions of dollars]

Total Federal Funds:	
Roadway and bridge	554.1
Landscaping, pedestrian, bikeways	40.2
ITS related	182.8
Other	41.5
Total	818.1
Total ITS-related projects:	
Advanced Transportation Management System (ATMS) ($58 earmark, $79 federal-aid)	137
MARTA (the local transit authority)	13
Traveler information showcase	14.6
Atlanta driver advisory system operational test	9.1
Kiosk project	5
Commute connections	3.3
ITS evaluation effort	0.8
Total	182.8
Total ITS program funds:	
MARTA (plus $2 FTA funds)	11
Traveler information showcase (plus $10 technology application funds)	4.6
Atlanta driver advisory system operational test (plus $2.4 match)	6.7
Kiosk project (Plus $1 match)	4
ITS evaluation effort	0.8
Total Federal ITS program funds	27.1

Private sector investment in ITS projects is by its nature difficult to quantify. Those costs tend to be privately held by each private sector partner. For the Atlanta Driver Advisory System Operational Test, the Scientific Atlanta team contributed approximately $1.86M. The kiosk project was designed to be self sufficient through the use of advertising on the kiosks. The details of this arrangement are still under discussion and negotiation with the operators of the kiosks. The Traveler Information Showcase project made the most extensive use of private sector service providers. While we know that the private sector partners contributed work (particularly for software development) beyond that for which they were compensated, cost estimates have not been shared with US DOT.

All of the projects in Atlanta were permanent deployments. The Traveler Information Showcase project which was intended as a short term showcase of traveler information services has been absorbed by the Georgia Department of Transportation and others. The only products which will not continue to be available are the handheld computers and the in-vehicle devices. These services are wholly the prerogative of the private sector who have chosen not to continue them. We are optimistic that the lessons learned by the private sector partners will provide the impetus to redeploy products and services based on their experience in Atlanta.

The lasting benefits to the Atlanta region and the State of Georgia are impressive and far reaching.

Improved identification and clearance of incidents.—71 percent of the incidents during the Olympics were verified in two minutes. The only large incident during the Games, which normally would have taken most of the day to clear, was cleared in a little over two hours. Highway Emergency Response Operators (HERO's) responded to 2000 incidents during the Games, and moved disabled vehicles and buses from freeway lanes until they could be towed. In the first year of operation, the HERO's handled 17,714 incidents. Additionally, it has been observed that the number of Atlanta police officers responding to a single incident has reduced since they no long have to handle traffic as that is now done by the HEROs. This allows better use of police resources throughout the city.

Transit operations.—The Metropolitan Atlanta Regional Transit Authority (MARTA) Transportation Information Center (TIC) used the CCTV cameras for assignment of buses, management of spectator movements, transit surveillance in the congested Olympic Ring area, and incident response. This capability assisted MARTA in managing three times its normal load during the Games.

Traveler information.—Real-time traffic information was available through cable TV in more than 700,000 homes. Public response was very positive, with the most useful information being the real-time speed map, incident details and live camera views. This service is being continued by the Georgia Department of Transportation. The Internet page was also popular. The route planning page was the most used with 16,000 "its" in the peak week of the Games. 80 percent of the users of the real-time transportation information said that they changed their travel plans due to the information. The in-vehicle device received very high marks with the public users. In one case, a Showcase contractor picked up an associate who was sick; the in-vehicle device was used to find the nearest hospital and navigate there quickly with real-time information available to the driver. This technology was credited with getting quick treatment for a seriously ill person for whom time was of the essence.

Surveillance cameras.—Two-thirds of the incidents during the Games were detected by CCTV, HERO's or DOT callers. Additionally, the cameras provided the most flexible and most used tool to the operating agencies. Since the cameras were fully accessible to the state, city, five counties, MARTA, police agencies and security personnel, the same piece of equipment could be used by each agency for their own unique purpose. For example, in dealing with recurring congestion at a downtown off ramp it was discovered that managers from different operating agencies were literally looking at the same camera view but acting on the situation per their unique responsibilities. Georgia Department of Transportation used the information to manage their response on the freeway, the City of Atlanta used the information to determine the effectiveness of their signal timing modifications, MARTA used it to determine the impact on the spectator fleet, Georgia State Patrol used it to manage the athlete fleet, and the Atlanta Committee for the Olympic Games (ACOG) used it to coordinate the many aspects of their transportation program. Clearly, this type of efficient response would not be possible without the capabilities provided by ITS technologies and an integrated approach.

Interjurisdictional relationships.—One of the most significant, long-term benefits from the ITS program in Atlanta was the forging of institutional relationships across jurisdictional and agency boundaries. There is no way to neatly quantify this benefit, but it is real and it is significant. The City and the State traffic personnel have reached unprecedented levels of cooperation and coordination. The City enforcement community has a much stronger communication link to Georgia Department of Transportation and an appreciation of the need for coordination between traffic and enforcement has been developed. Coordination between traffic and transit agencies is at an all-time high. There is an open sharing of information between agencies, with shared control of some hardware such as traffic signals and cameras.

No fiscal year 1998 ITS funds are planned to be obligated in Atlanta.

Question. Are you planning ITS projects related to the future Olympics in Utah?

Answer. FTA and FHWA are working with the State of Utah on how ITS technologies will play a role in meeting the transportation needs at the 2002 Olympics in Salt Lake City. In early March, a briefing was held including representatives of USDOT from FTA, FHWA and FAA as well as representatives from the Salt Lake Olympic Committee, the Utah Governors Office, the Utah Transit Authority, and congressional staff. Key points of discussion included: multi modal transportation infrastructure needs for the Salt Lake area; NEXTEA legislation pertaining to transportation for US Olympic venues; and an overview of Olympic Committee activities and near term directions for inter-agency coordination.

Later in March, in a conference call FHWA and FTA Regional Administrators agreed to develop a proposal to address the resource and coordination needs related

to the upcoming Olympics. The proposal will address the Division, Regional and Headquarters roles.

At the current time FTA is providing technical assistance. It is possible that funding would be provided for ITS projects in Salt Lake as part of the Deployment Incentives program as the transportation needs to support this event are further defined.

Question. Please prepare a list of all of the operational tests that have not yet been completed, indicate their starting date, expected date of completion, expected date of submittal of final evaluation, remaining unspent balances, and remaining balances that are obligated.

Answer. Our partial answer to this question is provided in the table below. In order to provide answers regarding unspent balances, we will have to work with our financial administrators to search data bases and cross-reference accounting codes. We anticipate re-submitting a completed table by July 11, 1997. Please note that the "expected date of completion" and "expected date of submittal of final evaluation" are the same dates. Projects are not considered completed until the final, publicly available evaluation report is submitted and approved. Also, remaining unspent balances are the same as remaining balances that are obligated; therefore, only one column (i.e., the currently incomplete column) reflects our response to these requests.

Extracting unspent balances by project from the agency's accounting system is a very time-consuming effort, this data is not included herein and will be submitted in the near future.

Project	Start date	Expected completion/ final report date	Remaining unspent balance
ADVANCED TRAFFIC MANAGEMENT SYSTEMS (ATMS)			
Fast-trac	4/92	6/00	.....
Integrated ramp metering/adaptive signal control	9/93	7/98	.....
ITS for voluntary emissions reduction	1/95	10/97	.....
Mobile communications system	5/94	10/97	.....
Montgomery County ATMS	7/94	9/97	.....
North Seattle ATMS	3/94	12/97	.....
San Antonio transguide	8/93	4/97	.....
Satellite communications feasibility	10/92	6/98	.....
SCOOT adaptive control system	9/93	6/98	.....
Spread spectrum radio traffic interconnect	7/94	6/98	.....
ADVANCED TRAVELER INFORMATION SYSTEMS (ATIS)			
Atlanta traveler information systems kiosk project	1/94	5/97	.....
Atlanta driver advisory system	3/95	5/97	.....
DIRECT	5/91	12/97	.....
Denver, CO, Hogback Multi-Modal Transfer Center	5/93	9/98	.....
Railroad crossing vehicle proximity alert system, phase I	6/95	8/97	.....
Railroad crossing vehicle proximity alert system, phase II	10/97	11/98	.....
Railroad highway crossing—Long Island	7/95	9/98	.....
Seattle wide-area information for travelers/Bellevue	8/94	12/97	.....
Travinfo	4/93	12/98	.....
Trilogy	7/94	1/98	.....
ADVANCED PUBLIC TRANSPORTATION SYSTEM (APTS)			
LYNX passenger travel planning system	1/96	[1] 4/97	.....
Miami real-time passenger information system	7/95	7/97	
Northern Virginia regional fare system	9/96	5/99	.....
Blacksburg traveler information system	7/96	1/98	.....
Suburban mobility authority for regional trans (SMART)	12/93	6/98	.....
Winston-Salem mobility management, phase II	6/96	10/97	.....
Houston smart commuter	2/93	10/99	.....
Ann Arbor smart intermodal	7/91	9/97	.....
CTA (Chicago) smart intermodal	7/91	5/98	.....
Dallas smart vehicle operational test	4/94	1/98	.....

Project	Start date	Expected completion/ final report date	Remaining unspent balance
Delaware County ridetracking	9/92	6/97	.....
Smart flexroute integrated real-time enhancement system	1/94	5/98	.....
Santa Clara County smart vehicle	11/93	2/96	.....
Dallas area rapid transit personalized public transit	9/94	8/98	.....
Denver RTD passenger information display system	9/93	9/97	.....
Wilmington, Delaware smart DART	7/94	5/99	.....
New York City MTA travel information system	9/94	9/98	.....
ADVANCED RURAL TRANSPORTATION SYSTEMS (ARTS)			
Travel-aid	11/92	7/98	.....
Idaho storm warning system	6/93	1/98	.....
Advanced rural transportation information and coordination	7/94	8/98	.....
TransCal	7/94	12/97	
Advanced transportation weather information system	5/95	8/97	.....
Herald en-route driver advisory via AM subcarrier	1/95	10/97	.....

[1] Concept development phase completed. Project completion date TBD.

COMMERCIAL VEHICLE OPERATIONS (CVO)

Project	Start date	Expected completion date	Remaining unspent balance
Dynamic truck speed warning for long downgrades	6/93	8/97	.....
Advantage I–75	1/91	10/97	.....
Out-of-service verification operational tests	4/94	.....	.....
Wisconsin/Minnesota	.....	3/97	.....
Idaho	.....	12/97	.....
Electronic one-stop shopping for credentials	1/95	.....	.....
HELP	.....	8/97	.....
Midwest	.....	12/97	.....
Southwest	.....	7/97	.....
Electronic clearance for international boarders	9/94	.....	.....
MONY (Detroit, MI, Buffalo, NY)	.....	3/98	.....
IBEX (Otay Mesa, CA)	.....	10/98	.....
EPIC (Nogales, AZ)	.....	12/97	.....
ITS/CVO greenlight project	10/9	4/00	.....
National Institute for Environmental Renewal (NIER)	10/9	.....	.....
Tranzit xpress	.....	3/97	.....
Tranzit xpress II	.....	3/98	.....
Operation Respond	4/95	6/97	.....
Roadside MCSAP computer system	5/95	6/97	.....

ADVANCED VEHICLE CONTROL AND SAFETY SYSTEMS (AVCSS)

Project	Start date	Expected completion/ final report date	Remaining unspent balance
Puget Sound help me (PuSHME) mayday system	8/94	3/97	.....
Colorado mayday system	10/94	6/97	.....
Automated collision notification system	9/95	10/98	.....
Intelligent cruise control	9/95	9/97	.....

Question. Are additional model deployments necessary beyond the four now underway?

Answer. We believe the four existing metropolitan area model deployment projects and the seven CVISN model deployments—will be sufficient to achieve the goals of this program, namely to evaluate and showcase the benefits of integrated, intermodal, interoperable deployment of ITS technologies and strategies in a metropolitan setting.

Question. How many "model deployments" and "incentive projects" will it take to convince metro areas and States to use more of their Federal aid dollars to deploy ITS?

Answer. Model deployment and deployment incentive projects are distinct types of projects, conducted for different reasons. The four existing metro area model deployment and the seven CVISN model deployment projects are being implemented to serve as showcases of integrated, intermodal ITS infrastructure, and to provide the opportunity for comprehensive evaluations of this level of deployment. We believe that projects, together with the Washington D. C. and Atlanta Showcases, will provide enough information and experience to draw the interest of other elected officials, and that the evaluation data will be sufficient to convince others that implementation is viable, practical, and cost-effective.

The incentive program is intended as a transition from research and demonstration to mainstream. It is designed for only the life of NEXTEA. The metropolitan projects to be funded under the proposed ITS deployment incentives program will be in metropolitan areas which have already made a decision to deploy ITS infrastructure. The deployment incentive funding there will serve as a "sweetener" to jump-start the integration of that infrastructure. The incentives for states to deploy CVO ITS infrastructure will help extend the 7 state system to a national system. Funding incentives for deployment of rural applications has also been provided. It is expected that in all instances the availability of ITS deployment incentive funds will spur additional Federal-aid investment.

Question. Please assess the progress made by the National ITS Program against each of the goals and objectives specified in Title VI(B) of the ISTEA.

Answer. The benefits of the ITS program are well documented according to the goals specified in ISTEA. The ITS Joint Program Office has identified a key set of few good measures to capture such benefits. These include (1) crashes avoided; (2) lives saved; (3) improved throughput, or transportation system network efficiency; (4) decreased travel times; (5) improved customer satisfaction; and (6) reduced costs. Corollary benefits from ITS are hypothesized to include reductions in harmful emissions and fuel use. The current state of documented benefits is comprehensively reviewed in a report, "Review of ITS Benefits: Emerging Successes," U.S. DOT, FHWA, 1996. The following paragraphs provide a brief assessment of progress made according to each goal area in ISTEA.

Promote widespread implementation of ITS.—The ITS program has made an excellent start at laying the foundation for widespread implementation. This foundation consists of: (1) a comprehensive research, test, and model deployment program conducted by the surface transportation modal administrations under the leadership of the ITS Joint Program Office; (2) a comprehensive development and documentation of a National ITS Architecture that provides the framework by which ITS products and services can be marketed and sold nationwide while having utility by all Americans traveling anywhere in the United States; (3) a standards program that stimulates private industry to work together to ensure all ITS products and services will be compatible, interoperable, and affordable; (4) a Professional Capacity Building program to re-shape the knowledge, skills, and abilities of our nation's transportation professionals, many of whose careers have been dedicated to the building of the Interstate System and now must turn to learning how to apply telecommunications, electrical engineering, information processing, and computer skills to operating and maintaining our existing physical infrastructure while supplementing it with an integrated ITS infrastructure; (5) a Main streaming Program dedicated to providing job aids and tools to transportation professionals to help them plan, develop, build, deploy, operate, and maintain an integrated, multimodal, surface transportation system; (6) a Program Assessment function that has afforded independent evaluations of field operational tests and model deployments and provided an extensive documentation of the benefits of ITS, as well as the documentation of non-technical, institutional issues leading to gradual changes in institutional infrastructures by modifying legislation, contracting procedures, and other standard practices to enable full realization of the benefits that ITS has to offer; and, (7) a strong partnership with industry through ITS America, and through increasingly large numbers of public-private partnerships in field operational tests and model deployments, whereby industry has signed up to greater than 50 percent of the costs of many projects, and up to 50 percent in many more. The technical feasibility of ITS has

been demonstrated. There are no show stoppers. It is now time to turn the nation's attention to NEXTEA whereby the job of national deployment of ITS can take place.

Reduce costs of traffic congestion.—Significant strides have been made in showing the potential for ITS to save lives, reduce congestion-caused delay, and save time and money. There is growing documentation of specific time savings resulting from advanced traffic management systems, advanced public transit systems, and from commercial vehicle operations. This documentation includes reports that freeway management systems are responsible for a 20 to 48 percent decrease in travel times, 15 to 50 percent reduction in accident rates, and up to a 41 percent reduction in congestion-caused fuel use.

Increased safety.—There are several major ways that the deployment of ITS is beginning to promote or could result in safety benefits. These include: crash avoidance technologies that warn drivers of impending rear-end collisions, countermeasure systems that prevent vehicles from inadvertently running off of the highway, and lane change/merge crash avoidance systems. Such systems, if implemented nationwide, could avoid 1.1 million crashes out of a total of 6.4 million crashes each year, a savings of 17 percent. Other ITS technologies result in improved traffic flow and mitigated traffic congestion. Moreover, advances in commercial vehicle operations technologies can allow for increased targeting of unsafe motor carriers by means of electronic screening of registrations and safety records for each equipped vehicle.

Improved air quality.—The linkage between ITS and improved air quality is based upon the hypothesis that ITS deployments can alleviate congestion, thereby decreasing stop-and-go traffic and resulting in less fuel consumed by rapid acceleration/deceleration oscillations of large numbers of vehicles. ITS intervention can be accomplished by real-time traveler information systems that inform travelers about weather and congestion and can cause them to delay their departures, select a different route or a different transportation mode. Coordinated traffic signal systems can accomplish similar smoothing of traffic flows with commensurate benefits in fuel savings. A few field operational tests have been conducted whereby data sampling has been made and modeling has been used to project benefits in fuel efficiency. In one instance that tested dynamic route guidance in a vehicle, general emissions benefits were projected to be modest, at around 5 percent. Moreover, although some are concerned that because ITS alleviates congestion, such technologies will contribute to emissions because more people will be driving the less congested highways. At present, there are no data available to document the validity of this argument.

Development of ITS technology and domestic ITS industry.—The ITS program has been successful in stimulating a rapidly growing industrial base. The Electronics Industry of America has just completed a market assessment of ITS and confirms that ITS is becoming a billion dollar industry. A similar study by ITS America is supportive of this same conclusion. Emerging benefit/cost data reflect a healthy 8/1 benefit/cost ratio for investments in ITS infrastructure in the nations larger metropolitan areas. ITS is emerging as an extremely cost effective investment. Expanding roadway capacity by incorporating ITS into the planning process has recently been estimated to provide a 35 percent cost savings compared to traditional methods of expanding capacity by merely paving new lanes. The private sector is also catching on. High end vehicles now include in-vehicle collision and Mayday notification systems. Back-up collision warning systems concepts are getting commercial television advertisement spots from one domestic car manufacturer, and in-vehicle navigation systems are being advertised by a variety of domestic and foreign automobile manufacturers.

Question. Please specify on a project-by-project basis how the fiscal year 1996 and the fiscal year 1997 program support monies were used. How much of these funds went to ITS AMERICA?

Answer. A total of $10.299 million was obligated for Program Support in fiscal year 1996 and we expect to obligate $9.257 million in fiscal year 1997 and $10 million in fiscal year 1998 for Program Support as follows:

[In thousands of dollars]

	Fiscal years—		
	1996	1997	1998
ITS America	2,605	2,773	2,700
Mitre Corporation (management support)	5,544	5,495	5,300
Volpe National Transportation Service Center	250	900	900

[In thousands of dollars]

	Fiscal years—		
	1996	1997	1998
Other support services [1]	1,900	89	1,100

[1] Includes computer network support, technical and Report to Congress writers/editors, management information support/project tracking system support, special visual aid and publication services, etc.

Question. If program support monies are held constant, what are the implications?

Answer. We have indicated in our answer to question 14 that we are critically dependent on management support contractors to manage the program. Access to data bases, information networks, etc that they have created for us would be difficult. The clearinghouse function and all dissemination of research information is entirely dependent on contract support. Further, we are relying on these contractors for support in assisting us in reviewing applications for deployment incentive funds. A reduction in our request will reduce our ability to effectively manage the program. Much of the increase requested in fiscal year 1998 is attributable to program support activities required for the portion of the program managed by the Federal Transit Administration (FTA), which is proposed to grow from $4 million in fiscal year 1997 to $15.5 million in fiscal year 1998. These funds are critical to their ability to effectively manage their program.

Question. When will it be a requirement for the States to use the National Systems Architecture and to comply with consensus standards needed for interoperability in any ITS project funded with Federal Aid monies? How will you establish this requirement?

Answer. We are currently requiring all operational tests and model deployments using ITS funds to be consistent with the Architecture and applicable industry standards as they are adopted. A similar requirement for the use of Federal-aid funds is included in the Department's ISTEA reauthorization proposal recently delivered to Congress. Assuming that this provision is signed into law, we anticipate the need for an annual determination by the Secretary regarding which ITS standards are required to be used as a prerequisite for using Federal-aid funds to deploy ITS projects.

FHWA is currently developing a policy that will implement this provision and is also developing guidance material on what constitutes conformance with the Architecture.

Question. Please delineate all contract and GOE expenditures (active and planned) for fiscal year 1997 and fiscal year 1998 related to "outreach" and "mainstreaming" activities. Please specify fiscal year 1997 amounts by project or activity and do the same for fiscal year 1996 expenditures.

Answer. The ITS spending plan for fiscal year 1997 includes $9.95 million for Mainstreaming activities all of which is funded from contract authority funds provided via contract authority through the Federal-aid Highways account. Of this total for mainstreaming, approximately $100 thousand is expected to be obligated for CVO outreach, and $1 million for ITI outreach.

The ITS Budget for fiscal year 1998 includes $22 million for Mainstreaming activities; $3 million are requested in FHWA's General Operating Expenses account and $19 million are included within the $96 million in contract authority requested in fiscal year 1998 for the ITS Research and Development program in the reauthorization (NEXTEA) package now under consideration by the Congress. Of the $22 million for mainstreaming, approximately $1 million will be used for an ITI Awareness Campaign which could loosely be interpreted as outreach.

Question. Are you planning or conducting any research or operational tests to use ITS as a means of helping to notify police of possible impaired or aggressive drivers? Is this an avenue worth pursuing during fiscal year 1998? Do you plan on spending any fiscal year 1998 funds on this technological path?

Answer. The technologies used to detect drowsy drivers are likely to also have applicability to impaired or aggressive drivers. We will be conducting an on-road evaluation of a heavy vehicle drowsy driver detection system in fiscal year 1998, but have no immediate plans to extend this research to include impaired or aggressive drivers.

Question. Given the numerous alternative uses for Federal aid dollars, do you anticipate that most metropolitan areas would be able and willing to invest in an integrated Intelligent Transportation Infrastructure? How many areas have integrated ITS? To which extent?

Answer. Yes, evidence suggests that most metropolitan areas are willing to deploy components of ITS infrastructure because it fulfills a basic need—the effective operation and management of the transportation system. In fact, most States and many metropolitan areas are already using Federal-aid and State and local funds to purchase ITS infrastructure components (e.g. traffic signal systems, freeway management systems, transit management systems, incident management systems, electronic fare payment and toll collection systems, traveler information centers, railway-highway grade crossing systems, and emergency management systems) to help satisfy this need.

In many instances ITS infrastructure components are not new budget items to State and local jurisdictions. Instead they are upgrades of existing infrastructure.

The challenge now is to convince the remaining State and local jurisdictions that ITS technologies and services can provide substantial benefits to their customers, and that ITS infrastructure must be deployed in an integrated, intermodal, interoperable fashion. On the latter issue, our evidence suggests that without some incentive to cause agencies to go to the extra effort of integration, it is not likely to happen. That is the reason that we have proposed the deployment incentive program to provide incentives for integration, not the deployment of hardware.

Question. FHWA has developed several reports which delineate the benefits and costs of deploying ITS. Please summarize the results of each of the studies.

Answer. Several DOT reports have shown how ITS technologies can favorably impact transportation efficiency, productivity, safety, user satisfaction, and the environment. The following tables document the findings of eleven of the most recent major studies sponsored or performed by DOT. Research on the public benefits of ITS establish compelling national interest in deploying ITS technologies and infrastructure. Below are highlights of ITS benefits documented by DOT:

ITS provides better traffic management

(1) Abilene, Texas replaced outdated signals with a computer-based traffic signal system and realized $8–$11 in benefits for each dollar invested.

(2) The Automated Traffic Surveillance and Control (ATSAC) program controls traffic flow between freeway and parallel arterial streets in Los Angeles, California and surrounding areas. The program has reduced fuel usage by 12.5 percent, hydrocarbon emissions by 10 percent, and carbon monoxide emissions by 10 percent.

ITS benefits transit agencies

(1) Four hundred New Jersey Transit buses are able to alter their routes and stay on schedule using real-time information they receive about traffic conditions.

(2) Baltimore, Maryland and Portland, Oregon cut travel time by 10–18 percent, using vehicle locating technology to re-route buses and dispatch additional vehicle buses to keep their services on schedule.

(3) Kansas City, Missouri was able to eliminate 7 buses from its fleet of 280 by implementing advanced transit fleet management systems.

ITS reduces the costs of toll collecting

(1) The Oklahoma Turnpike Authority saves about $160,000 annually by switching from a manual to electronic toll lane. The Authority incurred an annual cost of $176,000 to operate an attended toll lane vs. $15,800 to operate an automated electronic toll lane.

ITS can improve safety

(1) Just three crash avoidance systems alone could eliminate more than 17,500 fatalities, prevent 1.2 million accidents, and save $26 billion each year. (By comparison, seatbelts and airbags save 10,500 lives per year.)

(2) Incident management programs could prevent 50 to 60 percent of the accidents precipitated by traffic delays and congestion.

ITS increases traveler convenience

(1) As part of the Los Angeles Smart Traveler project, information kiosks were located in office lobbies and shopping plazas. Between 20 and 100 users accessed these kiosks daily, with more than half requesting freeway maps and bus and train information.

(2) Given traveler information, almost 50 percent of those surveyed in Seattle and Boston indicated that they changed their travel route and time of travel. Five to 10 percent indicated that they changed travel mode. Even if only 30 percent of travelers change travel plans daily, harmful emissions of carbon monoxide, volatile organic compounds, and nitrogen oxides would be reduced by 33, 25, and 1.5 percent, respectively.

DOCUMENTATION OF ITS BENEFITS

Document	Date	ITS technology	Description	Findings
ITS National Investment & Market Analysis.	January 1997 draft unpublished.	Metropolitan intelligent transportation infrastructure. Rural ITS infrastructure ..... ITS/CVO targeting administrative processes.	This study, prepared by Apogee Research for ITS America and DOT: (1) Estimates public sector investment requirements to deploy basic ITS infrastructure nationwide by year 2005; (2) Quantifies direct benefits; (3) Estimates size of private sector market; and (4) Identifies and evaluates national economic impacts. The study is an analytical framework based on analyses conducted as part of the National ITS Architecture efforts. The framework employs best publicly available information on the costs and benefits of deploying ITS.	The deployment of the nine elements of the metropolitan intelligent transportation infrastructure in the largest 297 metropolitan areas in the United States would have an overall benefit-cost ratio of 5.7:1. The deployment of these same elements in the 75 Operation Time Saver metropolitan areas would have a benefit-cost ratio of 8.8:1. More than 80 percent of the benefits are from increased safety and reduced congestion.
An Estimate of Transportation Cost Savings by Using Intelligent Transportation System (ITS) Infrastructure.	February 1997 latest version (unpublished).	Metropolitan intelligent transportation infrastructure.	This study, prepared by Mitretek for the ITS Joint Program Office, estimates the cost savings of metropolitan ITS infrastructure for 50 major urban areas to keep up with expected new travel demand over the next ten years. The study employs a life-cycle analysis (10 years of investment, out to 20 years of operations) to compare two alternatives: (1) New highway construction (build-only) and (2) ITS plus limited road-building. The results are discounted to 1996 using a seven percent annual rate.	This study estimates that buying smarter by deploying ITS reduces the need for new roads, while saving taxpayers 35 percent of required investment in urban highways. 44,000 new lane-miles would be needed to keep up with travel demand over the next ten years in 50 major urban areas. The deployment of ITS would reduce required new lane-miles to 15,000.
Preliminary Assessment of Crash Avoidance Systems Benefits.	October 1996	Single vehicle roadway departure systems (including excessive speed for curve-ahead warning and imminent road departure warning). Rear-end collision avoidance driver warning systems. Lane change collision avoidance systems.	The study, performed by NHTSA, estimates the benefits of three types of advanced collision avoidance systems in terms of number of crashes avoided. The study employs probability analyses based on information from NHTSA's traffic accident database and preliminary experimental data from NHTSA's advanced collision avoidance program.	The study predicts that three types of collision avoidance systems—rear-end collision avoidance, lane change/merge crash avoidance, and road departure warning systems—could eliminate 1.18 million vehicular collisions each year—17 percent of all vehicular crashes. This estimate presumes that all vehicles in the U.S. would be equipped with these collision avoidance systems. These predictions must be considered preliminary pending further research, refinement of potential countermeasure effectiveness estimates, and field experience.

Review of ITS Benefits: Emerging Successes.	Sept. 1996	Advanced traffic management systems. Advanced traveler information systems. Advanced public transportation systems. Advanced rural transportation systems. ITS/CVO ..... Advanced collision avoidance systems. Integrated systems	The document, prepared by Mitretek for the ITS Joint Program Office, presents the findings of approximately 75 studies related to ITS impacts on time savings, number of crashes, fatalities, throughput, cost reductions, and energy and environment. The review distinguishes measured, predicted, and anecdotal results from evaluations of field operational tests and early deployments, and academic studies.	Highlights of the 75 studies reviewed in this report are shown in the attached table.
Benefits Assessment of Advanced Public Transportation Systems.	July 1996	Transit management systems ..... Automated traveler information systems. Electronic fare payment systems Transportation demand management.	The study, prepared by Volpe National Transportation Systems Center for FTA, considers the deployment of APTS technologies for a total of 200 motorbus, 212 demand-responsive transit, 16 light-rail and 14 heavy-rail transit systems. For each of these systems, data representing the 1993 financial, operating, and performance characteristics (as reported by these transit systems under Section 15) was used to predict the benefits of APTS deployments for a ten-year period (1996–2005).	The analysis projects that total benefits over ten years for 265 APTS system deployments would range from $3.8 billion to $7.4 billion. On an annualized basis, the annual APTS benefits, over the next ten years, from these deployments are projected to range from $546.6 million to as high as $1.1 billion. Approximately 44 percent of the total benefits are accrued from fleet management system deployments, 34 percent from electronic fare payment system applications, 21 percent from traveler information system deployments, with the remaining 1 percent from demand responsive transit systems.

DOCUMENTATION OF ITS BENEFITS—Continued

Document	Date	ITS technology	Description	Findings
Assessment of Intelligent Transportation Systems/Commercial Vehicle Operations User Services: ITS/CVO Qualitative Benefit/Cost Analysis.	June 1996	Commercial vehicle administrative processes. Electronic clearance Automated roadside safety inspections. On-board safety monitoring Hazardous materials incident response. Freight mobility	The study, performed by the American Trucking Associations Foundation for FHWA, evaluates the potential benefits and costs of ITS/CVO technologies for small (1–10 units), medium (11–99 units), and large (> 99 units) motor carriers. The calculated benefits are restricted to reduced labor expenses associated with regulatory compliance based on survey results from 700 motor carriers. The costs are based on actual 1995 product prices obtained from 170 vendors.	The study estimates the following benefit-cost ratios for three sizes of carriers: —Commercial vehicle administrative processes: small (1.0:1); medium (4.2:1); and large (19.8:1). —Electronic clearance for motor carriers who pay drivers based on hours worked: small (3.3:1 to 6.5 to 6.5:1); medium (3.7:1 to 7.4:1); and large (1.9:1 to 3.8 to 1). —Automated roadside safety inspections for motor carriers who pay drivers based on hours worked: small (1.3:1); medium (1.4:1); and large (1.4:1). —On-board safety monitoring: small (0.18:1 to 0.49:1); medium (0.06:1 to 0.16:1); and large (0.02:1 to 0.05:1). —Hazardous materials incident response: small (0.3:1); medium (1.1:1); and large (2.5:1). —Freight mobility: Mobile communications can yield benefit/cost ratios ranging from 1.5:1 to 5.0:1.
Assessment of ITS Benefits: Results from the Field.	April 1996	ATMS ATIS APTS ITS/CVO	The study, performed by Mitretek for the ITS Joint Program Office, is a precursor to Review of ITS Benefits: Emerging Successes and presents the findings of estimated and measured impacts of ITS field operational tests and early deployments.	Highlights of the studies reviewed in this report are shown in the attached table.

Intelligent Transportation Infrastructure Benefits: Expected and Experienced.	Jan. 1996	Traffic signal control systems .... Freeway management systems ... Transit management systems ..... Incident management programs. Electronic fare payment systems. Electronic toll collection systems. Multimodal traveler information systems.	This document, prepared by Mitretek for FHWA, presents benefits of 7 of the 9 components of metropolitan intelligent transportation infrastructure. For each of these components, the document presents the range of reported impacts on travel time, travel speed, freeway capacity, accident rate, fuel consumption, and vehicular emissions. The benefits results are based on a review of approximately 50 studies of the actual and predicted impacts of ITS operational tests and field deployments.	The study predicts the following benefits: —Traffic signal control systems: travel time (decrease 8–15 percent); travel speed (14–22 percent); vehicle stops (decrease 0–35 percent); delay (decrease 17–37 percent); fuel consumption (decrease 6–12 percent); emissions (decrease CO by 5–13 percent and decrease HC by 4–10 percent) —Freeway management systems: travel time (decrease 20–48 percent); travel speed (increase 16–62 percent); freeway capacity (increase 17–25 percent); accident rate (decrease 15–50 percent); fuel consumption (decrease fuel used in congestion by 41 percent); emissions (decreases in CO, HC, and NO_X) —Transit management: travel time (decrease 15–18 percent); service reliability (increase 12–23 percent in on-time performance; security (decrease incident response time to as little as one minute); cost effectiveness (45 percent annual return on investment). —Incident management: incident clearance time (decrease 8 minutes for stalls and decrease wrecker response time by 5–7 minutes); travel time (decrease 10–42 percent); and fatalities (decrease 10 percent in urban areas). —Electronic fare payment: patron popularity (up to 90 percent usage where available); fare collection (increase 3–30 percent); and data collection costs (decreased $1.5 to $5 million).

DOCUMENTATION OF ITS BENEFITS—Continued

Document	Date	ITS technology	Description	Findings
				—Electronic toll collection: operating expenses (decrease up to 90 percent); effective capacity (increase 250 percent); fuel consumption (decrease 6–12 percent); emissions (decrease CO by 72 percent, decrease HC by 83 percent, and decrease NO_X by 45 percent per affected mile). —Multimodal traveler information: travel time (decrease 20 percent in incident conditions and decrease 8–20 percent for vehicles equipped with in-vehicle navigation systems); fuel consumption (decrease 6–12 percent); and emissions (decrease HC by 33 percent from affected vehicles and decrease NO_X by 1.5 percent from affected vehicles).
Assessment of ITS Benefits: Early Results.	January 1996	ATMS ATIS APTS ITS/CVO Collision avoidance systems AHS	This study, performed by Mitretek, is a precursor to Review of ITS Benefits: Emerging Successes and presents the findings of approximately 50 benefits studies.	Highlights of the studies reviewed in this report are shown in the attached table.
Intelligent Transportation Systems Action Guide.	1996	Traffic signal control systems Freeway management systems ITS/CVO electronic clearance Hazardous materials response systems. Transit management systems In-vehicle navigation systems Electronic toll collection systems Electronic fare payment	The document, prepared by ITS America, summarizes nine ''success stories'' illustrating how ITS solutions eased congestion, increased efficiency, improved safety, improved air quality, assisted elderly and disabled travelers, enhanced emergency response, and improved productivity. The beneficiaries include Abilene, Texas; Houston; Kansas City, Missouri; Montgomery County, Maryland; Oakland County , Michigan; the Oklahoma Turnpike Authority; Phoenix; Winston-Salem, North Carolina; and the trucking corridor from Florida to Ontario Canada.	Highlights of the studies reviewed in this report are shown in the attached table.

Traveling With Success: How Local Governments Use Intelligent Transportation Systems.	1995	Traffic signal control systems Freeway management systems Transit management systems Incident management systems Electronic fare payment systems Electronic toll collection systems Multimodal traveler information systems. Integrated systems	This document, prepared for Public Technology, Inc. for FHWA, presents the stories of 31 successful local government ITS initiatives. These studies illustrate how ITS technologies have helped ease problems in seven categories of local transportation concerns: traffic management; parking solutions; mass transit; incident management; traveler information; traffic safety; toll collection; and public safety. The document also provides anecdotal benefits of integrated systems in Atlanta, Houston, and Oakland County, Michigan.	Highlights of the studies reviewed in this report are shown in the attached table.

BENEFITS OF SELECTED ITS PROJECTS

ITS Technology	Findings
Advanced traffic management systems.	Traffic signal control: In Lexington, Kentucky, coordinated computerized traffic signals reduced ''stop and go'' traffic delay by 40 percent and reduced accidents by 31 percent between 1985 and 1994; The Abilene, Texas computerized traffic light system decreased travel time by 14 percent, increased travel speed by 22 percent, and decreased delay by 37 percent; In the Detroit area, the SCATS adaptive signal system decreased left turn accidents by 89 percent and decreased delay by up to 30 percent.
	Freeway management: Minnesota's freeway management system increased speeds by 35 percent and reduced accidents by 15 to 50 percent although demand increased by 32 percent; In Seattle, ramp metering along Interstate 5 kept traffic moving and cut accident rates by more than 38 percent over a six-year period despite a 10 to 100 percent increase in traffic.
	Incident management: Initial operation of Maryland's incident management system had a benefit/cost ratio of 5.6:1; Minnesota's Highway Helper reduces the duration of a stall by 8 minutes.
	Electronic toll collection: On the Tappan Zee Bridge toll plaza, electronic tolls handle 1000 vehicles per hour compared with 350–400 vehicles per hour handled by manual tolls; New York's E-Z Pass electronic toll system nearly tripled traffic speeds compared to stop-and-pay tolls.
Advanced traveler information systems.	In-vehicle navigation: TravTek's in-vehicle navigation systems in Orlando decreased wrong turns by 33 percent and decreased travel times by 20 percent for unfamiliar drivers.
	Multimodal traveler information: In Boston, 30–40 percent of travelers adjusted travel behavior after receiving real-time traveler information from Smart Traveler; In Montgomery County, Maryland, the local cable station reaches 180,000 homes to show traffic conditions on major highways—giving commuters mode of travel options.
Advanced public transportation systems.	Fleet management: In Kansas City, with the Transit Management System implementation, transit officials cut operating costs by $400,000, avoided $1.5 million in new bus purchases, and reduced response time to emergencies from 3–10 minutes to 1 minute; The computer dispatching system in Sweetwater County, Wyoming has helped increase monthly transit ridership from 5,000 to 9,000 passengers while reducing mileage-related operating costs by 50 percent over a five-year period.
	Electronic fare payment: New York estimates $49 million in increased ridership from smart cards; Atlanta estimates annual cost savings of $2 million in cash handling; Ventura County, California estimates annual cost savings of $9.5 million in reduced fare evasion, $5 million in reduced data collection costs, and $990,000 by eliminating transfer slips.
	Multimodal traveler information: An automated transit information system implemented by the Rochester-Genesee Regional Transportation Authority spurred an increase in calling volume by 80 percent; A system installed by New Jersey Transit reduced caller wait time from 85 seconds to 27 seconds and reduced the caller hang-up rate from 10 percent to 3 percent while accommodating more calls.
Advanced rural transportation systems.	Mayday systems: Mayday devices, if effectively deployed in 60 percent of rural crashes, could eliminate 1,727 fatalities each year through speedier incident notification.

BENEFITS OF SELECTED ITS PROJECTS—Continued

ITS Technology	Findings
ITS/commercial vehicle operations.	Fleet management: Best Line of Minneapolis estimates a $10,000 per month savings from its computer-aided dispatching system; Schneider of Green Bay, Wisconsin reported a 20 percent increase in loaded miles from its advanced vehicle monitoring and communications systems.
	Electronic safety inspections: An early information network in Oregon increased the number of truck weighings and safety inspections by 90 percent and 428 percent, respectively, between 1980 and 1989 although staff increased by only 23 percent; On-board safety monitoring systems, along with electronic clearance and automated roadside safety inspections, could reduce fatalities by 14 to 23 percent.
	Electronic pre-clearance: A 1994 study estimates a benefit/cost ratio to the government of 7.2 for electronic clearance, 7.9 for one-stop/no-stop shopping, and 5.4 for automated inspections.
Advanced vehicle control and safety systems.	In-vehicle collision avoidance systems: Lane change/merge, rear end, and single-vehicle roadway departure collision avoidance systems could eliminate 1.2 million crashes annually.
	Rear-end collision warning systems: The use of the Eaton-Vorad collision warning device by Greyhound reduced accidents by 20 percent.

Question. How much are you planning to spend on evaluations of the program during fiscal year 1997 and fiscal year 1998? Please be certain to delineate LGOE and contract monies. Why is an increase in funds for evaluation sought at this time in the program?

Answer. We plan to spend $6.092 million in fiscal year 1997 on Evaluations of which $5.992 million is LGOE funding and $100 thousand is from Federal-aid Highways contract authority. It is noted that $3.992 of fiscal year 1997 funds expected to be utilized for Evaluations is included under the Operational Tests program category (only $2.1 million is shown under the Evaluation program line). Our fiscal year 1998 budget includes $7.25 million for Evaluations all of which is from LGOE funding. The primary reason for the increase in Evaluations is related directly to the comprehensive work we will be doing for the four Metropolitan Model Deployment Sites and the seven CVO Model Deployment sites. It is not unreasonable for evaluations of this scale to consume 15 to 25 percent of the original cost of the projects. Previous operational tests primarily focused on whether the technology worked; these demonstrations are being comprehensively evaluated for costs and benefits—from the individual technology and the integration of it.

Question. Which fiscal year 1996 or fiscal year 1997 ITS projects required additional Federal monies added to the amounts specified in their original cooperative agreements? Why were these funds added?

Answer. The Mobile, Alabama Fog Detection System (Mobile, AL)—A fiscal year 1996 start up has received additional funding in fiscal year 1997 through a Congressional earmark.

Question. Please prepare a detailed table showing any unspent funds by year for any ITS project specified in previous Conference Reports. What is the status of each of these projects? Have all of these monies been obligated?

Answer. The following table displays all ITS projects specified in annual conference reports from fiscal year 1992 through fiscal year 1997. We do not have detailed records regarding unobligated balances for each of these projects prior to fiscal year 1995; however, generally, earmarked projects are historically obligated in the fiscal year for which the Congressional earmark was made. At the end of fiscal year 1995 Johnson City, Tennessee was the only earmarked project with an unobligated balance ($3.75 million); and at the end of fiscal year 1996, Johnson City was again the only earmarked project with an unobligated balance ($3.75 million). We are currently working with the parties involved with this project and expect to arrive at a viable ITS project in the very near future and anticipate these funds being obligated by the end of fiscal year 1997.

FEDERAL HIGHWAY ADMINISTRATION INTELLIGENT TRANSPORTATION SYSTEMS—CONGRESSIONALLY EARMARKED PROJECTS

[Dollars in thousands]

Project	State	Fiscal years—				Rescission	Fiscal years—		Total
		1992	1993	1994	1995		1996	1997	
ADVANTAGE I–75		$1,000	$1,400						$2,400
Smart corridor	CA	1,000							1,000
ADVANCE (Chicago)	IL	7,500	4,550	$6,000					18,050
HELP/Crescent		2,000	525						2,525
DIRECT (Detroit)	MI	500							500
Smart Commuter (Houston)	TX	2,000							2,000
Philadelphia	PA	2,000							2,000
Miami	FL	5,000							5,000
Guidestar	MN	10,000	8,750	6,000	$6,825		$2,000	$3,600	37,175
Electric vehicle	CA	1,500							1,500
FAST-TRAC (Oakland County)	MI	10,000	10,500	20,000	15,000				55,500
TRANSCOM	NJ/NY	3,000	2,400	2,200	2,625		1,500	2,250	13,975
MAGIC	NJ/NY	4,000	6,280						10,280
Toll road ETTM	NJ	25,000	7,000	3,000					35,000
Integrated Corridor Management	NJ/PA	6,000							6,000
Signal computerization	NJ	6,000	7,000						13,000
Southern State Parkway	NY	20,000	14,000			−$13,600		20,400	
Spellman Parkway	MD	300							300
Maryland Arterials	MD	2,200							2,200
Northeast Corridor	Various		10,500	1,000	7,500		3,500		22,500
Gary Corridor	Various		1,400	2,500					3,900
Houston Corridor	TX		3,105	2,000	2,250		2,200	2,000	11,555
Anaheim Corridor	CA		4,200						4,200
Smart Corridor (Los Angeles)	CA		4,900						4,900
Chicaao Corridor	IL		500						500
Milwaukee Corridor	WI		500						500
San Diego	CA		2,100	5,000					7,100
Miami/Ft. Lauderdale	FL		2,240						2,240
Seattle	WA		3,500	1,500					5,000
Detroit	MI		700						700
TravTek (Orlando)	FL		500						500
I–80 (CVO)			700						700
Sutter County	CA		1,750						1,750

Fairx County	VA		5,250						5,250
Police Communications Center	NJ		3,500						3,500
New York State Thruway	NY		5,250	6,400			1,500	3,000	16,150
George Mason University (GOE funding)	VA		1,600						1,600
Humphrey Institute (GOE funding)	MN		760						760
Sandia Labs	NM			2,000					2,000
Bronx/Northern Manhattan ATMS	NY			2,400	2,250				4,650
Buffalo/Niagara Falls ATMS	NY			2,000					2,000
CARAT (Charlotte)	NC			6,000	4,500				10,500
George Mason University	VA			2,000					2,000
Johnson City	TN			2,500	3,750		1,500		7,750
Montgomery County	MD			1,000					1,000
Southeast Michigan (SMART)	MI			4,500	7,500				12,000
Smart Bus—State Rt. 9	NJ			1,500					1,500
Iowa CVO (GOE funding)	IA			2,000					2,000
Humphrey Institute (GOE funding)	MN			950					950
Lower Hudson Valley	NY				1,500				1,500
Advisory Transportation Weather Information System (U of ND)	ND				750		1,000	1,000	2,750
Hazardous Materials Transportation Safety (NIER)	N/A				1,500		2,500	2,000	6,000
Santa Teresa Border Crossing	NM				1,680		900		2,580
Syracuse Congestion Management	NY				1,500		1,500		3,000
Brooklyn/Bronx/Queens Signalization	NY				3,750				3,750
National Transportation Center (Oakdale) (Dowling Collage)	NY				1,870		2,000	2,500	6,370
Advisory Railroad/Highway Crossings	NY?				2,625		1,250	2,000	5,875
New Jersey Turnpike	NJ				2,625				2,625
Green Light CVO Project	OR				6,000		7,000	7,000	20,000
Paralympad	GA						1,000		1,000
I–10 (Mobile) (Fog Detection System)	AL						3,000	2,000	5,000
Capitol Beltway	MD/VA						4,000		4,000
Texas Transportation Institute (Texas A&M)	TX						600	600	1,200
Western Transportation Institute (Montana State Univ.)	MT						1,000		1,000
I–675/SR844/Col. Glenn (Fairborn)	OH						1,000		1,000
Salt Lake City	UT						2,000	5,000	7,000
Inglewood	CA							1,000	1,000
Mobile Advisory Traffic Management System (Montgomery)	AL							1,000	1,000
Traffic Guidance System (Nashville)	TN							1,000	1,000
Operation Respond	MD							1,000	1,000
Pennsylvania Turnpike	PA							3,000	3,000
National Capitol Region Congestion Mitigation	Various							3,500	3,500
National Advanced Driver Simulator (NADS)	IA							14,000	14,000

FEDERAL HIGHWAY ADMINISTRATION INTELLIGENT TRANSPORTATION SYSTEMS—CONGRESSIONALLY EARMARKED PROJECTS—Continued

[Dollars in thousands]

Project	State	Fiscal years—				Rescission	Fiscal years—		Total
		1992	1993	1994	1995		1996	1997	
Kansas City Region	KS/MO	.....	.....	.....	.....	.....	.....	2,500	2,500
United States/Canada CVO	MI/NY?	.....	.....	.....	.....	.....	.....	1,500	1,500
Rochester Congestion Management	NY	.....	.....	.....	.....	.....	.....	1,500	1,500
Urban Transportation Safety System Center (Philadelphia)	PA	.....	.....	.....	.....	.....	.....	500	500
Totals	.....	109,000	115,360	82,450	76,000	−13,300	40,950	63,450	473,610

Question. Are any ITS projects not progressing at an acceptable rate? If so, please specify the scope and nature of the challenge and your current plans regarding these projects.

Answer. The answer is as follows:

WILMINGTON, DELAWARE SMART DART has encountered significant schedule problems resulting from the dynamics in the smart card industry. MasterCard divested itself of "Smart Cash," the stored value card used in the project. MasterCard subsequently acquired MONDEX, an electronic purse system. This turbulence in the operation and evaluation of a stored value smart card has extended previously reported delays in resolving banking law issues. The project manager whose proactive leadership was key to maintaining momentum on the project has departed. MasterCard appears to be exercising cautious risk management during this period of flux in the smart card industry. The Federal Transit Administration is intensively monitoring the project, and has established deadlines for getting on track or suspending activity.

ADVANCED RURAL TRANSPORTATION INFORMATION AND COORDINATION (MN). This project has encountered a series of contracting-related delays resulting in restructuring the procurement approach from a single vendor/system integrator to multiple procurements. While this revised approach added time to the project schedule, managers anticipate bringing all components on-line by mid-1997 with a mix of systems better suited to project needs.

DENVER, COLORADO, HOGBACK MULTI-MODAL TRANSFER CENTER. This project encountered resistance by residents of the area west of Metropolitan Denver where the proposed site was to be located. The controversy placed the project in a "HOLD" status pending a review of regional traveler information initiatives. Recent information indicates that progress to resolution is being made, but the original schedule will require significant adjustment.

Question. The JPO is in the process of conducting numerous evaluations of the Operational Test Program. What benefits and cost savings have been documented? What problems or shortcomings in these tests have you documented?

Answer. Each question is answered in respective sections:

Documented benefits and cost savings

The following is a selection of evaluation results from a number of ITS operational tests. The evaluation report for each test is footnoted. A single test may be mentioned in more than one place to describe different study results. These data are drawn primarily from a recent FHWA report titled, Review of ITS Benefits: Emerging Successes, September 1996.

The Information for Motorists (INFORM) program is an integrated corridor management system on Long Island, New York providing information via variable message signs (VMS's) and control using ramp meters serving parallel expressways and some signal coordination on arterial. The program stretches back to concept studies in the early 1970's and a major feasibility study performed from 1975 to 1977. The implementation progressed in phases starting with VMS's, followed by ramp meters in 1986 and 1987 and completed implementation by early 1990. Estimates of delay savings due to motorist information[1] reach as high as 1,900 vehicle-hours for a peak period incident and 300,000 vehicle-hours in incident related delay annually.

In-vehicle navigation devices can benefit users of such devices in terms of travel time and route finding. Field Operational Test experience is producing data that suggest system benefits when wider deployment appears. The TravTek test in Orlando found that for unfamiliar drivers, wrong turn probability decreased by about 33 percent and travel time decreased by 20 percent relative to using paper maps, while travel planning time decreased by 80 percent.[2] The ADVANCE project in the Northwest suburbs of Chicago tested the time effects of dynamic route guidance using a yoked vehicle study on an arterial network with limited probe data. The aggregate data set showed no significant time savings offered by dynamic route guidance; however, there was a small sample size and relatively high standard deviation.[3] It did appear that the dynamic route guidance concept, as implemented in ADVANCE, can detect some larger delays and help drivers avoid them. The Pathfinder project implemented an in-vehicle navigation and motorist information system including access to real-time traffic information. The project was implemented in the Los Angeles area. The evaluation[4] stated that the Pathfinder navigation system delivered meaningful user benefits including fewer travelers failing to follow their desired route. Since in-vehicle systems operate in a complex environment, specific results vary with conditions and options selected.

Studies also indicate that travelers are interested in receiving traffic information and are willing to react to avoid congestion and delay. In focus groups for the Atlanta, Georgia, Advanced Traveler Information Kiosk Project,[5] 92–98 percent of par-

ticipants found the current information on accidents, alternate routes, road closures, and traffic congestion to be useful and desirable. A survey in Marin County, California, showed that if regular commuters had been presented with alternate routes including travel time estimates, 69 percent would have diverted and would have saved an average of 17 minutes.[6] A pilot project in the Netherlands found a 40 percent increase in route diversions based on traffic information provided to the 300 vehicles equipped with FM sideband data receivers.[7]

According to studies related to INFORM, drivers will divert from 5 percent to 10 percent of the time when passive (no recommended action) messages are displayed and twice that when messages include recommendations to divert. Convenient alternate routes also have a major impact on diversion. Drivers will start to divert several ramps prior to an incident, with typically 3 percent to 4 percent of drivers using an individual exit ramp. This represents an increase in ramp usage of 40–70 percent. Surveys performed in the Seattle, Washington, and the Boston, Massachusetts, areas indicate that 30–40 percent[8] of travelers frequently adjust travel patterns based on travel information. Of those who change travel patterns, about 45 percent change route of travel and another 45 percent change time of travel; an additional 5–10 percent change travel mode.

Incident management programs show concrete promise of reducing the 50–60 percent of delay associated with traffic congestion attributable to incidents. The Maryland CHART program is in the process of expanding to more automated surveillance with lane sensors and video cameras. The evaluation of the initial operation of the program shows a benefit/cost ratio of 5.6:1, with most of the benefits resulting from a 5 percent (2 million vehicle-hours per year) decrease in delay associated with nonrecurrent congestion.[9] Freeway service patrols, which began prior to the emergence of ITS technologies, but are being incorporated into traffic management centers, significantly reduce the time to clear incidents, especially minor incidents. The Minnesota Highway Helper Program[10] reduces the duration of a stall (the most frequent type of incident representing 84 percent of service calls) by 8 minutes. Based upon representative numbers, annual benefits through reduced delay total $1.4 million for a program that costs $600,000 to operate.

Freeway management systems and ramp meters show good results in reducing travel times on congested roadway segments. According to a longitudinal study of the ramp metering/freeway management system in the Seattle, Washington area over a six year period,[11] freeways in the area show a growth in traffic volume of 10 percent to 100 percent along various segments of I–5 while speeds have remained steady or increased up to 20 percent. The improvements have occurred while average delays caused by ramp meters have remained at or below 3 minutes. According to the Minnesota DOT Freeway Operations Meeting Minutes, average peak period speeds have risen from 34 mph to 46 mph while peak period demand increased by 32 percent. In studies comparing 1987 to 1990 flows in the area of the INFORM system measuring benefits from ramp metering in combination with motorist information, freeway speeds increased 13 percent despite an increase of 5 percent in VMT for the PM peak.[12] The relative merits of ramp metering and motorist information can not be discerned from the available data. The number of detectors showing speeds of less than 30 MPH decreased 50 percent for the AM peak. Average queue lengths at ramp meters ranged from 1.2 to 3.4 vehicles, representing 0.1 percent of vehicle hours traveled. A survey of traffic management centers using ramp metering[13] reported similar findings of speed increases of 16–62 percent and travel time improvements of up to 48 percent while demand increased 17–25 percent.

Traffic signal system improvements are frequently implemented with reduction of travel time as a primary goal. The Automated Traffic Surveillance and Control (ATSAC) program in Los Angeles, California, largely a computerized signal control system, reported an 18 percent reduction in travel time, a 16 percent increase in average speed, and a 44 percent decrease in delay.[14] The City of Abilene, Texas, installed a closed-loop computerized signal system. Their report[15] indicates an overall decrease in travel time of 14 percent, a decrease in delay of 37 percent, and an increase in travel speed of 22 percent. Phase I of a Texas state program called Traffic Light Synchronization (TLS) involving 44 cities, has installed arterial and network signal system projects affecting 2,243 of the approximately 13,000 traffic signals in the state. An additional 73 systems were installed in phase II. TLS analysis shows a benefit/cost ratio of 62:1,[16] with a majority of the benefits being travel time reduction.

Portland, Oregon[17] has integrated a bus priority system with the traffic signal system on a major arterial. By allowing buses to either extend green time or shorten red time by only a few seconds, the bus travel time was reduced by between 5 percent and 8 percent. In addition to the travel time savings, this approach allows the use of fewer vehicles to serve that route.

The City of Richardson, Texas, tied the operator of the city's towing concession into the roadway surveillance network with an investment of roughly $200. Using the information provided by the camera, the tow truck dispatcher can position appropriate equipment near the collision site prior to the request for service from the police department. This reduces the response time for incident clearance by 5–7 minutes on average and greatly improves the ability to send appropriate equipment that can handle the active incident (Pamela Hadnot, City of Richardson internal memorandum, December 1995).

Fifteen authorities are currently using electronic toll collection (ETC), with more planning for implementations (Maureen Gallagher, IBTTA, telephone interview, February 1996). ETC can greatly improve throughput on a per-lane basis compared with manual toll collection techniques. On the Tappan Zee Bridge toll plaza, a manual toll lane can accommodate 350–400 vehicles per hour while an electronic lane peaks at 1,000 vehicles per hour.

By replacing eight manual collection stations with five electronic lanes using the multi jurisdictional E-ZPass electronic toll collection system, and implementing a movable barrier procedure to allow an extra peak direction lane, traffic speeds have increased from a crawling 8–12 mph to a flowing 25 mph (Mike Zimmerman, New York State Thruway Authority, telephone interview, December 1995). The nature of the data reported does not allow allocation of speed benefits between the electronic toll collection and moveable barrier solutions.

For nearly a decade, transit properties have been installing and using automatic vehicle location (AVL) systems based on signpost, triangulation, LORAN, and more recently GPS technologies.[18] The most direct improvement enabled by transit management systems relates to schedule adherence. The Mass Transit Administration in Baltimore, Maryland, reported a 23 percent improvement in on-time performance by AVL-equipped buses. The Kansas City Area Transportation Authority in and around Kansas City, Missouri, improved on-time performance by 12 percent in the first year of operation using AVL, compared to a 7 percent improvement as the result of a coordinated effort between 1986 and 1989. Preliminary results from Milwaukee, Wisconsin, indicate a 28 percent decrease in the number of buses more than one minute behind schedule.[19]

AVL systems continue to be deployed rapidly. A recent study found 22 U.S. transit systems operating more than 7,000 vehicles under AVL supervision and another 47 in various stages of procurement. The new procurements represent a tripling of the number of deployed systems, with most new systems using a GPS-based location process.[20] Fleet management systems with vehicle location capability are producing benefits in productivity, security and travel time. In addition, several operators have reported incidents where AVL information assisted in resolving disputes with employees and patrons.

The Commercial Vehicle Operations (CVO) area continues to be viewed as a potential early winner for the ITS program. Use of advanced vehicle monitoring and communications technologies by motor carriers has demonstrated considerable time savings.[21] Schneider of Green Bay, Wisconsin, reported a 20 percent increase in loaded miles and that the elimination of driver check-in telephone calls saves approximately two hours per day resulting in a driver salary increase of $50 per week with a primary benefit of improved customer service. Trans-Western Ltd. of Lerner, Colorado, credits their fleet management system for improved driver relations, noting that drivers are able to drive 50 to 100 additional miles per day. Frederick Transport of Dundas, Ontario, Canada, estimates an increase of 20 percent in loaded miles, a reduction of $30 from $150 per month in telephone charges, a 0.7 percent greater load factor and a 9 percent increase in total miles. Best Line of Minneapolis, Minnesota, estimates a $10,000 per month savings since 300 drivers previously lost about 15 minutes each day waiting to talk with dispatchers.

The safety potential for an advanced traffic information system that warns commercial vehicles and other heavy vehicles of a potentially dangerous highway situation is being tested. The Dynamic Truck Speed Warning System for Long Downgrades has been installed on I–70 west of the Eisenhower Tunnel west of Denver. This system warns drivers of safe truck speed at the start of the downgrade for normal operations based on the truck's measured weight. The Colorado Motor Carrier Association is excited about the potential for improved safety represented by this system. Prior to the project, the state studied accident characteristics and hypothesized that since 88 percent of the runaway trucks were out-of-state, many truck drivers were unfamiliar with the terrain. The fact that runaway truck drivers entered ramps at speeds of up to 110 mph supports this hypothesis (Greg Fulton, Colorado DOT, telephone interview, January 1995). The system began operating during 1995. While evaluation results are not yet available, observers report that trucks being instructed to slow frequently apply their brakes immediately.

The TravTek project examined the safety aspects of an in-vehicle navigation device that used a moving map display as well as voice directions. While data on accidents and near accidents are not statistically significant, driver workload studies yielded encouraging results. Compared to control conditions of paper maps and road signs, use of both visual and voice displays yielded lower driver workloads in each category of stress including time stress, visual effort, and psychological stress.[22] TravTek users also perceived that they were safer.

The TravTek project used a simulation approach to estimate safety impact. Using the INTEGRATION simulation model, a representation of the Orlando roadway network, and performance parameters obtained during the live field studies, analyses were performed to estimate crash risk of motorists using navigation devices compared to motorists without them. In addition, the safety impacts on the entire traffic network (both equipped and unequipped vehicles) were analyzed. Results indicated an overall reduction in crash risk of up to 4 percent for motorists using navigation devices, due to improved wrong turn performance and the tendency of the navigation system to route travelers to higher class (normally safer) facilities. Other indications from the TravTek field studies were that the ability of the navigation system to receive real-time traffic and congestion information provided an advance warning to motorists of potentially unsafe conditions on the route they were traveling, further improving the safety benefits of the system. The simulations showed a potential for increased safety risk for navigation-system-equipped vehicles when real-time information caused them to divert from a higher class facility to a lower class road (e.g., from a freeway to an arterial). Increased safety risks of up to 10 percent were estimated for the equipped vehicles, while the overall network showed a safety neutral to a slight safety improvement when diversion occurred. The network safety improvements were experienced when diversion from congested roadways reduced the level of congestion for the remaining equipped and non-equipped vehicles and helped to smooth traffic flows on those roads.

The first ramp meter was installed on the Eisenhower Expressway in Chicago in 1963. Other early adopters of freeway ramp meters include Detroit, Michigan, Minneapolis, Minnesota, and Los Angeles, California. By 1989, the Federal Highway Administration (FHWA) had enough data to put together a summary of ramp metering practices with quantitative results. As places such as Minneapolis upgrade their ramp metering systems into true Freeway Management Systems, results continue to improve along with coverage, capability, and coordination. While ramp metering systems are designed to improve operation at the merge point to improve mainline speed and capacity, field experience has demonstrated a significant reduction in accident rate. According to Minnesota DOT Freeway Operations Meeting Minutes from January of 1994, accident rates on I–35W in Minneapolis before management were 421 per year and are now 308 per year (a 27 percent reduction). Annual accident experience on the same freeway after management is 2.11 collisions per million vehicle miles traveled (VMT) compared to 3.40 collisions per million VMT before management was instituted (a 38 percent reduction). A longitudinal study of the ramp metering/freeway management system in the Seattle, Washington, area over a six year period[23] shows that accident rates have fallen consistently to a current level of 62 percent compared to the base period. A survey of traffic management centers using ramp metering[24] reported similar findings. Accidents on freeway systems under freeway management were reduced between 15 percent and 50 percent. While some other freeway improvements were implemented during the study periods, the combination of geometric, vehicle, and operational procedures showed significant reductions in accident rate. After implementation of the San Antonio TransGuide system, which is a freeway management system that does not use ramp meters, total collisions decreased by 35 percent and the collision rate decreased by 41 percent to 1.80 crashes per million vehicle miles.[25]

The reduction in secondary collisions attributable to the incident management program, which may be quite significant, is difficult to estimate due to the coordinated freeway management program in the area. The CHART evaluation estimates that the traffic management center, including freeway service patrols, was responsible for a 5 percent reduction in the number of accidents during non-recurrent congestion. Evaluation of the San Antonio TransGuide system found a 20 percent decrease in average response time to incidents and a 30 percent reduction in secondary collisions, representing a 2.5 percent reduction in the total number of collisions.[26]

Highway-railroad grade crossing systems were recently added to the ITS program. The need for improvement is indicated by the fact that in 1992, 577 fatalities and 1963 injuries occurred at grade crossings.[27] Additionally, the occasional spectacular accident including school children or hazardous materials attract national attention. Several technologies are currently being tested including photo enforcement and ad-

aptation of collision warning systems. Initial tests of photo enforcement in Los Angeles have yielded positive results, with a 92 percent decrease in violation rate. Since the deployment is limited and grade crossing accidents are relatively rare, the fact that no accidents occurred during the test is not statistically significant (Dana King, U.S. Public Technologies Inc., personal interview, January 1996).

Collision warning devices and blind spot detectors are becoming available as commercial products. Transport Besner Trucking Co. has installed an Eaton-Vorad collision warning device on 100 percent of its 185 truck fleet. Internal studies found that the combination of the device with a safety training program has reduced accidents by 38 percent (Daniel Lareau, Transport Besner Trucking Company, telephone interview, February 1996 verifying information in "Freightliner to Offer Collision Warning on New Truck Line," Inside ITS, Vol. 5, No. 23, November 20, 1995). The Greyhound accident experience using an earlier model product yielded a reduction of 20 percent in a deployment equipping half of the fleet, which could extrapolate to a 40 percent reduction in accidents for full equipage.[28]

In addition to the quantitative results from the collision warning systems, other installations and pilot projects are taking place. Landstar Systems is installing the Eaton-Vorad system on 40 percent of its owned fleet and giving the contract fleet incentive to equip. Positive evaluation of the device by experienced drivers in a pilot test and the potential to decrease self insurance losses lead to the decision to equip. While Landstar does not have reliable statistics, no equipped power units have been involved in a rear-end collision since the installation began in January of 1995 (Brian Kinsey, Landstar Systems, telephone interview, February 1996).

An early information network in Oregon enabled an increase of 90 percent in number of weighings and 428 percent in number of safety inspections between 1980 and 1989 while staff increased by only 23 percent.[29] While these measures are not directly of desired outcomes, the link between inspections and reductions in crashes is intuitive.

ITS implementation is expected to improve the safety record of motor carriers. Electronic screening and improved inspection procedures will help to eliminate major causes of accidents through better use of communications and information technology. Evidence of future success is indicated by ongoing motor carrier safety programs including the Motor Carrier Safety Assistance Program (MCSAP) and federal safety audits. The benefit/cost ratio of these programs has been estimated as 2.5 while yielding a reduction of 2,500–3,500 accidents annually.[30]

A collision avoidance product, which has been in use since 1993, is the Forewarn system applied to school buses. In 1992–1994, of the 25–40 school-age children killed by buses, over two-thirds were as pedestrians at the time.[31 32 33] Many of these children had either just exited the bus or were waiting to board it. Although quantitative benefits are not yet available, pilot programs in states considering deployment of such a device have gone exceptionally well, with many drivers having stories of situations in which the system told them of the presence of children who were in harm's way (Jeff Himelick, Delco Electronics, telephone interview, March 1995). As of late 1995, about 500 of the devices were in active use (Ed Kinnaird, Delco Electronics, telephone interview, December 1995).

AVL/CAD and navigation systems are being installed in fire, police, and emergency vehicles. While quantitative evaluations are rare, a collection of anecdotal evidence is becoming available. A crash in Muskogee County, Oklahoma, involving a car and a school bus, resulted in the need for medical attention. The fog that contributed to the collision would have also delayed an ambulance and made location of the collision difficult from a helicopter. However, the helicopter, equipped with a GPS receiver, located the crash scene using location information provided by a Highway Patrol officer on the scene using a hand held GPS. The helicopter was then able to complete the rescue.[34] The AVL system installed by the Schaumburg, Illinois police department has been reported to enable dispatch of backup to officers who failed to report location information and dispatch of assistance to an incapacitated officer.[35]

The San Antonio TransGuide facility opened in the summer of 1995. The value of an integrated facility was demonstrated in the week before the center opened when an industrial plant fire erupted within view of freeway video surveillance. Based on the visibility afforded at TransGuide, the fire was accessed and fought more effectively, possibly saving the lives of several firefighters. Both local police and fire were convinced of the wisdom of their investment in collocation.

Simulation using data collected during the TravTek test predicted a benefit in throughput. Using constant average trip duration as a surrogate for maintaining level of service, a market penetration of 30 percent for dynamic route guidance results in the ability to handle 10 percent additional demand.[36]

Freeway management systems including both ramp meters and incident management programs are designed to improve the operating performance of freeways. Maximum throughput is reported in the freeway operations meeting minutes as 2200 vplph compared with 1800 prior to the use of the ramp meters while average speeds have risen from 34 MPH to 46 MPH according to the Minnesota DOT meeting notes. The Seattle, Washington study[37] showed a growth in traffic of 10 to 100 percent along various segments of I–5 while speeds have remained steady or increased up to 20 percent. Other ramp metering installations have reported increases in peak throughput of 8–22 percent with steady or increased travel speeds.[38]

Deployment of ETC is occurring at a rapid pace and is being driven by cost savings to the operator. The Oklahoma Turnpike has been operating ETC in the Pike Pass program for over five years with excellent results. Statistics from the Turnpike in a flyer entitled Pike Pass Facts indicate a 91 percent savings:

—Annual cost to operate automated lane—$15,800.

—Annual cost to operate an attended lane—$176,000.

The use of AVL/CAD systems has demonstrated significant productivity improvements to transit operators. In Kansas City, Missouri, the analysis of actual run times on all routes over an extended period of time allowed a reduction in equipment requirement in several routes of up to 10 percent, allowing fewer buses to serve those routes with no reduction in service to the customer. The result was a savings in both operating expense and capital expense by actually removing these buses from service and not replacing them. The productivity gain of eliminating seven buses out of a 200 bus system allowed Kansas City to amortize their investment in AVL in two years. Other transit systems have reported reductions in fleet size of 4 to 9 percent due to efficiencies of bus utilization.[39]

The Winston-Salem Transit Authority in Winston-Salem, North Carolina, evaluated effects of a computer-aided dispatch and scheduling (CADS) system[40] in operation of a 17 bus fleet. While the client list grew from 1,000 to 2,000 over a 6-month period and vehicle miles per passenger trip grew 5 percent, operating expenses dropped 2 percent per passenger trip and 9 percent per vehicle mile. These productivity improvements occurred at the same time as service improvements including institution of same day reservations, which grew to account for 10 percent of trips, and a decrease in passenger wait time of over 50 percent.

While much of the literature regarding electronic fare payment discusses technical capability and patron convenience, some early indications of benefits to the transit property are accumulating.[41] Reduced fare evasion has increased revenue from 3 to 30 percent. Reductions in data collection cost range from an estimated $1.5 million in Manchester, UK to a predicted $5 million in Ventura, California, in addition to improved data accuracy. New York estimates the increase in ridership due to electronic fare payment to be worth $49 million. New Jersey Transit estimates annual cost reduction of $2.7 million in cash handling while Atlanta estimates $2 million in savings.[42]

Public transportation providers in rural areas can produce cost efficiencies by increasing ridership. The computer-assisted dispatching system in Sweetwater County, Wyoming, which allows same-day ride requests to be accepted, has contributed to an increase in ridership from 5,000 passengers monthly to 9,000 monthly without increasing the dispatch staff and a reduction of operational expense of 50 percent over a 5-year period on a per passenger mile basis.[43]

Results are provided in an ATA Foundation 1992 survey[44] of 69 trucking companies operating in an urban area. More than half of the 69 companies surveyed use CAD systems. Productivity gains resulted from an increase in the number of pickups and deliveries per truck per day, ranging from 5 percent to more than 25 percent, with most gains being clustered in the 10–20 percent range. The use of two-way text communication systems yielded driver time savings of 30 minutes per day because of the reduced time spent locating and using telephones.

Further anecdotal evidence of benefits fleet management systems to carriers is accumulating. The recently completed Automated Mileage and Stateline Crossing Operational Test (AMASCOT) has generated significant interest from carriers, manufacturers, and regulators, with carriers awaiting delivery of orders for commercial products (Estel Cooper, Ruan Transportation, personal interview, April 1996). Although the evaluation did not calculate cost savings from the operational phase, carriers involved in the test estimated a potential for similar devices to reduce costs for International Fuel Tax Agreement (IFTA) and International Registration Plan (IRP) reporting by 33 to 50 percent. State processing and audit staffs were also receptive to potential changes in processing requirements and optimistic about the ability of such a system to improve accuracy, productivity, and compliance for both carriers and states.[45]

Commercial Vehicle Regulators will also experience financial benefits due to implementation of ITS. Improvements in administrative efficiency, avoidance of infrastructure investment, and improvements in highway data collection will reduce costs while increased compliance will increase revenues and reduce damage to highways in addition to improving safety. The HELP/Crescent Project on the West Coast and Southern border states represented the final stage of the HELP program that evaluated the applicability of four technologies to services including roadside dimension and weight compliance screening, pre-screening of vehicles with proper documents, government audit of carrier records, government processing of commercial vehicle operator documents, government planning, and industry administration of vehicles and drivers. The technologies included automatic vehicle identification, weigh-in-motion, automatic vehicle classification, and integrated communications systems and database. The benefits data are developed as a projection of experience from the project and from other databases rather than direct measurement by the project.[46] Impact of hazardous material incidents could be reduced $1.7 million annually per state. Estimates of reductions in tax evasion range from $0.5 to $1.8 million annually per state. Overweight loads could be reduced by 5 percent leading to a savings of $5.6 million annually. Operating costs of a weigh station could be reduced up to $160,000, with credentials checking adding $4.3–$8.6 million and automated safety inspection adding $156,000–$781,000 in savings due to avoided accidents annually per state. A full implementation of services examined in the Crescent project would yield a benefit/cost ratio of 4.8 for state government over a 20-year period. Less complete implementations range in benefit/cost ratio from up to 12:1 for the government. The COVE Study[47] estimates a benefit/cost ratio to the government of 7.2 for electronic clearance, 7.9 for one-stop/no-stop shopping, and 5.4 for automated roadside inspections. Another study finds that administrative compliance costs for Massachusetts carriers could be reduced by $2.4 million annually using ITS techniques.[48]

One indication of reduced travel stress is the availability of information. Of rental users of TravTek, 38 percent found the device helpful in finding specific destinations in unfamiliar territory as did 63 percent of local drivers.[49] In the Pathfinder project users perceived that their trips were less stressful and that they were saving time, even in situations where the time savings were insignificant. Drivers were also more comfortable in diverting with Pathfinder, as indicated by a 40 percent increase in diversion.[50] The Avis fleet of navigation equipped cars is expanding and frequently fully rented.[51]

Pre-trip traveler information is also popular, although measures of reduced stress are difficult to obtain. The Los Angeles Smart Traveler project has deployed a small number of information kiosks in locations such as office lobbies and shopping plazas.[52] The number of daily accesses range from 20 to 100 in a 20-hour day, with the lowest volume in offices and the greatest in busy pedestrian areas. The most frequent request was for a freeway map with 83 percent of users requesting this information. Over half of the accesses included requests for MTA bus and train information. Users, primarily upper middle class in the test area, were overwhelmingly positive in response to a survey.

The Travlink test in the Minneapolis area distributed PC and videotext terminals to 315 users and made available transit route and schedule information, including schedule adherence information, as well as traffic incidents and construction information.[53] For the month of July 1995, users logged on to the system a total of 1660 times, an average of slightly more than one access per participant per week. One third of the accesses to the system requested bus schedule adherence; another 31 percent examined bus schedules. Additionally, three downtown kiosks offering similar information averaged a total of 71 accesses per weekday between January and July of 1995; real-time traffic data were more frequently requested than bus schedule adherence.

The Genesis project, also in Minneapolis, delivered incident information via alphanumeric pagers. A majority of Genesis users (65 percent) reported using the service daily and 88 percent reported using the service once or more per week. Of users who participated in the test, only 2 percent dropped out of the project during operation due to dissatisfaction with the service. An additional indication that users found the service valuable is that users discovered over half of the incidents affecting their travel via Genesis compared to discovering 15 percent of incidents via radio and TV. When users became aware of incidents via Genesis, they chose alternate routes for travel in 83 percent of the situations.[54]

An automated transit information system implemented by the Rochester-Genesee Regional Transportation Authority resulted in an increase in calling volume of 80 percent,[55] while a system installed by New Jersey Transit reduced caller wait time from an average of 85 seconds to 27 seconds and reduced caller hang-up rate from

10 to 3 percent while increasing the total number of callers.[56] The Boston SmarTraveler has experienced 138 percent increase in usage from October 1994 to October 1995 to a total of 244,182 calls monthly, partly due to a partnership with a local cellular telephone service provider, according to a SmartRoute Systems memorandum entitled SmarTraveler Update dated November 6, 1995.

TravTek users perceived that their driving was safer. Based on survey data, users felt less nervous and confused and more confident, attentive, and safe, with local users being significantly more positive than renters. Users also felt that the use of TravTek did not interfere with their driving task. While users who were interacting with TravTek immediately before a near accident were more likely to feel that they had contributed to the close call, users were no more likely to be involved in close calls than were nonusers.[57]

Traffic signal system improvements are able to reduce the number of vehicle stops. Quoting studies mentioned earlier, ATSAC reported 41 percent reduction in vehicle stops.[58] SCOOT in Toronto resulted in a 22 percent decrease in stops[59] compared to a best effort fixed timing plan. The Abilene report indicates no change in the number of stops.[60]

For the transit riding public, security is a crucial issue. Everyday there are numerous emergency situations in every major city involving passenger and operator safety. The deployment of automatic vehicle location (AVL) systems coupled with modern computer-aided dispatch (CAD) as part of transit management systems has had a dramatic affect on the response to emergencies. The AVL/CAD systems now being deployed have two key features which contribute to passenger safety. First, these systems have a silent alarm capability where the driver can alert the dispatch center of a problem. When this alarm is activated, the vehicle in trouble is highlighted on the dispatcher's console for immediate response. The dispatcher can activate a covert microphone on the bus and listen to the nature of the problem without alerting the perpetrators or passengers. The dispatcher can then alert the appropriate emergency service. A number of transit agencies have reported a dramatic reduction in response time. The fact that the dispatcher can pinpoint the vehicle at all times, and is able to advise the police of the nature of the problem has produced a reduction in response time from over ten minutes to less than two minutes.[61] At least one dispatcher in Denver believes that this capability has literally saved the lives of some passengers.

Electronic fare payment tests are ongoing in both bus and rail systems which address customer convenience and security. In California, tests comparing various card technologies have found RF proximity cards to be high in reliability. A test in the Marseilles, France, metropolitan area is comparing RF and IR technologies that would allow each patron to use a card of his or her choice (credit card, debit card, monthly pass, etc.) for transportation payment, while processing a transaction in less than a second.[62] An experiment involving 2,400 rail travelers in the Washington system using RF stored-value cards has been operating since February of 1995. System-wide deployment of the cards is planned based on the reliability of the technology and potential improvements in convenience and security (Ramon Abramovitch, Washington METRO, telephone interview, November 1995).

The Phoenix transit operators have used electronic fare payment techniques since 1991.[63] The Arizona state legislature passed an air quality bill in the late 1980's. Maricopa County, the county encompassing Phoenix, in turn passed a travel reduction ordinance that required each employer in the Phoenix area with over 100 employees to reduce single-occupancy commuting trips by 5 percent in two years. To assist in data collection needed in this program as well as to reduce operational problems, the City of Phoenix Public Transport System led development of the Bus Card Plus system to read magnetically encoded plastic passes. Employers were then billed monthly for transit use by their employees.

The first public use of the Phoenix system was in April 1991 by employees of Valley National Bank. Currently, 190 companies participate with a total of 35,000 cards in use. Express routes report 90 percent of fares are paid by bus pass cards. Since employers are billed only for transit usage rather than purchasing monthly passes, costs to them are decreasing by up to one third. Starting in May of 1995, VISA and MasterCard have also been accepted. While this project has not been in operation long enough for firm results to be claimed, patronage has been growing over the four months from May–September, with processing fees totaling under 7 percent of revenue generated and without major problems.

One case where direct measurement of environmental impact is practical is a highly localized measure such as air quality surrounding a particularly snarled intersection or other point of interest. An example of local air quality benefit is the reduction of emissions using signal system optimization in the "Five Points" area of Las Vegas.[64]

The Pike Pass ETC program on the Oklahoma Turnpike started operation on 1 January 1991. As of June 1994, 250,000 passes had been issued, of which over 90 percent (226,000) were still active, accounting for 35 percent of the turnpike association's revenue. Using a protocol prepared from the Northeast States for Coordinated Air Use Management (NESCAUM), the Clean Air Action Corp.[65] estimated toll booth emissions based on dynamometer tests and toll road observation at Muskogee Turnpike in Oklahoma, Asbury Plaza on the Garden State Parkway in New Jersey, and Western Plaza on the Massachusetts Turnpike. This report takes the experiences gained with the Pike Pass project and applies them to the other two freeways. The report projects significant reduction in tons of pollutants for the 260 day commuter case. The overall percent change is dependent upon frequency of toll plazas. Per mile of impacted operation, the average emissions reductions are 72 percent for carbon monoxide, 83 percent for hydrocarbons, and 45 percent for oxides of nitrogen. The report uses 0.55 miles as the distance involved in the average barrier toll transaction.

Traffic signal systems continue to be upgraded for a number of reasons, primarily for traffic flow and system maintenance reasons. The improved flow and reduced delays also have a generally positive impact on emissions and energy consumption at current traffic levels. Several system retimings and equipment upgrades have included emission evaluations. Among documented results are systems in Abilene, Texas, Southern California, and Toronto, Ontario. The ATSAC program in Los Angeles, California reported 13 percent decrease in fuel consumption, 14 percent decrease in emissions.[66] The City of Abilene report[67] indicates overall impacts on emissions of 6 percent decrease in fuel consumption, 10 percent decrease in HC, and 13 percent decrease in CO, while nitrous oxide increased by 4 percent. The SCOOT implementation in Toronto showed a decrease in fuel consumption of 6 percent, a decrease in carbon monoxide emission of 5 percent, and a decrease in hydrocarbon emissions of 4 percent compared to a "best effort" fixed timing plan.[68]

PROBLEMS/SHORTCOMINGS

The primary motivation behind the field operational test program was to get promising technologies fielded and to evaluate the feasibility of such technologies for real-world applications. We are accomplishing this goal and are learning a lot. In addition to the benefits and savings learned and portrayed above, problems and shortcomings dealing with institutional capacities and procedures for implementing ITS deployments have been identified in the field operational test program. These have been extensively documented and are recounted in summary fashion here. Many findings, such as the lack of a technical architecture to help ensure interoperability, have already been addressed in our completion of the ITS National Architecture. We continue to address other shortcomings in our initiatives to promote standards and protocols, professional capacity building, updating of procurement practices, and integration across ITS components within and between transportation regions.

Although several field operational tests have looked into savings associated with fielding ITS technologies, the costs of deployment were not required to be documented. Many field tests deployed one-of-a-kind systems for prototype testing. Any costing of such more expensive systems would have been premature and not cost effective itself. As we turn now to model deployments of the integrated ITS infrastructure in four metropolitan areas, and CVISN in eight states, we are also emphasizing the need for cost/benefit studies of these deployments.

Two reports document problems and shortcomings based upon an analysis of 12 operational tests and one privately sponsored test. "IVHS Institutional Issues and Case Studies: Analysis and Lessons Learned" (Report Number DOT-VNTSC-FHWA–94–15, April 1994) is based upon ADVANCE; Advantage I–75; HELP/Crescent; TRANSCOM/TRANSMIT; Travtek, and the private deployment of Westchester County Commuter Central. The following are categories of issues and issues identified across these tests:

Category 1.—Organization and Management Issues.—Of the four categories of institutional issues defined, this contained the largest number of institutional issues. The following are the issue types identified and discussed under this category in the referenced report:

Cultural differences in public-private partnerships

Issues: A fundamental impediment to the smooth accomplishment of a partnership agreement for many of the projects was the stark difference in the ways the partners, particularly between those in the private sector versus those in the public sector, did business.

Lack of inter-partner communications

Issue: The following factors contributed to this problem:
—Negative stereotypes of cultural differences
—Lack of trust
—Unclear/Changing definition of goals, roles and responsibilities
—Imprecise definition of evaluation
—Lack of communication protocols

Lack of intra-partner communications

Issues: Communications problems are greatest in the CVO arena whereby a single state representative is required to represent multiple state agencies.

Management challenges

Issues: The following are some of the factors that contributed to the problem:
—Evaluation planning problems
—Over dependence on unproven technology
—Contract and contractor problems
—Aggressive project schedule
—Size of the policy committee

Category 2.—Regulatory and Legal Issues.—Of the four major categories of issue types, this category contains issue types that had obvious near and far term implications for the ITS products and services proposed for testing. Regulatory and legal issue types found to be of more immediate concern to partners of operational field tests were those in the critical path of beginning the implementation and test and evaluation phases of the projects.

Unclear government accounting requirements

Issue: Work performed with Federal funding requires the accounting of direct, overhead, and fee expenses incurred by private sector vendors. The private partner insisted on total confidentiality regarding product costs.

Burdensome administrative requirements

Issue: The issue of how to administer funding from multiple sources was often a problem.

Concerns regarding liability and insurance

Issue: Who will insure vehicles for collision and liability and for such things as wrong way directions, etc.?

Concerns over legality of new technologies in moving vehicles

Issue: How much and what types of information should a driver be allowed to receive without causing a safety hazard due to divided attention taking the driver's eyes off of the road? The issue of multifunction displays in automobiles and the functions that are allowable during driving (e.g., moving map displays and reception of television entertainment programs), will be a growing issue nationwide.

Concerns regarding intellectual property and proprietary rights

Issue: This issue stems from the stereotypical view that the results of any endeavor that uses Federal funding will fall in the public domain.

Concerns over differing state regulations governing CVO operations

Issue: Partnering states had difficulty reaching agreement on an acceptable regulatory and enforcement protocol for CVO. Differences in scale tolerances, weight limits, and acceptable evidence of truck safety inspections contributed to the problem.

Lack of IVHS technology standards

Issue: The lack of technical standards has the potential to become the biggest institutional impediment to the successful commercial deployment of the majority of IVHS projects.

Concerns regarding potential negative public reaction

Issue: Concerns regarding public reaction to potential redistribution of congestion-causing traffic to local arterial.

Issue: Concerns regarding public perceptions that IVHS technologies can compromise individual privacy.

Issue: Concerns regarding a lack of data on environmental impacts.

Category 3.—Human and Facilities Resources Issues.—This category focuses primarily upon people-related issues in response to two simple questions: (1) Do you have enough people?, and (2) Are the people qualified to do the work?

Quality and sufficiency of partner leadership

Issue: Two issues were identified in this area: (1) criticality of the program manager role, and (2) lack of partner leadership, authority and continuity.

Quality and sufficiency of support resources

Issue: Lack of quality and sufficiency of Federal/state DOT staff resources.

Issue: Lack of quality and sufficiency of program staff resources.

Issue: Lack of quality and sufficiency of contractor support resources.

Category 4.—Financial and Market Uncertainty Issues.—Of the four categories of institutional issues, this category contains issues which present the greatest diversity in definition as well as risk to deployment of ITS products and services. The following issues are discussed under this category of the report:

Cost sharing goals and how they will be measured

Issue: How the non-Federal partners apportion the expenses of an operational test is left to the ingenuity of individual partnerships.

Projecting project funding through deployment

Issue: Program cost and uncertainty about continued Federal support of IVHS programs was seen as a significant impediment to deployment. There is a concern that the Federal Highway Administration (FHWA), after providing funding to initiate the test, will require the states to absorb all future maintenance costs of elements critical to the program.

Market uncertainty and user willingness to pay

Issue: The uncertainty issue is driven by two factors: (1) A realization that in the beginning, IVHS products and services will be expensive, and (2) Lack of information on the value of products and services from the perspective of the market place.

In addition to identifying the above issues, the report also identifies lessons learned and recommendations for improving the performance of other operational field tests and deployments of ITS products and services.

The second report, "Analysis of ITS Operational Tests Findings and Recommendations" (Report Number DOT-VNTSC-FHWA–95–5, September 1995) summarizes the institutional issues and lessons learned from six case studies spanning seven operational tests: the Guidestar Program, which includes the Genesis and Travlink operational tests, and the FAST-TRAC, Houston Smart Commuter, SaFIRES, SmarTraveler, and TravelAid operational tests. The issues in this report are similar to those listed above.

Like the first report, this report also makes recommendations for improving the performance of future operational tests and deployments of ITS products and services—the majority of which we are now incorporating in our selection and contracting processes for future operational test and into our mainstreaming process.

Question. Why can't the $500,000 study requested on page 166 be completed by a visiting scholar or by FHWA personnel?

Answer. The nature of the data to be obtained under the Supplemental Data Collection study is such that it must be at a level of detail that will facilitate validation and calibration of traffic flow theory and analysis tools and our computer simulation programs. Typical types of data to be obtained are individual vehicle speeds, vehicle trajectories, lane changes, and vehicle dispersion patterns from stop bars. This type of data and the nature of its use is more detailed and complex than typical traffic data collection efforts. An underlying strategy for this study will be to seek out existing sites such as ITS operational tests, ITS Model Deployment cities, and regional traffic control centers where some such traffic data collection is already occurring and to reduce costs by capitalize on those data sharing opportunities. The volume, complexity, and geographic distribution of the data to be obtained makes it infeasible for a single person to collect, reduce and process the data into a useable format. Although a visiting scholar or FHWA personnel will be involved in the requirements analysis for this study, the majority of the funding is needed for supplementing data already available through physical data collection.

Question. How critical is the modeling work proposed on pages 166 and 167? Why can't you incorporate this work with TRANSIMS? Why can't you use existing models? Who is requesting this work? Do you have a specific request from a MPO?

Answer. Our analysis of current planning and operational models has revealed that they have various deficiencies that inhibit accurate estimation of ITS benefits in a regional transportation planning analysis. Planning models analyze traffic characteristics over a region. However due to the current planning analysis methods used to model a region, details necessary for the analysis of ITS operational benefits are not present. Conversely, current operational models have the detail required, but, lack the ability to simulate a regional area and provide for the estimation of

benefits over a 20 year planning horizon. However, by carefully and selectively using the power of the two model types, we believe that we can minimize the development of new models.

The ITS Deployment Analysis System (IDAS) will support analysis in the near-term time frame of the benefits of applying technology to various regional transportation deficiencies. Identifying the level of benefit associated with various alternatives of current, traditional capabilities and available ITS technologies is critical to the decision-making process of the States and Metropolitan Planning Organizations in development of Long Range Plans and Transportation Improvement Programs.

The development of IDAS is being thoroughly coordinated with the TRANSIMS effort to support estimation of ITS benefits. This will produce a two track approach. The first track, IDAS, supports analysis of ITS benefits in the near-term time frame. IDAS will supplement current analysis procedures to enable ITS analysis at a sketch planning level. Track two, TRANSIMS/ITS, is an effort to incorporate various capabilities into TRANSIMS that will support the detailed analysis of ITS alternatives. Thus, TRANSIMS will support more detailed ITS analysis needs in the longer-term time frame.

Due to the emphasis on ITS deployment, the transportation planning community (e.g. State DOT's, MPO's) has voiced strong concerns pertaining to the lack of ITS analytical capabilities needed to support the planning process and that they can use to justify and defend the selection of ITS alternatives. To assure that we are responsive to their concerns and needs, we have received commitments from twelves planning organizations to have representatives who will participate on a Steering Committee to work interactively with us in the development of IDAS. The Steering Committee has endorsed the IDAS conceptional framework and Scope of Work. We anticipate a competitive award to begin a phase one IDAS this fiscal year.

Question. Please complete each of the tables presented on page 169 for fiscal year 1996 and fiscal year 1997 funding levels.

Answer. Information provided in the following tables.

PROGRAM: RESEARCH AND DEVELOPMENT—TRAFFIC MANAGEMENT AND CONTROL

Products and activities	Program schedule			
	Fiscal years—			
	1997	1998	1999	2000
Advanced traffic management research:				
Advanced traffic management	■	■	■	■
Traffic management center integration issues		■		■
Deployment issues of surveillance systems		■	■	
Support systems:				
Research and analysis for ATMS (ORNL)	■	■	■	■
Internet operation	■	■	■	■
Supplemental data collection		■	■	■
Models:				
Enhancement and maintenance of ITS models		■	■	■
ITS deployment analysis system	■	■	■	■
ATMS research tools database system	■	■	■	■

RELATED PROGRAMS: RESOURCE SUMMARY

[In thousands of dollars]

Budget authority	Fiscal years—				
	1994 enacted	1995 enacted	1996 [1]	1997 [2]	1998 request
Advanced traffic management research	.....	.....	.....	.....	2,950
Advanced traffic management	.....	.....	.....	.....	2,200
Traffic management center integration issues	.....	.....	.....	.....	500
Deployment issues of surveillance systems	.....	.....	.....	.....	250
Support systems	.....	.....	1,000	.....	1,350

RELATED PROGRAMS: RESOURCE SUMMARY—Continued

[In thousands of dollars]

Budget authority	Fiscal years—				
	1994 enacted	1995 enacted	1996 [1]	1997 [2]	1998 request
Research and analysis for ATMS (ORNL)	.....	.....	1,000	.....	750
Internet operation	.....	.....	.....	.....	100
Supplemental data collection	.....	.....	.....	.....	500
Models	.....	.....	.....	.....	3,200
Enhancement and maintenance of ITS models	.....	.....	.....	.....	1,900
ITS deployment analysis system	.....	.....	.....	.....	800
ATMS research tools database system	.....	.....	.....	.....	500
Total budget authority	.....	.....	1,000	.....	7,500

[1] Budget authority was not listed the same way in fiscal year 1996. Sheet attached is for fiscal year 1996.

[2] No budget authority was provided for fiscal year 1997. All R&D monies were provided in IV A.I. ''Operation Tests, ATMS/ATIS'' as shown on attached sheet fiscal year 1997. Also budget line items for fiscal year 1997 are not listed the same as above.

Analysis of Fiscal Year 1996 and 1997 Spending Plan

Fiscal year 1996

[In thousands of dollars]

Activity/project	*GOE*
Research and development	38,695
Traffic management and software tools	6,903
Real-time traffic management and control	2,256
RT-TRACS 2.0	
Ramp metering	500
Surface street incidemt detection	250
Evaluation of real-time, traffic adaptive signal control	191
Operation and maintenance issues of ATMS	100
Traffic simulation for 2-lane roads	
Databases/assessments of operation tests/traffic models	965
Support systems	4,647
Research and analysis for ATMS	1,000
Traffic management lab	850
Field test of support systems for ATMS	250
Traffic management center integration issues	1,000
Models to simulate IVHS operations	1,970
VNTSC (WWW and Internet distribution.) 1995 carryover	370
ANSTEC (Configurations, logistics, and schol.) 1995 carryover	200

Fiscal year 1997

[In thousands of dollars]

Operational tests	
ATMS/ATIS:	
Real-time traffic adaptive control	10,000
Operational test	6,000
RT-TRACS testing I (Reston Parkway)	1,500
RT-TRACS testing II (site B)	1,500
RT-TRACS testing III (site C)	1,500
RT-TRACS testing IV (site D)	1,500
Other (R&D)	4,000
Deployment issues of surveilance sytems	500
Ramp metering	500
Evaluation of real-time adaptive signal prototype	500
ATMS research tools database system	500
Traffic management lab support	750
Support services	1,000
Development of ITS plannig models	250

Question. Please provide indications of the extent to which ITS systems have already been incorporated into transportation systems. Be certain to include the number of ITS Freeway Management Centers, Advanced Public Transit Systems, Centralized Traffic Signal Control Systems, Incident Management Programs, Electronic Toll Collection Systems, and Electronic Fare Collection Systems.

Answer. The following statement was previously presented to Congress reporting the status of ITI deployment based on data collected in early 1996. Based on the information collected in the ITI Deployment Database for 75 of the largest metropolitan areas in the United States, ITI components are deployed nationwide as shown in the following table. It should be noted that multiple jurisdictions make up many of the metropolitan areas across the country and data in this table does not necessarily reflect area wide ITI component coverage.

Freeway Management Centers	41
Advanced Public Transit Systems	39
Centralized Traffic Signal Control Systems	57
Incident Management Programs	39
Electronic Toll Collection Systems	28
Electronic Fare Collection Systems	18
Emergency Management Systems	(1)
Railroad Grade Crossing Warning Systems	(1)
Regional Multi-modal Traveler Information Systems	(2)

[1] Information on these systems has not yet been added to the ITI Deployment Database.

[2] While a number of metropolitan areas have regional traveler information systems through the private sector (such as SmartRoutes in Boston and Cincinnati, Shadow Traffic and Metro Traffic, etc.), the Smart Traveler program in Anaheim and Orange County, California is the only existing system that comes closest to meeting the definition of a regional multi-modal traveler information system. In addition, the Atlanta Showcase, ATIS Kiosk, and Regional ATMS projects provide some of the best examples of a totally integrated traveler information system.

An update that displays the status of ITS infrastructure systems in 1996 in a comparable fashion is not available because the concepts and metrics used to define the metropolitan components of the ITS infrastructure have been substantially enhanced by the Joint Program Office over the last year. Deployment tracking of the ITS infrastructure is now based on highly specific indicators that reflect the primary functions of each ITS component and the integration of these components. Subsequently, the survey used to measure ITS deployments has been undergoing major revisions. An interim survey based on preliminary versions of the new indicators was conducted in August and September of 1996. Therefore, although ITS deployment data are available for 1996, they are not directly comparable to the numbers previously reported to Congress. Within the next five months, the 75 largest metropolitan areas will again be surveyed to determine the status of ITS deployments as measured with these improved indicators. Data from this exercise will be available by September 30, 1997. It is our intention to issue the survey annually in order to track the progress in deploying metropolitan components of the ITS infrastructure.

COMMERCIAL VEHICLE OPERATIONS (CVO)

Question. Please prepare a detailed explanation of the expenses, purposes, and associated parts of the current contract for CVISN support on page 205.

Answer. As discussed on page 205, the states will need central information systems support as they deploy CVISN beyond the model deployment process. The funding of $3.6 million requested in the fiscal year 1998 budget for CVISN support is for both CVISN Architecture and System Integration Support, and direct deployment support to the states. The details of each category follow:

1. CVISN Architecture & System Integration Support:

—Continue to maintain key architecture documents (e.g., Introduction to CVISN, CVISN Design Description, COACH, Glossary). Incorporate feedback from prototype and pilot experience.

—Establish EDI 284 Transaction Set Standard as Draft Standard for Trial Use.

—Continue to refine, enhance and extend EDI Implementation Guides for the 285 & 286 transaction sets.

—Continue to provide extensive systems development and system integration support to the prototype states to support their implementation of the first CVISN compliant, operational capabilities in the areas of safety information exchange, electronic credentials administration, and electronic screening operational.

—Includes technical direction and project management and technical direction of the Credentialing Interface (CI) development by RSIS and IDT.

—Apply experience from prototypes to expedite pilots. In some cases, make systems developed for prototypes available to pilots.

—Develop certification test methods, facilities, and procedures. Develop these using the prototype states as a test case.

2. Deployment Support:

—Develop a CVISN Tool Kit which packages the documents and processes developed for the prototype and pilots into a form useful to deployment states. This is likely to include a CD ROM kit as well as access to a web site for continuing updates.

—Expand the role of the current Pilot State Advisors (PSA's) to become CVISN Regional Advisors (CRA's) and support the pilot state and any deployment states in each of the seven pilot regions (i.e., trucksheds).

—Establish a team of CVISN Technical Advisors (subject matter experts) to provide technical consulting to the deployment states.

—Conduct an RFA process to select the first group of deployment states. Help in the selection of the states and initiate the CVISN Deployment Program.

—Provide training to the consulting and system integration industry to assist the states in CVISN deployment.

Question. How could these expenses be reduced during fiscal year 1998?

Answer. The development expenses for CVISN are being reduced in fiscal year 1998. A transition from development to deployment support is however taking place in fiscal year 1998. Until the CVISN documentation is completed and the consulting and system integration industry is capable of supporting deployment, central support will need to be provided to a larger extent from the CVISN architect. A reduction in expense for central support is expected to take place in latter fiscal year 1999.

Question. FHWA initiated several ITS projects to deal with the problem of truck drivers violating the out-of-service orders of MCSAP officers. What is the status of each of these projects? How much was invested in each? When will these projects be completed and what will these accomplish? Are other States adopting these technologies? Please identify by State technology transfer activities.

Answer. Two out-of-service operational tests were initiated several years ago and to this point have produced valuable results. Minnesota and Wisconsin are nearing conclusion on the field testing of their MOOSE system and are planning to continue to use their system in the manner with which the project was designed. The final report on the project is due in October of 1997 Idaho is still in the field evaluation phase of their Out-of-Service verification project and is currently in the process of integrating their system with the ASPEN Roadside Inspection software. The project team is hopeful the field evaluation will be complete by the end of fiscal year 1997. FHWA funded the MOOSE project in Minnesota and Wisconsin with $216,000, and obligated $1,200,000 to Idaho for their project. It is expected that these systems will aid enforcement officers in their efforts on mitigating commercial motor vehicle drivers from running Out-of-Service Orders. Both systems show good promise for being implemented in other areas of the country, and it is likely that efforts will be made to showcase the benefits of these systems once the projects have concluded.

Other States have are utilizing license plate reader technologies for various applications within their enforcement activities. The CVIS Pilot States have implemented this technology in order to link vehicle registration with safety performance. There are 5 States currently participating in the pilot effort: Colorado, Indiana, Iowa, Minnesota, and Oregon. In addition, the SAFER Data Mailbox project, being conducted by the Eastern States Coalition [Delaware (lead), Virginia, Maryland, Pennsylvania, West Virginia, New Jersey, and New York], will allow for access to near real-time information on out-of-service violators through an electronic mailbox system.

Question. We understand that MCSAP officers are making effective use of the advanced roadside computers developed by FHWA. Please discuss how this technology is useful and improves the cost effectiveness of MCSAP.

Answer. The MCSAP community has been most enthusiastic about this new technology. Over 35 states have already adopted it. Using electronic data collection at the roadside greatly reduces data entry labor and data quality problems, vastly improves data timeliness, and enforces standard inspection procedures. It also enables information feedback mechanisms, such as Commercial Driver's License Information System access for drivers and ISS analysis of carriers, which allow inspections to focus on high risk carriers and drivers.

Out-of-service (OOS) rates are substantially higher when an inspection is recommended by the ISS. Analyzing data from 7,142 inspections conducted in nine states the first quarter of 1996, the vehicle OOS rate was 31.7 percent for those ISS recommended to inspect versus 18.1 percent for those it did not. For driver OOS rates, the rate was 13.1 percent for those recommended versus 9.7 percent for those not recommended. Clearly, ISS will help us target unsafe vehicles and drivers (as well as those for which we have insufficient data) and reduce the inspection burden

on proven safe carriers. This means more efficient use of scarce MCSAP resources by focusing on less safe vehicles and drivers.

Question. Many truck drivers will not participate in your CVO program. Nevertheless, enforcement personnel must be able to monitor their operations. What progress have you made in improving technology, such as license plate readers, which may prove important to the success of your CVO program?

Answer. The application of various identification and screening technologies at the roadside and on the vehicles will enable the roadside enforcement facilities and personnel to become more efficient at their jobs, thus being able to focus efforts on those entities with which data does not exist or have demonstrated performance problems.

It has been determined that at this point in time, license plate readers are a proven technology to assist in identification and enforcement efforts; however, it has limited capabilities and in most cases, for the near term, will be implemented as a secondary tool for enforcement. In the majority of the research and operational tests conducted on license plate readers thus far, the accuracy rates generated by the technologies are not consistent. However, we remain optimistic that through continued use and refinement these technologies will be able to contribute as a valuable component of the mainline speed identification and enforcement arena. The states conducting operational tests of these systems see the benefits of these technologies and continue to utilize the systems as they evolve and improve.

Currently, although voluntary, the technology of choice has been the use of transponders and readers. They have demonstrated benefits for a wider array of applications, and are more economically attractive to the CVO community. In addition, through other programs developed within FHWA, such as the CVIS and ASAP programs, we have shown the capability to monitor the operations of those carriers who may choose not to take advantage of the CVO technologies available to them.

Since the CVO program is predominantly voluntary in nature, there will be some drivers and carriers who chose not to participate. However, a study focusing on truck driver acceptance of CVO technologies has indicated high driver acceptance when they become familiar with these technologies. In addition, feedback from the I–75 operational test also indicates a high level of driver acceptance. As this information indicates, outreach efforts continue to be a critical component in the ITS/CVO program, as familiarity has consistently produced acceptance.

Question. How much money are you spending on this technology during fiscal year 1997? How much do you plan to spend on this technology during fiscal year 1998? How could you advance this technology so that its accuracy increases at higher truck speeds? What are the technological challenges that the CVO program faces in improving the reliability of these technologies?

Answer. The project funding for the two out-of-service projects totals approximately $1,400,000 over the life of the contracts, both of which began in June of 1994 and are slated to conclude within the next 6 months. The SAFER Data Mailbox project, funded at $400,000, is to commence in July of 1997 and is projected to be a 6 month project.

The use of license plate readers has resulted in some difficult challenges to deal with. From the operational tests thus far, the challenges and accuracy issues are not necessarily related to truck speed. The difficulties lie in the factors affecting the optical character recognition components of the systems. Climactic effects such as ice, snow, and dirt, as well as other factors such as ambient illumination, dynamic movements of the vehicles, plate variety, camera to plate distance, placement of the license plates, and the communications pathway are a few of the critical obstacles which are slowing the progress of this technology. In time, operational experience and software and hardware innovations will hopefully allow for the proper equipment modifications to deploy these technologies on a larger scale.

Question. In the CVO program, how much do you plan to spend from any funding source educating the general public and key State and industry decision makers on the costs and benefits of the CVISN and ITS CVO services? In your answer please specify any GOE and contract monies allocated or planned for this activity or any other outreach activity related to the CVO program for fiscal year 1996, fiscal year 1997, and fiscal year 1998, being certain to specify amounts and funding sources separately for each year and by project or contract.

Answer. Outreach has been a necessary element of the ITS/CVO program and been successful in a number of areas. Conducting media events of ITS/CVO technologies has heightened the awareness of the industry, as well as State and local government officials. Informational Focus Groups held around the nation for both industry and government representatives have informed front line users of ITS/CVO technology and provided feedback to the developers of the CVISN initiative. Feedback has indicated a greater need for stakeholder participation in the development

and deployment of CVISN and has been an impetus for the creation of a CVO policy subcommittee within ITS America.

Fiscal year 1996.—The ITS/CVO Division expanded on the Outreach Program by commissioning the ITS/CVO Strategic Communications/Outreach Plan and incorporating specific time lines for activities which are listed below:

—Worked with a contractor to complete Executive Summary of the Report on Driver Acceptance of ITS/CVO technology. Reproduced and disseminated copies for use at conference and meetings where there is an ITS/CVO exhibit. Thus far, copies have been disseminated at the ITS World Congress meeting, ITS America Annual Meeting, CVSA Meetings, National Private Truck Council Board Meetings, all ITS/CVO Focus Group meetings, and others. Maintain supply for requests.

Fiscal year 1996 Amount: $2,500—GOE

—Participated in a variety of meetings with partner ITS outreach groups to assure that the CVO technology perspective was included in the further development of outreach activities. They include: ITS America Communications-Outreach Committee, ITS/CVO Subcommittee Outreach Committee, ITS America Annual Conference, Outreach Strategy sessions of the CVSA ITS/CVO Committee, and ITS Consortium Quarterly meetings.

Fiscal year 1996 Amount: $900—GOE

—Assisted in the coordination of various public relations-type activities to promote the ITS/CVO Program (Colorado Downhill event, Southern border visit, I–75 Ribbon-cutting events). This included assisting with the coordination and preparation of materials for the CVISN Prototype States Showcase and the Capitol Hill Showcase and staff briefing.

Fiscal year 1996 Amount: $22,000—ISTEA

—Developed and implemented a Strategic Communications/Outreach Plan for the ITS/CVO Program. This includes development, production and dissemination of the Strategic Communications/Outreach Plan for the ITS/CVO Program. Developed various multi-media materials (video tapes, fact sheets, brochures, electronic slide presentations, etc.). Materials have been reproduced and made available to presenters for a cross-section of activities.

Fiscal year 1996 Amount: $30,000—ISTEA

—Coordinating the ITS/CVO Speakers Bureau. This activity provides interested sources with a vehicle for obtaining speakers and presenters on a variety of ITS/CVO-related topics. Requests filled during fiscal year 1996 included: California Trucking Association-ITS/CVO Panel Discussion, Eastern Border Transportation Coalition conference on Border-Crossing technology, Oregon Trucking Association annual meeting, ITS Virginia Chapter annual meeting.

Fiscal year 1996 Amount: $55,100—GOE

—Sponsored two (fiscal year 1996) individuals—on loan from State agencies—to gain experience in the development and implementation of ITS/CVO activities on a national basis. Individuals were selected from Maryland and California for one-year assignments working as members of the ITS/CVO Division staff concentrating on the implementation of the CVISN Pilot State Initiative.

Fiscal year 1996 Amount: $169,500—ISTEA

—Produced an outreach document detailing the CVISN program for use at various meetings, events and forums.

Fiscal year 1996 Amount: $28,000—ISTEA

Fiscal year 1997.—Senate Report 104–325 limited fiscal year 1997 outreach funds to $100,000. These funds will be used to cover costs of completing products for the outreach tool kit to support the ITS/CVO Program through the following projects:

—Design and production of color overheads on the "Technology Truck" project for presentation to key decision-makers. Writing, editing and producing a video tape on the "Technology Truck" which will be reproduced and used to inform the appropriate audiences about the availability of the truck for exhibits, briefings and informational training sessions.

Fiscal year 1997 amount: $35,000—ISTEA

—Participate in various outreach meetings conducted by partner or stakeholder organizations. This will provide the representative with an opportunity to ensure that the ITS/CVO Program is adequately represented as partners and stakeholders develop their own ITS/CVO Program activities.

Fiscal year 1997 Amount: $5,700—GOE

—Upgrade and add new material to a web-site and home page for the ITS/CVO Program. Creatively support the design and development of a standing exhibit on the ITS/CVO National Program.

Fiscal year 1997 Amount: $39,000—ISTEA

—Completion of brochure and overhead slides to support the ITS/CVO Program. These materials will be reproduced in large quantity and disseminated to the OMC region and division field staff, and also made available for various meetings, exhibits, briefings, and conferences throughout the year.

Fiscal year 1997 Amount: $19,100—GOE

—Develop and maintain a database of current ITS/CVO stakeholder contacts and media contacts.

Fiscal year 1997 Amount: $1,200—GOE

Fiscal year 1998.—Funds ($250,000) are intended to be focused on providing technical assistance to our ITS/CVO customers and stakeholders around the country. Using a variety of medium (i.e. printed materials, material in electronic format, video, cd-rom, awareness seminars, special events and presentations) the intent is to ensure that delivery of information on the ITS/CVO Program and its benefits is articulated to the targeted audiences in the appropriate format necessary to gain active program participation and technology deployment.

—*Technology Transfer—$100,000*.—Funds would be used to continue the partnership program with state enforcement agencies for an exchange of information that will be mutually beneficial to OMC and to the respective state. Funds would also be used to provide for HBCU and other minority college/university students to serve as summer interns in OMC offices—both in the field and at headquarters—where they would gain hands-on experience related to career opportunities (public & private) available in the ITS/CVO arena.

—*Electronic Information Dissemination/WWW Page—$20,000*.—Funds would be used to cover costs for continued maintenance and periodic upgrade of the WWW Page/Electronic Newsletter on the ITS/CVO program (i.e. projects, products, activities, partnership opportunities, deployment efforts, etc.)

—*Educational Materials—$60,000*.—Funds would be used to continue disseminating, developing and periodically updating materials—in a variety of multi-media formats—to be used to inform and educate the targeted audiences on the benefits of participating in the ITS/CVO Program. These materials include: video tapes, promotional items, cd-rom discs, pamphlets, brochures, presentation materials, audio tapes, exhibit materials, etc.

—*Ribbon-Cutting activities—$60,000*.—Funds would be used to support ribbon-cutting activities and spotlighting successful ITS projects.

—*Speakers Bureau—$10,000*.—Funds will be used to support participation by requested speakers to address groups on ITS/CVO activities.

Question. With respect to the States now participating in the CVISN, is there any assurance that these States will incorporate the capabilities developed under the 200/50 site effort, including carrier prioritization, prior inspection retrieval?

Answer. Yes, there is assurance. The SAFER system is a component of CVISN and is a requirement for states to implement as part of their CVISN support funding. However, the SAFER program sells itself and the state MCSAP officers are enthusiastically embracing the program and its various functions including carrier prioritization and prior inspection retrieval.

Question. What is the expected total cost of the CVISN Pilot State and prototype State projects? Please delineate federal versus non-federal costs and show assumptions.

Answer. In planning for CVISN model deployment we estimated seed funding of $500,000 per year for two years matched by 50 percent, or a total of $1 million per year per state. The original estimate was $1 million federal funds and $1 million state funds. Once planning got started with state personnel participation, a more detailed estimate was made. The major reason for the adjustment of estimates had to do with a better understanding of legacy systems and the interface requirements to make them interoperate with other legacy as well as new systems. However, final estimates are still being conducted by CVISN states as part of the detailed state project plan. These should all be complete in the next couple of months. Kentucky has completed its project plan and estimates $1,544,000 federal funds and $2,998,000 state funds to complete the pilot model deployment project.

Question. By mid 1998 FHWA is required to deploy a computer system that will supply driver and vehicle specific information to commercial vehicle inspectors work-

ing in at least 50 locations. What progress have you made in implementing this Congressional initiative?

Answer. We have initiated a model out-of-service (OOS) project that is based on early use of the SAFER/DRIVER-VEHICLE system by the Eastern State Consortium group. Seven States (Delaware, Maryland, New Jersey, New York, Pennsylvania, Virginia, and West Virginia) involving over 50 sites are participating. They will use a prototype version of the SAFER/DRIVER-VEHICLE system for the electronic input and retrieval of prior vehicle/driver inspections, including those put out-of-service at a prior inspection in one of the 7 states. This project will demonstrate the effectiveness of using an inspection database into which multiple states would rapidly input inspections and from which state enforcement staff in other states could retrieve inspections and verify that violations, including any the OOS conditions, have been resolved.

Question. How will you use fiscal year 1998 monies to expand beyond these initial sites?

Answer. Fiscal year 1998 ITS/CVO deployment incentive funds are expected to be used to help expand beyond these initial sites through CVISN deployment. In fiscal year 1998, we expect to include the SAFER Vehicle and Driver data capability to 5 to 8 additional states. We also expect to provide the current MCSAP sites that have SAFER Carrier data capability with the SAFER Vehicle and Driver data capability. We have also requested funding to continue data communications improvements at roadside locations if funding is sufficient.

Question. Will these monies be derived from CVO funds or from the National Motor Carrier Safety Program grants to the States? How much from each category of funds?

Answer. The monies for SAFER carrier-vehicle-driver safety data to the roadside will principally be derived from CVO funds. MCSAP funds will also be an eligible source of monies but is expected to be used to a lesser extent as CVISN is deployed to all of the states.

Question. On a project by project basis, please breakout the purposes and amounts of each of the contracts funded under the CVO program for fiscal year 1997. Be certain to specify any contracts signed for training or outreach related to CVO.

Answer. The projects funded under the CVO program for fiscal year 1997 are as follows:

Research and development:	
Safer MCSAP Sites	$5,100,000
System Development and Enhancement	1,900,000
Field Deployment	1,600,000
System Operation and Support	1,600,000
Driver Monitoring w/NHTSA	100,000
Industry Research	150,000
On-board safety diagnostics:	
Auto Roadside Inspec (Imaging)	135,000
Electronic Brake w/NHTSA	150,000
Brake Performance Specifications	415,000
Automated Safety Assessment Program (ASAP)	500,000
DSRC R&D (Border)	150,000
Operational tests:	
CVISN Prototype and Pilots	4,500,000
CVISN Technical Support	5,000,000
Texas Border Deployment	2,500,000
Texas Border Technical Assistance	500,000
CVO Corridors (Advantage I–75)	1,000,000
CVO Training	1,000,000
Mainstreaming:	
CVO Outreach (Ribbon cuttings, pubs., etc.)	100,000
CVO Deployment Tech Asst (Regional Champs)	900,000

Question. What are your plans and schedule to improve the SAFER and supporting systems? How does the fiscal year 1998 budget request address this need? How much do you plan on spending improving State data communication system? Please specify all amounts from each funding source, including MCSAP grants, ITS, and motor carrier operations.

Answer. Our short range plans to improve SAFER and supporting systems are to: (1) bring SAFER/CARRIER into operation for retrieval of carrier safety data at 200 sites by mid 1997; and (2) bring SAFER/DRIVER-VEHICLE into operation for retrieval of driver/vehicle specific prior inspection records at 50 sites by mid 1998. Long range plans include: (1) adding intrastate carrier data to SAFER; (2) continu-

ing to expand sites equipped; and (3) adding credential and tax information to SAFER for ITS/CVO electronic clearance.

In fiscal year 1998, we are requesting $1.150 million for SAFER development, $150k for SAFER user outreach and information and approximately $450k for SAFER operations. All of these funds are from the ITS-CVO account.

On SAFER development, we expect to include the SAFER Vehicle and Driver data capability to 5 to 8 additional states. We also expect to provide the current MCSAP sites (200) that have SAFER Carrier data capability with the SAFER Vehicle and Driver data capability. We have also requested funding to continue data communications improvements at roadside locations if funding is sufficient.

Question. Please describe in detail your progress in implementing each of the CVO-related directives in Conference Report 104–785.

Answer. The following CVO-related directives in Conference Report 104–785 and progress in implementing them are outlined below:

1. SAFER/MCSAP sites.—Complete equipment of 200 MCSAP sites by mid 1997 to bring SAFER/CARRIER into operation for retrieval of carrier safety data and to bring SAFER/DRIVER-VEHICLE into operation for retrieval of driver/vehicle specific prior inspection records at 50 sites by mid 1998.

Continue work on including adding intrastate carrier data to SAFER; continuing to expand sites equipped; and adding credential and tax information to SAFER for ITS/CVO electronic clearance.

2. Mainstreaming training activities.—Continued support for the seven Regional Champions to provide national leadership in the acceleration of ITS/CVO deployment by re-engineering current business practices of States and motor carriers through forums (State, regional, national), by fostering new partnerships, by developing State and Regional CVO business plans, and by gaining the support from all levels of State government.

Provide ITS/CVO training and other educational media to CVO professionals which are critical to the acceptance, proper uses, and maintenance of deployed ITS/CVO systems. Disseminate ITS/CVO information to States and motor carriers to provide a clear understanding of how the CVO technologies and information systems can meet their specific needs and what their respective costs and benefits are.

3. Completion of CVISN and its prototype testing and progress on pilot programs.—Provide the FHWA with technical support services in developing the design of CVISN, as well as the necessary Electronic Data Interchange (EDI) standards. This effort builds on the CVISN architecture and develops a detailed system design to support prototyping and piloting of the CVISN. This funding will increase the capability and expansion of CVISN, related clearinghouses, prototyping technologies and draft EDI standards in support of CVO Model Deployment.

Provide funding to support the prototype States for installing roadside electronic verification, develop State-specific carrier automated transaction systems, modify State systems to interoperate, integrate prototype States with the International Registration Plan and International Fuel Tax Agreement clearinghouses. Also provide technical direction to the CVISN prototype States, and provide all related CVISN technical support required by the prototype States.

Provide funding to the CVISN pilot States to carry out model deployment in roadside safety information exchange; electronic screening; and electronic purchase of credentials. The model deployments will showcase integrated CVO services on a Statewide and regional basis and provide cost and benefit data. In addition, these systems will provide the opportunity for States and carriers to see them actually work in a real world setting. This is critical to the acceptance and commitment of State legislators, governors, roadside officers and the private sector. In addition, the experience gained in these pilots is important for both developing a viable nationwide system as well as accelerating deployment in all States and regions.

4. Advance the concept and technology of automated compliance review.—Design the Automated Safety Assessment Program (ASAP) to allow motor carriers to submit compliance related information electronically to the FHWA. The ASAP software was recently administered to a sample group of motor carriers in a controlled pilot test. The pilot test will enable the FHWA to further evaluate the ASAP concept and operational plans.

Question. I understand that FHWA has substantially exceeded the congressional goal of equipping 200 MCSAP sites with new technology to help focus inspections on high-risk bus and trucking companies before mid 1997. Please discuss your accomplishments, the outcome of this investment, and its cost effectiveness. What has been the response of the MCSAP community to this initiative?

Answer. The MCSAP community has been most enthusiastic about this new technology. Over 35 states have already adopted it. Based on the results of an evaluation survey completed by 116 MCSAP inspectors in six states, pen-computers and

the FHWA's new Inspection Selection System (ISS) appear to be well accepted. When asked if the ISS has helped them in the inspection process, a majority again answered on the "very helpful" end of the scale, and approximately 73 percent indicated that they would recommend the use of the ISS to other states. These systems are easily accepted because they work and they solve real and serious information system problems in MCSAP.

Using electronic data collection at the roadside greatly reduces data entry labor and data quality problems, vastly improves data timeliness, and enforces standard inspection procedures. It also enables information feedback mechanisms, such as Commercial Driver's License Information System access for drivers and ISS analysis of carriers, which allow inspections to focus on high risk carriers and drivers.

Out-of-service (OOS) rates are substantially higher when an inspection is recommended by the ISS. Analyzing data from 7,142 inspections conducted in nine states the first quarter of 1996, the vehicle OOS rate was 31.7 percent for those ISS recommended to inspect versus 18.1 percent for those it did not. For driver OOS rates, the rate was 13.1 percent for those recommended versus 9.7 percent for those not recommended. Clearly, ISS will help us target unsafe vehicles and drivers (as well as those for which we have insufficient data) and reduce the inspection burden on proven safe carriers. This means more efficient use of scarce MCSAP resources by focusing on less safe vehicles and drivers.

Question. What are the technological and financial challenges to being able to supply this advanced technology that is vehicle- and driver-specific to all MCSAP States? How much money would this cost?

Answer. We have estimated that it would cost about another $5 million to finish equipping all the estimated 2,500 full-time MCSAP inspectors. Additionally, the recurring annual costs of communications fees, equipment replacement and supplies is approximately $4–5 million per year.

Question. How does your fiscal year 1997 spending plan reflect movement towards this goal?

Answer. In fiscal year 1997, we are spending about $1.5 million ITS/CVO funds for additional grants to States to help improve data communications at inspection sites so that more may participate in these programs. We are also funding improvements to SAFER to allow updating of ASPEN carrier data from home and office locations for inspectors who are not in communication at their inspection location (e.g., mobile inspections with no wireless communications).

Question. How does your fiscal year 1998 budget request reflect movement towards this goal? Please discuss how a CVO mailbox system similar to that implemented by Delaware could be implemented successfully by the southeast states and discuss the status of the Delaware project and its expected uses.

Answer. Fiscal year 1998 ITS/CVO deployment incentive funds are expected to be used to help expand beyond these initial sites through CVISN deployment. In fiscal year 1998, we expect to include the SAFER Vehicle and Driver data capability to 5 to 8 additional states. We also expect to provide the current MCSAP sites that have SAFER Carrier data capability with the SAFER Vehicle and Driver data capability. We have also requested funding to continue data communications improvements at roadside locations if funding is sufficient.

Delaware, as well as the States of Maryland, New Jersey, New York, Pennsylvania, Virginia, and West Virginia, are pilot testing the SAFER Data Mailbox system for providing safety and enforcement officials with access to timely commercial motor vehicle and driver inspection information. The mailbox system will allow for the electronic input and retrieval of prior driver/vehicle inspections, including those inspections where a driver or vehicle has been placed out of service in one of those seven States. As the capability, technology and the communications protocols are established in the Delaware project, additional States (including the southeast States) will be able to use the same mailbox system. However, there would be a significant advantage to having States in the same region of the country implement this system, as reciprocal enforcement in each State will assist in creating safer road conditions in the other States.

Delaware is currently testing four portable wireless communication units to the SAFER Data Mailbox. Also, New York will be deploying four van-based LAN units that can collect the laptop inspection data from up to five state inspectors working at a single site and six portable units utilizing wireless communications to transfer the data directly to the SAFER Data Mailbox. In addition, Pennsylvania will test the use of a portable satellite communications device. All of the States participating in the project will deploy a mixture of wireless portable units.

As a component of CVISN, the SAFER data mailbox will provide the opportunity for States to use state-of-the-art technology to provide State safety and enforcement officials at the roadside access to near real-time inspection information on commer-

cial vehicles and their drivers that have been previously cited for out-of-service violations. It could also be utilized to identify drivers who have violated hours-of-service requirements. The system will provide a valuable tool for the safety and enforcement community in reducing highway crashes and fatalities, as well as allowing State safety personnel to focus its limited resources on those carriers, vehicles, and drivers that are more likely to need attention.

Question. How could you advance technology to improve the "readability" of motor carrier markings so that all truck markings could be read at mainline speeds? Does your fiscal year 1997 or fiscal year 1998 spending plans address this objective?

Answer. There are several operational tests underway which are utilizing advanced identification technologies, including such items as license plate readers. Currently, this technology has yet to generate consistent read accuracies. Through continued use and equipment modifications, we have reason to believe they will provide for a valuable tool to aid in identification and enforcement efforts. Funds have been provided for this endeavor through the out-of-service operational test efforts in Minnesota, Wisconsin, and Idaho.

In addition, another technology which has potential for this application is the utilization of visual imaging equipment in conjunction with optical character recognition software, which can convert image information into a useable computer format for enforcement personnel. This concept is in early developmental phases and is primarily being explored within the private sector. One such technological initiative to commence in July of this year, which employs a similar concept, is the Maryland Aggressive Driver Imaging and Enforcement program. This technology utilizes video cameras and computers to allow State enforcement officers to monitor speed and aggressive drivers on the Capital Beltway. Both the State of Maryland and FHWA are looking at the potential application of this concept to be utilized in the commercial motor vehicle arena.

Currently, the use of transponders and readers has become widely accepted as the technology of choice for communicating identification, safety, and credentialing information to the roadside, as well as having the capability to receive and store information. This is evident in the HELP, Advantage CVO, and MAPS projects being conducted around the nation, as well as several of the border crossing initiatives such as at the Peace Bridge location.

Question. Will all commercial vehicles be required to have unique identifiers? If not, how will specificity be achieved?

Answer. Yes, according to the national architecture for CVO, all commercial vehicles will have unique identifiers with VIN numbers and license plate numbers.

Question. CVISN will allow automatic clearance and electronic communications of regulatory documentation. In view of these benefits, how much is the commercial motor vehicle industry contributing to the development of CVISN?

Answer. The commercial motor vehicle (CMV) industry has been contributing to the development of CVISN through the Federal and State tax mechanisms. Further, the industry has participated in ITS/CVO meetings at the national, regional, and State level. Industry representatives have paid for their travel expenses and donated their time. The industry has also participated in the operational tests, especially on I–75 and at border crossings where participation has meant running dual systems.

The CMV industry is also contributing to the development of CVISN through the continuing efforts of the American Trucking Association, the ATA Foundation, and the National Private Truck Council. These efforts consist of participating in the design discussions as they relate to the development of CVISN and seeking out trucking companies to participate in the operational tests. Representatives of the CMV industry actively participate in focus groups sessions, take the leadership at meetings and workshop forums to present the various aspects of CVISN. In addition, the CMV industry sponsors stakeholder meetings to resolve any issues of concern in the CVISN development and participates in working group sessions sponsored by various organizations including USDOT and ITS America.

Public-private partnerships are the foundation on which the CVO program is built. We will continue to work in partnerships with the States, motor carriers, drivers and related associations and industries to collectively achieve our goals.

Question. How do you propose to pay for the CVISN over the long-term?

Answer. The FHWA's vision for CVISN is that by the year 2005, all interested States will have a fully integrated set of motor carrier information systems that will support safe and seamless commercial transportation throughout North America. These systems will provide high quality, timely, and easily accessible information to authorized users.

We expect the long-term costs of the federal, State, and carrier information systems, as well as clearinghouses which support CVISN, to be covered by a combina-

tion of funding from federal, State, and carrier sources and user fees. The FHWA would be primarily responsible for the safety systems, CVISN architecture and standards, related technical support, and training. States and carriers would be responsible for their respective systems. State-directed associations would be responsible for clearinghouses—like the International Registration Plan and International Fuel Tax Agreement.

Federal financing is a subject that is currently under investigation.

As part of the CVISN prototype and pilot initiatives, participating States will provide us data in their project plans on the estimated costs, from both Federal and State perspectives, associated with deployment of CVISN. This process will also include developing sound cost estimates to operate CVISN and document benefits for States, carriers, and others. In addition, the FHWA is in the process of conducting empirical research on the financing issues as part of the CVISN model deployment projects. This process will include an appraisal of the market, user financing and other revenue sources. The current planning process includes determining the data to be collected along with setting up the data collection mechanisms. A preliminary assessment will identify the proportions attributable to public and user financing will be prepared by the end of fiscal year 1997. This will be used for further discussions with the many stakeholders and operators of the information systems linked by CVISN to determine their respective roles. A more detailed plan will be available no later than fiscal year 2000. Through these efforts, we will have better information to determine how much it would cost to fully implement CVISN throughout the States.

Question. How could the private sector help pay for this CVISN and its operation? What are you doing to achieve this objective?

Answer. In essence, the private sector—and in particular, the commercial motor vehicle (CMV) industry—is already contributing to the development of CVISN through the Federal and State tax mechanisms. In addition, we expect that user fees such as we see in the Help Prepass Systems could help cover much of the future costs after the CVISN pilot initiative, especially for private and non-safety transactions. We are reviewing with the states, through CVISN workshops, the various mechanisms that exist to help defray the future cost of the systems.

Question. In the CVISN pilot program, are you spending or planning to spend Federal dollars to link to internal carrier systems, to shippers, banks and insurers?

Answer. We do not plan to expend federal funds for the purpose of linking internal carrier systems to shippers, banks, and insurers. If a shipper, banker, or insurer wants to obtain information from one another or through CVISN, they must develop their own connections and be authorized by the owner of the data. Linkages of those entities will be provided by the private sector as a part of fleet management activities, if industry desires. Our efforts to deploy CVISN are focused on improving safety systems, architecture, standards, technical support, training, and deployment incentives to achieve safety, simplicity, and savings for both States and the motor carrier industry.

Question. If so, please discuss this linkage and its importance and why this is a public responsibility. How much will this part of the system cost? In your answer please specify relevant GOE and contract monies for fiscal year 1996, fiscal year 1997, and fiscal year 1998.

Answer. No funds will be expended for this activity.

Question. Please estimate how much of the fiscal year 1998 GOE request for CVO will be used for each of the following activities: promotion of electronic vehicle-based information systems, enhancement of on-line capabilities for roadside personnel, implement carrier registration and vehicle registration, and implement SAFESTAT and CVIS. Please do the same for fiscal year 1997 separately. Please specify all amounts from each funding source, including MCSAP, ITS (GOE and contract), and motor carrier operations, for fiscal year 1998 and fiscal year 1997 separately.

Answer. Promotion of electronic vehicle-based information systems:

[Dollars in millions]

Source	Fiscal years—	
	1997	1998
MCSAP	(1)	(1)
ITS-CVO	$0.460	$2.000
Motor carrier	(1)	(1)
Enhancement of on-line capabilities for roadside personnel:		
MCSAP	(2)	(2)

[Dollars in millions]

Source	Fiscal years—	
	1997	1998
ITS-CVO	5.100	3.600
Motor carrier	(1)	(1)
Implement carrier registration and vehicle registration:		
MCSAP	(2)	(2)
ITS-CVO	(3)	0.550
Motor carrier	(1)	(1)
Implement SAFESTAT and CVIS:		
MCSAP	2.000	6.000
ITS-CVO	(1)	(1)
Motor carrier	(1)	(1)

[1] None.
[2] Unknown: The State SEP plans which govern the expenditure of MCSAP funds do not go to this level of detail.
[3] None: Work being done on unified carrier registration in fiscal year 1997 was funded in fiscal year 1996 from ITS-CVO funds.

Question. The CVISN has multiple components. Are any States not immediately proceeding to deploy the SAFER component? What is FHWA doing to endure that safety continues to be the highest priority of the CVISN program?

Answer. All CVISN prototype and pilot States are implementing the SAFER system as it becomes operational. Safety is the top priority of the Office of Motor Carriers. Safety objectives are established for CVISN and the States readily embrace the importance of safety. The MCSAP community has been most enthusiastic about this new safety technology. FHWA along with the States agree on the importance of safety and collectively assure it remains as the top priority in the allocation of funding, the establishment of objectives and the implementation of programs.

AUTOMATED HIGHWAY SYSTEMS (AHS)

Question. We understand that you are considering some fundamental changes to the AHS program. Please discuss what FHWA and the consortium are considering.

Answer. The changes under consideration for the Automated Highway System program are best characterized as a refocusing to a near-term, evolutionary and incremental approach to advanced vehicle control and infrastructure systems. Due to a recognition that the driver is a critical and important component in the system, we plan to work more closely to integrate the crash avoidance and human factors research being conducted by the National Highway Traffic Safety Administration to take advantage of the synergy that can produce early useable products.

Question. We understand that the AHS program may be at a crossroad in terms of whether additional focus will be directed at realizing more spinoffs in the near-term. Given the uncertainties that are associated with the future of this project, would it be worthwhile to conduct a total project review? If so, when will this start? Who will conduct it?

Answer. In the 1991 ISTEA legislation Congress asked the Department to develop an automated highway and vehicle prototype and demonstrate its technical feasibility by 1997. That demonstration will take place in the first week of August this year on a 7.6 mile stretch of I–15 near San Diego. This demonstration represents an important milestone in our collaboration with industry to investigate the feasibility of the Automated Highway.

In the two and one-half year effort that has been expended to date we have learned a great deal. Several computer simulations have suggested that full automation has extraordinary payoff in increased throughput and accident reduction. However, our social and institutional investigations indicate that pursuing an approach that involves new, exclusive rights of way dedicated to automation is unrealistic. Full automation is likely to evolve, incrementally, from an increasingly intelligent vehicle. That has focused much of the recent AHS effort on the incremental components of an intelligent vehicle and their user-friendly integration.

Thus, we believe the completion of the August demonstration should be used as an opportunity to step back, review what has been learned and based on that review, re-evaluate the AHS vision as well as the mission of the consortium. We expect that an outcome of this effort will be a tighter focus on nearer term features that enhance driving performance and the human factors that are involved with the driver interface. Given a shorter term focus and the expectation of marketable prod-

ucts it may be appropriate to have the private sector assume a larger share of the partnership.

We are currently exploring the possibility of using a panel of senior transportation professionals convened by the Transportation Research Board who would conduct the review under the auspices of the National Academy of Sciences.

Question. If we are at a crossroad, why shouldn't we hold additional monies in abeyance until a decision is made on the future of the AHS?

Answer. Fiscal year 1998 appropriations should not be withheld. Funding will be needed for the review and some ongoing operations. Further, regardless of the outcome—this line item can be productively used to pursue several short term technologies that will be valuable for either a short or longer term focus. The refocused NAHSC work plan is addressing near-term issues and applications that are valid regardless of the "future of AHS" or the "future course of the AHS program." This NAHSC research is supportive and complementary to NHTSA collision avoidance and other USDOT ITS programs for transit buses, trucks and in-vehicle information systems. Thus, delay in funding would delay research necessary to realizing near term safety benefits.

Question. What are the pros and cons of delaying additional expenditures until the future course of the AHS program is determined?

Answer. The Department is taking a well thought out and cautious approach to the refocusing of the AHS program. In doing so we have shifted the AHS program spending to support our more near term priorities as characterized by the Intelligent Vehicle Program. We see no benefit in holding funds in abeyance because planning for the revised program will be completed prior to the start of fiscal year 1998. Withholding funds would stop work on critical technical issues which will lead to near term safety benefits. A gap in funding would also unnecessarily increase management and overhead costs to the government as well as cause the potential loss of key staff.

Question. What do you anticipate will be some of the early spinoff technologies from the AHS program that could be deployed? When do anticipate that this deployment would take place?

Answer. Early spinoff technologies include: obstacle detection; cooperative infrastructure for hazard warning and vehicle control assistance; vehicle-vehicle data communication for enhanced safety; tactical driving guidance systems (merge, lane change, etc.); detailed road geometry databases and positioning systems.

Most likely, deployment will first take place in fleets of special purpose vehicles, which employ professional drivers and high-value vehicles which can benefit directly from measurable productivity and safety enhancements. Examples are driver assistance for snowplow operators in northern and mountainous states; assistance for other highway maintenance applications; lateral guidance for transit bus operations on narrow lanes, opening up possibilities for new routes; and intermodal freight terminal operations, in which vehicle-to-vehicle communications and obstacle detection can enable large vehicles to maneuver more precisely in tight spaces, increasing productivity.

The NAHSC is now conducting case studies of applications such as those above, as well as partial automation applications for passenger cars. Case studies are underway or being initiated in Southern California, I–81 in Virginia, the Gary-Chicago-Milwaukee corridor, the Yellowstone corridor, Minnesota, Houston, and I–94 in Michigan. Given continued funding, promising case study results will evolve into limited operational tests. Tests of a modest scale could take place in the next two years, employing technologies such as infrastructure/communications assisted lane keeping, obstacle detection, and longitudinal control.

Question. What are the kinds of concerns being raised by stakeholders as they become more familiar with the AHS program? How are these concerns being addressed by the FHWA?

Answer. The feedback that the Consortium received during its outreach sessions with stakeholders—such as state highway agencies, local transportation planners, and environmental groups—revealed concerns over the effect AHS implementation would have on air pollution, land use, liability, equity issues (Vehicles equipped to travel on an automated highway may cost more and be affordable only to affluent travelers), and the costs of constructing and maintaining new infrastructure.

The environmental, land use, liability, equity issues have been recognized by DOT and the Consortium. Although the issues have not been fully resolved, they are under study by the Consortium and are viewed as resolvable. A strong message from the stakeholders has been to bring greater emphasis to incremental deployment and near term spinoff products, while still exploring full automation, thereby balancing the short-term and long-term emphasis. Development of a credible AHS deployment plan has been an aim of the program from the start, and the NAHSC

began increasing its emphasis in this area in 1996 in response to the stakeholders. New user services in the area of partial automation have been defined and presented to the stakeholders for review. Further development of partial automation applications is now a major focus of the NAHSC technical program.

In response to the message regarding the difficulty of deploying dedicated AHS lanes in some areas, even while the traffic flow benefits of this approach are recognized. The NAHSC has responded by developing alternate modes ("free agent vehicles") that can operate in the normal traffic stream, with limited benefits to traffic flow yet strong safety benefits. Thus, means of gaining benefit from both partial and full automation applications without the need for extensive additional infrastructure are being actively explored.

Question. How could the near-term benefits of using AHS technologies to improve safety and systems management be realized over the next five years? What are some of the current benefits being evaluated under the AHS?

Answer. Most likely, deployment will first take place in fleets of special purpose vehicles, which employ professional drivers and high-value vehicles which can benefit directly from measurable productivity and safety enhancements. Examples are driver assistance for snowplow operators in northern and mountainous states; assistance for other highway maintenance applications; lateral guidance for transit bus operations on narrow lanes, opening up possibilities for new routes; sensor systems to assist emergency response vehicles maneuver through dense traffic; and intermodal freight terminal operations, in which vehicle-to-vehicle communications and obstacle detection can enable large vehicles to maneuver more precisely in tight spaces, increasing productivity.

The NAHSC is now conducting case studies of applications such as those above, as well as partial automation applications for passenger cars. Case studies are underway or being initiated in Southern California, I–81 in Virginia, the Gary-Chicago-Milwaukee corridor, the Yellowstone corridor, Minnesota, Houston, and I–94 in Michigan. Given continued funding, promising case study results will evolve into limited operational tests. Tests of a modest scale could take place in the next two years, employing technologies such as infrastructure/communications assisted lane keeping, obstacle detection, and longitudinal control.

A promising near-term passenger car application is lane-keeping assistance, based on simple, low-cost infrastructure markings. This could be deployed to enhance safety both on rural two-lane roads and on freeways, particularly in mountainous areas or areas with frequent poor visibility. Infrastructure-based roadway obstacle detection could also be deployed in the near-term, based on research conducted thus far by the NAHSC. Consequently, near-term safety, system management, and productivity benefits could be realized in transit bus, commercial truck, highway operations and maintenance vehicles, and emergency response vehicles. Cooperative infrastructure and communications applications, key elements of "AHS technologies," could also be implemented in field operational tests in the next five years, especially if linked with the Model Deployment sites. Benefits assessed in the current case studies and contemplated for future operational testing include: safety in both urban and rural settings, per-vehicle productivity improvements, fleet resource management, traffic throughput, and user acceptance.

Question. What does the JPO and FHWA think of the option of conducting at least two early, small scale operational tests of in vehicle control technologies linked to highway infrastructure? The operational test would address safety and system issues that will emerge over the next decade, such as the system impacts of linking AHS-related vehicle control and highway infrastructure technologies and the safety impacts of emerging automated controls on the vehicle-highway system.

Answer. The Department agrees in principle with this approach in that we plan to initiate several field studies, which are smaller in scope than an operational test. In the fiscal year 1998 budget, we plan to initiate an field study of transit vehicles with cooperative vehicle-infrastructure controls for the purpose of increasing safety and productivity. Additionally, we will conduct field studies using infrastructure cooperative driver assisted control in safety critical applications such as snow plows operations. Both of these efforts are funded under research. We do not agree with reprogramming the limited operational test funds requested away from the uses sited under Advanced Crash Avoidance System Operational Tests. These are critical assessments of near term technologies which are foundations for the Intelligent Vehicle Program.

Question. Will the future AHS program be oriented solely towards the vehicle?

Answer. The future program will not be oriented solely towards the vehicle. The Department of Transportation is merging all vehicle-focused ITS activities into a multi-agency research and development program, entitled the Intelligent Vehicle Program. The Intelligent Vehicle Program emphasizes the significant and continu-

ing role of the driver in highway safety. Although the Intelligent Vehicle Program will have a strong focus on in-vehicle systems, communications technologies and other cooperative infrastructure systems will be added to roadways to enhance Intelligent Vehicle system capabilities.

Question. What are you planning to do during the next few years to advance lane keeping with simple infrastructure assists?

Answer. While plans are not yet firm, lane-keeping assistance is a key area of focus for near-term systems development. Supporting technology investigations are already underway, and we have already gained much knowledge in this area in preparing the demo vehicles and infrastructure. Future work would likely include sensor fusion research (combining unassisted vision and infrastructure markers), case studies of promising application sites, and a limited operational test of vehicles employing lane-keeping driver assists.

Question. There is a debate in the ITS community over whether the AHS program development should occur in a revolutionary or evolutionary manner. Which direction is the National AHS Consortium headed, and how will this issue be resolved?

Answer. This issue has already been resolved. In response to stakeholder input and technical analysis the Consortium has determined to take the evolutionary approach. The Department is currently laying out a program plan for the Intelligent Vehicle Program. This plan will provide a roadmap of our coordinated activities that will evolve from vehicle based crash avoidance systems to more highly automated infrastructure cooperative systems.

Question. Do you still believe that it will be safe to platoon ten or more 80,000-pound trucks down the highway under automated operations? Are you going to expend any fiscal year 1998 funds on advancing this risky approach?

Answer. The AHS research program is premised upon increased safety of vehicles operating on our highways through advanced sensors and automated control. It is still too early to decide what the optimal size of a platoon should be and even if platooning will be part of the final AHS concept. However, the task of automating heavy vehicles is not significantly greater than that required for similar operational concepts for passenger automobiles. For fiscal year 1998, no specific work on heavy truck platoons is planned.

Question. The Committee last year instructed FHWA to limit AHS outreach activities to $50,000. How was this directive complied with and how much did you spend on all outreach activities related to AHS?

Answer. This directive was complied with by reducing outreach spending to $50,000 in fiscal year 1997.

Question. What is the fiscal year 1997 amount allocated for the outreach component of the AHS program? Please breakdown the expected uses and associated amount of these funds. Provide similar information for the fiscal year 1998 request.

Answer. The program has a major focus on stakeholder relations and involvement, which is funded at $1 million for fiscal year 1997. Activities towards stakeholder relations specific to the demonstration comprise $0.26M of that amount. Of that $0.26M, less than $50,000 is focused on "pure" outreach, i.e. activities focused upon publicity to the general public. Due to the current re-evaluation of program priorities, specific amounts are not available for fiscal year 1998; it is expected that funding for this area would decrease because the Demonstration will be behind us.

Question. Does the Department have a coherent, unified approach to vehicle control research? If so, what is this approach and how is it reflected in the fiscal year 1998 budget request? If not, does one need to be developed?

Answer. The Department of Transportation is merging all vehicle-focused ITS activities into a multi-agency research and development program, entitled the Intelligent Vehicle Program. The Intelligent Vehicle Program emphasizes the significant and continuing role of the driver in highway safety. The Intelligent Vehicle Program is aimed at accelerating the development, availability, and use of driving assistance and control intervention systems to reduce motor vehicle crashes. The Program also will increase traffic efficiency. By integrating driving assistance and motorist information functions, Intelligent Vehicle Systems will help drivers process information, make decisions, and operate vehicles more safely and effectively.

The Intelligent Vehicle Program covers applications for passenger cars, light trucks, vans, sports and utility vehicles, commercial trucks, and buses on all types of highways. Special applications, such as emergency response, enforcement, and highway maintenance vehicles, are included. On-going and recently completed work on crash avoidance, in-vehicle information systems, and automated highway systems provide the foundation of the Intelligent Vehicle Program research. Continuous research characterizes the Intelligent Vehicle Program in areas such as human factors, advanced driver warning and vehicle control technologies, and system integra-

tion. Following testing in an experimental environment, a fleet of equipped vehicles will be evaluated in on-road operational settings.

Planning for Intelligent Vehicle Program was not completed at the time the fiscal year 1998 budget was sent to Congress. We expect to complete a preliminary program plan by the end of the summer. The Intelligent Vehicle Program covers the areas in the fiscal year 1998 budget document for Crash Avoidance Research, Crash Avoidance Operational Test, the Human Factors portion of Enabling Research and Advanced Vehicle Control and Information Systems.

Question. How will NHTSA crash avoidance research be integrated with FHWA's AHS program and related efforts to cover the full spectrum of vehicle-highway control applications?

Answer. The Department of Transportation is merging all vehicle-focused ITS activities into a multi-agency research and development program, entitled the Intelligent Vehicle Program. This program emphasizes the significant and continuing role of the driver in highway safety. While the primary objective is safety, other features such as traffic advisory systems, routing or other traveler information systems or other systems already planned to be introduced by manufacturers in the near future are products that could be included in the intelligent vehicle to be demonstrated and evaluated. The Crash Avoidance effort will serve as the core which the Intelligent Vehicle Program is built around, but will integrate the complementary work conducted by FHWA for AHS, the Federal Transit Administration advanced transit bus program, and the Federal Highway Administration Office of Motor Carrier Safety (OMCS) program for Commercial Vehicle Operations.

The internal DOT management and responsibilities for the Intelligent Vehicle Program have not yet been determined. To reduce technical risks and provide opportunities to incorporate intermediate research findings, the Intelligent Vehicle Program will employ a multi-level system development and test approach. Each successive level will lead to increased capabilities and integration.

Question. How is this reflected in the fiscal year 1998 budget request?

Answer. Planning for Intelligent Vehicle Program was not completed at the time the fiscal year 1998 budget was sent to Congress. We expect to complete a preliminary program plan by the end of the summer. The developing the fiscal year 1998 spending plan we will create a category called Intelligent Vehicle Program which covers the integration of the areas in the fiscal year 1998 budget for Crash Avoidance Research, Crash Avoidance Operational Test, the Human Factors portion of Enabling Research and Advanced Vehicle Control and Information Systems. We will continue the crash avoidance research and operational tests as submitted in the budget, as these are core activities to the new Intelligent Vehicle Program.

Question. In what ways have NAHSC research projects to date been applicable to NHTSA's programs and private sector research?

Answer. The NAHSC research has been beyond the scope of NHTSA's crash avoidance research. If the NAHSC continues, its work on obstacle detection, lane tracking and vehicle infrastructure communications will be applicable to second generation crash avoidance systems. Significant cooperation has occurred between these 2 programs but it has been the NAHSC which has benefited from the products of NHTSA's research because these are the building blocks of vehicle automation.

Question. The Committee directed FHWA to focus funds on concept and technology development and to minimize monies for outreach and the proof-of-technical feasibility demonstration. How did you accomplish this directive? How much was spent or will be spent on technology and concept development work relative to your original plans? (Please answer separately for fiscal year 1996 and fiscal year 1997.)

Answer. Costs for the demonstration were reduced from a planned $8.1 million to $7.1 million through the following means:

—Reducing the content of the Demo including simpler infrastructure, smaller number of vehicles and associated vehicle equipment.
—Replacing the broader Traffic Management Center (TMC) concept with a scaled down Demonstration Presentation Center (DPC).
—Scaling back on the Infrastructure Demonstration Vehicle scenario (intended to demonstrate automated maintenance activities on a future AHS).
—Substituting an associate heavy vehicle scenario (no cost to budget) for core scenario.
—Making the Exposition self supporting.

Regarding outreach, all activities in this area were carefully scrutinized to ensure they were focused upon stakeholder relations and involvement, with efforts towards pure outreach (publicity aimed at the general public) kept below $50,000. We continue to strongly support investments in stakeholder relations; the return on investment has been very high, in the form of contributed technical expertise, policy view-

points, engineering analyses, and operating vehicle-highway systems (as part of the demonstration).

For fiscal year 1997, technology and concept development work, combined, total $8.6 million. Original plans for fiscal year 1997, based on a $30.7 million request, were to fund these areas at $15.7M.

Question. Which groups need to be convinced that AHS is a good investment? If all outreach funds for the AHS program were eliminated, what would be the implications? What is your planned expenditures for outreach activities in fiscal year 1998?

Answer. From the beginning, this program has been premised on strong stakeholder involvement, both within the NAHSC and externally. The key stakeholders we seek to involve are the vehicle industry, vehicle electronics industry, infrastructure industry, state/local transportation agencies, trucking industry, transit operators, transportation users, societal/environmental interests, and the insurance industry. Stakeholders have become involved due to our efforts, contributing resources and vital expertise and viewpoints, leveraging the federal dollar investment. For example, stakeholder involvement during 1996–1997 has caused the NAHSC to increase its emphasis on incremental steps to a full performance AHS. Stakeholder representatives from each of the above categories sit on the consortium Program Management Oversight Committee and are fully empowered in the decision making process. The transportation community, broadly, is becoming increasingly aware and informed as to the possibilities automated operations offer to the future highway system. Automation is now being considered in several long-range transportation planning processes across the country. Only through funded stakeholder relations activities are these important contributions possible. In terms of pure outreach, which is focused upon the general public, elimination of funds would undermine our ability to respond adequately to the many media inquiries received by the NAHSC program office, casting a poor light on government sponsored research.

Question. What is the amount of GOE and contract monies allocated for AHS in fiscal year 1996? In fiscal year 1997? Expected for fiscal year 1998?

Answer. $14 million of GOE funds and $2.5 million of contract authority funds were obligated for AHS in fiscal year 1996; $22 million of GOE funds and no contract authority funds are expected to be obligated for AHS in fiscal year 1997; and $26 million in contract authority funds are included in our fiscal year 1998 budget request for AVCIS.

Question. Please explain in detail how the systems concept and prototype engineering work will deal with the commercial vehicle option.

Answer. The systems concept work will deal with commercial vehicles as one of a number of potential applications of vehicle control automation. However, there will be little work specifically targeted at commercial vehicles. Within the baseline systems concept work we can address commercial vehicles with a minimal investment because heavy vehicle development can build substantially upon similar work for passenger cars (examples are sensors, actuators, and control algorithms). Systems concept work areas that have specific heavy vehicle (truck or transit) tasks in fiscal year 1997 are: users requirements for AHS architecture development; evolutionary deployment analyses and deployment plan development; case studies; stakeholder consensus evaluation.

Question. How much of the fiscal year 1997 monies and the fiscal year 1998 request will go into incorporating commercial vehicles, especially trucks and buses, into the AHS program?

Answer. The fiscal year 1997 budget for these heavy vehicle tasks are low in relation to passenger car tasks in the above work areas and the AHS program overall; similar low levels are planned for fiscal year 1998. No prototype engineering work is planned for either fiscal year 1997 or fiscal year 1998.

Question. What assurance do you have that people will be willing to let an automated system drive them in a closely spaced platoon?

Answer. It is too early to tell how widely acceptable closely-spaced platoon operations will be. However, driving simulator experiments in the U.S. and Europe indicate that driver comfort with close headway increases as the accuracy and reliability of the headway control system increases and as the drivers gain experience. Additionally, the 1997 Demonstration will provide a rich opportunity for passenger feedback on platoon operations. Other USDOT and industry studies show that many drivers today regularly operate at close headway. Such drivers would benefit from reliable automated headway control systems. We reiterate that platoon is only one mode of automated driving; the consortium is also investigating non-platooned operations within the normal traffic stream. With regard to platoons, the upcoming AHS Demo is an excellent opportunity to assess individual's reaction to close spacing; indications during test runs are that individuals adjust quickly to these scenarios and

enjoy a solid, sure feel of precise car-following. Non-platoon automated scenarios and partial automation scenarios will also be presented at the Demo, giving participants a chance to compare for themselves.

Question. In view of the budgetary restraints facing us, what are you doing to reduce expenses for the Automated Highway Systems Program?

Answer. As in previous years, efforts focused on reducing administration and management expenses and those efforts continue. Fiscal year 1997 funding allocated to the AHS demonstration has been reduced from a planned $8.1 million to $7.1 million. Specifically, the NAHSC overhead costs were reduced by: Reducing Site Management costs by 12 percent; reducing core participant travel budgets by as much as 10 percent; substituting teleconferences for face-to-face meetings when practical; eliminating planned foreign travel; eliminating participation in the 1997 ITS World Congress in Berlin; reducing the number of Program Management Council meetings from 8 to 7; delaying the replacement of the Contracts Manager for five months; postponing upgrades to the financial database and web site; reducing Program Office expenditures by 40 percent.

The 1997 feasibility demonstration costs were reduced by: Reducing the content of the Demo including simpler infrastructure, smaller number of vehicles and associated vehicle equipment; replacing the broader Traffic Management Center (TMC) concept with a scaled down Demonstration Presentation Center (DPC); scaling back on the Infrastructure Demonstration Vehicle scenario (intended to demonstrate automated maintenance activities on a future AHS); substituting an associate heavy vehicle scenario (no cost to budget) for core scenario; making the Exposition self supporting.

Question. Please update your answer from last year on any new technologies and systems that are being advanced in the proof of technical feasibility project and how this demonstration will serve as a platform for work in later years.

Answer. A successful 1997 Demonstration is important to the future of an advanced vehicle control and infrastructure systems program. The Demonstration will raise the awareness and expectations of drivers and suppliers on automation applications that are achievable and practical. The Demonstration will show realizable near-term benefits of automation and should reassure industry, transportation system providers, and research organizations that Federal vehicle control and infrastructure R&D remains a strong and vital program.

Where applicable, technologies being advanced for the AHS Demonstration build on technical capability developed through NHTSA's crash avoidance research and other elements of ITS research (vehicle-roadside communications, satellite positioning, advanced traffic management centers). Engineering development is underway to integrate sensors, actuators, communications, and control algorithms into on-road operational systems for the Demonstration. The Feasibility Demonstration will show, for the first time, the integration of basic collision avoidance technologies with new capabilities in advanced vehicle control and will show the vehicles and the highway cooperating as a unified system. Other new technologies and systems NAHSC will demonstrate include: integrated combinations of sensors and data fusion for obstacle detection and control; complex vehicle maneuvers and obstacle avoidance; and, heavy bus lateral positioning and control.

The original NAHSC work plan is a multi-year effort being conducted, in part, to develop and advance the critical technologies necessary to support the 1997 demonstration as well as the concept selection and evaluation process. The NAHSC is gaining experience with today's technology, which will help guide investment decisions for the development of near-term results in technological research for future usable products. The highly instrumented demo vehicles will serve as a testbed for future R&D in this area, possibly serving as the vehicles in which the capabilities envisioned in the IVI are first prototyped.

Question. Please breakdown in detail each of the components of your AHS request, showing purposes of each major activity, amounts of cost sharing expected, and long-term funding needs.

Answer. A program review and potential rescoping of the AHS effort will determine whether or not we remain on the current course. Based on this review, the funding requested will be used on a combination of the following items:

1. Continuation of AHS Prototype Development Work.—Establish the Optimum AHS Configuration for Deployment; development of a Prototype AHS System; outreach Efforts Leading to a National Consensus; near-term Spin-off Technology Deployments

2. AHS Transit Integration.—This effort will establish the transit component of the Automated Highway System (AHS) program, with a focus on transit bus operations, particularly fleet management systems. This transit component of the AHS will be cooperatively developed as part of the Department's on-going AHS program.

By including transit participation in the early stages of AHS, this effort will also facilitate the participation of transit operators during system development, operational testing and deployment.

3. Other Vehicle-Highway Infrastructure R&D Work:

—Near-term Spin-off Technology.—The enabling technology development of the AHS is identifying several technology areas where near term deployment is possible. This effort would work with industry to fund the pre-competitive development of AVCIS applications in transit, road maintenance, and commercial vehicles.

—Complement the NHTSA Crash Avoidance Program and the efforts of the automobile manufacturing industry.—These AVCIS efforts would focus on the human factors, architecture, and infrastructure integration issues associated with bringing together crash avoidance features, navigation, communication, warning and signing information systems into the vehicle.

—Manufacturability.—A key element to bringing some of this advanced technology to the mass market will be solving the problems of precision manufacturing of components that will tolerate and extraordinary range of harsh environments with high reliability—at low cost.

—Knowledge Base and Research Tools.—This will continue the analysis effort initiated under the AHS. The focus will be on quantifying the benefits in safety and throughput that the AVCIS program will achieve in addition to those of the crash avoidance effort.

Question. How much will be spent on the 1997 demonstration? Also, please breakout other fiscal year 1997 AHS activities and associated amounts. In all your answers, please specify Federal or non-Federal monies.

Answer. The Federal share of investment in the 1997 AHS Demonstration for fiscal years 1995 and 1996 totaled $9.9M. The fiscal year 1997 costs have been pared to the essential elements—Federal expenditures for the Demo in fiscal year 1997 are expected to total $7.1M, which are $1.0M less than proposed to this Committee last year. This funding supports the following activities, which FHWA believes are essential pieces of the effort:

—Live vehicle demonstration ($6.2M)—includes infrastructure design and coordination, vehicle development and production, management and execution, and analysis and reporting of results;

—Exposition ($0.67)—provides a venue for aspects of the NAHSC Program not shown with the live vehicles, such as environmental outlook. societal and institutional issues, case study projects, and safety and congestion benefit analyses. It is expected that some portion of the Exposition costs will be covered by space rental revenues; and

—Public education ($0.26)—includes publicity, mailings and display materials to ensure stakeholder awareness of the Demonstration and results.

The breakdown for other fiscal year 1997 NAHSC activities:

[In millions of dollars]

Program Management	0.75
Systems Engineering	0.99
Management of Core Sites	2.42
Stakeholder Relations	1.01
Program Office Operations	0.42
Enabling Technologies	2.98
Tool Development	2.40
Societal and Institutional	1.14
System Concept Development	3.22
1997 Demonstration	7.15
Total	22.48

OFFICE OF MOTOR CARRIERS (OMC)

Question. When was the last meeting of the National Motor Carrier Advisory Committee? Why hasn't it met for such a long time? How much was reserved in the DOT budget for this advisory committee for fiscal year 1996, for fiscal year 1997? Proposed for fiscal year 1998?

Answer. The last meeting of the National Motor Carrier Advisory Committee was held September 12–13, 1995.

By its charter the Committee is renewed every 2 years. While the paperwork for renewal starts months before a Committee expires, the approval process may be delayed. On April 17, 1996, the Committee was renewed for the 2-year period 1996–

1998, effective January 29, 1996. On October 31, 1996, Secretary Peña appointed 6 new members and reappointed 19 others to the Committee for 1996-–1998. The OMC had substantial difficulty in scheduling the first meeting given members' schedules and the holiday seasons. More recently, the OMC has concluded that other forums and efforts are better serving OMC's partnerships with motor carriers, safety organizations, and government officials.

The amounts reserved in the DOT budget for this advisory committee are approximately $10,000 per meeting.

Question. How are you effectively integrating the numerous components of MCSAP, CDL, SAFESTAT, CVO, CR, etc.—into a coordinated and comprehensive commercial vehicle safety program?

Answer. We are integrating these and other components into the OMC safety program by focusing our resources on the most critical motor carrier safety problems existing in the individual States, Regions, and Nationally. The components are a combination of programs and activities that are employed individually to improve specific safety aspects of commercial vehicle operations, and are used collectively to provide the capability for a data-based management approach to further reducing the likelihood of commercial vehicle crashes. A brief illustration of this follows:

Individual State and Regional safety plans identify the problems being addressed, and indicate what will be done by the OMC and the MCSAP State Agencies to improve the level of safety within those locations. Analyzing crash and other safety data, the plans incorporate the OMC goals, objectives and activities, and those of the respective State MCSAP agencies, to identify what needs to be done and how it will be accomplished. In addition to the reduction of crashes, one of the common objectives is the continual effort to improve the accuracy and completeness of safety related data (Crash, inspection, HM incidents, etc.). The ITS/CVO initiatives which promote the industry use of advanced technology offer great potential for improving the safety, and data, concerning motor carrier operations on the highway. Efforts to continually improve the CDL Program and related data systems, result in improved driver quality on the highway, and improved driver data.

Incorporating the resulting improved crash, inspection, driver and motor carrier data into a motor carrier risk assessment process called SAFESTAT enables OMC to focus its compliance and enforcement resources on the highest risks operating on the highways. The example provided is one of various strategies and activities used to directly influence the motor carrier's operating practices in order to improve the compliance and safety of these carriers.

The OMC's comprehensive highway safety model maximizes the effectiveness of its compliance and enforcement activities by promoting general deterrence, education and outreach strategies to address larger populations of motor carriers and the general highway user population in order to reduce the likelihood of commercial vehicle crashes.

Question. Please indicate which activities, goals or objectives in your fiscal year 1996–1997 Strategic Plan were not accomplished and discuss what you are doing to achieve these. How is this reflected in your fiscal year 1998 budget?

Answer. The OMC Strategic Plan is a customer-focused, long-term, outcome-oriented plan. The 1997 Office of Motor Carriers' Strategic Plan presents OMC's sense of purpose, direction and mission. In developing the 1997 plan, we recognized the growing need to examine the OMC environment, provided the tools required to step up to the challenges, and the strategy to accomplish the most important actions (outputs) that will make a difference in the future.

The OMC performance-based outcome goals to create a "Crash-Free Environment" are as follows:

—*Safety Programs*.—Reduce the number of commercial motor vehicle crashes.

—*Partnerships*.—Build partnerships to improve motor carrier safety and performance.

—*Moving Into the 21st Century*.—Identify and promote new technologies and strategies to enhance safety performance and productivity.

—*Human Resources*.—Advance individual expertise and professionalism as part of the OMC team to achieve our vision.

As an organization, OMC has done what we intended to do to effect these outcome goals. While many of our OMC programs have been in effect and unchanged for years, their focus has shifted because of the impact of technology, internal changes, and customer needs. The OMC budget and re-authorization proposal further support our output actions in an effort to impact these long-term outcome goals.

Question. How much money did OMC spend on Outreach/Educational Initiatives in fiscal year 1995 and separately in fiscal year 1996? How much is planned for fiscal year 1997 and separately in fiscal year 1998? Please provide a project-by-project cost estimate of each project used to develop your answer for each year.

Answer. The Office of Motor Carriers outreach program consists of four categories: (1) Compliance Education which provides carriers with the information they need to comply with motor carrier safety regulations; (2) Deterrence which provides information to the motor carrier industry on state and federal enforcement activities and which showcase strategic enforcement actions and results; (3) Safety Education such as the "share the road" campaign which provides information to the general public on our programs; and (4) Policy Development outreach which is a partnership effort with states and industry to foster both the development of effective and efficient regulations and voluntary compliance with these regulations as well as to continuously improve OMC's programs to reflect customer expectations.

Many of these activities are woven into our day to day operations such as educating carriers as an adjunct while conducting a compliance review of that carrier. To determine the costs of these separate efforts would require a costly financial audit of headquarters and regional procurement orders and travel orders. However, one could estimate that approximately ten percent of our efforts, both field and headquarters staff personnel costs, travel and procurement, would lend itself to the outreach activities outlined above. Based on our fiscal year 1997 appropriated funding, this amount would be less than $5 million.

Question. What new statistical and analytical data does the OMC have to show that your compliance review activities and other programs resulted in a reduction of crashes? Reduction in injuries?

Answer. The OMC has undertaken several analyses of the impact of its compliance review activities on the safety performance of motor carriers:

(1) A straightforward analysis of the results of compliance reviews performed during fiscal year 1996 was conducted. Of the 5,164 compliance reviews of previously rated motor carriers that were conducted in fiscal year 1996 and resulted in an updated safety rating, 65.3 percent showed a decrease (improvement), or no change, in recordable crash frequency, while only 34.7 percent showed an increase (deteriorating) recordable crash frequency. However, it is important to note that a significant percentage of motor carriers that received updated reviews had no recordable crashes during the prior 12 months.

(2) With the technical assistance of the Volpe National Transportation Systems Center, the OMC has developed and is in the process of implementing a compliance review program evaluation model (the Quasi-Experimental Impact Assessment of Compliance Reviews Model). This model analyzes changes in motor carrier safety performance in a time period after an on-site compliance review in comparison with its safety performance prior to that review, thus seeking to determine if the education, heightened safety regulation awareness and enforcement effects of an on-site compliance review improve the post-review safety performance of carriers experiencing reviews. It is premature to report on the quantitative results of the model's implementation. An initial benefits calculation is expected before the end of fiscal year 1997.

(3) Again with the technical assistance of the Volpe National Transportation Systems Center, the OMC has developed and is in the process of implementing a roadside inspection program evaluation model (the Risk Assessment/Safe Mile Model) to measure both the direct and preventative (or deterrence) benefits of the roadside inspection program. Direct benefits arise from the detection of vehicle and driver out-of-service violations during roadside inspections. As a result of the detection of violations and their subsequent correction, crashes are avoided. The indirect benefits arise from the motor carrier's awareness of the program and its response to take action to avoid out-of-service vehicles and drivers. It is premature to report on the quantitative results of the model's implementation. An initial benefits calculation is expected before the end of fiscal year 1997.

Question. What recent data does OMC have to demonstrate that its efforts to improve the compliance and safety performance of motor carriers are cost effective? What is the source of these data, and how reliable are they?

Answer. A number of efforts are currently underway to assist OMC in determining the cost effectiveness of its motor carrier safety program elements. These efforts depend on several carefully designed activities that include: improving our data quality, reliability, collection, and analysis; developing a benchmark that is an accurate reflection of the current condition of commercial motor vehicles and drivers on the roads; developing a supplemental database resulting from crash investigations; and developing the relationships between our programs and compliance with the Federal Motor Carrier Safety and Hazardous Materials Regulations to safety.

Two efforts, in particular, are worth noting. The OMC, with the technical support of the Volpe National Transportation Systems Center, has developed program evaluation models to measure the cost and effectiveness of key OMC safety program elements:

(1) The Risk Assessment/Safe Mile Model measures both the direct and preventative (or deterrence) benefits of the roadside inspection program.

(2) The Quasi-Experimental Impact Assessment of Compliance Reviews Modelanalyzes changes in motor carrier safety performance in a time period after an on-site compliance review in comparison with its safety performance prior to that review.

It is premature to report on the quantitative results of the models' implementation. An initial benefits calculation is expected before the end of fiscal year 1997.

Question. What has OMC done during the last two years to examine the relationship between its safety programs and motor carrier compliance, as well as the relationship between the extent of compliance with the Federal Motor Carrier Safety/Hazardous Materials Regulations and safety? What were the concrete results of these evaluations?

Answer. The OMC recognizes the importance of measuring the benefits and effectiveness of its safety program elements, and to this end, with the technical support of the Volpe National Transportation Systems Center, has constructed an OMC safety programs impact hypothesis and four program effectiveness measurement models to estimate the impact of the OMC safety program elements on motor carrier safety and regulatory compliance. The impact hypothesis suggests that the OMC safety program elements exert an influence over the motor carrier environment causing changes in driver behavior and carrier operations which will ultimately lead to improvements in the level of motor carrier safety. However, it is also noted that motor carriers are also impacted by the highway environment and other factors external to the influences of the OMC safety program elements. The influence of these external factors must be taken into account when estimating the impact of the OMC efforts on motor carrier safety.

Four models have been defined that measure the effectiveness of the OMC safety program elements:

(1) The Risk Assessment/Safe Mile Model measures both the direct and preventative (or deterrence) benefits of the roadside inspection program. Direct benefits arise from the detection of vehicle and driver out-of-service violations during roadside inspections. As a result of the detection of violations and their subsequent correction, crashes are avoided. The indirect benefits arise from the motor carrier's awareness of the program and its response to take action to avoid out-of-service vehicles and drivers.

(2) The Quasi-Experimental Impact Assessment of Compliance Reviews Modelanalyzes changes in motor carrier safety performance in a time period after an on-site compliance review in comparison with its safety performance prior to that review. This model will consider declines in crash rates from the pre-to the post-review period as estimates of crashes avoided due to on-site review procedures.

(3) The Random Out-of-Service Model would provide objective data on carrier out-of-service rates over time and provide a basis for estimating a deterrence impact due to the roadside inspection program on carrier safety performance.

(4) The Time Series Longitudinal Assessment of Carrier Safety Performance Modelmeasures motor carrier safety performance response of a group of carriers that are targeted for some additional inspection/review activity. The safety performance of a control group of carriers without this additional treatment is used for comparison with the safety performance of the targeted groups.

The focus of OMC's program effectiveness evaluation has been on the Risk Assessment/Safe Mile Model and the Quasi-Experimental Impact Assessment of Compliance Reviews Model. Partial implementation of these models using existing data has been completed and is currently under review by the OMC. The direct benefits were analyzed in this initial implementation. Estimates of the program benefits resulting from a deterrence factor will be added in the next version.

Question. The OMC has placed special significance on motor carriers of passengers. Are you providing motorcoach inspector training to each of the States? If not, why?

Answer. The OMC is providing motorcoach inspector training to all States that are requesting it as part of their State Enforcement Plan under the Motor Carrier Safety Assistance Program.

Question. What are the most effective countermeasures that you are sharing with the States to improve commercial vehicle safety?

Answer. The MCSAP supports a broad range of commercial vehicle safety programs in each State to ensure an integrated Federal and State approach to commercial vehicle safety and productivity nationwide. We continue to fund those safety and productivity initiatives provided for in the ISTEA and encourage States to maintain a comprehensive motor carrier safety program which includes roadside in-

spections; compliance reviews; traffic enforcement; hazardous materials training; drug and alcohol enforcement; and a fully-implemented SAFETYNET program.

In addition we continue to fund and encourage the States to focus as well on high priority initiatives such as high crash corridors; human factors (driver violations); advanced technologies; quality and uniformity of data; public education campaigns; judicial outreach programs; drug interdiction assistance programs; and the use of "best practices" from the national peer exchanges. Examples of some of the most effective countermeasures are:

—Continuous improvements in available real-time inspection data will help us to focus our roadside activities on out-of-service drivers and will yield better information to improve our ability to keep unqualified drivers and vehicles off the road.

—Traffic enforcement is being enthusiastically embraced by most states since it directly impacts unsafe driving behavior and identifies hour of service violators. Traffic enforcement finds 15 percent more out-of-service violations than the vehicle inspection alone.

—In an effort to leverage OMC's oversight of the motor carrier industry, we continue to assist and encourage States in the conduct of compliance reviews of high risk motor carriers.

—The peer exchange process has proven to be very successful in identifying and facilitating the exchange of best practices among the States to promote safety, operational efficiency, enhancement of existing programs, and development of new activities in motor carrier safety. The peer exchange is also very effective in promoting cooperation and creative partnerships as well as broadening the participants' expertise in many aspects of the program.

Question. How are your tracking problem or high risk drivers? What improvements have you made since last year?

Answer. Driver performance is reflected in several ways in our information systems.

Driver performance relative to inspections and accidents is included in our SAFESTAT and Inspection Selection System (ISS) prioritization algorithms. This has the effect that carriers whose drivers have high out-of-service rates or accidents are targeted for compliance reviews or inspections.

The CDLIS system is the principal source of convictions that are reflected as driver license violations. Many more enforcement personnel now have access to this via the ASPEN system (at inspections) and the CAPRI system (at compliance reviews).

Together with the MCSAP states, we are designing a new data module for SAFETYNET to capture serious driver traffic citations so that these can be included in our SAFESTAT and ISS prioritization in the future.

In the past year, we have implemented a new driver report that identifies drivers who have had multiple inspection violations that are CDL disqualifying, such as driving with a suspended or revoked license and drug/alcohol violations. These reports are sent quarterly to our field managers for follow up as to CDL disqualification.

Question. What specific improvements have you made during the last year to ensure that your data and data systems are accurate, timely, and responsive to customer needs and expectations? To the needs of your field Safety Specialists and Program Managers?

Answer. With respect to data accuracy, we recently performed a survey of a sample of 89 carriers that had requested their safety data profiles, asking them to report any errors in inspections or accidents. There were a total of 20,665 inspections in the 89 profiles, and the carriers told us that 30 inspections had been misassigned and that 15 had factual errors. That's an overall error rate of just .22 percent. Stated another way, 99.78 percent were correct. For accidents, there were 1,028 reported. The carriers found that one was misassigned and that five had factual errors, for an accuracy rate of 99.42 percent.

On timeliness, we have improved on both inspections and accidents. Currently, the national average for uploading inspection data is at 42 days, compared to 49 last year. The national average for uploading accident data is 108 days, an improvement from the 159 days last year. To assist our Federal managers in monitoring the timeliness of uploads, we distribute a monthly report that shows each State's average.

With respect to responsiveness to customer needs and expectations, we conduct a number of meetings and surveys of our users both to inform and to assess. The principal means by which field management and safety specialist needs are determined is through meetings with our Management Information Systems Coordinating Group, which we hold twice per year. Follow up on these needs, as well as assessment of headquarters management needs, is the subject of monthly meetings we

hold with representatives of our headquarters offices. To assess the adequacy of our field user support contractors, we perform a monthly call back of a sample of users that receive support from our two support centers and we correct any deficiencies identified. We also meet frequently with the several OMC Technical Analysis Groups (TAG's) to make changes to the information systems required for their emphasis areas.

Question. What are your fiscal year 1997 and fiscal year 1998 GPRA goals and objectives?

Answer. OMC's GPRA Strategic Plan goals and objectives are long range. Our customer focused outcome based goals and objectives support the OMC Vision and Mission.

VISION

The nation's need to move people and goods in commercial vehicles are met in an efficient, economical, and crash-free manner.

MISSION

To promote safe commercial vehicle operations through the development, communication, and enforcement of effective and cost-beneficial safety regulations and practices; and to promote technological and operational advances which support an efficient and economical transportation system.

Safety programs

Goal.—Reduce the number of CMV crashes.

Objective 1.—Reduce CMV crash risk.

Objective 2.—Reduce the risk of hm incidents and environmental damage.

Objective 3.—Enhance safety of passenger carriers.

Objective 4.—Improve the consistency and effectiveness of OMC enforcement and compliance programs.

Partnerships

Goal.—Build partnerships to improve motor carrier safety and performance.

Objective 1.—Improve effectiveness of OMC grant programs.

Objective 2.—Improve consistency, effectiveness and efficiency of state compliance and enforcement activities.

Objective 3.—Improve outreach and alliances to enhance highway safety.

Moving into the 21st century

Goal.—Identify and promote new technologies and strategies to enhance safety performance and productivity.

Objective 1.—Advance effective technologies which improve highway safety.

Objective 2.—Engage in analysis and research projects that are of major significance to CMV and highway safety.

Objective 3.—Develop beneficial regulations which are performance based and easy to implement.

Human resources and organizational support

Goal.—Advance individual expertise and professionalism as a part of the OMC team to achieve our vision.

Objective 1.—Enhance employee development.

Objective 2.—Improve inreach to enhance OMC effectiveness.

Question. Please update us on your accident countermeasures program, including the component dealing with hazmat carriers. What data exist that indicates whether these countermeasures have been effective when provided to motor carriers and shippers of hazardous materials?

Answer. The accident countermeasures program is currently used to aid motor carriers in general, and specifically those which have an overall safety record which needs improving. In August of 1996, the Office of Motor Carriers distributed the new Hazardous Materials Incident Prevention Manual to our field staff. This manual aids carriers and shippers with the safe transportation of hazardous materials by providing them with hazardous materials incident countermeasures. The Office of Motor Carriers has determined that accident countermeasures data can be directly linked to accident/incident reduction on a case by case basis and continues to monitor effectiveness, as well as share success stories from companies who have utilized this program. The accident countermeasures and hazardous materials incident prevention program are now available to any company via the OMC home page on the Internet.

Question. Please provide an update on how OMC headquarters staff have responded to the requests from the field staff to provide better IFTA/IRP records, standard problem driver and licensing reports through CDLIS, better hazmat data on carriers and shippers, a national accident countermeasure database, passenger and hazmat carrier ranking and tracking systems, and a complaint register system. For each of these areas, please specify how fiscal year 1997 monies have been spent to provide this information. How does your proposed fiscal year 1998 program address each of these concerns?

Answer. The OMC strives to be responsive to information and analysis needs of field personnel. The Analytic Strategic Plan developed by the Analysis Division directs OMC to incorporate data and analysis into every level of operation, including the field. The field's feedback to both the Analysis and Information Divisions is invaluable in implementing the strategic plan.

The MIS coordinating group, which has field and headquarters members, meets twice a year to direct OMC's computer and information systems efforts. Similarly, the recently formed Analysis Steering Committee, which also has members from the field and headquarters, is responsible for determining analysis priorities and recommending methods for more analysis to be done for and by the field staff.

On the specific issues mentioned in the question, the following progress has been made:

(1) IFTA/IRP: Central clearinghouses are being developed for both IFTA and IRP which will provide for better access to records contained in these systems via the new SAFER system.

(2) CDLIS: The APSEN roadside inspection system and the CAPRI compliance review system both now provide for access by field investigators to standard CDLIS driver status and history records. These systems are in use by about 2,000 State and Federal field staff.

(3) HM carrier and shipper data, passenger and HM carrier rankings: The new SAFESTAT algorithm ranks passenger and HM carriers along with all other carriers. A new process for the ranking of HM shippers is under study.

(4) Complaint Register: The SAFETYNET system, used by over 125 State and Federal field offices, now contains an integrated complaint register system.

(5) National Accident Counter Measure Database: This database was implemented as a pilot test but was not continued. It was found to lack sufficient and accurate data upon which to base crash analysis. The time spent gathering these data by field investigators was found to detract from more important safety enforcement efforts. Other accident databases are being developed that will be more effective at a lower overall cost to the program. It is not possible to separate out 1997 or 1998 funds for the above programs as they are primarily done by OMC staff as integral parts of larger efforts.

Question. How many national quality teams did the OMC establish? What have they accomplished and have they met their objectives? Which issues remain to be addressed?

Answer. The National Quality Steering Team sponsored one national quality team for fiscal year 1996. The Compliance Review Process Improvement Team was chartered in May 1996.

The goal of the Compliance Review Process Improvement Team was to increase the effectiveness and efficiency of the Compliance Review. Their goal is in alignment with the National Performance Review, the Secretary's Performance Agreement, the OMC Customer Service Standards and directly supports the strategic objective to "Improve the consistency and effectiveness of OMC enforcement and compliance programs." In addition, streamlining the Compliance Review process addressed a Congressional effectiveness concern.

This national, nine member team identified the problems, conducted research, and developed solutions to improve the efficiency and effectiveness of the Compliance Review. The team's recommendations where presented to the National Quality Steering Team in December 1996.

Accomplishments.—As of May 1997, several of the recommendations have been implemented. These process changes will impact both the efficiency and effectiveness of OMC safety programs. Streamlining the process will save the agency time and money.

Quality alignment issues.—We recognize that implementation of the various management and organization initiatives underway throughout government, the Department, FHWA, and OMC must be integrated. We see these initiatives as a mutually supporting set aimed at delivering better results to our customers.

In response to growing demand for more responsive and accountable government, the past few years have seen a number of management improvement initiatives in both the legislative and executive branches of government: the Chief Financial Offi-

cers Act, the Government Performance and Results Act, the Information Technology Management Reform Act, Presidential Executive Orders on Customer Service Standards, and the Vice-President's National Performance Review.

The goals of all of these initiatives are the same—to improve the way the Federal government is managed and to produce the best results possible with the available resources. Further, they all emphasize the need to pay attention to the customer and to measure performance. It is, of course, no coincidence that the principles of customer service, results-based measurement of performance and the best use of resources are also among the cornerstones of the quality movement.

Question. In your fiscal year 1997 budget, did you find sufficient funds to hire 13 temporary employees to conduct roadside inspections at the southern U.S. borders? What is the total amount of PC and B expenditures that are expected to be allocated for this purpose?

Answer. Yes, we are able to fund the 13 temporary employees. The estimated total fiscal year 1997 PC and B expenditures for this purpose is $390,000.

Question. Does this indicate that your PC and B account was too large in fiscal year 1997?

Answer. No. The fiscal year 1997 PC and B account is not too large. There are two reasons the Federal Highway Administration has been able to provide PC and B expenses of border inspectors. First, we have experienced high attrition of field motor carrier safety specialists this fiscal year which creates savings of salaries. Second, the decision to hire these individuals came long after the fiscal year 1997 budget was formulated and sent to Congress. Therefore, once funds were appropriated we shifted administrative funds among object classes to ensure sufficient funding for PC and B.

Question. Do you intend to continue their employment during fiscal year 1998? Did you ever inform the Committee staff about this initiative? If not, why?

Answer. The individuals hired for the border inspection initiative were hired under temporary 2-year appointments beginning in fiscal year 1997. Their appointment ends at the close of fiscal year 1998. Components of our NAFTA program have been discussed at length with Committee staff. We are confident that the border inspection issue under our NAFTA program has been discussed with Committee staff.

Question. Please discuss the use of temporary and permanent OMC personnel located at the southern U.S. border. How many OMC personnel are regularly inspecting vehicles at the southern U.S. border, and how many are conducting compliance reviews? Are you planning to keep the inspectors working at the border?

Answer. The 13 temporary personnel located at strategic border sites have two year appointments ending at the close of fiscal year 1998. They conduct commercial vehicle safety inspections and check for licensing and insurance compliance. They do not conduct compliance reviews on carriers.

There are no present plans to continue the employment of these individuals past fiscal year 1998. However, the FHWA is committed to border enforcement and is proposing border enforcement as a high priority funding area in the reauthorization of the motor carrier program in fiscal year 1998.

In addition, the FHWA has six permanent staff assigned to border areas whose primary responsibilities are to implement the many facets of the motor carrier safety program including conducting compliance reviews, providing education and technical assistance and working with State and local counterparts to ensure a unified safety program. From time to time they do participate in commercial motor vehicle inspection activities.

Question. Please prepare a table showing FTE and FTPs for OMC staff for each of the last three fiscal years and proposed for fiscal year 1998.

Answer.

FTE AND FTP FOR OMC STAFF

Fiscal year	FTE	Positions
1995	638	691
1996	675	752
1997	690	752
1998	678	752

Question. How much was spent on travel for compliance reviews, overtime, permanent change of station, and non-mandatory bonuses or awards, during fiscal year 1996, planned for fiscal year 1997, and estimated for fiscal year 1998?

Answer. The FHWA does not maintain data on travel costs associated with conducting compliance reviews. We estimate that an average travel cost for compliance reviews is $400. Based on that amount we estimate total travel to conduct compliance reviews ranges from $1,500,000 to $1,700,000 per year. This of course is based on the number of reviews performed by Federal staff and the location of the carrier.

In fiscal year 1996, OMC spent $81,213 in overtime costs. Current figures show a much lower overtime projection for fiscal year 1997, $30,000. fiscal year 1998 overtime costs should be in the range of our fiscal year 1997 estimate.

The OMC spent $434,099 on permanent change of station in fiscal year 1996. We have allocated $630,000 in fiscal year 1997 and plan the same for fiscal year 1998.

The OMC spent $123,293 on non-mandatory bonuses and awards in fiscal year 1996. Approximately the same amount is planned for fiscal year 1997 and for fiscal year 1998.

Question. What are the latest accomplishments of the OMC data analysis unit?

Answer. The OMC Analysis Division has recently made significant progress on a number of important OMC projects. The division:

(1) analyzed data from the 1996 National Fleet Safety Survey (NFSS), which involved over 10,000 randomly selected inspections in 11 States last summer, and prepared several reports on the results;

(2) completed analysis of the results of the 1995 drug and alcohol test survey, is working on the 1996 survey results and planning improvements for the 1997 survey;

(3) produced detailed truck crash profiles for approximately 35 States and the entire Nation; 10 of the profiles have been completed this year;

(4) developed a prototype training class to increase uniformity among State crash investigators, and is in the process of beta testing the class;

(5) prepared a number of regulatory evaluations and regulatory flexibility analyses for essential OMC programs, including NPRM's proposing to retrofit trailers with conspicuity marking, extending the FMCSR's to intrastate carriers of hazardous materials, and requiring carriers authorized by the former ICC to place their DOT number on all power units, and a supplemental NPRM which would change the requirements on carriers seeking to hire new drivers;

(6) participated in a number of education/outreach activities, including writing and distributing the Motor Carrier Safety Analysis, Facts, and Evaluation (MCSAFE) publication, preparing detailed tables for Regional Directors, speaking to various industry and public groups, and responding to specific data requests;

(7) worked to increase the effectiveness of headquarters and field staff analysts and managers by developing and providing analytical/decision support tools that will more fully utilize the extensive data resources in MCMIS and other safety data systems; and

(8) developed safety program evaluation models to assist the OMC in quantitatively measuring the benefits and effectiveness of its safety program elements.

Question. Please list the amount and purposes of each of your fiscal year 1996 and fiscal year 1997 contracts related to strategic planning or quality management, being certain to include contracts with outside consultants and organizations assisting in these efforts. Which funding source or budget allocation was used to pay for these expenses? How much was spent during each year?

Answer. There were no contractual funds expended in fiscal year 1996 or planned for fiscal year 1997 to support strategic planning and quality management. The Office of Motor Carriers has established programs in these areas and operates these programs with internal staff.

Question. Please complete the following table.

Answer.

	Fiscal years—			
	1993	1994	1995	1996
Number of total enforcement cases closed with civil penalty	2,361	2,177	1,999	1,733
Number of hazmat enforcement cases closed with civil penalty	497	442	473	261
Number of passenger carrier cases closed with civil penalty	16	35	38	28
Amount of civil penalties assessed (millions)	$10.5	$13.6	$13.3	$11.4
Amount of civil penalties collected from those assessed (millions)	$10.4	$10.2	$8.9	$6.7
Estimated number of Federal safety specialists working in the field conducting compliance reviews	299	281	292	227

	Fiscal years—			
	1993	1994	1995	1996
Estimated number of MCSAP States or officers conducting compliance reviews	[1] 50	[1] 125	[1] 225	[1] 266

[1] Officers.

	Calendar years—			
	1993	1994	1995	1996
Number of injuries related to commercial vehicle-involved crashes	97,000	95,000	83,000	N/A
Number of deaths related to commercial vehicle involved crashes	4,849	5,112	4,903	N/A
Other: Large trucks involved in fatal crashes per 100 millions vehicle miles traveled	2.7	2.7	2.5	N/A

Question. How will you track the safety performance of carriers participating in each of the NHS Designation Act programs? Will they be required to maintain current and complete registers of crashes? If so, do you intend to impose substantial penalties against those companies that fail to maintain such registers?

Answer. The FHWA published a Final Notice in the Federal Register on June 10, 1997, detailing the FHWA's monitoring plan for carriers participating in the Motor Carrier Regulatory Relief and Safety Demonstration Project pursuant to Section 344 of the NHS Designation Act. A monitoring plan for carriers' utilizing the Section 345 exemptions of the NHS Act is under development.

For Section 344, the FHWA has established certain mechanisms to assist the agency in monitoring the level of safety of Project carriers. These mechanisms, described in detail in the Federal Register, are summarized as follows:

(1) Each Project motor carrier must establish, and submit to the agency, a Safety Control Plan which details the steps it intends to take during the Project to ensure that it maintains or improves the level of operating safety which it experienced prior to the Project.

(2) Within 10 business days following the occurrence of a police-reported accident involving a Project driver, carriers must submit details of the accident sufficient to enable the FHWA to locate the corresponding police accident report. Project carriers must also submit a revised calculation of their police-reported accidents per million vehicle miles traveled. Semi-annually, Project motor carriers must provide the FHWA with a current calculation of their police-reported accidents per million vehicle miles traveled for the preceding 36 months.

(3) The FHWA will monitor the safety performance of Project motor carriers through random checks of various State and Federal databases, including inspection and accident data reported to the FHWA by State agencies.

For Section 345, the FHWA is considering a similar approach. Information collection requirements, however, would be substantially reduced.

Section 344 Project motor carriers are exempt from the requirement that they maintain an accident register in accordance with 49 CFR § 390.15 (b)(1) and (b)(2). However, Project carriers are required to report accident data to the FHWA as described in paragraph (2) above. In addition, motor carrier reported accident data will be reviewed to ensure that the carrier reported, at a minimum, the number of accidents reported by State agencies. The motor carrier will be subject to removal from the Project should its accident rate exceed 1.6 police-reported accidents per million vehicle miles traveled for the most recent 36-month period. The motor carrier will also be removed from the Project for failing to report data or reporting inaccurate data. The agency believes removing a carrier from participation in the Project imposes a substantial penalty against the carrier because it will then be subject to all applicable FMCSR's. In addition, the motor carrier may be subject to civil forfeiture penalties for reporting false information to the FHWA.

Section 345 of the NHS Designation Act exempts certain motor carriers from some or all of the hours-of-service requirements of the Federal Motor Carrier Safety Regulations. However, section 345 does not exempt a motor carrier from the requirement that it maintain an accident register in accordance with 49 CFR § 390.15. Therefore, motor carriers operating under the section 345 exemptions are required to maintain a complete and accurate accident register and are subject to civil penalties up to $2,500 as provided in 49 U.S.C. Section 521(b) for this record-keeping violation.

Question. How will you conduct a sufficient number of random checks to promote the adequacy and accuracy of such registers?

Answer. For Section 344, the FHWA will conduct random checks of accident data reported to the FHWA by State agencies to ensure Project motor carriers reported, at a minimum, the number of accidents reported by the States. These checks will be conducted randomly as individual accidents are reported and twice per year for all Project carriers.

For Section 345, the FHWA will ensure motor carriers maintain a complete and accurate accident register during routine compliance review activities.

Question. Please delineate progress, funding amounts, technological challenges, and outlook for the Operation Respond Project and its role in promoting the safe transportation of hazardous materials by commercial vehicles.

Answer. Through a public/private partnership, Operation Respond has developed an effective approach to improving information available to first responders at a hazardous materials (HM) incident. The Operation Respond Emergency Information System (OREIS) complements other HM information systems, such as CHEMTREC, EPA's CAMEO, and the DOT North American Emergency Response Guide.

Today, 104 emergency dispatch centers in 17 states across the nation have installed the OREIS access software, and over 70 additional centers are evaluating the system. The participating dispatch centers have used the Operation Respond linkage in a number of real situations, as well as in drills and simulations. Participation and subscription to OREIS is voluntary and provides a solution that does not require or need regulation to make it work.

In fiscal year 1996, FHWA provided $190,000 of funding to the Operation Respond program. In fiscal year 1997, FHWA provided $1,000,000 to Operation Respond through a Cooperative Agreement. These monies were directed to Operation Respond under the authority of Title IV, Part B of the Intermodal Surface Transportation Efficiency Act, as supplemented by House Conference Committee Report 104–785. The primary focus of the terms of this Cooperative Agreement are to: (1) expand Operation Respond to the motor carrier industry; (2) improve safety at international border crossings through the development and integration of a comprehensive OREIS into major US/Mexico and US/Canada border crossings; and (3) focus the Operation Respond program on areas in the US with major chemical plants and which have a documented history of extensive motor carrier and rail HM incidents.

In the future, the FHWA expects to see an increase in the number of motor carriers in the program; continued deployment of Operation Respond at sites on the Northern and Southern borders; and on-going improvements to the program's communications system, as well as to the truck and rail car schematics software.

Question. Please identify the amounts spent by FHWA, FRA, and RSPA on the Operation Respond project during the last three fiscal years. What were the purposes and results of these efforts? Will fiscal year 1998 funds be used to continue support?

Answer. During the last 3 fiscal years, the Department has provided $2,008,000 of support to Operation Respond. By mode and fiscal year, the individual contributions were as follows:

Mode	Fiscal years—		
	1995	1996	1997
FHWA	$350,000	$190,000	$1,000,000
FRA	70,000	125,000	53,000
RSPA	120,000	100,000	([1])

[1] No contribution.

The primary purpose of Operation Respond is to facilitate, through the use of advanced technology, emergency responders access to accurate and timely HM information during an HM incident. This includes confirmation of the HM contents within a commercial motor vehicle/railcar/container, as well as detailed, accurate and timely emergency response information and technical guidance regarding the HM involved in the incident.

During the initial years of Operation Respond, Federal dollars were utilized for research and development and to help foster the program. For the most part, we believe this objective has been achieved and the program is moving quickly toward being a self-sustaining program. Although we believe considerable work needs to be performed to expand the program within the motor carrier industry and to improve the software, security, functioning and long-term usefulness to the emergency re-

sponse community, we see a diminishing public sector contribution, as Operation Respond continues to improve and private sector participation in the program expands.

Question. Please provide the status of the special study being conducted to determine the extent to which shippers and receivers exert pressure on motor carriers to violate hours of service regulations. To whom was the contract awarded to study this problem? How much will the study cost? When do you expect the study to be completed? How much was or will be spent on this research during fiscal year 1996? During fiscal year 1997? During fiscal year 1998?

Answer. In response to the directive in the Senate Report to the Fiscal Year 1996 Department of Transportation Appropriations Act, the FHWA engaged the Calspan Corporation to conduct a series of focus groups to obtain qualitative information about the state of shipper demands on the motor carrier industry and its drivers. These group sessions were held with shippers, dispatchers, carriers, brokers, and drivers in Baltimore and St. Louis in October and December 1996. The OMC is currently reviewing the draft final report on these sessions. This effort will be completed later this summer and the final report will be published upon project completion.

The cost of the focus group study was $115,000 in fiscal year 1996 funds. No fiscal year 1997 funds were needed. Based on the results and subsequent discussions with the Congress, we currently plan to design a follow-on, quantitative study. The fiscal year 1998 cost for the quantitative study is undetermined at this time, but will need to consider the requirements outlined in the final report and congressional feedback.

The OMC will undertake in 1997 a separate study, Scheduling Practices and their Influences on Driver Fatigue. Performed in conjunction with the American Trucking Associations' Trucking Research Institute, the study will survey commercial motor vehicle carriers to obtain information about operational scheduling requirements from the primary standpoint of fatigue management. This will include an assessment of shipper-imposed requirements and recommended practices for dealing with these requirements from a fatigue-management perspective.

Question. In Conference Report 104–286, the Conferees directed FHWA to undertake three projects totaling $1,750,000 appropriated originally in fiscal year 1994. Projects were as follows: truck loading and unloading as a possible contributor to driver fatigue; technology to automate commercial vehicle roadside inspections; and guidelines for the inspection and maintenance of wheels and bearings. The Congress identified three additional studies for the implementation in the same fashion with TRI totaling $2,500,000 appropriated originally in fiscal year 1995. Projects were as follows: the use of "smart cards" to facilitate compliance with motor carrier safety rules; medical requirements associated with commercial vehicle operation; and electronic truck and Intermodal information systems. What is the status of each project or comparable or broader projects, including these research areas? What are the expected completion dates of each? What amounts were spent in fiscal year 1996 and planned for fiscal year 1997 and fiscal year 1998 on each research area?

Answer. In identical February 13, 1996, letters to Senator Hatfield and Congressman Wolf, then-Administrator Slater outlined a program of studies to be performed under the congressionally-directed cooperative agreement with the TRI. The proposed program of studies was the result of extensive discussions with the TRI and congressional staff. The letter explained that several of the efforts described in the Conference Report were already underway with different contractors and therefore could not be included in the TRI cooperative agreement. This included studies on technology to automate CMV roadside inspections, use of smart cards to facilitate compliance with FMCSR's, and medical requirements associated with CMV operations. The need for guidelines for the inspection and maintenance of CMV wheels and bearings had already been met by recommended practices and educational materials produced and published by The Maintenance Council of the ATA. The FHWA did not pursue the electronic truck and Intermodal information systems because the Senate had questioned the appropriateness of similar OMC research investments in the past, citing the need to apply scarce Federal research dollars to motor carrier safety improvement rather than industry economic improvement. Truck loading and unloading as a possible contributor to driver fatigue was included as a major program in the TRI cooperative agreement. The TRI program plan included two projects focusing on electronic truck systems; moreover, this requirement is also addressed by the large OMC ITS/CVO program which includes work on many different truck electronic systems and potential intermodal applications.

The following information updates the status and funding of the above six projects. As discussed above, this includes R&T and ITS/CVO activities other than those funded through the TRI cooperative agreement:

—*Technology to Automate CMV Roadside Inspections*.—This research will create a prototype of a brake inspection system that will use visual imaging to view brake component parts. While complete automation of the inspection process is not yet feasible, automated inspection of selected individual components is affordable and technically feasible. The fiscal year 1997 funding is $300,000 in ISTEA Section 6005 Advanced Technology funds and $135,000 in ITS/CVO funds. The fiscal year 1998 estimated funding will be $500,000.

—*Smart Cards to Facilitate Compliance with FMCSR's*.—The Smart Cards study in the CVO final report was delivered to the OMC in December 1996. This study assessed the feasibility of Smart Cards for use in commercial vehicle operations and concluded that commercial drivers' licenses, smart vehicle cards and electronic toll collection are all feasible uses of Smart Cards. No funds were expended in fiscal year 1996, fiscal year 1997 or fiscal year 1998. Prior fiscal year 1995 funding was $1 million.

—*Medical Requirements Associated with CMV Operations*.—The OMC has underway a number of projects relating to medical qualifications in five major areas: vision, hearing, insulin-treated diabetes, epilepsy, and sleep apnea. The 3-year expenditures relating to these medical requirements include: fiscal year 1996: $65,000; fiscal year 1997: $315,000; fiscal year 1998: $165,000. There were also significant expenditures in prior fiscal years on these medical issues; e.g., nearly $1.5 million in fiscal year 1993 research funds on sleep apnea.

—*Inspection and Maintenance of CMV Wheels and Bearings*.—The OMC determined that the ATA had already prepared a publication containing informational materials on wheel bearings which addressed this concern. Thus, research funds were not applied to studies addressing Wheel and Wheel Bearings. Allocated funds were redirected to other important motor carrier safety research: multi-trailer combination vehicle (MTCV) driver fatigue; MTCV accident rates; analysis activities; and an automated regulations and interpretations system.

—*Effect of Loading and Unloading on Driver Fatigue*.—This TRI study will assess the differences in loading and unloading physical labor requirements for various segments of the trucking industry, and determine the relationship between driver loading/unloading activities and subsequent alertness. The study may also address the effects of various end-of-week recovery times ("re-start" periods) on drivers. A detailed Phase 1 problem assessment is complete and planning for an experimental study (Phase 2) is underway. Past and planned expenditures include: fiscal year 1996: $243,000; fiscal year 1997: $100,000; fiscal year 1998: $650,000 (approximate).

—*Electronic Truck Systems*.—Several different OMC studies have dealt with various electronic truck systems to enhance truck safety. This has included a study of the mandatory use of electronic, interactive on-board recording devices in lieu of the driver's log and a more general "technology scan" being conducted by TRI of the safety benefits and operational enhancements of intelligent transportation systems (ITS) in trucking operations. The OMC also has underway a number of projects relating to electronic monitoring of driver performance for the purpose of alertness monitoring. This program is coordinated with the OMC ITS/CVO division and with the NHTSA Office of Crash Avoidance Research. There is also a planned TRI study on technology outreach relating to electronic truck systems. Funding to TRI alone on these programs has been fiscal year 1996: $155,000; fiscal year 1997: $378,000; fiscal year 1998: $236,000 (approximate).

Question. What specific educational materials have you provided to the commercial motor vehicle industry on driver fatigue? How much did you spend on these materials during each of the last two years?

Answer. In May 1996, the OMC began a multi-year research program, "Fatigue Outreach: Develop and Disseminate Fatigue Education and Training Programs Throughout the Motor Carrier Industry," with the American Trucking Associations Foundation/Trucking Research Institute (TRI). The OMC fiscal year 1996 funding was $250,000 and fiscal year 1997 estimated funding is $250,000 for this driver fatigue alertness outreach effort. Specific educational materials on driver fatigue developed and provided by the TRI to the commercial motor vehicle industry include the following:

(1) "Awake at the Wheel" Public Service Announcements in 1996 distributed to 1,000 radio stations nationwide for air time during major holiday weekends such as Memorial Day.

(2) 40,000 copies of the NIH "Facts about Sleep Apnea" brochure were reprinted and distributed to motor carrier officials, safety supervisors, drivers, and other interested parties.

(3) 700,000 copies of the "Awake at the Wheel" brochure have been distributed nationwide to the motor carrier industry, with more than 100,000 going to the OMC's Regional and State offices for various fatigue awareness/drowsy driver safety programs with the States, including the recent International Highway Transportation Safety Week activities.

(4) A 75-page booklet and videotape package, "The Alert Driver," has been developed to educate truckers and their families about fatigue and the importance of adequate sleep. The TRI has distributed more than 20,000 packages to members of the ATA State Associations, the National Private Truck Council, OMC Regional and State field offices, and other interested parties.

(5) Instructional materials, "Fatigue and the Truck Driver", were prepared by TRI for a train-the-trainer course for safety managers/specialists to educate new-hires and experienced drivers about getting adequate sleep, fatigue countermeasures, and sleep disorders.

The success of this initial fatigue outreach effort and continuing interest in fatigue awareness/countermeasures materials have led to a second OMC/TRI project, "Continuing Trucking Industry Fatigue Outreach." The project commenced on Memorial Day 1997 with a nationwide blitz of PSA's providing tips from professional drivers on how to avoid drowsy driving. Previously developed publications and training materials will continue to be distributed to the motor carrier industry. This includes one million additional "Awake at the Wheel" brochures. Seminars on fatigue awareness and effective countermeasures will be presented at truck driver training schools and at motor carriers with driver training programs. The estimated fiscal year 1997 project funding is $99,887. A similar amount is projected for fiscal year 1998.

Question. What are the major conclusions of your baseline fatigue study? How will you use this information?

Answer. The major findings of the Driver Fatigue and Alertness Study (DFAS) were:

—Time of day has more impact on alertness than cumulative time on duty, so fatigue is more likely to occur when driving between midnight and dawn than at other times;

—The drivers in the study did not get enough sleep compared to their declared "ideal" sleep needs;

—Drivers' self-assessments of their alertness did not correlate well with objective measures of performance; and

—There were significant individual differences among the drivers in levels of alertness and driving performance.

The FHWA is focusing on driver fatigue prevention through regulatory, education/outreach, enforcement, and research activities:

—An Advance Notice of Proposed Rulemaking was published on November 5, 1996. The public comment period was extended to conclude on June 30, 1997. The publication of this notice began the process that may lead to revisions of the Hours of Service Regulations. The FHWA has recently held a series of seven listening sessions throughout the U.S. to hear the views of commercial motor vehicle drivers and others who have an interest in these regulations.

—The FHWA's motor carrier and driver education campaigns have incorporated findings from the DFAS and have been expanded to include a Wellness Education Program to focus on safe driving performance through positive health, sleep, diet, exercise, and lifestyle choices.

—The FHWA's research program includes a number of field and laboratory studies addressing specific driver alertness and hours-of-service issues. These studies build directly on the research foundation provided by the DFAS.

Question. Please prepare a table estimating the amount of funds spent on fatigue related research for each of the last five years. Please identify each of the current projects still underway and specify specifically their fiscal year 1995, fiscal year 1996, fiscal year 1997, and planned fiscal year 1998 allocations, and expected completion dates.

Answer. That information follows:

EXPENDITURES ON FATIGUE-RELATED RESEARCH

	Fiscal years—				
	1993	1994	1995	1996	1997
Fatigue Related Research	$2,283,992	$728,072	$1,684,419	$2,200,000	[1] $750,000

[1] Estimated.

CURRENTLY ACTIVE FATIGUE-RELATED RESEARCH PROJECTS

Project	Fiscal years—				Expected completion date
	1995 allocation	1996 allocation	1997 allocation	Planned 1998 allocation	
Effects of Work/Rest Schedules on Driver Performance	$311,544	$412,075	$100,000	$100,000	June 1998.
Local/Short Haul Driving and Fatigue	.....	445,000	50,000	235,000	Nov. 1999.
Sleeper Berth Usage & Fatigue	.....	.....	350,000	350,000	April 2000.
Driver Fatigue & Alertness Study: Database Conversion	.....	90,000	TBD	TBD	
Effects of Loading/Unloading on Fatigue	.....	243,000	28,000	TBD	2000.
NPTC Fleet-Based Driver Wellness Initiative	.....	.....	88,000	330,000	April 1999.
Continuing Trucking Industry Fatigue Outreach	.....	.....	100,000	100,000	June 1999.
Driver Sleep Apnea (1993 earmark, $1.5M)	.....	.....	.....	.....	Sept. 1998.
Driver Fitness-for-Duty (Phase II)	500,000	130,000	.....	.....	Being revised.
Assessment of Electronic, On-Board Recorders for Hours-of-Service Compliance	.....	150,000	.....	.....	Pending completion.
Crash Investigation Project	.....	75,000	225,000	25,000	April 1998.
Shipper Involvement in Hours-of-Service Violations	.....	113,135	.....	.....	Sept. 1997.
Scheduling Practices and Influence on Fatigue	.....	150,000	200,000	150,000	May 1998.
Validation of Eye and Other Psycho-physiological Monitors (CVO-funded; NHTSA-led)	.....	200,000	100,000	.....	Sept. 1998.

Question. Please discuss separately the scope and nature of your research on fatigue that you are conducting with FAA, the Army and ATA. Please specify amounts and purposes of these projects.

Answer. The OMC's collaborative work with FAA and the U.S. Army consists of the following two interrelated projects:

—*Driver Work/Rest Cycles*.—This is a laboratory study of the effects of various amounts of sleep on commercial driver performance. A mathematical model and an unobtrusive monitoring device will be used to predict future levels of alertness based on prior activity. The study is being performed by the Walter Reed Army Institute of Research (WRAIR) and co-sponsored by the FAA and the National Institutes of Health. OMC funding to date for this program has been approximately $1 million.

—*Performance Modeling of HOS Alternatives*.—This study applies models of circadian and time-on-task effects on operator alertness to various HOS and scheduling alternatives. It is being performed by WRAIR as an adjunct to the above study, and is co-sponsored by the Federal Railroad Administration. The OMC share of the funding was $40,000 in fiscal year 1996.

Current and planned fatigue projects being performed by the Trucking Research Institute of the ATA Foundation include the following:

—*CMV Driver Sleep Apnea*.—In response to congressional direction, OMC is obtaining an estimate of the prevalence of sleep apnea in a population of truck drivers who may be at high risk for the disorder, and estimating the level of sleep apnea at which driving impairment becomes important. The University of Pennsylvania Medical Center is performing this project through TRI. Funding to date for this program has been $1.461 million.

—*Fitness-for-Duty Testing*.—Phase I of this study evaluated in-terminal and in-vehicle testing devices for accurately and reliably determining the fitness of commercial motor vehicle operators to safely drive their vehicles. The Phase II field testing, currently in progress, is integrating a continuous lane-tracking monitor with the fitness-for-duty test. This work is being performed by Evalua-

tion Systems, Inc. through TRI. Phase I funding was $800,000. The Phase II funding for this program has been $629,000. No additional funding is contemplated.

—*Scheduling Practices and their Influences on Driver Fatigue*.—This congressionally-directed study will survey CMV drivers, carriers and shippers to determine carrier operational scheduling requirements and recommended practices from the primary standpoint of fatigue management. There have been extensive negotiations between OMC and TRI over the past year regarding this study; project start is now imminent. Funding is to be determined, and is expected to be approximately $500,000.

—*Effect of Loading and Unloading on Driver Fatigue*.—This congressionally-directed study will assess the differences in loading and unloading physical labor requirements for various segments of the trucking industry, and determine the relationship between driver loading/unloading activities and subsequent alertness. The study may also address the effects of various end-of-week recovery times ("re-start" periods) on drivers. The TRI and Star Mountain, Inc. are the study contractors. Funding to date on the program has been $343,000 and additional expenditures of approximately $650,000 are anticipated.

—*Ocular Dynamics as Predictors of Driver Fatigue*.—This pilot study will determine whether directed eye movements (saccades) and other eye activities can be monitored as "leading indicators" of fatigue. The study will also pilot test a medium-fidelity simulator as a testbed for driver fatigue studies and gather data on the effectiveness of napping as a fatigue countermeasure. This study is part of a congressionally-directed program on technological countermeasures to fatigue. Funding will be approximately $200,000 for the pilot study. Future funding is to be determined.

Note also that TRI has performed a number of fatigue outreach activities under the cooperative agreement.

Question. What threshold must be reached to trigger your revocation of DOT's permission to operate beyond the commercial zone?

Answer. Each application from a Mexican motor carrier seeking authority to operate in the U.S. border states will be evaluated on its individual merits. Only those carriers receiving approval will be permitted to operate beyond the commercial zones. The approval process will include an evaluation of the carrier's safety performance based on information provided to us by the Mexican government and the carrier itself. This information will be verified. Only carriers with positive evaluations will be given authority to operate beyond the commercial zones.

The U.S. safety regulations are enforced for Mexican and Canadian drivers and vehicles in the same way that they are enforced for U.S. drivers and vehicles. Such oversight will include roadside inspections of vehicles and drivers, monitoring of the carrier's accident experience, and when necessary, review a carrier's safety program. If a carrier's overall safety record deteriorates, the jurisdictions in which the carrier operates will cooperate to assure that actions are taken to correct the carrier's performance. Carriers warned for unsafe operations will be subject to increased inspections at ports of entry or on the roadside. Carriers will also be subject to civil fines for non-compliance with the federal regulations. A carrier that continues to be out of compliance or that is determined to pose a safety risk will be subject to revocation of its authority to operate in interstate or foreign commerce by the country(s) in which it operates. FHWA examines a carrier's complete operating record to determine whether continued operations should be permitted.

Question. Please list specific research accomplishments during the last three years that have had a direct and beneficial impact on rulemaking and on safety.

Answer. The chart below summarizes major recent accomplishments:

Research action	Impact
Driver Fatigue & Alertness Study	Confirmation that current hours-of-service rules do not reflect latest scientific data. Study will be the most important single source of research knowledge to support current HOS rulemaking. Findings are relevant to several key HOS parameters including maximum on-duty times, minimum off-duty times, and time-of-day of driving.
Study of Multi-Trailer Combination Vehicle (MTCV) Driver Fatigue.	Research determined no significant difference between conventional tractor-semitrailer and multi-trailered vehicles in terms of driver fatigue and stress imposed. Rather, individual driver variations were most important determinants of stress among drivers operating MTCV's

Research action	Impact
Study of Needs of Older Commercial Drivers.	Age per se was not found to be a significant predictor of performance, although drivers over 50 are likely to demonstrate age-related perceptual, cognitive, and psychomotor changes (e.g., diminished field of view, control precision, speed of decisions). Training, selected interventions (e.g., automatic transmissions), and therapy could enhance older driver performance.
Evaluation of Fitness-for-Duty Testing (initial study, 1992–1994).	Research validated that on-vehicle monitoring of driver's status was practicable, could withstand the rigors of over-the-road operation, and could be acceptable to both drivers and management.
Examination of Commercial Driver Rest Area Needs.	Study spawned a number of State efforts to modify and/or construct additional truck parking spaces. Inspired 1995 statutory change to provide 100 percent Federal-Aid funds for State rest area improvement. Privately owned truck stops also expanding facilities in wake of study.
Multi-Year Driver Waiver Program	Research permitted over 3,000 drivers with demonstrated safe driving records to continue driving and furthered national policy and legislative goals articulated in both the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1992.
Training Courses on the Operation of MTCV's.	Training were developed and provided to commercial drivers on the safe operation of Rocky Mt. Doubles, Triples, and other MTCV's.
Motor Coach Driver and Mechanic Training.	A model curriculum was developed for motor coach drivers. A curriculum for motor coach mechanics is currently being developed.
Training of Entry-Level Drivers	Research determined that current training of CMV operators was not adequate. Study estimated necessary increment cost to provide sufficient training and indicated positive cost-benefits from such training. Based on this research, FHWA undertook rulemaking to upgrade training standards for entry-level drivers.
Feasibility of Simulation Training for CMV Drivers.	The feasibility of cost and safety-effective simulation-based training of CMV driver training was demonstrated. In addition, the specific capabilities of available truck driving training simulators were assessed, thus setting the stage for empirical validation of simulation.
Evaluation of Feasibility of Using Imaging Technologies for Roadside Inspections.	Research determined that FHWA could employ the technology of visual imaging to inspect the mechanical components and condition of the underside of a commercial motor vehicle in real-time.
Evaluation of New Brake Testing Technologies.	Field research demonstrated the ability of performance-based brake testing technologies, many from foreign countries, to identify brake defects and deficiencies not visible to the inspector. Tested devices have been approved under MCSAP for State use to screen and sort CMVs for full inspection.
Assessment of Accident Data of MTCV's	Study determined that participating carrier MTCV accident rates were substantially lower than non-MTCV's, with MTCV's less likely to be involved in collisions.
Safety Fitness Determinations	This analytical study produced a comprehensive, integrated approach to determining motor carrier safety fitness and applying a safety improvement process.
Support for National Safety Summit	Research funds supported facilitators and focus group activities of this national meeting. Summit resulted in identification of priority CMV safety issues (e.g., driver fatigue, information/data, education/training) and follow-up activities have identified national action items for enhancing CMV safety.
Fatigue Management and Technologies Conferences.	Brought together leading researchers and industry representatives to exchange information and ideas on effective management approaches and promising technological countermeasures to fatigue.
CMV Load Securement	A cooperative research program with the Ontario Ministry of Transport has developed improved engineering models, techniques, and performance standards for load securement.
Integration of Analysis into Motor Carrier Policy and Programs.	The development of CMV safety policies and programs with a strong analytic base ensures that these policies and programs target a significant identified safety problem.
Collection of Data on the In-Use Regulated CMV Population.	Data on the physical and operational characteristics of CMV's will permit better design and targeting of roadside inspections and other safety interventions.
Data Systems for Improved Safety Analysis and Enforcement.	Development and enhancement of major data systems (e.g., Motor Carrier Management Information System, SAFETYNET, Safety and Fitness Records System) supports access to data to assess individual carrier and industry safety and better targeting of enforcement and other safety interventions.

Research action	Impact
Accident Data Analysis	The publication of numerous comprehensive reports such as the annual Truck and Bus Accident Factbook supports numerous public and industry safety efforts. Ad hoc data analyses have provided researchers and other interested parties with safety information on specific issues.
Mexican Regular Route Bus Industry Study	This study makes available to the American public information regarding safety, regulatory, and operational aspects of the Mexican bus industry. It provides a better basis for assessing the NAFTA provision for cross-border, regular route, for-hire bus service operation into the U.S.

Question. What is the status of the Selective Compliance and Enforcement program? How will the new selection program respond to the needs of the industry, and how does your new selection program increase the effectiveness of OMC field staff? What changes in your selection process are forthcoming?

Answer. The Selective Compliance and Enforcement Program has been improved through the development of a new system to prioritize motor carriers for compliance reviews. The new system, known as SafeStat, allows the OMC to more effectively focus its limited resources toward motor carriers that have demonstrated poor on-the-road performance through information collected under roadside inspections, compliance reviews, prior enforcement actions and, most importantly, accidents.

The SafeStat addresses a long-standing industry concern by emphasizing a motor carrier's on-the-road performance rather than descriptive factors such as carrier size or time elapsed since being reviewed.

Since the SafeStat is entirely a data driven system, it will not identify a motor carrier for a compliance review unless recent adverse performance data have been generated through accidents, roadside inspections, or a prior compliance review.

In the Motor Carrier Safety Act (MCSA) of 1990, Congress recognized the potential increased consequences of accidents involving motor carriers of hazardous materials or passengers. The MCSA of 1990 prohibits a motor carrier that is rated "unsatisfactory" by the OMC from transporting placardable quantities of hazardous materials or more than 15 passengers, including the driver, in interstate commerce. While the OMC has implemented SafeStat as its primary means of identifying motor carriers for compliance reviews, it also recognizes its responsibility to monitor the safety performance of motor carriers for which performance data is limited, particularly motor carriers that transport hazardous materials or passengers. Consequently, the OMC also prioritizes motor carriers that transport high-risk hazardous materials or passengers for compliance reviews even if they are not identified by SafeStat as having on-the-road performance problems. The OMC believes this approach is consistent with the expressed intent of Congress in the MCSA of 1990.

The SafeStat and the HM/Passenger selection criteria are under continual development. Future improvements will be made to both systems based upon ongoing analysis.

Question. Please list all publications resulting from the OMC research effort for each of the last three fiscal years and their NTIS numbers.

Answer. The information follows:

OMC RESEARCH PUBLICATIONS FISCAL YEARS 1994, 1995, 1996

Title	NTIS number
ZeroBase Review of the FMCSR's (Vol. I, Executive Summary)	PB94–100294
ZeroBase Review of the FMCSR's (Vol. II, Data Analysis)	PB94–100302
ZeroBase Review of the FMCSR's (Vol. III, Data Summary)	PB94–100310
Assessing the Adequacy of CMV Driver Training	PB93–141536
Evaluation of Innovative Converter Dollies	PB95–106985
Twin-Trailer Driver Curriculum	PB94–780285
Triple-Trailer Driver Training Guide	PB94–780293
Overweight Vehicles Penalties & Permits	PB96–118831
Final Report/Executive Summary: Commercial Driver Rest & Parking Requirements: Making Space for Safety.	PB97–124705
Interim Report: Evaluation of Performance-Based Brake Testing Technologies	Submission in progress.
Final Report: Smart Cards in Commercial Vehicle Operations	PB97–130504
Performance Criteria for Air Brake Component Combinations on In-Use Commercial Motor Vehicles.	PB96–203328

OMC RESEARCH PUBLICATIONS FISCAL YEARS 1994, 1995, 1996—Continued

Title	NTIS number
Final Report: Commercial Motor Vehicle Simulation Technology to Improve Driver Training, Testing and Licensing Methods.	PB96–183405
Evaluation of Brake Adjustment Criteria for Heavy Trucks	PB95–209052
Summary Report: Stress & Fatigue Effects of Driving Longer-Combination Vehicles.	Submission in progress.
CMV Driver Fatigue and Alertness Study: Executive Summary	(OMC Web Site) http://www.fh wa.dot.gov/om c/es–5g.html
CMV Driver Fatigue and Alertness Study: Technical Summary	PB97–129688
Guidelines for Evaluation of Cargo Tanks	Submission in progress.
Feasibility of Carrier-Based Fitness-for-Duty Testing of Commercial Drivers	PB95–226908

Question. Please breakout in detail separately the fiscal year 1996, fiscal year 1997, and planned fiscal year 1998 expenses for each of the following items: outreach to industry, training, total quality management, strategic planning, and retreats of senior management away from headquarters. Please be certain your answer allows baseline comparisons related to your fiscal year 1998 request.

Answer. Selected expenses from General Operating Expenses Account:

Selected expenses	Fiscal years—		
	1996	1997	1998
Outreach to industry[1]	$50,000	$50,000	$50,000
Training	250,000	700,000	800,000
Total quality management	2,000	2,000	10,000
Trategic planning	2,000	3,000	15,000
Senior management retreats	7,000	7,000	7,000

[1] Represents outreach to the commercial vehicle industry only and does not include outreach costs to State and local governments, the public, or enforcement personnel.

Question. Please indicate which activities, goals or objectives in your fiscal year 1996–1997 Strategic Plan were not accomplished and discuss what you are doing to achieve these. How is the reflected in your fiscal year 1998 budget?

Answer. The OMC Strategic Plan is a customer-focused, long-term, outcome-oriented plan. The 1997 Office of Motor Carriers' Strategic Plan presents OMC's sense of purpose, direction and mission. In developing the 1997 plan, we recognized the growing need to examine the OMC environment, provided the tools required to step up to the challenges, and the strategy to accomplish the most important actions (outputs) that will make a difference in the future.

The OMC performance-based outcome goals to create a "Crash-Free Environment" are as follows:

—*Safety Programs*.—Reduce the number of commercial motor vehicle crashes.

—*Partnerships*.—Build partnerships to improve motor carrier safety and performance.

—*Moving Into the 21st Century*.—Identify and promote new technologies and strategies to enhance safety performance and productivity.

—*Human Resources*.—Advance individual expertise and professionalism as part of the OMC team to achieve our vision.

As an organization, OMC has done what we intended to do to effect these outcome goals. While many of our OMC programs have been in effect and unchanged for years, their focus has shifted because of the impact of technology, internal changes, and customer needs. The OMC budget and re-authorization proposal further support our output actions in an effort to impact these long-term outcome goals.

Question. Using your operations budget and MCSAP funds, hasn't OMC been providing training for Federal and State officials, as well as for industry for many years? Why are additional contract funds for these purposes sought in fiscal year 1998?

Answer. The Motor Carrier Safety Program is transforming from a regulatory/enforcement program to one predicated on safety. To do this effectively the Agency is initiating the development of educational courses for the Federal and State staffs

as well as industry. The concept behind this is to have the Federal and State staff develop the skills to identify and focus on poor performing carriers through the use of the various collected data. Additionally, the education of the industry on ways to develop better safety management controls and to operate with safer equipment and drivers will contribute towards a crash-free environment.

Therefore, to support the transformation to a safety agency, contract funding will be necessary to develop and conduct courses which never have been part of the motor carrier training curriculum. Analysis, regulatory reform, and extensive use of new automated data management tools are examples of the types of training that will be funded under this initiative.

Question. Please breakout further the $972,000 requested for outreach activities among the following categories: judicial/executive, reauthorization workshops, and "no-zone" campaign. What is the quantitative basis for this request?

Answer. The quantitative basis for developing outreach estimates is based on actual contractual and cost estimating experiences. Contractual development and printing of informational brochures has always been a part of the motor carrier program and with that comes the experience to estimate costs.

Breakout of outreach activities follows:

OFFICE OF MOTOR CARRIERS FISCAL YEAR 1998 OUTREACH REQUEST

[In thousands of dollars]

Title	Travel	Printing	Contract support	Total
Judicial Outreach Program	30	30	202	262
Reauthorization workshops	50	30	245	325
No-Zone Campaign	20	40	280	340
Small Entity Compliance	.....	45	.....	45
Total	100	145	727	972

Question. Aren't you funding no-zone campaign activities as part of your reauthorization proposal? If so, why is there a need to fund this activity in both accounts?

Answer. The No-Zone campaign is funded in part through reauthorization, for grants to States to develop local and state-wide programs, and in part through OMC administrative expenses, for national campaign support activities. National support activities include support for Federal staff to promote No-Zone at major public gatherings, development and printing of informational material (for use by both Federal and State staff), and the purchase No-Zone displays for setup at schools, civic meetings, and trade shows.

Question. Why can't you use MCSAP funds to develop nationwide "no-zone" materials as you did during ISTEA?

Answer. The Share the Road program of which No-Zone is a major piece was developed during ISTEA by providing MCSAP grants to the States. Now that the program has been implemented operating dollars are needed to provide for printing, public service announcements, and funding for other media to educate the public on driving safely with commercial vehicles. There still exists the need for grant funding of this valuable program to develop new concepts to educate the public through the States, however, operating funds are needed to continue to implement the program as it has been developed up to this point.

Question. FHWA funded reauthorization workshops within the fiscal year 1997 base program. Why are additional fiscal year 1998 monies beyond the fiscal year 1997 base sought for this purpose? Why can't these training sessions be incorporated into CVSA meetings at essentially no cost? Couldn't these activities also be funded under the $1 million training or administrative takedown for the National Motor Carrier Safety Program (MCSAP)?

Answer. In fiscal year 1997 the Office of Motor Carriers held a grants-management workshop to provide basic information on anticipated program changes under the proposed 1998 program and to demonstrate how to develop performance-based programs. The target audience was a limited group of State enforcement personnel.

With the anticipated passage of the National Motor Carrier Safety Program for fiscal year 1998 will come many program and process changes for implementation of the performance-based program. Our educational efforts need to be expanded to a much broader audience which includes many lead State MCSAP agency personnel, grant recipients and industry partners. They need to understand the new national

goals and priorities, analysis requirements, program structure and methods by which funds will be allocated. In order to meet this need, the FHWA requests funding to support educational workshops on the newly reauthorized program. This is a much broader and more in-depth effort than the 1997 grants management workshop. The audience is much larger, many workshops would be held, and with passage of the legislation there will be a greater amount of information to convey.

The demands on the $1 million administrative takedown from the National Motor Carrier Safety Program are significant. In addition, there is limited flexibility for the use of that fund. Therefore, the FHWA is requesting funds under the General Operating Expenses account to develop and procure educational booklets, fund conference room rentals, audio/visual support, and transportation of materials to conference sites.

Question. Doesn't the private sector provide driver training and substance abuse programs? Why is this an OMC responsibility? How much do you propose to spend on similar activities during fiscal year 1998?

Answer. Yes, the private sector does provide training in those areas. Providing training to foster the development of industry education courses in order to enhance compliance of motor carrier safety regulations. It makes good business sense to initiate steps that lead to greater compliance with the Federal Motor Carrier Safety Regulations.

A total of $100,000 is requested in the fiscal year 1998 budget for these activities. Part of this effort may include hazardous materials, substance abuse, driver training, vehicle maintenance etc. Once the funding is in place we will determine where the greatest need for course development exists and begin the development process. This is not intended to be an industry training program—rather a "seed" to develop courses to show the industry the benefits that can be attained by these initiatives.

Question. Why is a partnership necessary for activities previously conducted by the private sector?

Answer. With respect to FHWA's Industry training initiative proposed in the fiscal year 1998 budget, the intent is to foster the development of industry training in the area of commercial vehicles and drivers. The term partnership refers to the Federal government providing initial support to develop the training then pass it onto the private sector for instruction.

The reason this is proposed is to promote uniformity in developing curricula in areas which have received little attention in the way of training but are issues that need to be addressed. Training of the private sector in commercial vehicle and driver areas is not the responsibility of FHWA. However we believe that the Federal government is in a position to be aware of areas in need of training and should promote courses that address those areas in order to work towards increased commercial vehicle safety.

Question. Please breakout further the $1.220 million requested for training among Federal/State and industry needs. How much is planned for each major activity?

Answer. In the following table.

OFFICE OF MOTOR CARRIERS FISCAL YEAR 1998 TRAINING REQUEST

[In thousands of dollars]

Title	Travel	Printing	Contract support	Total
Zero-Base Regulatory Reform	175	50	420	645
ICC Termination Act Integration	100	45	330	475
Industry Training	25	10	65	100
Total	300	105	815	1,220

Question. Please provide information on the number of: (a) Orders issued and carriers shutdown for posing an Imminent Hazard during fiscal year 1994, fiscal year 1995, and fiscal year 1996, (b) Orders issued under the 45 Day Shutdown rule for Hazmat and Passenger Carriers for the same periods, (c) Criminal prosecutions, and (d) Any other non-traditional compliance efforts during this period.

Answer. (a) Out-of-Service Orders for imminent hazard conditions:

Fiscal year	*Out-of-service orders for imminent hazard conditions*
1994	8
1995	29
1996	17

(b) Out-of-Service Orders issued under the 45 Day Shutdown Rule for Hazmat and Passenger Carriers:

Fiscal year	*Out-of-service orders for hazmat and passenger carriers*
1994	28
1995	20
1996	59

(c) Criminal prosecutions are generally reserved for extreme cases of noncompliance, when the carrier or an individual has demonstrated a serious disregard for safety and the use of civil prosecutions and other measures is ineffective. Typically there are only a few cases each year, since the process takes considerably more time to complete. We are currently getting more involved with the criminal investigators from the Department's OIG, in pursuing criminal prosecutions of motor carriers for very serious compliance problems. They, in many cases, have established working relationships with various U.S. Attorney's offices and can facilitate the process. As this OMC/OIG relationship further develops, we would expect a larger number of criminal prosecutions when appropriate.

(d) The OMC has utilized a number of non-traditional compliance efforts during this period, especially for small motor carriers. Limiting the scope of our response to matters relating to enforcement, we have significantly reduced civil penalties where it was obvious that an investment in personnel, equipment, maintenance, advanced technology, or other areas would better effect safety and compliance with the regulations. These measures often use consent agreements which include a provision for fine reinstatement in the event the carrier fails to fulfill its commitment.

Question. Please breakout in detail the amount and purpose of all fiscal year 1997 activities, projects and programs that are now funded under LGOE that would be funded entirely, or partly, as contract authority under your reauthorization proposal. Delineate separately, funds for CDL, Judicial Outreach, Share the Road, CVIS, CVISN, and data systems (ADP, MCMIS, SAFER, SAFESTAT).

Answer. Even though many of the programs listed are funded from General Operating Expenses, funding is needed to enhance these to incorporate future information capabilities in the areas of :

—Intelligent Transportation/Commercial Vehicle Operations programs which will promote electronic vehicle based on information systems containing carrier, vehicle, and driver safety records;

—Developing data bases for driver traffic citations, crash factors and high frequency crash locations;

—Enhancing On-line capabilities for roadside enforcement personnel to verify that required repairs were made. This improves program delivery by allowing carriers with proven safety records to be inspected less frequently and more attention given to less safe carriers;

—Implementing carrier registration and vehicle registration which will be linked with carrier safety and financial responsibility information; and

—Implementing SAFESTAT and CVIS to better identify carriers with poor safety performance and improve their compliance.

The FHWA automated data processing system does not provide cost by the projects listed. In order to provide that, a costly systems audit would need to be conducted. However, the fiscal year 1998 budget request for contract authority does not duplicate current LGOE funding but rather provides funding for future systems enhancements which are proposed under the National Motor Carrier Program.

Question. How much was spent on the Office of Motor Carrier's ADP requirements during fiscal year 1996? How much is planned for fiscal year 1997? In your answer please breakout the amounts from the motor carrier account and the ITS-CVO account and indicate each of the projects funded and the source of funds. Provide similar information for fiscal year 1998 planned expenses and include possible funding out of the National Motor Carrier Safety Program.

Answer. In fiscal year 1996, a total of $9.45 million was spent for OMC ADP requirements, of which $4.55 million was from ITS-CVO. ITS-CVO funds were spent for SAFER development, grants to states for pen based computers, and a portion of ASPEN, MCMIS and SAFETYNET modifications and operations.

In fiscal year 1997, a total of $10.875 million is planned with $5.1 million from ITS-CVO funds. ITS-CVO funds are planned for SAFER development, grants to states for data communications improvements, and a portion of ASPEN, MCMIS and SAFETYNET modifications and operations.

In fiscal year 1998, a total of $15.5 million is requested for ADP requirements. Of this, $5 million is requested as part of the "Information Systems and Strategic Safety Initiatives" program request and $3.6 million is requested from ITS-CVO funds. ITS-CVO funds are planned for completion of SAFER development, SAFER operations, SAFER marketing and outreach and a portion of ASPEN, MCMIS and SAFETYNET modifications and operations.

The fiscal year 1998 "Information Systems and Strategic Initiatives" funds, if made available, would be spent for new systems development and deployment. Development will emphasize unified information systems including a complete motor carrier register involving the integration of ICC and DOT systems, universal access by enforcement (NLETS) to SAFER safety data, and the expansion of national records to include intrastate carriers. If these funds are made available, deployment will include grants to states to improve roadside data systems and communications.

The above figures are only OMC ADP expenditures, not including State MCSAP expenditures from the National Motor Carrier Safety Program. With respect to these funds in the future, we anticipate an increasing share of these going to State information systems improvements and operations. States favor the use of electronic systems, such as ASPEN and SAFER, since they benefit the State both by improving the ability of the MCSAP program to focus staff on unsafe carriers and reducing the data handling labor costs. The movement toward performance incentive grants will spur the State implementation of information systems that produce measurable improvements in program efficiency, effectiveness and data timeliness and accuracy.

Question. How much does OMC typically reserve to pay for initiatives conducted by OMC headquarters that are not R&D? Please specify separately the amounts and nature of each of the activities funded with these monies for fiscal year 1996 and fiscal year 1997. What is the amount requested for these activities for fiscal year 1998?

Answer. OMC typically has a $900,000 headquarters support budget. Typical areas funded on an annual basis are Departmental Administrative Law Judges ($150,000), contractual support for the Freedom of Information Act office ($130,000), rent for the National Training Center ($140,000), local training funds ($45,000), supplies ($30,000), printing ($30,000), conference support ($25,000), non-recurring special studies ($200,000) and equipment maintenance contracts/miscellaneous office support $150,000.

The fiscal year 1998 budget contains several funding initiatives which require contractual support to implement. Thus, a $1.8 million increase for the headquarters support budget is requested in fiscal year 1998.

Question. Please list all of the regulatory requirements and reports dealing with CVO or commercial vehicle safety which are past due as specified in various Acts and congressional reports. What is the expected date of submittal for each of these?

Answer. The information follows:

PAST DUE RULEMAKINGS

Law	Rulemaking	Deadline	Status
HM Transportation Uniform Safety Act of 1990, Sections 8 and 15.	Motor Carrier Safety Permits, Inspect Radioactive Materials.	Final Rule by 11/16/91	ANPRM was published on 6/17/93 (58 FR 33418). After reviewing the Alliance for Uniform HazMat Transportation Procedures' (the Alliance) 1993 preliminary report and recommendations concerning implementation of 49 U.S.C. 5119, the FHWA decided not to proceed with further rulemaking action to implement 49 U.S.C. 5109 (Section 8) and 5105 (Section 15) until the Alliance's pilot project was completed. On July 9, 1996, the FHWA published a notice announcing the availability of the Alliance's final report and recommendations, and requesting public comment. The agency has completed its review of the comments and is preparing a supplemental notice requesting additional comments from the States and industry.
Motor Carrier Act of 1991 (Intermodal Surface Transportation Efficiency Act), Section 4007(b)(2).	Minimum Training Requirements for Operators and Training Instructors of Multi-Trailer Combination Vehicles.	NPRM by 12/18/93	NPRM currently under Departmental review.
Motor Carrier Act of 1991 (Intermodal Surface Transportation Efficiency Act), Section 4007(b)(2).	Entry-Level Driver Training	NPRM by 12/18/92 Final by 12/18/93 Report to Congress by 1/18/94.	ANPRM published on 6/21/93 and 104 comments were received/analyzed. Final study report sent to Congress on 2/05/96. A notice of availability and request for comments on the report was published in the Federal Register on 4/25/96. The comment period was supposed to close on 10/22/96. Based on comments received, FHWA will determine next action. If FHWA determines that it is not in the public interest to require training of all entry level drivers, then we shall report to Congress on the reasons for the decision and the results of the cost/benefit analysis. Notice announcing public hearings on 11/13/96 and extension of the public comment period to 11/29/96 was published in the Federal Register on 9/30/96 (Vol. 61, No.190). FHWA reviewing draft NPRM and three options.
Hazardous Materials (HM) Transportation Authorization Act of 1994, Public Law 103–311, Section 112.	Railroad Grade Crossing Safety	Final Rule by 2/26/95	The FHWA has developed a NPRM rather than a final or interim rule. The draft NPRM was sent to other DOT agencies for review and comment. The NPRM is under review by OST.
Hazardous Materials (HM) Transportation Authorization Act of 1994, Public Law 103–311, Section 113.	Supporting Documents for Records of Duty Status.	Notice of Proposed Rulemaking by 8/25/95 Final Rule by 2/26/96.	NPRM currently under Departmental review.
HM Authorization Act of 1994, Section 114.	Safety Performance History of New Drivers.	Final Rule by 2/26/96	NPRM published 3/14/96. SNPRM drafted and under review by FHWA legal. The purpose of the SNPRM is to respond to SBA comments to the docket and to publish the revised regulatory flexibility analysis.
Interstate Commerce Commission Termination Act of 1995, Section 408. Fiscal year 1996 DOT Appropriations Act, C–47 and S95.	Advance Notice of Proposed Rulemaking (ANPRM) on HOS and Related Issues.	ANPRM by 3/01/96 NPRM by 3/01/97	ANPRM published 11/05/96. Comment period extended to 6/30/97. The NPRM will follow analysis of the docket comments from the ANPRM.

PAST DUE REPORTS TO CONGRESS

Law	Report	Deadline	Status
Fiscal Year 1996 DOT Appropriations Act.	Commercial Drivers License Effectiveness Study.	Before 1996 Appropriations Hearing.	Expected date of submittal: August 31, 1997.
Fiscal Year 1996 DOT Appropriations Act.	Final 5-Year Research and Technology Plan for the Office of Motor Carriers.	February 1, 1997	Expected date of submittal: August 31, 1997.
Intermodal Surface Transportation Efficiency Act of 1991.	Commercial Vehicle Information Program (CVIS) Feasibility Study.	January 1, 1995	Expected date of submittal: September 30, 1997.
Hazardous Materials Transportation Authorization Act of 1994.	Hazardous Materials Transportation by Motor Carriers Near Federal Prisons.	August 26, 1995	Expected date of submittal: October 31, 1997.

Question. How much is FHWA spending to train hazardous material carriers in regulatory compliance? Please compare the fiscal year 1996 and the fiscal year 1997 amount to the fiscal year 1998 request. How do you measure the effectiveness of this investment? How does your training overlap with that provided by the private sector?

Answer. The FHWA does not provide formal training to hazardous materials carriers. However the Agency does provide education and technical assistance in the form of information brochures, publications as well as outreach sessions such as cargo tank forums. In our fiscal year 1998 budget we are requesting $100,000 to foster the development of courses for the industry to gain higher compliance and part of that effort may include hazardous materials education.

Question. FHWA was directed by the Conference Committee to develop a third party pilot program by February 1, 1998, for motor carriers that are having safety or compliance problems as identified by the CVIS program. How are you planning to implement this program?

Answer. The FHWA is currently in the process of changing the CVIS warning letter that is sent to motor carriers which are identified as having poor safety performance in the CVIS pilot states. The letter will strongly encourage the motor carriers to take advantage of third party safety services such as those provided by the American Trucking Association, the National Private Truck Council and others. FHWA will then identify those carriers that procured the services of a third party service, track the performance of these carriers, and determine whether the third party service had a positive impact on the carriers' safety performance. As directed in the fiscal year 1997 House/Senate conference report, FHWA will report the findings of this study to Congress by February 1998. The fact that a motor carrier has procured the assistance of a third party safety service, and consequently, improved their safety performance, will continue to be considered by the FHWA in penalty settlement negotiations.

Question. Does OMC still have 66 field offices? Please prepare a justification that explains the need for so many separate offices and include a discussion of how telecommunicating has diminished this need. How much could be saved during fiscal year 1998 if some of these field offices were consolidated?

Answer. OMC has employees located in 77 field locations. Of that amount, 9 offices are located within the FHWA Regional Office, 51 located with FHWA Division offices and the remaining 17 are OMC satellite offices. Several of the OMC satellite offices are one person offices that have been provided at no cost to the Agency since they are located in State or other Federal Agency office space.

It is still very desirable to maintain offices in many locations as it gives our staff the ability to meet with carriers, the public, and our State partners to discuss business matters. It is also desirable to have a mix of telecommuting and office sites overall as it enables our field staff to maintain greater contact with carriers. The criteria we use to determine office location is the number of carriers, size of the state, travel distance, travel costs, overnight stays, availability of travel modes etc. with the decision being based on what is the most advantageous for the government.

We believe we have the right mix of telecommuting and office sites. Based on current information, closure of any offices during fiscal year 1998 would increase travel and relocation costs thus outweighing any cost savings attached to the office closing.

Question. Please prepare a table listing separately all fiscal year 1996 and fiscal year 1997 motor carrier R&D projects, their expected dates of completion, and funding amounts.

Answer. Information on research projects begun in 1996 and 1997 follows. Except as noted, 1997 funding amounts are not reported, as many contract prices are still being negotiated:

[Dollars in thousands]

Projects	Date	Amount
1996:		
Driver Fatigue in Local/Short Haul CMV Operations	1998	$730
Impact of Loading & Unloading Commercial Motor Vehicles on Driver Fatigue and Alertness	1998	1,000
Conference on Technological Countermeasures to Fatigue	1996	40
Truck Driver Fatigue Industry Outreach (Phase 1)	1998	494
Truck Industry Safety Promotion	1998	250
Recommended Management Practices for Driver Training and Evaluation	1998	172
Shipper Involvement in Driver Hours-of-Service Violations	1997	113
Judicial Outreach Program	1997	25
''Share the Road'' Campaign Research	1997	350
Mandatory Use of Electronic Interactive On-Board Recording Devices in Lieu of Driver's Log	1997	150
Development of Uniform Fine Assessment Model for Hazardous Materials Regulations	1997	22
Project Tracking System for OMC Research	1997	50
Technology Outreach Initiative	1998	250
Safety Benefits and Operational Enhancements of ITS in Trucking Operations	1998	400
Hazardous Materials Shipper Prioritization Program	1997	150
Development of OMC Analysis Capabilities	1999	2,150
Crash Investigation Project	1998	300
Feasibility Analysis of the Application of Risk Assessment to Roadside Inspections of Commercial Motor Vehicles and Drivers	1997	38
Motor Carrier Safety Fitness Improvements	1998	200
Motor Carrier Regulations Information System (McRegis) Enhancement	1999	525
Determination of Stresses in Cargo Tanks	1997	200
Design of Computerized Method for Structural Evaluation of Cargo Tanks	1998	270
Pilot Program to Exempt Motor Carriers Operating Vehicles of Less than 26,000 Pounds GVWR from certain FMCSR's	1999	240
Development of Management Program to Ensure Greater Uniformity, Accountability and Quality Control within the Federal Enforcement Process	1998	223
1997:		
Impact of Sleeper Berth Usage on Driver Fatigue	1999	900
Survey of Industry Opinion Pertaining to Graduated Licenses	1997	170
International Conference on Driver Fatigue	1997	118
Fleet-Based Driver Wellness	1997	528
Continuing Truck Industry Fatigue Outreach	1998	(1)
Influence of Scheduling Practices on Driver Fatigue	1998	(1)
Evaluation of Top 10 State Countermeasures	1998	(1)
SafeStat National Performance Evaluation	1998	(1)
Assist States to Develop, Improve, and Apply Safety Information Systems	1998	(1)
Automated Brake Inspection System	1999	800
Cargo Tank Analysis Activities	1997	(1)
Hazardous Materials Data System	1998	(1)
Hazardous Materials Transportation Risk Assessment	1999	(1)
Support and Testing of OMC Enforcement Preparation Software (CASERITE/CLAIMRITE)	1998	(1)
Safety Information Management System (SIMS)	1998	(1)
Application of Risk Assessment and Risk Management within the OMC	200	(1)
Risk Assessment: ''Assigning Scoring Weights to Inspection Violations''	1998	(1)
Establishing a Quality Measurement for CMV Inspections	1999	(1)
MCSAP Formula Factors and Statistical Analysis	1998	(1)
Effective Commercial Motor Vehicle Sanctions	1999	(1)

[Dollars in thousands]

Projects	Date	Amount
Impact of Compensation Practices on the Number of Citations and Recordable Accidents Incurred by Long Distance Carriers	1999	([1])
Analysis of Docket Comments for Hours-of-Service of Drivers ANPRM and NPRM	1998	279
Third Party Motor Carrier Review System	1999	([1])
Contract Support for Development of a Research Proposal for a New Vision Standard	1998	([1])
Individual Determinations for Vision Waivers	1999	([1])
Risk Associated with Insulin-Using Canadian CMV Drivers	1998	([1])
Medical Review Panels	200	([1])
Negotiated Rulemaking for Medical Requirements	1997	([1])
Judicial Outreach Program—National Traffic Law Center	1999	([1])
Entry-Level Driver Training	1999	([1])
AAMVA CDL Activities	1999	([1])
Individual Differences in Driver Susceptibility to Fatigue	1999	([1])
Determine CMV Crash Involvement by Time of Day	1997	([1])
Develop Enforcement Cues for Cars in the Vicinity of Trucks	1998	([1])
Analytical Training for OMC	1999	([1])

[1] Negotiating.

Question. In House Report No. 104–177, FHWA was allowed $350,000 for a research project to improve the current "Share the Road" campaign designed to educate the motoring public about truck safety dynamics, and to coordinate similar non-Federal activities and identify gaps in this outreach area. What is the status of this project and what new improvements have been made? Who received the associated contract and for what amount?

Answer. The FHWA awarded a 24-month multi-task contract to complete a research project to improve the current Federal "Share the Road" No-Zone campaign to Abacus Technology Corporation for $349,077, effective October 1, 1996.

Five main tasks have been assigned. They are: TASK 1—Kick-off meeting, produce work plan and analytical tool, TASK 2—Inventory and review Federal program, TASK 3—Inventory similar programs, TASK 4—Analyze options for umbrella program by identifying gaps, overlaps, and areas for potential coordination, and TASK 5—Prepare recommendations and final report. The contractor has completed Task 1 and has initiated Tasks 2 and 3.

New improvements made to the campaign include steady evolution of the feature character named the "Zone Ranger" by one of 6,000 high school students competing in a nationwide contest, addition of video and print driver education materials targeting children and young adults, and the creation of a Truck & Bus Decal Program. In this program, FHWA has entered into active relationships with numerous motor carriers, whereby dozens of carriers volunteered to place vivid No-Zone graphics on the sides and rear of their truck trailers. Currently, there are nearly 50 trailers with complete No-Zone decals and thousands with similar but smaller size decals. Participating carriers include, but are not limited to United Parcel Service, Roadway Express, Werner Enterprises, Landstar Systems, Burlington Motor Carriers, Schneider National, Greyhound Bus Lines, and 3M Corporation.

Question. Why hasn't the Secretary of Transportation complied with Section 114 of Public Law 103–311 which requires the issuance of regulations that should improve the transfer of information regarding an employee's past history and safety performance? When will a final regulation be issued in this area?

Answer. The Federal Highway Administration (FHWA) published a notice of proposed rulemaking entitled Safety Performance History of New Drivers in the March 14, 1996 Federal Register at 61 FR 10548. The comment period expired on May 13, 1996. The Small Business Administration (SBA) submitted comments disagreeing with our estimate of the economic impact of the proposed rule upon small businesses. The SBA requested FHWA to 1) publish a corrected regulatory flexibility analysis and 2) incorporate changes to the proposed rule minimizing its economic impact on small businesses. The supplemental notice and regulatory flexibility analysis has been drafted and is under review. A final rule is expected by the end of 1997.

Question. What has the OMC done to implement the provisions of this law that requires improvement in the use of supporting documents? When will the final regulation, which is already past due, be issued?

Answer. The FHWA expects to publish an NPRM soon. The schedule for the final regulation is dependant upon the substance of the public comments on the NPRM.

The current records of duty status requirements for drivers include a provision requiring motor carriers to maintain documents supporting the records of duty status entries for verification purposes.

The FHWA re-published an interpretation, on April 4, 1997, specifying each document, by name or description, that must be maintained, if produced, generated, or obtained by receipt, by the motor carriers to support the records of duty status.

Question. Which aspects of your current fiscal year 1997 and planned fiscal year 1998 fatigue R&D program will provide information useful in conducting rulemaking related to each of the outstanding NTSB recommendations on driver fatigue mentioned above? Please specify relevant R&D projects and associated funding levels.

Answer. We believe that the following studies will provide information concerning the recommendation to "issue a rulemaking within two years to revise hours of service (8 hours of continuous sleep after 10 hours of driving):"

The recently-completed Driver Fatigue and Alertness Study ($4.5 Million):

—The completed study on Multi-Trailer Combination Vehicle Driver Stress and Fatigue ($900,000);

—The Work-Rest Cycle Study being conducted by the Walter Reed Army Institute of Research and Johns Hopkins University ($917,000);

—Performance Modeling of Hours-of-Service Alternatives, being conducted by the Walter Reed Army Institute of Research ($40,000);

—The Crash Investigation Project/Crash Causation Study being conducted by the University of Michigan Transportation Research Institute ($325,000);

—An analytical study of commercial motor vehicle crash rate by time-of-day ($25,000);

—Effect of Loading and Unloading on Driver Fatigue, being conducted by the Trucking Research Institute ($271,000);

—Local/Short Haul Driver Fatigue, being conducted by the Virginia Polytechnic Institute and State University ($730,000);

—Sleeper Berths and Driver Fatigue, also being conducted by the Virginia Polytechnic Institute and State University ($900,000);

—Analysis of Docket Comments for Hours-of-Service ANPRM and NPRM ($200,000);

—Shipper Involvement in Hours-of-Service Violations ($113,000); and

—Scheduling Practices and their Influence on Driver Fatigue ($500,000).

Concerning the recommendation to "require automated and tamper-proof recording devices (computerized logs) to catch truckers who exceed hours of service regulations," the FHWA is conducting a study, "Assessment of Electronic On-Board Recorders for Hours of Service Compliance" through the University of Michigan Transportation Research Institute and the Private Fleet Management Institute of the National Private Truck Council. In addition, ITS/CVO is conducting "An Operational Test of On-Board Vehicle and Driver Monitoring" to consider potential technologies to support performance-based fatigue management regulations ($150,000).

Question. Please discuss in extensive detail the purpose of your proposed study on hazardous materials risk and "their societal impact." How does this study relate to the risk analysis studies conducted by RSPA? What is the relative priority of this study? How does this study relate to your enforcement program? How much do you plan to spend on this study during fiscal years 1997, 1998, and 1999?

Answer. The main purpose of our proposed study on hazardous materials (HM) risk and the societal impact of HM incidents is to develop a tool which OMC can use in identifying where resources are best utilized to ensure safe, efficient, transportation. The OMC recognizes that the transportation of HM, while generally having a good safety record, poses a significant risk. It is this apparent contradiction which this research attempts to resolve. On the one hand, data shows that hazardous materials have not caused a great many deaths in transportation. However, last year's Valujet accident illustrated how disastrous one HM incident can be. Also, there are a great many costs of HM incidents which our databases do not currently measure. Among these are the costs associated with the closure of roadways or highways which often last 12 or more hours, the cost for the clean-up of spills and the associated restoration costs, the cost of community/business evacuations, and the general stress and concern of individuals near a HM release.

The objective of this research is to compare the relative risk (cost and potential consequences) of HM transportation with transportation which does not involve HM.

With these relative risk identifiers, OMC will be able to better direct its resources and the resources of the States through the MCSAP toward the areas which pose the highest risk to the public.

The risk analysis studies conducted by RSPA focused on pipeline safety and the relative risk between different classes of hazardous materials. Our research will build on the risk analysis principles which these studies have proven to be effective, while expanding the scope of the RSPA studies to incorporate factors which are unique to highway transportation.

Our study and the information yielded from the study are extremely important to OMC and its enforcement program. We envision that the results of this risk assessment will be incorporated into OMC's method for selecting carriers and HM shippers for review, OMC's rating process, and OMC's enforcement decisions.

During fiscal year 1997, $150,000 has been allocated for Phase I of this project. The OMC has tentatively set aside $200,000 for Phase II and Phase III in fiscal years 1998 and 1999 respectively pending review of progress made during the first year.

Question. How many new starts in the research program are you proposing?

Answer. The OMC plans to seek the award of approximately 18 "new starts" in fiscal year 1998. These include:

—Approximately eight new human factors studies that would look at specific driver fatigue, medical certification, and driver training issues;
—Approximately five new technology studies that would examine hazardous material safety standards and evaluate potential safety technologies;
—Approximately four new information analysis studies that would help us improve the collection and analysis of motor carrier safety data; and
—Phase IV of the OMC's zero-base regulatory review of the Federal Motor Carrier Safety Regulations.

Question. In order for a Mexican carrier to gain permission to operate beyond the commercial zone, what specific requirements exist? What specific safety criteria do you review before granting permission for a Mexican carrier to go beyond the commercial zone? What data will you require Mexican carriers to supply on the application?

Answer. On December 18, 1995, the Department of Transportation announced a delay in the NAFTA implementation schedule because of safety concerns associated with the operation of Mexican motor carriers in the United States. No Mexican carrier will be permitted to operate beyond the commercial zones until these safety concerns have been satisfactorily resolved. We believe that there are a number of steps that the United States and Mexico can take together that will benefit our motor carriers and their customers while enhancing public safety and security in both countries. Our implementation efforts are focused on this goal.

Our discussions with Mexico are ongoing, and we cannot anticipate when they will be concluded. We are hopeful, however, that we can resolve our NAFTA implementation related issues in the near future.

When NAFTA is implemented, each application from a Mexican motor carrier seeking authority to operate in the United States will be evaluated on its individual merits. Only those carriers receiving approval will be permitted to operate beyond the commercial zones. The approval process will include an evaluation of the carrier's safety performance based on information provided to us by the Mexican government and the carrier itself. Only carriers with positive evaluations will be approved to operate beyond the commercial zones.

The FHWA will ask the Mexican government for specific information on each carrier-applicant, including its safety oversight systems and procedures; a list of drivers that a carrier-applicant will employ for its U.S. operations and the drivers' commercial drivers license numbers and class; vehicle maintenance and inspection systems; and accident record as maintained by the Mexican government. For hazardous materials carriers, the Mexican government will also provide information on the carrier-applicant's safety and emergency response procedures, training, and registration.

In addition to information provided by the Mexican government, DOT will require carrier-applicants to provide detailed information on safety practices and policies, vehicle maintenance and inspection programs, the names and license numbers of drivers who will be operating in the United States, the identification numbers of all power units that will operate in the United States, accident records, evidence of participation in a drug and alcohol testing program that is consistent with the U.S. regulatory requirements, and, for hazardous materials carriers, information on emergency response programs, details of training provided to employees responsible for hazardous materials shipments, a list of shippers and proof of registration, and the carrier's shipping documents file.

When operating in the United States, Mexican motor carriers will be required to comply with the all applicable safety standards, including requirements for: (1) commercial drivers licenses, including knowledge and driver skills testing; (2) financial responsibility; (3) driver qualifications such as minimum age and language ability; (4) vehicle safety, including front brakes and other equipment specifications; (5) operations, including driver hours-of-service; (6) vehicle maintenance and periodic inspections; (7) drug and alcohol testing; and (8) hazardous materials transportation.

Question. How do you know these data are accurate? Will you be conducting compliance reviews or other audits to verify the accuracy of data submitted by Mexican carriers? How frequently will such visits be conducted?

Answer. DOT will verify the accuracy of the information provided by carrier-applicants by comparing the information provided by the carrier with information provided by the Mexican government and by follow-up telephone calls and/or site visits to carriers.

The DOT is also working with Mexico to assure that it has a system in place to independently verify the safety compliance of carriers operating in international commerce pursuant to NAFTA. To this end, we have agreed on several elements that are essential to implementation of a successful cooperative and coordinated compliance and enforcement program, such as clear communications between governments and with motor carriers; development of electronic data bases and exchange of safety information for companies, drivers, and vehicles; and involvement of state and local officials.

The key to minimizing safety risk is to ensure that Mexican inspectors check northbound trucks before they reach the border. Roadside enforcement is key to an effective and visible enforcement program. Further, there must be an ongoing system for safety oversight to continuously assess the safety compliance of these carriers. Such a program is important to establishment of a permanent monitoring and enforcement program in Mexico; further, it is paramount to the development of an effective North American motor carrier safety program. We are currently discussing a timetable for Mexico to implement specific elements of its compliance and enforcement program.

Taken as a whole, this strategy will enable the Department to evaluate a carrier's safety performance based on verified information provided by the Mexican government and the carrier itself. Only carriers with positive evaluations will be approved to operate beyond the commercial zones. In addition, our strategy will assure that carriers that receive such approval will be monitored for compliance with safety and operating regulations by inspectors based both in Mexico and the United States.

Question. Please submit for the record a list of all current rulemaking activities and their expected date of completion.

Answer. The information requested follows:

OFFICE OF MOTOR CARRIER RESEARCH & STANDARDS LIST OF ALL CURRENT RULEMAKINGS, JUNE 23, 1997

Title of rulemaking	Estimated dates
Section 345 of the NHS Designation Act; Hours of Service Exemptions, RIN 2125–AE09.	NPRM—1997. Final Rule—1998.
Intrastate Transportation of Home Heating Oil—State Flexibility Program, Implementation of Section 346 of the NHS Designation Act.	ANPRM or NPRM—1997. Final Rule—1998.
Zero Base Regulatory Reform Program, Rewriting of the FMCSR's.	NPRM(s)—1998. Final Rule(s)—1999.
Removal, Amendment, and Redesignation of Certain FMCSR's; Obsolete and redundant Regulations, RIN 2125–AD72.	The NPRM was published on 1/27/97. Docket comments are currently being reviewed. The next action(s) has not been determined.
Commercial Learner's Permit and CDL Effectiveness, RIN 2125–AC54.	The NPRM was published on 8/22/90. The next action will be the publication of an SNPRM. The estimated date for publishing the SNPRM is December 1997.

OFFICE OF MOTOR CARRIER RESEARCH & STANDARDS LIST OF ALL CURRENT RULEMAKINGS, JUNE 23, 1997—Continued

Title of rulemaking	Estimated dates
Rules of Practice for Motor Carrier Proceedings; Investigations; Disqualifications and Penalties, RIN 2125–AD64.	The NPRM was published on April 29, 1996. On August 6, 1996, the comment period was extended to September 13, 1996. An SNPRM was published on 10/21/96 to include implementation of section 103 of the ICCTA. The estimated date for publishing the final rule is November 1997.
Parts and Accessories Necessary for Safe Operation, General Amendments, RIN 2125–AD40.	The NPRM was published on 4/14/97. The comment period has been extended to 7/28/97. The next action has not been determined.
Transportation of HM Driving/Parking Rules, RIN 2125–AD80.	TBD
Parts and Accessories Necessary for Safe Operation: Television Receivers and Data Display Units, RIN 2125–AD76.	The NPRM was published on 4/03/96. In response to the docket comments, an SNPRM will be issued. The estimated date for publishing the SNPRM is December 1997. The estimated date for a final rule is June 1998.
Supporting Documents for Records of Duty Status, RIN 2125–AD52.	NPRM—1997. Final rule—1998.
Minimum Training Requirements for Operators and Training Instructors of Multi-Trailer Combination Vehicles (MTCVs), RIN 2125–AC92.	NPRM—March 1998. Final rule—TBD.
Commercial Driver Physical Fitness as Part of the Commercial Driver's License Process, RIN 2125–AD20.	NPRM—October 1997. Final rule—TBD.
Minimum Uniform Standards for Biometric Identification System to Ensure Identification of Operators of CMVs, RIN 2125–AC24.	An ANPRM was published on 5/15/89. A supplemental ANPRM was published on 3/8/91. The estimated date for publishing the NPRM is September 1997.
Safety Performance History of New Drivers, RIN 2125–AD66.	An NPRM was published on 3/14/96. An SNPRM is currently being drafted. The estimated date for publishing the SNPRM is December 1997.
Entry-Level Driver Training, RIN 2125–AD05	NPRM—September 1997. Final rule—TBD.
Motor Carrier Safety Permits (for certain hazardous materials transporters); Inspect Vehicles Transporting Highway-Route-Controlled Quantities of Radioactive Materials, RIN 2125–AC78.	NPRM published on June 17, 1993. The next action has not been decided. This rulemaking is on hold pending the completion of the FHWA's evaluation of the Alliance for Uniform Forms and Procedures for HazMat Transportation (the Alliance) recommendations on 49 U.S.C. 5119.
Uniform Forms and Procedures for the Registration and Permitting of Transporters and Shippers of Hazardous Materials, Substances, and Wastes.	The final report from the Alliance was received in March 1996. A notice of availability of the report and request for comments was published on July 6, 1996. A supplemental notice requesting additional comments is being drafted for publication by September 1997.
Railroad Grade Crossing Safety, Requirement for Driver to Make Certain There is Sufficient Clearance for the CMV, RIN 2125–AD75.	NPRM—September 1997. Final rule—1998.
Service of Notice in Proceedings, Implementation of Section 13303 of the ICCTA.	TBD.
Compensated Intercorporate Hauling, Implementation of Section 103 of the ICCTA, RIN 2125–AE02.	The NPRM was published on 10/21/96. Final rule—1997.

OFFICE OF MOTOR CARRIER RESEARCH & STANDARDS LIST OF ALL CURRENT RULEMAKINGS, JUNE 23, 1997—Continued

Title of rulemaking	Estimated dates
Exemption of Notice Filing Requirements for Agricultural Cooperative Associations Which Conduct Compensated Transportation Operations for Nonmembers, Implementation of Section 103 of the ICCTA, RIN 2125–AE03.	The NPRM was published on 10/21/96. Final rule—1997.
General Jurisdiction Over Freight Forwarder Service, Implementation of Section 103 of the ICCTA, RIN 2125–AE00.	The NPRM was published on 1/28/97. The next action has not been decided.
Authority to Exempt Transportation or Services, Implementation of 49 U.S.C. 13541 (ICCTA).	TBD.
Registration of For-Hire Motor Carriers, Property Brokers, and Freight Forwarders, Implementation of 49 U.S.C. 13901 to 13905 (from the ICCTA), RIN 2125–AE01.	NPRM—October 1997. Final rule—1998.
Registration of Brokers, Implementation of 49 U.S.C. 13904 (from the ICCTA).	TBD.
Effective Periods of Registration, Implementation of 49 U.S.C. 13905 (from the ICCTA).	TBD.
Security of Motor Carriers, Brokers, and Freight Forwarders, Implementation of 49 U.S.C. 13906 (from the ICCTA).	TBD.
Motor Carrier Replacement Information/Registration System, RIN 2125–AD91.	An ANPRM was published on August 26, 1996. The estimated date for publishing the NPRM is late 1997. The final rule will be published in early 1998.
Commercial Motor Vehicle Definition: Section 104(f) of the ICCTA, Amendment to 49 U.S.C. 31132.	Target date for ANPRM: 5/20/96.
Your Rights and Responsibilities When You Move, RIN 2125–AD95.	NPRM—1997. Final rule—1998.
Revision of Medical Examination Form and Procedures, RIN 2125–AC63.	NPRM—October 1997. Final rule—1998.
Rear Underride Protection, RIN 2125–AE15	NPRM—August 1997. Final Rule—February 1998.
Parts and Accessories Necessary for Safe Operation; Antilock Brake Systems, RIN 2125–AD42 (formerly AD46).	The NPRM was published on July 12, 1996. The estimated date of publication for the final rule is September 1997.
FHWA/HUD Rulemaking on Overloaded Tires on Manufactured Homes FHWA RIN 2125–AD41, HUD RIN 2502-AG54.	The NPRM was published on April 23, 1996. The estimated date of publication for the final rule is October 1997.
Marking of Commercial Motor Vehicles, RIN 2125–AD49.	NPRM—1997. Final rule—1998.
Periodic Renewal/Updating of Motor Carrier Identification Report (MCS–150) and Registration, RIN 2125–AC28.	An ANPRM was published on 7/17/89. The next action has not been decided.
Protection Against Shifting and Falling Cargo; North American Cargo Securement Standards, RIN 2125–AE05.	An ANPRM was published on October 16, 1996. A supplemental ANPRM will be published by November 1997. Depending on the comments received, the NPRM will be published in 1998 with the final rule issued in early 1999.
Parts and Accessories Necessary for Safe Operation; Trailer Conspicuity Retrofitting Rulemaking, RIN 2125–AD27.	An ANPRM was published on January 19, 1994. The estimated publication date for the NPRM is November 1997. Depending on the comments received, the final rule would be published by February 1999.
Parts and Accessories Necessary for Safe Operation; Sleeper Berths on Motor Coaches, RIN 2125–AD25.	An ANPRM was published on 1/12/94. The next action has not been determined.

OFFICE OF MOTOR CARRIER RESEARCH & STANDARDS LIST OF ALL CURRENT RULEMAKINGS, JUNE 23, 1997—Continued

Title of rulemaking	Estimated dates
Qualifications of Drivers—English Language Requirement.	An ANPRM will be published this summer. The next action will be based upon the comments received in response to the ANPRM.
Qualifications of Drivers; Removal of Subpart H, Obsolete Controlled Substances Testing Requirements; Technical Amendments, RIN 2125–AE16.	The estimated date for publishing the final rule is July 1997.
Transportation of Hazardous Materials; Technical Amendment (Highway Routing), RIN 2125–AD00.	The estimated date for publishing the final rule is September 1997.
Commercial Driver's License Test Requirements, RIN 2125–AC92.	TBD.
Commercial Driver's License; Third Party Knowledge Testing.	TBD.
Safety Fitness Procedures; Safety Ratings—Passenger Carriers and Transporters of Hazardous Materials, RIN 2125–AC71.	An interim final rule was published on 5/28/97. The closing date for comments is 7/28/97. Final rule—TBD.
Safety Fitness Procedures; Safety Ratings—Non-Hazardous Materials Property Carriers, RIN 2125–AC71.	An NPRM was published on 5/28/97. The closing date for comments is 7/28/97. Final rule—TBD.
Electronic Filing of Surety Bonds, Trust Fund Agreements, Insurance Certifications; Cancellations, RIN 2125–AD94.	NPRM—1997. Final rule—1998.
Truck Length and Width Exclusive Devices, RIN 2125–AC30.	An ANPRM was published on 12/26/89. The next action is undetermined.
Certification of Size and Weight Enforcement, RIN 2125–AC60.	An ANPRM was published on 12/16/93. The next action is undetermined (awaiting completion of Truck Size and Weight Study in Fall of 97).

Question. When do you expect that the Zero-Base Review will be completed? When will implementing regulations be issued? When will implementing regulations be issued? When will the effective date be?

Answer. We expect publication of the preliminary notice, seeking public comment on this document, to take place in early calendar year 1998. The agency feels that a lengthy comment period will be necessary to allow the public to respond and the agency to review the comments. The target date for publication of the final regulations is July 1999. At this time we anticipate that most of the regulations would also take effect at that time. Others will have a phase-in period.

NATIONAL MOTOR CARRIER SAFETY PROGRAM—MOTOR CARRIER SAFETY ASSISTANCE PROGRAM (MCSAP)

Question. Please breakout in extensive detail how you intend to divide the $17 million requested for the Information Systems and Strategic Safety Initiatives. Please specify the amounts to be spent on CVIS, driver programs, data analysis, and information systems. What was the total amount that you spent on these areas during fiscal year 1997 and from which accounts? How will this program relate to research specifically for the MCSAP?

Answer. *Information systems (fiscal year 1998 expected—$5 million; fiscal year 1997 expenditures $10.8 million from GOE, ITS/CVO, Research and Technology, CVIS, and ICC fees).*—These funds will be used to support the future expansion of the Federal/State motor carrier safety information systems. Motor carrier information systems provide the means to maintain an accurate carrier census and target unsafe carriers, prioritize carriers for audits, establish a motor carrier safety fitness rating and profile, manage program resources effectively, analyze programs and regulations, and track industry statistics and trends. Funds will benefit the States by providing national, compatible software and hardware as well as access to a national information system. Future development and deployment will emphasize unified information systems including a complete motor carrier register involving the integration of ICC and DOT systems, on-line, roadside access of motor carrier infor-

mation to guide the selection of vehicles and drivers for inspection based on prior safety history, and the expansion of national records to include intrastate carriers.

Motor Carrier Analysis (fiscal year 1998—expected $3 million; fiscal year 1997 expenditures $2 million from Research and Technology).—These funds will be used to continue and expand analysis of motor carrier census, crash and exposure data. The analysis function within OMC is an integral component in policy and program development and requires sound, statistically-based approaches. It provides the basis for evaluating program effectiveness and determining changes to program activities. Improved analysis will enable the FHWA and States to establish program benchmarks and evaluate program performance while meeting the requirements of the Government Performance and Results Act. Other projects include: studying truck crash causation, evaluating exposure data, and collecting information on the regulated population of motor carriers.

Nationwide implementation of CVIS/SAFESTAT (fiscal year 1998 expected—$6 million; fiscal year 1997 $1.5 million from MCSAP).—These funds will support the national implementation of a 5-State pilot program mandated by ISTEA. The CVIS pilot tested the feasibility of an information system linking safety fitness and State motor vehicle registration. The CVIS pilot project (Iowa, Colorado, Indiana, Minnesota and Oregon) tested the integration of Federal data systems with State motor vehicle registration systems and coupled the suspension/denial of vehicle registration with a Federal determination of unsafe operations. The motor carrier industry was an active participant in the project. The system links State motor vehicle registration with carrier data, assigning the safety responsibility for each vehicle being registered to the appropriate motor carrier, identifies high risk carriers, provides mechanisms for carriers to improve their performance, actively monitors safety progress, and improves enforcement by providing sanctions. The pilot project was highly successful and other States are now seeking to participate.

Driver programs including driver education, evaluation of driver performance, and licensing enhancements (fiscal year 1998 expected—$3 million; fiscal year 1997 expenditures $0).—These funds will be used to help States to build their capacity to exchange driver information with courts within their State and with licensing agencies in other States. This will allow courts to make more informed adjudicatory decisions on commercial driver citations and ensure out-of-state convictions are transmitted to the State of licensure in a timely and accurate manner for placement on the driver record. These funds will also be used to support education for judges, prosecutors and law enforcement on enforcement and adjudication of commercial motor vehicle offenses, enhance the electronic administration of commercial driver's licensing tests by state licensing agencies, improve State driver examiner training, and provide licensing agencies with the support necessary to revise their data systems to capture data on commercial driver license suspension and revocation actions. These activities are particularly crucial given the high level of driver contribution to crashes and the lack of Federal investment in driver programs since the implement of the Commercial Drivers License (CDL) in 1992.

The Information and Strategic Safety Initiatives program will provide nationwide information and data needed to support the MCSAP program.

Question. What is the status of the Commercial Vehicle Information (CVIS) demonstration project in Iowa, Minnesota, Oregon, Colorado, and Indiana? How effective has this project been in determining and improving the safety fitness of motor carriers? What performance measures or results do you have?

Answer. The CVIS pilot demonstration will officially end on September 30 of this year with the expiration of authority provided under Section 4003 of the Intermodal Surface Transportation Efficiency Act of 1991. We believe the results of the CVIS pilot program will show the concept of linking safety fitness to the commercial vehicle registration process is operationally and technically feasible.

The CVIS project has been extremely successful in identifying poor performing motor carriers through the development of the Motor Carrier Safety Status (SafeStat). SafeStat is a prioritization algorithm under which each carrier is assigned a numerical score based on its performance in four Safety Evaluation Areas (SEA's)—Accident, Driver, Vehicle and Safety Management. Carriers with unacceptable scores (worst 25 percent) in 2, 3, or 4 out of 4 SEA's are considered high safety risks. A recent study titled, "Effectiveness of SafeStat," conducted by the Volpe Transportation Systems Center, used historical safety data to show that carriers identified by SafeStat as being "At Risk" (carriers with unacceptable SafeStat scores in 3 or 4 out of 4 SEA's) went on to have accidents at a rate 65 percent higher than motor carriers that were not identified.

Once the worst performing motor carriers have been identified by SafeStat, real improvement in carrier safety performance has also been achieved through the National Motor Carrier Safety Improvement (MCSIP) process of the CVIS. Progres-

sively harsher sanctions and limitations on operations are applied to carriers who fail to improve safety performance, leading to a possible Federal OOSO/imminent hazard determination and suspension or revocation of registration privileges.

Improvements in carrier safety fitness have been measured as follows: (1) Voluntary Compliance.—Of the 695 Warning Letters issued to carriers during the pilot, 35 percent of these carriers voluntarily improved their safety performance sufficiently to be released from the MCSIP. (2) Suspended Registrations.—Three CVIS carriers had their vehicle registration suspended for safety reasons under CVIS. (3) Better Targeting of Compliance Review to Focus on the Highest-Risk Carriers.—The CVIS project improved the targeting of compliance reviews to carriers most in need of safety intervention. An analysis of the SafeStat data found that in the last pre-CVIS year, only 19 percent of carriers selected for compliance reviews in the 5 pilot states would have been targeted by SafeStat. (4) Nationwide Implementation of SafeStat.—SafeStat has improved OMC's prioritization methodology and these improvements have been implemented nationwide as of March 1997.

Question. How can the results or improvements identified in CVIS be implemented on a nationwide basis? When will this occur?

Answer. Implementation of CVIS nationwide can begin as early as the 1st quarter of fiscal year 1998. The following narrative describes the three elements needed to begin a nationwide CVIS implementation and their status.

1. *CVIS Program Development*.—The following processes comprising the CVIS program have been developed, tested and successfully implemented in the 5 CVIS pilot States. Those processes are:

—CVIS Vehicle Registration Process;

—SafeStat Identification and Monitoring functions; and

—CVIS Motor Carrier Safety Improvement Process (MCSIP).

Standardized procedures and minimum program requirements for implementing CVIS have been developed and tested and ready for national implementation. The implementation of the CVIS to non-pilot States can begin early in fiscal year 1998.

2. *Organizational/Management Structure for Implementing CVIS Nationwide*.—The OMC's Office of Safety and Technology will have the lead in managing the nationwide implementation of CVIS using the following structure.

CVIS Steering Committee.—A CVIS Steering Committee comprised of representatives from OMC, each of the CVIS States, CVSA, AAMVA, NGA, NCSL, NGHSR, AASHTO and industry should be established to provide general direction and guidance to FHWA in the implementation effort.

CVIS Federal/State Working Group.—In addition to the Steering Committee, a minimum of two other groups will be needed—(1) CVIS Federal/State Working Group; and (2) CVIS Data Processing Committee. The Federal/State Working Group is needed to identify and resolve operational, technical issues related to nationwide implementation of CVIS.

CVIS Data Processing Committee.—A CVIS Data Processing Committee is needed to insure that the data, communications and processing systems necessary to support the CVIS program are designed according to CVIS requirements and system specifications.

It is expected that the CVIS Steering Committee, Federal/State Working Group and Data Processing Committee could be established by the end of December 1997.

3. *Staff Support for CVIS Implementation*.—The OMC will continue to rely on the existing CVIS team of experts to continue to develop, improve, train, and implement CVIS at the State and Federal level. This team consists of individuals from the private and public sector with in-depth knowledge of the Federal CR and enforcement processes, commercial vehicle registration, CVIS data processing requirements, SafeStat and roadside enforcement. Staff support for CVIS implementation is available immediately.

Question. What are the impediments to expanding this project? What are the challenges to expanding this project?

Answer. The major impediment to nationwide implementation of CVIS is funding. Adequate funding (approximately $500,000 per State) is needed to implement the CVIS program in each State. In addition, adequate funding ($2 million/year) must also be provided to OMC to manage and promote CVIS at a national level. Project management funds would be used to:

(1) Hold meetings to develop and administer CVIS training and technical support for Federal and State safety officials, discuss issues, resolve problems, and monitor CVIS implementation progress within the States;

(2) Continue SafeStat development and improvement;

(3) Conduct safety research related to improving the effectiveness of the CVIS program;

(4) Improve data quality through developing new sources (e.g. citation and conviction data), software enhancements, equipment and technology transfer;

(5) Integrate CVIS into emerging information systems and advances (e.g. SAFER, ISS); and

(6) Deploy the CVIS roadside enforcement/monitoring system nationwide.

The major challenges facing OMC in implementing CVIS nationwide include:

(1) Data quality improvement—Improving the accuracy, timeliness and reliability of OMC's safety data;

(2) Establishing greater uniformity in the CR and Federal Enforcement Program since State enforcement activities are contingent on a Federal issuance of an OOSO/Imminent Hazard determination;

(3) Development of standardized criteria for identifying potential candidates for an OOSO; and

(4) Legislative Outreach necessary to obtain State authority for suspension of registration privileges for safety reasons.

Question. How many States are ready to use fiscal year 1998 funds to implement CVIS? At what funding levels?

Answer. Two States, Pennsylvania and South Dakota, will definitely be ready to use fiscal year 1998 funds to implement CVIS. In addition, the States of New York, Michigan and Virginia have expressed strong interest in implementing CVIS in fiscal year 1998 and will require funding. The average cost of implementing CVIS is approximately $500,000 per State. Additional funds however, will be required by OMC for overall program management including training, technical assistance, staff support, data improvements, SAFESTAT improvements, and integration of CVIS into OMC's current compliance review and enforcement processes, at an estimated cost of $2 million per year.

Question. Why did OMC fail to submit the report required by the committee on the role of traffic enforcement in MCSAP?

Answer. The report, titled "Effectiveness, Benefits, and Costs of Traffic Enforcement" was mailed to the committee on March 28, 1997.

Question. OOIDA has raised a concern regarding the "out-of-service" criteria established by the Commercial Vehicle Safety Alliance. They are concerned that these criteria have not been adopted by all the States that enforce them, and that these criteria have not been published in an official source. Does OMC agree with this assertion? Does OMC know that all States participating in the MCSAP have adopted the "out-of-service" criteria?

Answer. As members of the Commercial Motor Vehicle Safety Alliance (CVSA), all MCSAP participating States sign a Memorandum of Understanding in which they agree to implement and enforce the minimum out-of-service criteria developed and promulgated under the auspices of CVSA with participation and input by all CVSA members. By affixing their signature to the CVSA Memorandum of Understanding, State officials are indicating that they have adopted and have the authority to implement the out-of-service criteria.

The initial goals of CVSA were to provide for an agreement on uniform inspection criteria and reciprocity among member jurisdictions to mutually recognize inspections, including out-of-service notices. With the advent of the FHWA's MCSAP, and with the encouragement and support of the FHWA, the CVSA expanded on the belief that such a collective assembly could best further the goal of establishing uniform standards. The criteria are kept current through the efforts of the various committees of the CVSA, and are updated annually by the CVSA. The FHWA and all MCSAP grantees are members of CVSA.

It has been FHWA's opinion that the out-of-service criteria are mere "enforcement guidelines or tolerances." In placing a vehicle out-of-service, inspectors rely on the underlying regulations applicable to the condition of the driver, vehicle, or cargo. Consequently, it is the Federal Motor Carrier Regulations themselves that are the operative out-of-service criteria.

The FHWA is concerned that MCSAP grantees may indeed view the out-of-service criteria as mandatory in character, thus elevating these criteria to the point of regulation. Consequently, the FHWA has decided to grant a petition for rulemaking regarding the out-of-service criteria by the National Tank Truck Carriers, Inc. (NTTC) a trade association of companies engaged in commercial trucking, including the hauling of hazardous materials. The Office of Motor Carriers will implement a rulemaking on the out-of-service criteria in the near future.

Question. If there are States that have not yet adopted the Federal Motor Carrier Safety Regulations and/or "out-of-service" criteria, could you identify them for the record.

Answer. All States have adopted the Federal Motor Carrier Safety Regulations for interstate commerce. However, Florida, Maine, and South Dakota have not fully

adopted compatible intrastate regulations. Through the CVSA's "Memorandum of Understanding," members agree to implement and enforce the minimum "out-of-service" criteria. All MCSAP agencies are members of the CVSA.

Question. What steps are being taken by the FHWA to publish the out-of-service criteria in the Code of Federal Regulations?

Answer. The FHWA is drafting, for publication in the near future, an Advance Notice of Public Rulemaking addressing the Out-Of-Service Criteria (OOSC). The agency will seek public comment upon the role of the OOSC, and entertain comments upon the substance of the OOSC at the same time. On June 10, 1997, the agency granted the petition of the National Tank Truck Carriers, Inc., a trade association, asking that the agency conduct a rulemaking on this topic.

Question. OOIDA has expressed concern regarding the number of deaths and injuries to drivers and law enforcement officers that are caused by routine safety inspections conducted on the shoulder of the road next to the travel lane. What steps has the FHWA taken to minimize this risk and reduce the number of deaths and injuries associated with MCSAP inspections?

Answer. Through association with the Commercial Vehicle Safety Alliance, the OMC continues to participate in revisions of training materials such as the North American Standard Training Modules which effectively address this issue by providing specific guidance and procedures, and emphasizing safety concerns.

In addition, the Office of Motor Carriers recently entered into a contract with the International Association of Chiefs of Police (IACP) Training Division to develop a training module addressing this important and serious problem. The course titled, "Safe Stopping and Approach of Commercial Motor Vehicles," emphasizes the safety concerns associated with stopping commercial motor vehicles, and the responsibility of the enforcement officer not only to himself/herself and the commercial driver, but also the motoring public. The course provides guidance as to how to stop the vehicle safely, covering topics such as correct site selection, proper approach, and how to get the commercial motor vehicles safely back into the flow of traffic once the stop is completed.

A working group, comprised of experienced enforcement officers from different States, provided the expertise for the course content and served as technical advisors for a video which is being produced by the Idaho State Police. The video is designed to enhance the course presentation but may also be used as a stand-alone training tool.

The course materials will be endorsed and made available through the IACP, OMC and the NHTSA for wide distribution to the enforcement community. The course materials are designed as a module to either be presented as part of another course or to be presented in a roll-call situation. The course materials will be available by the end of July 1997. The video will be produced and available by the end of September 1997.

Question. Please assess the current status of each of the following MCSAP concerns and the actions FHWA is promoting to improve each:

—the quality of State data systems;
—the quality of the State inspection process;
—how the States collect inspection data and verify carriers names;
—the quality of State-conducted compliance reviews;
—the adequacy of NGA accident reporting; and
—the quality of training being provided to State personnel.

Answer. *State Data Systems.*—The Office of Motor Carriers (OMC) has taken several steps to improve the quality of State data systems. The MCSAP States utilize OMC's information systems, such as SAFETYNET, CAPRI, and ASPEN. These information systems include numerous edit checks to ensure that accumulated data is accurate and of good quality. During SAFETYNET workshops, breakout sessions are conducted to address specific data quality issues. The OMC field staff also monitor State data systems for quality and accuracy.

State Inspection Process.—The Office of Motor Carriers will soon begin deployment of the next generation of national databases. These performance-based databases are used to evaluate vehicles and drivers based on inspection data collected from around the country. There is increasing dependency on quality roadside vehicle/driver inspection data, and increasing expectation that information is accurate, uniform and timely. The OMC is currently identifying cost effective measures that can be implemented to improve the quality and uniformity of roadside inspections.

State Inspection Data Collection and Verification.—The OMC has strongly encouraged the States to purchase and deploy laptop/penbased or desktop computers for roadside inspectors to improve the quality of inspection data collected and to assist in verifying carrier identification. In addition, the OMC has developed a roadside inspection software program (ASPEN) for use with laptop/penbased computers. This

software has several modules to assist the inspector in the collection of driver/vehicle inspection data and for proper identification of the responsible motor carrier through the carrier census search. The OMC is currently developing an improved carrier search algorithm, and will be downloading carrier non-match information to the States.

State Compliance Reviews.—The OMC has initiated several steps to assist States conducting compliance reviews. State and Federal personnel are provided training through FHWA's National Training Center. In addition, the OMC field staff provide on-the-job-training. The OMC has also developed a number of computer-generated management reports to be used by Federal and State MCSAP personnel to monitor the quality and effectiveness of State-conducted compliance reviews.

Crash Reporting with NGA Data Elements.—Overall, the States have made substantial progress in modifying their programs and adopting and reporting the NGA elements. Even so, we believe that many of the States will not achieve full implementation by September 30, 1997. Several States have been unable to expand their programs to include local police agencies. Some MCSAP agencies believe that they do not have the authority to require local agencies to support this program. Most of the local participation is a result of interagency cooperation rather than any specific State mandate that locals be involved. Also, a significant number of States must continue to work to adopt all elements and improve the quality and timeliness of the data. In fiscal year 1998, OMC plans to conduct a regional pilot program to gain a better understanding on the type of problems that exist in the States and the type of initiatives that are most effective in dealing with these problems. We plan to conduct an in-depth, State-by-State review of the specific barriers to implementation that exist in each State; develop and implement strategies to address each of the problems; evaluate the effectiveness of the initiatives; and based on the effectiveness of each initiative, develop strategies that may be implemented in other States.

Training for State Personnel.—The quality of our training programs has been greatly enhanced since the Office of Motor Carriers and the States adopted the Instructional System Design method in 1993. Our goal is for all State training courses to be performance-based, with a job task analysis conducted on the designated job function and target audience before training is developed. A system for monitoring, evaluating and updating courses has been put in place by the OMC National Training Center utilizing the educational expertise of the University of Missouri. As courses are developed, educational quality assurance teams of Federal and State (as represented by CVSA members) are established to biannually review and update each State training course based on experience, course evaluations and regulatory changes.

Question. FHWA is requesting $7 million for border and high priority initiatives with $3 million going to the border States. What is the quantitative basis to justify these expenditures? How do you know that $3 million for border States is too much or too little? Please delineate exactly how the rest of the $4 million is planned to be spent breaking out activity and amount.

Answer. The $7 million requested will enable us to effectively address the operational activities associated with the implementation of the North American Free Trade Agreement (NAFTA) and implement the other high priority initiatives without compromising the basic grant program. The FHWA has provided special funding over and above regular grant levels to assist with short term resource needs of the States. In fiscal year 1995–97, FHWA provided over $3.1 million for enforcement and other NAFTA-related activities along the southern border. The need for additional funding will be even greater in fiscal year 1998 as the States work toward the full implementation of the cross-border transportation provisions of NAFTA. Also, as Mexican carriers are allowed to operate throughout the U.S.-Mexico border States, the adjoining "second tier" States such as Oregon, Nevada, Utah, Colorado, Oklahoma, Arkansas, and Louisiana will be part of the "new border" for Mexican operations, i.e., they will be expected to ensure that Mexican vehicles do not operate beyond the four border States. In recognition that these States' safety programs may also be impacted by the implementation of NAFTA, approximately $500,000 of the $3 million requested will be made available to these States specifically to be used for educational activities for law enforcement officials and for other projects designed to enforce insurance and operating authority requirements. To insure the most effective use of these funds, the border States are working together under the auspices of the International Association of Chiefs of Police to coordinate activities, share materials and ideas, and eliminate duplication of effort. The discussions between the border States and FHWA and resulting State resource requests, helped us determine the budget needed to effectively address both local and national con-

cerns. We believe the requested funding level provides tangible assistance to the border States within the context of a prudent Federal budget.

The remainder of the funds will be allocated for other important national safety initiatives, such as drug interdiction, industry and public education, advanced technologies, quality initiatives, risk assessments and peer exchanges of best practices. The specific amounts that will be provided for each initiative will be made in consultation with the States and will, to a great extent, depend on the degree that these initiatives can be absorbed into the basic MCSAP.

Question. Why shouldn't more of these monies go directly to the States?

Answer. We believe that a certain level of funding is needed each year to address the short term resource needs associated with the implementation of new national programs such as NAFTA and to develop and implement new programs that have the potential of improving the effectiveness of the overall MCSAP. As specific activities are fully developed, proven effective, and integrated into the States' basic MCSAP, the need for special funding for these activities diminishes. We believe that the funding scheme developed for fiscal year 1998 provides a good balance between the need to continue to maintain a basic core MCSAP program while allowing for new ways to make the program more efficient and effective.

Question. If you are providing so much more flexibility to the States, why shouldn't the Committee reduce the number of OMC personnel working on MCSAP?

Answer. The MCSAP is a national program that is managed in partnership with the States to reduce commercial motor vehicle crashes, fatalities, and injuries. The objective of the performance-based MCSAP program described in the Administration's reauthorization proposal is to allow States flexibility to achieve State safety objectives while meeting national goals of the MCSAP program. We believe that the partnership is most effective where Federal and State personnel work together to achieve national and State goals. OMC personnel provide a national perspective and leadership on national priorities, as well as providing technical assistance and guidance in achieving those goals. We believe the progress made by the States in reducing commercial motor vehicle crashes, fatalities, injuries and reducing the percentage of vehicles that are out of compliance with Federal Motor Carrier Safety Regulations speaks well of success of this partnership. Reductions in OMC staff would adversely affect the agency's ability to provide technical guidance to States and to facilitate exchange of program information among the States, reducing the overall effectiveness of the program.

In addition, OMC has initiated a national program of Peer Reviews designed to identify best commercial motor vehicle safety program practices of the States and share those with all other jurisdictions. The States have been very supportive of these reviews and we have found them to be an effective tool for technology transfer with and among the States.

The OMC field personnel also work with the States to encourage and assist with problem identification and to ensure coordination with other Federal safety programs, such as the Section 402 State and Community Grant program which is jointly administered by NHTSA and the FHWA. This coordination has led to increased leveraging of MCSAP and 402 projects to achieve synergism in State and Federal commercial vehicle and highway safety programs.

Question. Please specify the amounts and exactly how OMC used funds during fiscal year 1996 and fiscal year 1997 for judicial outreach purposes. What was accomplished as a result of these expenditures?

Answer. In fiscal year 1996, the FHWA entered into an interagency agreement for $100,000 with the National Highway Traffic Safety Administration (NHTSA) to revise and test the training course curricula developed for judges and prosecutors to provide regulatory and enforcement guidance. These course modules have been completed and distributed to State prosecutors in approximately 20 States, and about 150 judicial educators and judges have received the formal training module. In fiscal year 1997, the FHWA entered into a contractual agreement for $25,000 with the International Association of Chiefs of Police to revise and test the existing course curriculum for law enforcement personnel. The law enforcement module has been revised and will be pilot tested in July 1997. We expect law enforcement officials to receive formal training on commercial motor vehicle enforcement in fiscal year 1997, and each attendee will receive the course module.

The FHWA is currently seeking contract assistance to schedule and provide for the delivery of the training curricula to judges, prosecutors and police officers. Additional fiscal year 1997 funding for these course delivery activities is planned at about $100,000.

Also in fiscal year 1996, $150,000 was provided to the American Prosecutors Institute's National Traffic Law Center through an interagency agreement with NHTSA to develop a management plan and performance measures for the Judicial/Executive

Overview Program (JOP) presenters network support system. The network support system plan will be completed by the end of fiscal year 1997, and the first JOP presenters conference will be held. Approximately $200,000 in fiscal year 1997 funding will institutionalize the JOP presenters network support system, to be managed and delivered through a State, university or other non-Federal organization. The network support system will enable presenters to actively share experiences and information, ensure presenters are informed of current motor carrier safety issues such as CDL disqualification or hours of service and allow for measuring the impact and success of the JOP.

A special MCSAP grant was provided to the State of Indiana for $30,000 in fiscal year 1996 to develop and conduct seminars for all Indiana judges and prosecutors that adjudicate cases involving violations related to motor carrier safety.

Also in fiscal year 1997, $31,100 was provided to the International Association of Directors of Law Enforcement Standards and Training for delivery of two additional JOP presenters' courses in February and March 1997, achieving a total of 50 trained presenters (37 State and 13 Federal).

Question. How are you working with the States to improve their ability to design improved performance-based State Enforcement Plans and to measure progress towards goals? What tools and technical assistance are you providing?

Answer. The OMC continues to work to provide the States the information and tools necessary to develop and improve their Commercial Vehicles Safety Plans (CVSP), the term we now use to describe the State's annual commercial motor vehicle safety planning document. Initially, an orientation giving a broad overview of the performance-based program concept was provided during the National Grant Workshop in St. Louis. All participating MCSAP States were represented at the Workshop and had an opportunity to attend the orientation session. During and after the Workshop, we received numerous requests from the State participants to design a MCSAP specific "module". We are currently working to redesign the performance-based program material used in St. Louis to be more MCSAP specific. We also are developing a workbook which will be used as a "study guide" during a one-day workshop to be presented in four locations around the country between November 1997 and early Spring 1998. Upon completion, the workbook will serve as a model for preparing a CVSP. This workshop will be open to both State and Federal MCSAP managers. Also, a WEB site is being established and will be open to all State MCSAP administrators and their designees, as well as to OMC State program administrators. Letters have gone out to all participants who attended the St. Louis Workshop advising them of the WEB site. The interim report from the performance-based pilot States will be prepared and distributed to all States in July 1997 and the final report in January 1998. We also will be summarizing all States' fiscal year 1998 CVSP's and distributing that information in the Fall 1997. This will provide the States an opportunity to see how other States are developing and implementing their CVSP's. OMC will continue to work with our State partners to ensure that their needs related to performance-based plans and programs are met.

Question. Have you obligated the research funds appropriated last year to improve the inspection process (out-of-service criteria) and its risk basis? To whom? In what amounts and for which purposes?

Answer. Yes, the Office of Motor Carriers is considering a variety of activities to make appropriate use of risk assessment and risk management principals within its overall regulatory program. OMC has identified four initial risk-based initiatives that will enable OMC to allocate its resources to tasks with the greatest potential to improve public safety. These initiatives are as follows: Risk-based Evaluation of Commercial Vehicle Roadside Violations; Establishing Quality Measurements for Commercial Vehicle Safety Inspections; Hazardous Materials Risk Assessment; and Application of Risk Management within OMC.

Contractor	Purpose	Funding amount
MELE Associates	Establishing Quality Measurements for Commercial Vehicle Safety Inspection.	$90,000
CYCLA Corporation	Risk-Based Evaluation of CMV Roadside Violations	200,000
Contract Solicitation Pending	Hazardous Materials Risk Assessment	150,000
Contract Solicitation Pending	Application of Risk Management within OMC	60,000

Question. What has FHWA done during the last year to assess the quality and effectiveness of compliance reviews performed by the States? What measures of adequacy or performance do you maintain?

Answer. The OMC has developed a number of computer-generated management reports to be used by both Federal and State MCSAP personnel to monitor the quality and effectiveness of State-conducted compliance reviews. State personnel are provided the same training as the Federal staff at FHWA's National Training Center. In addition, the Office of Motor Carriers (OMC) field staff provide on-the-job training. The States work closely with their State OMC Division office in selecting carriers for review which helps ensure that resources are directed most efficiently and effectively. Compliance Reviews performed by State personnel, including the inspection of drivers' qualification files, records-of-duty-status, maintenance files, and other required documents, are periodically reviewed by the OMC Division office for accuracy, completeness, and timeliness.

Question. Why is it of critical importance that funding for the MCSAP be increased in fiscal year 1998? What is the quantitative basis for the amount?

Answer. Participants in the 1995 Truck and Bus Safety Summit identified increased quality and uniformity of State safety and enforcement programs as a top priority. The MCSAP is the only national-State program to address this problem. In many States, the level of MCSAP funds determines the amount of direct commercial motor vehicle enforcement and safety compliance activities conducted on the nation's highways. The $4,775,000 increase requested for MCSAP for fiscal year 1998 will enable the States to make significant progress in meeting their growing commercial vehicle safety needs. The additional funds will assist the States in moving toward a performance-based program. It will provide for increased traffic enforcement by MCSAP trained officers to target problem drivers in high crash locations. Additional funding will provide direct assistance to the border States for increased border patrols, training, safety equipment, and data collection to monitor and ensure carrier safety performance in the border zone.

While accident rates have generally declined over the last 10 years, last year nearly 5,000 people died in truck-related accidents. According to an estimate prepared for the American Trucking Associations, the number of over-the-road trucks on the highways is expected to increase by 13 percent and the number of truck miles traveled to increase by 29 percent by the year 2004. Further, the industry is highly competitive and there is much pressure for on-time and just-in-time delivery. This, coupled with projections for increased passenger car travel and highway congestion, indicates the need to improve, focus, and expand our Federal and State commercial vehicle safety programs.

Under MCSAP, all States are conducting uniform inspections and traffic enforcement and sharing safety performance data on motor carriers and drivers with the other States and FHWA. The MCSAP activities and the Federal safety program are integrated; all of the State and Federal safety activities and data sharing are interrelated and dependent on each other. The FHWA and the States are improving the MCSAP by relying on crash data and focusing safety activities on high-risk carriers and drivers and high-crash locations. The MCSAP has leveraged almost 2 million roadside inspections and 5,000 compliance reviews per year. The States are full partners in the national program. Further, the industry has benefited from MCSAP because all States now enforce the same minimum safety standards nationwide. Before MCSAP, as a truck traveled from State to State, it was held to varying State-by-State safety requirements and practices. The increase requested for MCSAP in fiscal year 1998 is a small investment in our partnership with the States to meet the growing demands for truck safety.

Question. How Many States are identifying the motor carrier whose driver received a traffic citation by placing the ICC or DOT number on the ticket? For those States that are conducting this activity, what is the extent of their participation in this process? Is it just the State Police?

Answer. To date, there are approximately 18 States identifying the motor carrier traffic citations. For fiscal year 1995 Congress mandated that not less than $300,000 should be used to encourage State agencies that are not now recording the USDOT number on the traffic tickets to do so. Through this initiative seven states, Illinois, Ohio, Wisconsin, Montana, Utah, Wyoming and New York received funds to accomplish this task. The States vary in what they have accomplished thus far as it relates to this effort. While some States used the funds to redesign and print their respective citations, others expended the funds to develop or purchase software and hardware to upload and analyze the citation data. In addition, some States recognize the need to train their enforcement officers to correctly identify the motor carrier and properly record the information on the citation and have proceeded with training activities.

In addition, the CVIS project has established an interest in collecting citation data as well as those States involved in Phase II of the Driver/Carrier Relationship project. Also, Connecticut, through self initiative, added the USDOT number to their

respective citations. Through the Driver/Carrier Relationship project experience, it was found that the USDOT or ICC number only was not sufficient to correctly identify the motor carrier. Not all of the states identify the carrier through the USDOT or ICC number but are successful by other means such as, carrier name, State number or combinations of data that provide a cross match with the USDOT number. Correct carrier identification on the traffic citation is critical in order to validate these records.

Although most of the CMV citations are generated by the State police agencies, there are some exceptions. For example, in the States of New York, Connecticut, Wyoming, Ohio, and Wisconsin, one agency controls the citations for all state and local agencies (e.g., in Connecticut the Central Citations Bureau is run by the State Judicial Department); therefore, institutionally, it is easier to make physical changes, i.e., adding data elements to the citation. However, it should be noted, that the issue of training all police officers in the correct identification of the motor carrier at the time of the event or violation, is still a major concern to both the OMC and the MCSAP lead agencies responsible for data integrity.

Question. What is the status of your efforts to encourage the States to adopt this procedure?

Answer. Phase I of the Driver/Carrier Relationship project determined that there is a relationship between the violations that a driver receives, and the carrier the driver is working for, and that violation rates differ substantially among carriers.

Phase II of the project was undertaken to revalidate Phase I result, determine if the difference in carrier violation history is associated with a difference in safety performance, and to identify appropriate measures for use in identifying potential problem carriers. The project goals were achieved.

There are a number of initiatives that continue to be explored regarding citation data collection including the CVIS project, and the SAFETYNET 2000 project. As a result of the Driver/Carrier Relationship project, the OMC will include a citation module in SAFETYNET 2000. However, issues such as what data should be collected, i.e., hazardous moving violations, size and weight violations still rank high on the list of concerns to the OMC and States who are familiar with the issue. OMC is currently planning a comprehensive strategy to examine the concerns relating to citations. For example, at a minimum what types of data should be captured to ensure value to all users. Other issues, such as training, continue to be of concern and interest and will be part of the strategy. In addition, the OMC continues to monitor the progress and ongoing activities in the areas of CVIS, and in the issues related to CDL.

For fiscal year 1995 Congress mandated that not less than $300,000 should be used to encourage State agencies that are not now recording the USDOT number on the traffic tickets to do so. Through this initiative seven states, Illinois, Ohio, Wisconsin, Montana, Utah, Wyoming and New York have received funds to accomplish this task. All of the aforementioned States are currently collecting citation data. Wisconsin, Ohio, Wyoming and New York are able to track and collect citation data for all agencies within the State. Most of the States are using the data for intrastate purposes such as identifying, problem carriers for audits, problem drivers, and carriers whom have a disproportionate number of overweight violations. However, although the States participating in this effort have accomplished a great deal, due to the complexity of this task, a phase in period is expected. The OMC continues to encourage and support those States in their respective activities and monitor their progress.

Finally, the OMC continues to move forward at a pace that will ensure all the issues are addressed, and continues to view the future collection of citation data being critical to the success of the MCSAP. As a result of the collective successes of the various projects such as CVIS, and increased interest by others, including the industry, the OMC continues to progress in this area with confidence only acquired through experience.

Question. We understand that FHWA has achieved some positive results from the research initiative originally sponsored by this committee on advanced brake measurement technology for MCSAP inspectors. Please summarize the results of this research and the extent of technology transfer, i.e. the number if states using this technology.

Answer. Data from the field testing of prototype performance-based brake testing technologies continues to be collected and analyzed by Battelle Memorial Institute. Battelle produced an interim report in December of 1995, and based upon the findings, along with field testing, user input, and technological advancements, upgrades were made to several devices and a new device was developed. Based upon this interim report, as well as additional research, development, and testing, the FHWA has issued policy memoranda making Nepean Roller Dynamometers, Hunter Flat-

Plate Testers, Hicklin Roller Dynamometers, and B & G Breakaway Torque Testers eligible under the MCSAP program for screening and sorting commercial motor vehicles for full inspections.

The final report on these devices will be presented to the FHWA in July of 1997. This report will contain evaluations of all devices utilized throughout the course of the project, including roller dynamometers, flat plate testers, torque testers, infrared technology, and decelerometers. Correlation of the results between joint inspections consisting of the brake and tire portion of a CVSA Level 1 inspection and a test performed on the prototype brake tester, will be presented.

Based upon results of the field tests, feedback from the manufacturers, users, and the Technical Work Group, draft specifications for performance-based brake testing technologies have been developed. In addition, the next phase of this project will be the development of performance-based standards for commercial motor vehicle braking performance.

West Virginia, Ohio, Connecticut, Maryland, Indiana, Colorado, Minnesota, Nevada, Wisconsin, and Oregon all have used at least one of these devices during the course of the project. In addition, several devices were loaned to carriers for their use and evaluation. Many of the devices used in this project were first generation brake testers and were prototypes. However, based on field experience and positive feedback from the users, funding was provided for upgrades on several of the devices and they continue to be used in the field. Currently, there are other interested parties looking into the use of brake testing technologies for various applications. The FHWA is exploring the possibility of offering these devices to these parties in an attempt to promote the technology and showcase the benefits to various stakeholders in the commercial motor vehicle community.

Question. Please discuss in detail the performance-based program now underway, tentative plans, results, expectations, and challenges. How do you propose to improve this during fiscal year 1998?

Answer. The performance-based MCSAP pilot is designed to work with States to instill additional analytic rigor to their resource allocation decisions in commercial motor vehicle safety. The intention is to improve data collection systems and data analysis to allow States to more clearly identify high crash locations and crash trend data and then to focus countermeasure development and resource allocation on those identified problems and locations. This data driven program is intended to direct resources to where the problems are and focus on outcomes, such as crash, injury, and fatality reductions; rather than program inputs such as number of vehicle inspections. We anticipate that States will continue to operate comprehensive commercial motor vehicle safety programs including roadside inspections, compliance reviews, traffic enforcement, and data collection but that program mix may change from year-to-year to reflect updated problem identification conducted by the States.

States submitted performance-based Commercial Motor Vehicle Safety Plans (CVSP) in the summer of fiscal year 1996. We expect to receive interim progress reports from all the pilot States in July. Since the programs have only been in place since October of 1996, we do not expect to be able to discern what activities are and are not working as relate to crash reduction at this early date. Preliminary discussions with pilot States indicate that they are having some problems in collecting and synthesizing all the data they need to perform State-wide problem identification. Additionally, some States are having difficulty establishing performance baselines for their existing programs as a means of measuring future progress.

The OMC is committed to continuing education efforts jointly with the States on performance-based programming. We will conduct a series of workshops this fall and spring of 1998 to assist States in preparing performance-based CVSP for fiscal year 1999. An interim report of the findings of the pilot will be compiled this summer and shared with all the States. In addition, we have established a web site on MCSAP performance-based programming for the States and, as a part of the workshops, will be distributing workbooks on developing performance-based CVSP's.

Question. How are you monitoring State adoption of the recommendations of the peer review study on out-of-service verification? What are you finding? How many States have adopted the various recommendations? Also respond similarly for the peer review on hours-of-service.

Answer. States are required to conduct out-of-service (OOS) verification activities including covert enforcement and report it in their yearly enforcement plan, now referred to as the Commercial Vehicle Safety Plan. OMC Division and Regional offices review these plans to insure that OOS verification is addressed.

A follow-up survey of the States was conducted in January 1996, by the University of South Carolina College of Criminal Justice to determine which verification strategies the States were currently using or considering. Forty-three States responded to the survey. The results of the survey demonstrated that States use, on

average, 19 different enforcement strategies outlined in the peer review on OOS verification. The States also reported that they plan to use or are considering using, on average, an additional 11 strategies. This is consistent with the overall recommendations of the National Peer Review for States to use a broad range of OOS verification programs in education, prevention, enforcement, sanctions, and carrier review strategies to ensure compliance. The broad range of initiatives in the categories indicates development, in accordance with the Peer Review recommendations, of a balance of efforts rather than concentrating narrowly on a few enforcement strategies. This survey demonstrates how States adjust the extent and scope of their verification activities to the extent and nature of its verification challenge. Further information on this survey can be found in the report "Covert Verification Enforcement Activities of Out-of-Service Commercial Motor Vehicles and Drivers" forwarded to the Subcommittee on Transportation and Related Agencies, Committee on Appropriations, dated August 9, 1996.

Recently the second peer review on "Hours-of-Service Compliance" was recently completed. It also identifies best practices found in roadside enforcement, compliance reviews, program management, training, data analysis, technology, and industry outreach. The report is in the final stages of preparation and will be shared with all the MCSAP agencies and other interested parties.

Question. How do you propose to measure the effectiveness and impacts of the Basic Motor Carrier Safety Grant Program?

Answer. The ultimate measurement of success of our national program is its overall impact in reducing crashes involving commercial motor vehicles and associated deaths, injuries and property damage. The OMC will use the State Commercial Vehicle Safety Plan (CVSP) evaluation results to measure the successes and challenges encountered by each State in implementing a performance-based program. In addition, the CVSP will be reviewed for the quality of the State problem identification, crash data trend analysis and State program performance baselines, proposed safety countermeasures, the implementation strategy, and the evaluation component to measure program changes. The CVSP's will also be evaluated to determine whether the appropriate mix of "core program" activities (roadside inspections, traffic enforcement, compliance reviews, education, public awareness and outreach) are selected and are addressing identified problems. We will continue to measure the success of the national program using crash data, inspection and out-of-service and compliance review results. We will also be monitoring the impact of increased traffic enforcement, training and other activities in achieving our ultimate goal of a crash free society. Our monitoring activities will also include the impact of MCSAP on successful implementation of NAFTA.

Question. Is it correct that approximately $1 million per year is spent to pay expenses for State officials to attend CVSA functions and to pay for the CVSA to conduct strategic planning and research on behalf of MCSAP? Please breakout in detail the amount and purposes for spending MCSAP funds on any activities related to CVSA. What products or benefits to the MCSAP resulted from these expenditures?

Answer. State officials attend the spring and fall CVSA meetings using basic funds and the cost varies with conference location and number of attendees from each State, which is determined by the member State. It would be safe to estimate that an average cost of attendance is $1,000 per person per meeting. No MCSAP funds have been given to the CVSA organization since 1994, except for partial funding of the "Guardian" newsletter. In fiscal year 1996, $25,558 of MCSAP training funds were used for this purpose and in fiscal year 1997, $18,000 has been allocated to assist with the publication of the newsletter. The OMC believes that this is a worthwhile effort because it allows direct communication on program issues, regulatory issues and other items of interest to State MCSAP managers, inspectors, troopers, MCSAP subagency participants, and other interested parties.

Question. What measures of success do you have regarding your "Top 10" project and how much do you plan on spending in fiscal year 1998 to extend this project? How much are you spending during fiscal year 1997?

Answer. The 10 State initiative offers an opportunity to have a positive impact on reducing fatal crashes involving commercial motor vehicles. Eight of the ten States showed a reduction in the number of fatal truck crashes in 1995 and seven showed a reduction in 1996. Key to this effort is the analysis of crash data to identify causes, characteristics, locations and other pertinent information concerning commercial motor vehicle crashes. This analysis will be used to guide strategic traffic enforcement and other crash countermeasure initiatives.

This is the second year of this 2-year effort and is an example of OMC's transition to performance based programs. In fiscal year 1997, $1 million in MCSAP funds is being applied to this effort. In addition to actual truck fatal crash activity, other measures of success include: expansion of partnerships to leverage efforts; identifica-

tion of new ways to reduce fatal crashes; development of specific crash countermeasures; and transitioning to performance based programs.

Building upon this effort, senior safety managers in DOT have discussed a joint agency focus beginning in fiscal year 1998 directed at the States with the most fatalities. This effort, "Partners for Safety: Targets of Opportunity", will build on the performance grant directions of the Section 402 Program and OMC's 10 State initiative to assist States in identifying their safety challenges and develop appropriate countermeasures that are performance based. As a joint effort, it would address various safety needs: motor carrier, passenger car, and infrastructure improvements. We plan to aggregate funding from FHWA and NHTSA in fiscal year 1998 for this effort. Thus, overall fiscal year 1998 funding will be above what OMC has provided in the past.

Question. Will the future MCSAP really be performance-based? Do you plan to reward those States that make more of a contribution to commercial vehicle safety than other States with additional MCSAP dollars? What is your initial thinking on the revision of Part 350?

Answer. The agency intends to establish a performance-based MCSAP program, based on available funding, that will offer true incentives to States to improve their safety performance. However, we recognize that we must retain a uniform and comprehensive national commercial motor vehicle enforcement program and ensure States have an adequate baseline of funding to maintain, at a minimum, existing levels of safety enforcement. We do not believe that an effective national program over the long-term can be realized if it rewards some States by lowering funding support for others. We anticipate that, for fiscal year 1998 and perhaps in fiscal year 1999, any incentive funds available will be distributed by formula to all the States. This will allow States transition time to put in place data analysis and program planning improvements necessary to implement a performance-based program. Secretary Slater has committed to working with our State partners in designing and implementing a performance-based program. This transition period will allow the agency and the States time to discuss how best to structure the incentive program. We will also be reviewing the performance-based pilot States' programs to identify successful elements that can be included in future rulemaking.

Question. During each of the last two years, what specific documents or training materials have you delivered to the judicial community regarding truck and bus safety regulations? Were materials specific to CDL and drug/alcohol testing for commercial drivers provided? How many meetings took place involving prosecutors or judges on these subjects during the last year? How much of your fiscal year 1997 and estimated fiscal year 1998 budget will be spent on this area?

Answer. The commercial motor vehicle (CMV) enforcement training curricula for judges, prosecutors and law enforcement personnel include a history of the Commercial Motor Vehicle Safety Act of 1986 and a review of the Act's objective to prevent CMV drivers from obtaining multiple licenses. In addition, the course curricula cover the following topics: (1) commercial driver's license (CDL) licensing standards and requirements; (2) serious and disqualifying traffic offenses, as defined in the Federal Motor Carrier Safety Regulations; (3) minimum qualification standards and knowledge and skills necessary to operate a CMV in interstate commerce; (4) CDL uniform sanctions for certain unsafe driving practices; (5) sanctions imposed for drivers who violate CDL drug and alcohol restrictions; and (6) the important role prosecutors and judges play in the adjudication of CMV offenses.

In fiscal year 1996, implementation of CMV enforcement training began with a course pilot test and presentation to State prosecutor coordinators, introducing them to the formal course module with emphasis on the importance of successfully prosecuting CMV alcohol and other serious traffic violations to the overall highway safety effort. A formal training course was held in April 1996 for State prosecutor coordinators representing 20 States. Discussions were conducted on CMV safety and drug and alcohol testing, and each of the 20 attendees received the enforcement training module. Attendees at the training are expected to offer this training to colleagues in their home States.

The formal enforcement training for judges began with the implementation of the training module in February 1996. Since that time, 15 State teams have attended faculty development workshops for judges on driving under the influence of drugs and alcohol, traffic safety cases and serious disqualifying violations under the CMV safety requirements. Each State team was composed of 10 members, primarily judges. Approximately 150 judicial faculty/trainers received the enforcement training and course module, viewed a teaching demonstration of the module, responded to pre- and post-tests regarding the module and received information on handling drug and alcohol testing and other commercial driver's license enforcement issues.

As with the prosecutor coordinators, participants are expected to offer the module to home State colleagues.

The International Association of Chiefs of Police have revised and will pilot test in July the course curriculum for law enforcement personnel. We expect law enforcement officials to receive formal training on CMV enforcement and receive the course module in fiscal year 1997.

In fiscal year 1997, a total of $125,000 is planned for the CMV enforcement training curricula activities, with $25,000 for the law enforcement curriculum revision and pilot testing and $100,000 for the delivery of this training to judges, prosecutors and law enforcement personnel. In fiscal year 1998, funding to continue support for the curricula delivery activities is planned for $50,000.

In addition to the formal course curricula, in fiscal year 1997 the International Association of Directors of Law Enforcement Standards and Training delivered two additional presenters' training courses to train State presenters in the delivery of basic commercial motor vehicle safety information to judicial and other high-level State executive audiences (court officials, prosecutors, legislators, etc.). Through presentations, these trained presenters will assure that judges and other State executives better understand the serious potential consequences of Federal Motor Carrier Safety Regulations violations and that these important partners effectively impact commercial motor vehicle safety through the administration of appropriate penalties and adjudication. The State presenters are the essential elements of a national Judicial/Executive Overview Program (JOP) network supported by a dynamic system of communications, presentation updates and annual conferences. While we are unable to quantify the number of meetings between JOP presenters and judges and prosecutors, we know from the outreach activities identified in State Enforcement Plans and from our interaction with presenters that such meetings are occurring.

Development of the presenters' support system through the American Prosecutors Institute's National Traffic Law Center continued, with a final plan and methods for measuring success to be completed in fiscal year 1997. The network support system, to be managed and delivered through a State, university or other non-Federal organization, will enable presenters to actively share experiences and information, ensure presenters are informed of current motor carrier safety issues, such as CDL disqualification or hours of service, and allow for measuring the impact and success of the JOP. In 1997, the JOP presenters network support system will be institutionalized and the first presenters conference will be held. We plan to spend about $231,000 in fiscal year 1997 and $262,000 in fiscal year 1998 to support the presenters network system.

Question. Please estimate the amount of MCSAP funds that is used for foreign travel.

Answer. Foreign travel using MCSAP funds is limited to State enforcement personnel traveling to Canada and Mexico pursuant to the adoption of various transportation-related provisions of NAFTA.

It is estimated that the amount of MCSAP funds used in fiscal year 1996 for foreign travel was less than $25,000.

Question. Please discuss mechanisms you are using to reduce MCSAP expenses for various annual and semiannual meetings.

Answer. The Office of Motor Carriers (OMC) conducts only those meetings absolutely necessary for the achievement of MCSAP goals. For instance, the Grants Management Conference recently held in St. Louis replaced regional MCSAP planning meetings ordinarily held each Spring, as well as the annual OMC State Program Managers' conference. In addition, the St. Louis conference provided the opportunity for OMC to present the new performance-based grant program to all MCSAP agencies at the same time. That conference was held in a "hub city," in a central location, and within government per diem rates. Also, the OMC will take advantage of Commercial Vehicle Safety Alliance conferences whenever possible to conduct further training and information exchange with State and Federal personnel.

Question. Please break out separately the fiscal year 1997 and the fiscal year 1996 contract or cooperative agreement costs of the International Inspector's Competition (Challenge).

Answer. In both fiscal year 1996 and 1997, the Challenge competition was funded through a MCSAP grant agreement with the State of South Carolina. In fiscal year 1997 the project was funded at $253,000 and in fiscal year 1996 at $290,000.

Question. Do you plan on terminating OMC financial support of the Challenge competition? If so, when and how?

Answer. Challenge is currently being funded at $253,000 through a MCSAP grant to the State of South Carolina. In the solicitation for the fiscal year 1997 Challenge

program, we required the offerors to provide a plan to achieve eventual self-sufficiency and to end direct Federal support. As a part of the contractor selection process, the State required the successful bidder to submit a plan for ending direct Federal financial support of Challenge within three to five years. The FHWA will continue to ensure that South Carolina's grant proposal for 1998 adheres to that plan.

Question. How many OMC personnel went to each of the last two Challenge events? What were the total travel costs for each year?

Answer. In fiscal year 1996 a total of 25 OMC personnel participated in the Challenge competition in Columbus, Ohio, of which 15 were in travel status at a total cost of approximately $15,000. In fiscal year 1995, 20 OMC personnel attended in New Orleans; again, 15 were in travel status for an approximate total cost of $15,000.

Question. Did you comply with the intent of Congress to limit Federal expenses for this competition? If so, how? If not, why not?

Answer. The Committee directed that in 1997 FHWA use no more than $100,000 of administrative takedown funds to finance the Challenge competition. In keeping with the Committee's directions as the FHWA understood them at the time, the FHWA chose to use no administrative takedown funds for Challenge in 1997, using the funds instead to support State-related training activities. Instead, funding for the Challenge competition ($253,000) was provided through a MCSAP grant to the State of South Carolina. As part of the contractor selection process, the State required that the successful bidder submit a plan for ending direct federal financial support of Challenge within three to five years. The FHWA will continue to ensure that South Carolina's grant proposal for 1998 adheres to that plan.

Question. What other discretionary projects are being funded during fiscal year 1997, at what funding levels, and with which monies? Include all projects under OMC control, e.g. that are not awarded according to the formula in Part 350.

Answer. The following chart shows the MCSAP discretionary projects being funded with fiscal year 1997 MCSAP funds:

1997 MCSAP FUNDS ALLOCATED (TO DATE)

State/agency	Amount/level dollars/percent	Purpose/category of funds
Int. Association of Directors of Law Enforcement. Standards & Training (IADLEST).	$31,100/100	Contract to conduct Judicial/Executive overview program presenters' training courses/MCSAP Reallocated funds.
Idaho	284,037/80	MCSAP training videos project/MCSAP reallocated funds.
South Dakota	108,529/80	Data entry personnel, computer equipment, and communications links for entrance into the national SAFETYNET/MCSAP reallocated funds.
New Mexico	100,000/80	Enhanced traffic enforcement program /MCSAP reallocated funds.
El Paso Intelligence Center	56,000/100	Contract to provide OMC's DIAP with real time analysis of drug trafficking/MCSAP DIAP funds.
Missouri	43,500/80	Crash investigation training and equipment/MCSAP supplemental incentive funds.
Wyoming	56,663/80	Compliance reviews/MCSAP supplemental incentive funds.
Nevada	111,600/80	Replacement inspection vehicle (NM has no fixed sites)/MCSAP supplemental incentive funds.
Oregon	94,725/80	Enhanced traffic enforcement/MCSAP supplemental incentive funds.
Louisiana	100,000/80	Pen-based computers, equipment/MCSAP reallocated funds.
Nevada	33,000/80	Pen-based computers/MCSAP reallocated funds.
Vermont	58,120/80	Performance-based pilot completion/MCSAP reallocated funds.
South Carolina	252,630/100	International Inspectors' Competition ''Challenge''/MCSAP R&D funds.
Nebraska	303,334/100	National ''NO ZONE'' campaign/MCSAP public education funds.
Vermont	12,480/80	Public education program/MCSAP public education funds.
West Virginia	4,000/80	Public education program/MCSAP public education funds.
Delaware	4,000/80	Public education program/MCSAP public education funds.
Tennessee	16,000/80	Public education program/MCSAP public education funds.
Kentucky	10,000/80	Public education program/MCSAP public education funds.
Louisiana	16,000/80	Public education program/MCSAP public education funds.
Iowa	20,000/80	Public education program/MCSAP public education funds.
Nebraska	39,600/80	Public education program/MCSAP public education funds.
Colorado	7,500/80	Public education program/MCSAP public education funds.

1997 MCSAP FUNDS ALLOCATED (TO DATE)—Continued

State/agency	Amount/level dollars/percent	Purpose/category of funds
Nevada	20,000/80	Public education program/MCSAP public education funds.
Oregon	12,400/80	Public education program/MCSAP public education funds.
Idaho	34,686/80	Public education program/MCSAP public education funds.
Arizona	375,000/80	NAFTA border enforcement/MCSAP border funds.
California	375,000/80	NAFTA border enforcement/MCSAP border funds.
New Mexico	375,000/80	NAFTA border enforcement/MCSAP border funds.
Texas	375,000/80	NAFTA border enforcement/MCSAP border funds.
49 States	1,834,000/100	Uniformity grants/MCSAP uniformity funds.
VOLPE	350,000/100	Contract for data service/MCSAP CVIS funds.
North Dakota (UGPTI)	125,000/100	Development of performance-based State CVSP's/MCSAP R&D funds.
Federation of Tax Administrators	488,842/100	Providing technical assistance, technology and equipment under section 4008 of ISTEA/MCSAP uniformity funds.
Iowa	1,000,000/100	CVIS/MCSAP CVIS funds.
Utah	48,236/100	Peer review among the Region 8 States to review enforcement and compliance reviews/MCSAP R&D funds.
27 States	1,550,000/80	Truck and bus crash data grants/MCSAP truck and bus crash data funds.
NHTSA	30,000/100	Continuation of research on brake inspection devices/MCSAP reallocated funds.
Ohio	35,000/100	Repairs for mobile inspection trailer/MCSAP R&D funds.
Maryland	100,000/100	Aggressive driving imaging and enforcement for the Capital Beltway program/MCSAP R&D funds.
U.S. Army Aberdeen Proving Ground	50,000/100	Contract for Maryland's aggressive Driver project/MCSAP reallocated funds.
Massachusetts	104,650/100	Support for MA training academy for Region 1 States/MCSAP reallocated funds.

Question. What discretionary MCSAP projects were funded during fiscal year 1996, at what funding levels, and with which monies?

Answer. The following chart shows the MCSAP discretionary projects funded with fiscal year 1996 MCSAP funds:

1996 MCSAP DISCRETIONARY ALLOCATIONS

State/agency	Amount/level dollars/percent	Purpose/category of funds
Alaska	$11,200/80	Traffic enforcement, radar equipment/MCSAP reallocated funds.
California	277,000/80	''Big Ten'' State, traffic enforcement, training, equipment, manuals/MCSAP reallocated funds.
Connecticut	90,568/80	Secondary State for MCSAP activities/MCSAP reallocated funds.
Colorado	83,776/80	CMV out-of-service repair verification/MCSAP reallocated funds.
Florida	162,000/80	''Big Ten'' State, traffic enforcement, NETS project/MCSAP reallocated funds.
Idaho	501,900/80	MCSAP videos, Secondary State for MCSAP activities/ITS technical work group/MCSAP reallocated funds.
Illinois	58,160/80	Load securement project/MCSAP reallocated funds.
Iowa	73,688/80	High crash corridors, training/MCSAP reallocated funds.
Kansas	75,000/80	Traffic program enhancements/MCSAP reallocated funds.
Maine	99,000/80	Pen-based computers, laptops for CRs/MCSAP reallocated funds.
Maryland	285,000/80	Aggressive driver project, SAFETYNET workshop, pen-based computers/MCSAP reallocated funds.
Massachusetts	20,000/80	Pen-based computers/MCSAP reallocated funds.
Minnesota	229,128/80	Pen-based computers, crash investigation module/MCSAP reallocated funds.
Mississippi	4,360/80	Bus ramps/MCSAP reallocated funds.
Missouri	271,113/80	Pen-based computers, traffic enforcement, NASI course development/MCSAP reallocated funds.

1996 MCSAP DISCRETIONARY ALLOCATIONS—Continued

State/agency	Amount/level dollars/percent	Purpose/category of funds
Nevada	39,435/80	Pen-based computers/MCSAP reallocated funds.
New Jersey	50,000/80	Bus inspections/MCSAP reallocated funds.
New York	60,384/80	Laptops, training/MCSAP reallocated funds.
Pennsylvania	26,106/80	Hours of service training/MCSAP reallocated funds.
Rhode Island	40,768/80	Traffic enforcement, off peak inspections/MCSAP reallocated funds.
South Carolina	19,200/80	Pen-based computers/MCSAP reallocated funds.
Utah	184,885/80	Intergovernmental staff support, OOS verification, SEMI Task Force project/MCSAP reallocated funds.
Vermont	88,000/80	Traffic enforcement/MCSAP reallocated funds.
Virginia	60,000/80	Pen-based computers/MCSAP reallocated funds.
Wyoming	27,984/80	HOS monitoring at ports, training/MCSAP reallocated funds.
VOLPE	325,000/100	Contract for data services/MCSAP CVIS funds.
Eugene Buth	24,000/100	Contract for development of cargo tank structural evaluation guidelines/MCSAP reallocated funds.
Arizona	222,704/80	NAFTA border enforcement/MCSAP border funds.
California	275,000/80	NAFTA border enforcement/MCSAP border funds.
New Mexico	251,240/80	NAFTA border enforcement/MCSAP border funds.
Texas	318,513/80	NAFTA border enforcement/MCSAP border funds.
Missouri	11,804/80	SAFETYNET workshop support/MCSAP reallocated funds.
South Carolina	290,000/100	''Challenge '96''/MCSAP reallocated funds.
Transportation Computer Center	225,000/100	Technical support for MCMIS data system/MCSAP CVIS funds.
John Sheridan	19,725/100	Contract on OOS Verification Peer Review/MCSAP reallocated funds.
47 States	2,951,000/100	Uniformity grants/MCSAP uniformity funds.
South Dakota	148,000/80	Data entry personnel, computer equipment, and communications links for entrance into the national SAFETYNET/MCSAP reallocated funds.
California	37,000/80	Intergovernmental Personnel Act staff/MCSAP reallocated funds.
Iowa	950,000/100	CVIS/MCSAP CVIS funds.
Minnesota	160,000/100	''NO ZONE'' name-the-character project/MCSAP public education funds.
IRP, Inc.	239,000/100	Support of section 4008 of ISTEA/MCSAP uniformity funds.
NGA	450,000/100	Support of section 4008 of ISTEA/MCSAP uniformity funds.
39 States	1,550,000/80	Truck and bus crash data grants/MCSAP truck and bus crash data funds.
5 States	5,736/80	Travel funds for ''Challenge '96''/MCSAP reallocated funds.
Missouri	100,000/80	DIAP/MCSAP DIAP funds.
New York	40,000/100	Activities of section 4008 of ISTEA/MCSAP uniformity funds.
Massachusetts	53,606/80	Compliance reviews/MCSAP supplemental incentive funds.
Wyoming	26,912/80	Compliance reviews/MCSAP supplemental incentive funds.
Colorado	70,386/80	CMV crash reduction in high crash corridors/MCSAP supplemental incentive funds.
Arizona	48,680/80	Pen-based computers/MCSAP supplemental incentive funds.
Alaska	23,320/80	Bus compliance reviews/MCSAP supplemental incentive funds.
Washington	60,000/80	Local agencies inspection compensation and log book/hours of service surveillance/MCSAP supplemental incentive funds.
11 States	320,000/80	Public education program/MCSAP public education funds.
Minnesota	350,000/100	National ''NO ZONE'' campaign/MCSAP public education funds.
Minnesota	38,178/100	Truck shows/MCSAP reallocated funds.
Massachusetts	150,000/100	Support for MA training academy for Region 1 States/MCSAP reallocated funds.
Michigan	20,000/100	Reproduction of public education videos/MCSAP reallocated funds.
El Paso Intelligence Center (EPIC)	37,334/100	Contract to provide OMC's DIAP with real time analysis of drug trafficking/MCSAP DIAP funds.
Montana	75,000/100	Evaluation of State Motor Carrier Safety Pilot on Region 8 States/MCSAP R&D funds.
North Dakota	58,000/100	Assessment of MCSAP's R&D efforts/MCSAP R&D funds.
Illinois	31,500/100	OOS tracking using NLETS/MCSAP R&D funds.
Alabama	10,831/80	CDL program improvements/MCSAP reallocated funds.
8 States	363,622/80	DIAP grants/MCSAP DIAP funds.

1996 MCSAP DISCRETIONARY ALLOCATIONS—Continued

State/agency	Amount/level dollars/percent	Purpose/category of funds
9 States	978,450/80	''Big Ten'' States to reduce fatal truck crashes/MCSAP reallocated and supplemental incentive funds.
Indiana	30,000/100	Develop and implement a Judicial/Executive outreach program/MCSAP R&D funds.
International Association of Chiefs of Police (IACP).	200,000/100	Contract with IACP on development and deployment of operational and technological strategies along the U.S.-Mexican border/MCSAP reallocated funds.
IFTA, Inc.	220,000/100	Support of section 4008 of ISTEA/MCSAP uniformity funds.
Delaware	400,000/100	Development of the out-of-service prototype system/MCSAP funds.
Minnesota	209,128/100	Model accident investigation and reconstruction program activities/MCSAP funds.
North Dakota	83,825/100	Contract with UGPTI to survey commercial vehicle drivers and State inspectors regarding their opinion of the MCSAP/MCSAP R&D funds.
NHTSA/NTLC	150,000/100	Contract to develop Judicial/Executive overview program network support/MCSAP reallocated funds.
U.S. Army Aberdeen Proving Ground	134,515/100	Development equipment for Maryland's Aggressive Driver Project/MCSAP reallocated funds.
Utah	262,919/100	National Peer Review on education and technical assistance for the trucking industry/MCSAP R&D funds.

Question. Which States received supplemental incentive grants during each of the last two years? For which purposes? In what amounts?

Answer. The following charts show the State, amount, and purpose for receiving 1996 and 1997 MCSAP funds:

1996 MCSAP SUPPLEMENTAL FUNDS

State	Amount	Purpose
Alaska	$23,320	Bus compliance reviews.
Arizona	48,680	Pen-based computers.
Colorado	70,386	CMV crash reduction in high crash corridors.
Illinois	100,000	''Big Ten'' State, traffic enforcement.
Massachusetts	53,606	Compliance reviews
Michigan	68,000	''Big Ten'' State, traffic enforcement.
New York	142,000	''Big Ten'' State, traffic enforcement.
North Carolina	100,000	''Big Ten'' State, traffic enforcement.
Ohio	125,000	''Big Ten'' State, traffic enforcement.
Pennsylvania	100,000	''Big Ten'' State, traffic enforcement.
Texas	118,450	''Big Ten'' State, traffic enforcement.
Washington	60,000	Inspection compensation to locals and log book/hours of service surveillance.
Wyoming	26,912	Compliance reviews.
1997 Data [1]		
Missouri	43,500	Crash investigation training, equipment.
Nevada	111,600	Replace 13-year-old inspection van (no fixed sites).
Oregon	94,725	Enhanced traffic enforcement.
Wyoming	56,663	Compliance reviews.

[1] The remaining funds are not yet allocated, however, the ''Big Ten'' States, the Maryland Beltway Project, and the Massachusetts Training Center are scheduled to receive funding from the supplemental funds.

Question. Please prepare a detailed breakdown on a project-by-project basis of the use and amounts of MCSAP administrative takedown funds for fiscal year 1996 and thus far during fiscal year 1997. Please explain why an increase is requested for fiscal year 1998.

Answer. The following charts show the project-by-project distribution of MCSAP administrative takedown funds and their use:

Description	*Amount*
Fiscal year 1996—($825,000):	
National Training Center	$668,460
Fleet Survey	5,945
MCSAP Grant Conference	93,169
Newsletters	35,558
Conference Registration	2,975
Administrative Equipment	18,893
Fiscal year 1997—($825,000):	
National Training Center	653,492
MCSAP Grant Conference	72,889
SAFETYNET 2000 Technical Work Group	20,000
Conference Registration	6,750
Administrative Equipment	5,947

An increase in MCSAP administrative takedown has been requested for State training and administration. These funds are used primarily to provide training to over 2,000 State enforcement officers each year. In fiscal year 1998, there will be a significant increase in demand for training to ensure uniform inspections, training in new inspection techniques involved with advanced technologies, and training in data collection and communications technologies. Uniformity and quality initiatives for the 8,000 North American inspectors through such mechanisms as newsletters and innovative training are also supported with this funding.

Question. OMC analysis shows that over 25 percent of fatal truck crashes are multi-vehicle truck crashes at intersections. In view of this evidence, what guidance is OMC providing to the States to target more of the traffic enforcement efforts of MCSAP at intersections? What are you doing to reduce angle-crashes and head-on crashes?

Answer. The OMC analysis mentioned here found that the overwhelming reason for these intersection crashes was driver error. In these cases, 31 percent of citations issued to truck drivers and 46 percent of citations issued to passenger car drivers were for failure to yield. Unlike crashes involving alcohol or excessive speed, which involve a degree of recklessness, these are often collisions involving fairly minor mistakes of driver judgment in situations that require split second decisions. One means to address this issue is the OMC national No-Zone and Share the Road campaigns that educate drivers, particularly passenger car drivers, about the unique operating characteristics of trucks, about truck blind spots, longer stopping distances, and the ways to safely operate on the highway around trucks. The OMC has recently initiated a move to a performance-based MCSAP program that seeks to work with States to assist them in collecting and analyzing their crash data and directing their accident countermeasures to where their crashes occur. As part of that effort, the OMC is working more closely with our colleagues in the Federal-Aid highway area to provide engineering expertise to States as part of their countermeasure development efforts. In some instances, intersection crashes may be due to design deficiencies where an engineering solution may serve to resolve much of the problem. The OMC believes that this performance-based approach to identifying high crash locations, plus more closely coordinated countermeasure development efforts with States by the FHWA and NHTSA will help to address much of this problem, including those presented by head-on and angle crashes.

Question. In Conference Report 104–286, $200,000 was provided to conduct a model accident investigation and reconstruction program. What is the design for this program? How will this project be conducted? By whom? What have been the results thus far?

Answer. The OMC awarded a contract to the Minnesota State Patrol to develop a Motor Carrier Crash Investigation course. The course focuses on instructing State police who investigate crashes involving commercial trucks and buses in techniques for identifying crash factors associated with trucks and buses and their drivers. Investigating truck brakes and driver log books are two examples of areas covered in the course. A short draft of the course was presented in 1996, first to two classes of Minnesota State Patrol officers, and then to officers from other States at the CVSA Challenge '96 in Columbus, Ohio. This year the complete, week-long draft of the course will be presented in June and July to officers from other States in two sessions held in St. Paul, Minnesota. After these sessions, the Minnesota State Patrol will make final revisions, and the course will be submitted to the OMC National Training Center for inclusion into its course listings. It is our hope that the course will become the standard for training police investigators in commercial vehicle and driver crash factors.

Question. Please update the discussion presented last year on the progress the States have made in using MCSAP dollars to further each of the following areas:

size and weight enforcement, drug interdiction, hazardous materials (Hazmat) training, collection of truck and bus accident data, commercial drivers license (CDL) enforcement, research and development, and public education.

Answer. In fiscal year 1997, $6.1 million was earmarked for these activities (except for size and weight enforcement). We are encouraging States to employ all elements of a comprehensive program in the development and implementation of their performance-based plans. A comprehensive program is one in which a State enacts and enforces compatible regulations which pertain to both interstate and intrastate transportation, and has a motor carrier safety program which includes roadside driver and vehicle inspections, compliance reviews, traffic enforcement, hazardous materials training, drug and alcohol enforcement, and a fully-implemented SAFETYNET program. We believe that when the States participate in a broad range of commercial vehicle safety programs focused on the highway safety problem in their State, highway safety is enhanced. Each year since fiscal year 1992, funds have been allocated to the States for these earmarked activities. Over 2 million inspections were conducted in fiscal year 1996, which included CDL checks and enforcement for drivers. Many States also conduct size and weight enforcement in conjunction with safety inspections but no additional funds are designated for this activity. This activity is funded from the States' basic grants.

Hazardous Materials.— We continue to see increases in hazardous materials compliance reviews conducted by the States. In fiscal year 1996, 977 hazardous materials compliance reviews were conducted, as compared with 709 conducted in fiscal year 1995. Additionally, 139,150 vehicle inspections, or nearly 7 percent of all inspections conducted in fiscal year 1996, were hazardous materials related.

Drug Interdiction.—As of June 13, 1997, 645 significant drug seizures from intransit commercial motor vehicle have been documented, totaling over 300,081 pounds of marijuana, over 106,000 pounds of cocaine, and $15 million in currency seizures. The Drug Interdiction Assistance Program was responsible for training of over 31,000 Federal, State and local officers in 48 States and Canada, relative to commercial motor vehicle drug trafficking trends and patterns.

Data Collection.—All States have made substantial progress toward full adoption of the National Governors' Association (NGA) data elements. Currently 36 States are uploading all 22 of the NGA crash data elements. All other States are uploading some of the NGA elements through the SAFETYNET accident module. For calendar year 1995 States uploaded reports of 95,025 trucks and buses involved in crashes. We believe this constitutes about two-thirds of the total vehicle crash reports that should have been uploaded. For 1996 States have so far uploaded reports of 96,868 trucks and buses involved in crashes, and many States are still uploading 1996 data. The deadline for uploading all 1996 data is July 1, 1997.

Research and Development.—Four research and development projects were approved for funding in fiscal year 1997. A Regional Peer Exchange on Compliance Reviews and enforcement will be conducted in one region to identify best practices. Another National Peer Exchange on Uniformity, as recommended by the Truck and Bus Safety Summit Issue Leaders Panel, will also be initiated this year. The cooperative technology project involving various State and Federal agencies and the Aberdeen Test Center to target aggressive driving behavior on the Capital Beltway will continue. These projects will also help the overall MCSAP be more responsive to both the national and State safety needs through increased use of technologies, data to evaluate program effectiveness, and identification and distribution of best practices from other States.

Public Education & Information.—In fiscal year 1996, the State of Minnesota replaced Maryland as the lead State responsible for creating and distributing No-Zone Campaign/Sharing the Road information. In fiscal year 1997, they continue the effort, initiated in 1994, to produce and distribute numerous public outreach materials including to date—four 30-second TV PSA's, five 30-second radio PSA's, and eight print PSA's. Media coverage of the "No-Zone" campaign has surpassed expectations and private industry support and acceptance has been overwhelming. Lead MCSAP agencies in twenty-two States have received public education grant funds to expand awareness of the No-Zone campaign by using existing artwork and materials to reproduce and distribute Sharing the Road safety messages. With partnerships an important aspect of the campaign, the States, in cooperation with FHWA, have entered into active relationships with numerous motor carriers to create the highly visible No-Zone Truck Decal Program. Dozens of approved carriers volunteered to place vivid No-Zone graphics on the sides and rear of their truck trailers. Currently, there are nearly 50 trailers with complete No-Zone decals and thousands with similar but smaller size decals. Participating carriers include United Parcel Service, Roadway Express, Werner Enterprises, Landstar Systems, Burlington Motor Carriers, Schneider National, Greyhound Bus Lines, and 3M Corporation.

State activities include reproducing and distributing No-Zone brochures, posters, driver education videos, initiating driver education programs containing existing campaign materials aimed at students and adults, and launching public relations efforts featuring leading State transportation and highway safety officials. As an example, a safety caravan of nine No-Zone trucks and one intercity bus completed a successful media tour throughout the Northeast as part of International Truck & Bus Safety Week, holding news conferences in Washington, Baltimore, Philadelphia, Boston and Long Island. Similar events were held throughout the United States.

A 24-month research study was initiated in October 1996 to improve the No-Zone public outreach campaign, which is intended to educate the motoring public about truck safety dynamics, and to coordinate similar non-Federal activities and identify any existing gaps and overlaps in this outreach area.

The State of Maryland continues to successfully manage the national public education outreach program, "Share the Road." MCSAP lead agencies in New York, Colorado, Texas, Nebraska, and North Carolina received special grants to further implement the national "Share the Road" program developed by Maryland. The funds will be used to distribute No-Zone campaign television and radio public service announcements, print brochures, posters, and other related materials, and hold educational No-Zone public demonstrations at truck stops, rest areas, and weigh stations. Minnesota administered the "Name the No-Zone Character" contest which generated much media attention and 6,000 high school student entries. Additionally, Colorado, Nebraska, New York, Georgia, and Ohio are also championing the No-Zone truck decal program, whereby carriers place graphic No-Zone campaign messages on truck trailers that bring these safety messages directly to the people on the highways.

Question. We now have more than four years of data on States conducting covert operations assessing the extent to which commercial drivers violate out-of-service orders. Please provide in tabular form the detailed data that the States submitted on covert operations conducted during fiscal year 1996 and compare these results with data previously submitted being certain to show totals for various inspection results for each year.

Answer.

FISCAL YEAR 1996 COVERT ACTIVITY

State and region	Number of vehicles/drivers first observed	Number of vehicles/drivers rechecked after leaving	Number of vehicles/drivers rechecked and still	Number of citations issued	Hours of covert verification activity
Region 1:					
Connecticut	290	29	20	20	261
Massachusetts	162	32	2	2	85
Maine	22	12	3	3	21
New Hampshire	37	10	.....	.....	40
New Jersey	135	36	.....	.....	581
New York	1,105	165	43	112	686
Rhode Island	66	17	0	.....	32
Vermont	13	3	2	2	34
Region 3:					
District of Columbia	173	63	.....	.....	169
Delaware	14	6	1	1	24
Maryland	165	8	8	8	423
Pennsylvania	1,135	467	23	46	635
Virginia	2,479	560	16	47	1,327
West Virginia	298	42	8	8	1,636
Region 4:					
Alabama	56	35	0	0	26
Florida	833	203	38	21	840
Georgia	105	39	33	1	181
Kentucky	384	287	7	2	1,291
Mississippi	107	1	1	1	139
North Carolina	685	51	24	1	2,872
South Carolina	1,612	162	.....	.....	919
Tennessee	199	92	18	5	162
Region 5:					
Illinois	369	33	1	(1)	388
Indiana	1,502	108	44	44	2,272
Michigan	204	44	3	1	174

FISCAL YEAR 1996 COVERT ACTIVITY—Continued

State and region	Number of vehicles/drivers first observed	Number of vehicles/drivers rechecked after leaving	Number of vehicles/drivers rechecked and still	Number of citations issued	Hours of covert verification activity
Minnesota	2				6
Ohio	248	48	7	7	613
Wisconsin	74	11	8	11	98
Region 6:					
Arkansas					([2])
Louisiana	436	138	15	17	1,022
New Mexico	90	41	6	6	180
Oklahoma	90	21	1		112
Texas	315	50	16	29	349
Region 7:					
Iowa	68	39	11	2	120
Kansas	1,152	134	11	1	878
Missouri	429	156	46	45	937
Nebraska	505	71	30	28	122
Region 8:					
Colorado	195	143	14	12	101
Montana	11	2	1	1	27
North Dakota	18	8	3	3	6
Utah	683	683	21	21	855
Wyoming	1,434	17	17	13	1,195
Region 9:					
Arizona	2,239	152	16	16	151
California	342	342	1	1	1,096
Hawaii	3	1			
Nevada	15	13	3	2	84
Region 10:					
Alaska	5	2	2	3	20
Idaho	74	1			145
Oregon	163	29	5	3	200
Washington	211	86	20	20	448
Total	20,952	4,693	549	566	23,983

[1] Arrested.
[2] FHWA was in negotiation with the State until September 1996 and the grant agreement was signed at that time. No covert activities were conducted by the State in fiscal year 1996.

Below is a summary of the activities submitted by the States on covert operations conducted during fiscal year 1996 compared with the results of covert activities in the State over the last 4 years.

Fiscal year	Number of vehicles/drivers placed out of service	Number of vehicles/drivers found in violation of OOS order	Percent of vehicles/drivers violating OOS order
1993	13,969	378	2.7
1994	8,516	381	4.5
1995	12,885	495	3.8
1996	20,952	549	2.6

Question. Please evaluate the importance and meaning of the results from the fiscal year 1996 covert operation projects. What insights were gained?

Answer. In the fall of 1995, using funds designated by Congress to be used for covert activities in addition to the covert activities the States had already planned as part of their basic program, the FHWA provided grants to the States to conduct a special covert data collection project. The States conducted a study to establish national and State baseline measures of compliance with driver and vehicle out-of-service (OOS) orders. Thirty-seven States participated in the special study, "The National OOS Compliance Report," and found that over 50 percent of vehicles and drivers corrected OOS defects and were reinspected before leaving the site. During the 3-month special project, there were a total of 109 (4.0 percent) drivers and 119 (4.3 percent) vehicles still in violation upon reinspection, an 8.3 percent violation rate. The total number of vehicles/drivers covertly observed was 2749. This is a signifi-

cant decrease from the violation rate of 20 percent found in fiscal year 1994 basic covert activities.

Under the rule implementing the MCSAP the States are required to conduct some covert activities to measure the effectiveness of their comprehensive enforcement strategy and to create a deterrence. These activities are conducted by the States in their basic program and reported on the MCSAP Quarterly Report. In fiscal year 1995, 12,885 vehicles/drivers were placed out of service, and 495 (3.8 percent) violated the OOS order. The number of vehicles/drivers placed out of service during fiscal year 1996 covert operations was 20,952, and of that number 549 (2.6 percent) drivers/vehicles were found in violation of the OOS order. fiscal year 1996 had the lowest percentage of violation in the last four years, even with the increased number of vehicles placed OOS during the covert operations.

The hours spent on covert verification in fiscal year 1996 (23,983 hours) increased by 58 percent over fiscal year 1995 (15,173 hours), yielding only 54 more violations than in fiscal year 1995.

Significant progress has been made in addressing out-of-service verification problem through implementation of the broad range of initiatives described in the 1996 report to the Chairman, Subcommittee on Transportation and Related Agencies, Committee on Appropriations. Covert operations are labor intensive, so we are particularly encouraged by the development and deployment of advanced technologies through the Intelligent Transportation Systems/Commercial Vehicle Operations program to address this issue.

Question. How many States are using ITS technology to deal with violators of out-of-service orders?

Answer. Currently, three States are using ITS technology to deal with out-of-service violators, with seven more in development.

Minnesota and Wisconsin are using technology in their MOOSE (MCSAP Out of Service Enforcement) project, and Idaho is utilizing an out-of-service verification system. Both of these projects incorporate license plate reader technologies in conjunction with optical character recognition engines in order to electronically digitize video images and data. Once digitized successfully, a transmission system relays the information to be matched against appropriate informational databases, and eventually stored for future use. In addition, the SAFER Data Mailbox project, currently set for implementation in July of 1997 and being conducted by the Eastern States Coalition [Delaware (lead), Virginia, Maryland, Pennsylvania, West Virginia, New Jersey, and New York], will allow for access to near real-time information on out-of-service violators through an electronic mailbox system.

Question. How many MCSAP States are using the FHWA-developed, hand-held pen based computer system that helps inspectors record safety data? Could you explain the various functions now performed by this system? How is this information system improving the effectiveness and efficiency of the MCSAP?

Answer. There are approximately 35 states, over 1500 inspectors, now using this system. Its principal current functions are: To use prior carrier safety data to prioritize vehicles and drivers for inspection; to connect to CDLIS to check the CDL license status of a driver; to positively identify the carrier and confirm the USDOT number; to guide the inspection process, record data including violations; to print a copy of the inspection; and to transmit an electronic inspection record to SAFETYNET.

This system is improving the effectiveness and efficiency of the MCSAP in several dimensions. Targeting of inspections based on past carrier safety has been shown to result in an out of service rate of targeted vehicles twice that of those not targeted. This means more effective focusing of inspection personnel. Improved timeliness and accuracy of data is also an outstanding improvement to MCSAP data. Inspections are easily transferred over telephone lines by the inspector to the State MCSAP office as often as desired, usually nightly. These inspections are in SAFETYNET the following day, as opposed to waiting for data entry which can now take upwards of a month depending on State backlogs. This also means major savings on data entry costs. Data accuracy is also improved because the pen unit is programmed to prompt the inspector with only correct entries (e.g., valid USDOT numbers and valid violation codes) and to detect errors right at the scene.

Most States are very eager to adopt this new technology and we expect it will be in nationwide use by all staff who do a significant number of inspections within very few years.

RESEARCH, DEVELOPMENT AND TECHNOLOGY TRANSFER

Question. FHWA's program to implement the products from the Strategic Highway Research Program (SHRP) has been in progress during the last five years.

What success is FHWA having in getting industry and States to use the SHRP products?

Answer. FHWA's success in facilitating the State's implementation of SHRP products has recently been documented in the findings of the "SHRP Assessment Project," where over 100 case studies were collected on how State and local agencies are using and benefitting from SHRP products. Virtually every state has employed one or more of the SHRP products or procedures and the RoadSavers cases studies from the assessment project detail their experiences. For example, about two-thirds of the State highway agencies planned to construct pavements using the Superpave mix design procedures during the 1996 construction season—further evidence of widespread implementation of SHRP technology.

FHWA's SHRP Implementation Program has encompassed numerous activities to expose and educate the State highway agencies about SHRP products in an effort to get the States to employ these new technologies to build more durable and safer roads. Technology transfer mechanisms have included presenting over 35 regional showcase workshops in the concrete and structures and highway operations areas; test and evaluation projects that provide opportunities for the states to try new equipment and test methods; pooled fund buys to help states purchase new equipment; providing technical assistance to the states through mobile laboratories, and providing training through FHWA's National Highway Institute. FHWA is also supporting the AASHTO Task Force on SHRP Implementation's Lead State Program—a program that encourages peer-to-peer exchanges of expertise in the SHRP technical areas.

In addition to working with the State highway agencies, FHWA has made a special effort to promote 17 of the SHRP products to local highway agencies. Training packages, SHRP publications, technical briefings, and exhibit equipment have been provided to the Local Technical Assistance Program (LTAP) Centers to assist local agencies to implement SHRP technology.

Question. In Senate Report 104–126, the Committee directed that no less than $1 million be available for a joint university/industry effort for researching the use of composite materials in pavements. Please specify exactly how these funds were spent by project, what the private matching funds were, and which university/industry partners were involved and what was accomplished?

Answer. As shown in Senate Report 104–126 in fiscal year 1995, there was a separate line item for Materials, Pavements and Structures. In fiscal year 1996, however, the Materials line item work was included under Structures and Pavements. The engineering properties of composite materials (i.e., fiber reinforced plastics [FRP]) along with the expensive nature of the FRP material results in the majority of applications being the repair and reconstruction of structures. Accordingly, the composite materials research funded with fiscal year 1996 funds was:

[In thousands of dollars]

FRP Prestressing for Highway Bridges-University of Wyoming and Penn State University	910
Fiber Reinforced Composite Hanger Cables-Cal State University at Long Beach	>100
Laboratory Staff and Grad Research Fellow Study at Turner-Fairbank Research Center	<50

In response to matching funds and university/industry partners in the composite research area, please be advised that there has been, and continues to be, significant participation. Universities involved include: Universities of California at San Diego, at Long Beach and at Berkeley, University of Maryland, Wyoming University, Penn State University, Catholic University, University of Delaware, West Virginia University, Georgia Tech, with several more universities active in related work where FHWA provides technical support. Major industry partners include: DuPont, XXSys, Hercules/Alliant, AMOCO, JMI, Mitsubishi, Toren, Hexcel-Fyfe, DuPont-Hardcore, Brunswick Technologies, and Strongwell Inc. Other Federal governmental agencies involved include: Advanced Research Projects Agency within the DOD, the National Institute of Standards and Technology's Advanced Technology Program, NASA's Marshall Space Flight Center and the U.S. Air Force at Wright-Patterson Air Force Base. Furthermore, several State Departments of Transportation (DOT) and associated research centers are coordinating with FHWA including: Texas Research Institute, Virginia Transportation Research Center, Cal Trans, DEL DOT, VDOT, SCDOT, WVDOT, GADOT, Ohio DOT, FDOT, SDDOT and KDOT. Cooperative funding includes the $10.5M from ARPA and similar matching from the private/public ACTT Consortium as well in kind materials and engineering

services amounting to hundreds of thousands of dollars. Our current fiscal year 1997 procurement actions include private section participation.

Question. FHWA is requesting funds to upgrade the HYSIM driving simulator located at the Turner-Fairbanks Laboratory. Please describe in detail the nature of these upgrades and how these will improve the fidelity and overall operational and research capability of HYSIM. Please breakout the use of these monies.

Answer. Upgrades to the HYSIM focus primarily on two critical systems; the visual system and the motion base/car cab. The complete visual system, which includes the image generator and the sign system centers on improving the realism and complexity of the simulated environment and increasing the field of view. By enhancing this system, more sophisticated images can be produced, including the ability to depict more realistic urban scenes and interactive traffic. These capabilities are critical to FHWA research in order to assess driver's performance in a number of scenarios and especially to gauge how drivers interact with other traffic.

The motion base is a new subsystem and will enhance the realism of the simulator and allow for greater fidelity for investigations that require specific driver maneuvers on various geometric configurations. In addition, the motion base will help reduce the risk of simulator sickness that is associated with an expanded field of view in fixed base systems. A new car cab will allow researchers to change the dashboard configuration via software; a more efficient method than developing and implementing various hardware configurations. This capability will allow for investigations of integrated ITS systems and multiple displays.

Question. What research for fiscal year 1998 does the FHWA expect to conduct on the upgraded HYSIM that cannot be conducted with the existing facility? Could this research be conducted on the NADS when it becomes available?

Answer. The HYSIM upgrade is proceeding in an incremental fashion to ensure the FHWA human factors research will continue (i.e., the new operating system and visual system will be installed, followed by the car cab and the motion base). A comprehensive research program to investigate highway safety and ITS issues has been developed for the HYSIM. Emphasis will be placed on investigations that address the new Intelligent-Vehicle Initiative (IVI), including the assessment of different in-vehicle displays, their location, and especially the integration of different types of driver information and modalities and driver maneuvers on various geometric configurations. These studies cannot be conducted on the current HYSIM due to the need for the reconfigurable dashboard for display experiments and the need for a motion base to fully test driver performance on different types of roadways and intersections. When testing driver information issues, comparisons between in-vehicle and roadway elements is important. The HYSIM includes the DYNASIGN system, which is unique to the HYSIM and offers the most realistic resolution of simulated signs in the country. It consists of a series of 35mm random-access slide projectors and zoom lenses with affiliated yaw mirrors that move both laterally and vertically to realistically depict signs in the simulator scenarios.

Due to the nature of the FHWA research with its emphasis on the integration of ITS systems and subsystems, multiple display locations, and especially signing issues, these studies are not suited for being conducted on the NADS.

Question. Please outline the total annual operating costs of the HYSIM for the last three fiscal years. Based on the number of hours that the facility was used to conduct research in the past year, what is its average hourly operating cost?

Answer. The annual costs for operating the HYSIM the past three fiscal years has been approximately $300,000 per year. The HYSIM was used virtually full time for conducting research, and typical tasks include programming and scenario set up, data collection, and data reduction. Based on these activities, the average hourly operating cost of the HYSIM has been $150.

Question. The Committee understands that the National Advanced Driving Simulator (NADS) which NHTSA is developing will have a fixed-base simulator module to supplement the main motion-based simulator. How do the technical capabilities of this fixed-base simulator compare with those of the upgraded HYSIM?

Answer. The NADS fixed based module's technical capabilities will be inferior to the upgraded HYSIM. Without motion capabilities, the NADS fixed base simulator will not provide the degree of fidelity needed to adequate simulate the cues drivers utilize, especially when performing turning, accelerating, and braking maneuvers on a variety of highway configurations. Therefore, the number and type of experiments and driving situations that can be conducted on the NADS fixed base simulator will be limited, when compared to the upgraded HYSIM. The lack of a motion base will also have the potential to increase the occurrence of simulator sickness, when compared to the motion based HYSIM. Furthermore, the NADS fixed base simulator (and the entire NADS) does not contain the DYNASIGN system.

Question. Would utilization of the NADS fixed-based simulator in lieu of HYSIM place any limitation on the type or quality of research that FHWA could conduct? Please describe the nature of these limitations.

Answer. Using a fixed base simulator in lieu of the upgraded, motion based HYSIM would severely limit both the type and the quality of research FHWA could conduct. The addition of the motion base to the HYSIM is being implemented to address a number of the weaknesses associated with fixed base simulation. One specific function being added to the HYSIM, with the inclusion of the three degree of freedom motion base, is the capability to conduct experiments on highway design induced motion, a critical and unique element of the FHWA research program. This emphasis on highway design issues is one of the major strengths of the upgraded HYSIM's capabilities, when compared to NADS. Finally, as mentioned above, the HYSIM's reconfigurable dashboard is essential for conducting ATIS research and the DYNASIGN system is an integral component of the simulator and FHWA's research.

Question. The NADS is expected to become operational in the spring of 1999. How does the FHWA plan to utilize the NADS facility, and does it plan to continue the HYSIM operation after the NADS is available?

Answer. The FHWA is planning on conducting research at NADS through its Office of Motor Carriers (OMC). The specific nature of OMC's research issues requires the use of NADS as a laboratory, not the HYSIM. The sophisticated vehicle dynamics of NADS will enable OMC researchers to address questions specific to the trucking community and truck driver population. The NADS motion base will provide 6 degrees of freedom and will be capable of simulating forces and angular rates associated with motions for the full range of truck driving maneuvers. FHWA plans to fully utilize the HYSIM in its research program. The HYSIM will include a software reconfigurable dashboard to optimize its utility to perform specific types of ITS research. There is sufficient need for motion based simulation in FHWA's research programs to keep the HYSIM and the NADS active.

Question. Please provide quantitative data to estimate the amount of cash and in-kind contributions received to assist the OTA program for each of the last three years.

Answer. The Office of Technology Applications has integrated partnerships into its programs to expand its capabilities and to leverage its resources. Overall, for the last three years the funds in the programs within the Technology Applications Program average 40 percent from those programs and 60 percent from other sources, either in funding or in-kind services; this translate to approximately $30 million leveraged by $45 million from other sources over the last 3 years.

OTA is active throughout it program to stimulate partnerships in the makeup of project media and in conducting the projects. The FHWA's National Priority Technologies Program (PTP) is an organized effort to encourage partnering. In the first year of the PTP, 1995, the 32 projects included 26 percent non-PTP funds; in 1996, the 52 projects included 52 percent non-PTP funds; and in 1997 of the projects approved so far, the percentage of non-PTP funds has jumped similarly, showing a clear trend toward increasing non-PTP funding for these projects.

In the Local Technical Assistance Program, the amount of leveraged resources varies from State to State, but integral to the program is the States' equal contribution to the Federal share up to $110,000 per center—the Native American tribal government regional centers are on 100 percent funding equally shared by FHWA and the Bureau of Indian Affairs. Many States, recognizing the value of the Centers to their rural and small urban roadway programs contribute additional funding from State funds or from the universities; resources are in both the form of funds and in-kind services. Overall, the leveraged amount has been approximately 44 percent FHWA and 56 percent non-Federal.

There are many examples of continuing FHWA collaborations to improve relevant technology, a goal central to the FHWA's work toward achieving the highest quality surface transportation system for the Nation. Specifically, the timely development and dissemination of improved technology to a well-trained highway community are essential to the fulfillment of such a system. FHWA is continuing to identify and enter into partnerships to significantly expand the effectiveness of the Technology Applications Program.

Question. The Priority Technologies Program is now in its third year. What types of projects are being conducted with this Federal investment? How has the program leveraged its costs to increase its effectiveness? How are the products being showcased?

Answer. The Priority Technologies Program (PTP) was initiated in fiscal year 1995 designed expressly to accelerate the deployment of new or innovative transportation technology by the successful testing and evaluation of technologies which

have high potential for bringing real benefits to transportation users. The program is unique in that the FHWA field offices have had the lead in establishing and operating the program. A team comprised entirely of field personnel developed the guidelines under which the program has operated.

Priority Technologies Program projects are focused on getting new technology "on the ground"—on closing the gap between the state-of-the-art and the state-of-practice. Through this program, State and local governments find support for implementing innovative technologies, construction materials, and procedures, in order to achieve results from application of the technologies and deliver expected user benefits.

Many different types of projects have resulted from the program. Examples include:

—*Pilot testing use of composite materials for replacing deteriorating concrete and corroding steel in our aging bridges*.—Composite materials promise lower-cost, quicker, longer-lasting, more corrosion-resistant and safer bridge repairs. (West Virginia, Utah, Idaho)

—*Installation of global positioning system (GPS) receivers in police cars for more accurate location of accident sites*.—GPS technology enables police to record more accurate accident data, more quickly, and assists in clearing the road expeditiously. (Delaware)

—*Centralized calibration of road roughness and ride quality*.—Ride data is an essential foundation for pavement management systems that help highway agencies manage maintenance activities more efficiently. (Massachusetts)

—*Application and performance testing of thin whitetop (Portland cement concrete) overlays*.—Whitetopping overlays can be a relatively inexpensive and quick method for restoring a smooth surface to rutted asphalt pavement. (Pennsylvania)

—*Video documentation of cathodic protection systems*.—Cathodic protection prevents bridge deterioration from chloride-based deicing chemicals. (Texas)

—*Assessing the environmental impacts of using industrial wastes in highway construction*.—Many industries could benefit by use of industrial wastes in road construction. It would reduce their disposal costs and provide an environmentally attractive alternative to landfill. (Indiana)

—*Development of an electronic miniature cone penotrometer for assessing pavement condition*.—Nondestructive pavement assessment technologies enable highway agencies to manage their pavement maintenance more efficiently. (Louisiana)

—*Evaluating a mechanical gang vibration system for bridge deck construction*.—Mechanical vibration is expected to produce higher quality and better-performing concrete than the hand-held vibrators traditionally used for consolidation of concrete in bridge decks. (Arkansas and Illinois)

—*Developing a Safety and Traveler Information System for rural Interstate highways*.—Information systems will provide travelers with up-to-the-minute information on road repair activities, weather, and traffic conditions, and warn them when they are driving too fast for current conditions. Studies have shown that providing accurate information can reduce driver frustration and aggressive behavior. (Iowa)

—*Retrofitting bridge columns with composite jackets to increase seismic safety*.—This rehabilitation technique promises to be a cost-effective and more efficient method for enhancing earthquake resistance. (California)

As with any new activity, there are always challenges and difficulties associated with PTP. Communication and making those in the field aware of the program and the opportunity for participation is of prime concern. The guidelines for the fiscal year 1997 program were officially distributed on November 14, 1996, to our field offices. This has been followed up by E-mails, personal contacts, and the program will be showcased at the upcoming field Research and Technology Conference in April.

The overall objective of showcasing activities will be to provide technical support to future implementers by sharing implementation experiences and results.

Marketing Plan.—A Marketing Plan is being prepared for each product of the PTP program as it comes on line, tailored to the primary customers for that product and the rest of the target audience. Every effort is made to reach primary customers through:

—Professional associations, meetings, and publications at the local, state, and national level; and/or

—Specially developed workshops or training courses.

Project Briefs.—Project briefs are prepared as each product comes on line. These briefs are used for outreach to trade and professional audiences through publications and at meetings and trade shows, and are made available on line.

Videotapes.—Many of the projects involving construction projects have been videotaped. Dissemination of videotapes, either directly or through training programs, will enable other highway professionals to become familiar with the material technology, construction activities, and early performance data.

—The South Dakota Department of Transportation, in partnership with 3M Corporation and the South Dakota School of Mines and Technology has produced a video describing their use of polyolefin fiber-reinforced concrete in a bridge deck replacement.

—The Iowa Department of Transportation has developed a video documenting their use of European snow maintenance technology.

—The Utah Department of Transportation developed a video on its composite wrappings project, and has hosted a technical workshop.

Web Pages.—Web pages are another popular way to publicize project results.

—Iowa State University has developed a web page for the low-cost travel demand modeling software that it developed for use by small city planning agencies. Users may record their comments on the software on the web page. The PTP Program as a whole also has a Web Page, which has been linked to the FHWA's Office of Technology Applications Web Page.

—The University of West Virginia has developed a web page on their composite bridge project.

CD/ROM.—CD/ROMS provide a useful format for interactive computer training.

—Purdue University has developed an interactive CD/ROM to showcase their project on evaluation of waste reuse using bioassay characterization.

Question. How does your fiscal year 1998 budget request related to this initiative? Will it be continued?

Answer. The Priority Technologies Program (PTP) is a model for the National Technology Deployment Initiatives that are a part of the Research and Technology Program in the administration's proposed National Economic Crossroads Transportation Efficiency Act (NEXTEA). As part of the emphasis on the Research and Technology Program, the Department is developing a program of National Technology Deployment Initiatives (NTDI). This will build upon the successes of several innovative Research and Technology initiatives conducted under the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, including the Applied Research and Technology Program Sec. 6005). The NEXTEA proposals will carry forward the central theme of increased implementation of innovative technologies through customer-driven focus areas, which was initiated under ISTEA. The program will focus on accelerating the implementation of technologies that will address a set of specific "customer-driven" technology goals.

This program will implement a range of tools to achieve the goals, especially including authorized funding and program incentives. NTDI program incentives being considered includes provisions to help overcome the barriers to implementation of new technology in the regular Federal-aid program (e.g., allowing the broader use of proprietary products.) The Department would develop strategies to address these goals, working closely with key public and private technology partners.

An underlying object of the program will be to "get projects on the ground." Funds from the NTDI are expected to be used by States and other implementation agencies to expand "real" world deployment. The Priority Technologies Program, funded with Section 6005 funds, has been extremely successful in this approach and we will build upon many of the lessons learned in PTP.

Question. Continuing implementation of the Superpave system for asphalt pavements appears to be one of the key areas in which FHWA is working directly with State DOT's and others to significantly improve performance. How is your implementation plan progressing, and what are some of the key issues for the future? How does your fiscal year 1998 budget request related to this initiative?

Answer. Based on a current survey conducted by the State DOT's 85 percent of the States plan to construct Superpave projects for 1997. Fifty Percent of the States will adopt Superpave Binder Specifications for 1997.

There are still many concerns in the highway community about to Superpave system. In some cases there is fundamental resistance to change. In other cases, there are technical concerns about an acceptable pavement performance test, or the cost to the highway construction industry—including the aggregate and asphalt industry—of complying with Superpave specifications, participating in materials testing, and designing and constructing Superpave projects.

Over the past few years, FHWA has taken the lead in refining and implementing the Superpave system including:

—Developing equipment specifications.

—Enabling States to use Federal-aid highway funds to buy Superpave equipment to use on projects.

—Refining binder specifications.
—Presenting hands-on training course around the country for State and industry personnel.
—Providing technical assistance to States using mobile labs.
—Establishing five SUPERPAVE regional centers for the testing and promotion of new pavement technology.

As the States use the specification and build pavements with the Superpave system new questions and concerns develop. It is anticipated that the DOT's will complete implemented the Superpave binder and mixture specification by 2005. The final System which includes prediction models for determining how a pavement will perform will be completed by 2007 with implementation by 2010. Until the full system is completed there will be many questions to answer on how Superpave will perform and with that much more work to do in implementation.

Representatives of States, industry, and academia continue to worked with FHWA in the refinement of Superpave. States and industry continue to participate actively with FHWA on the asphalt technical working group and other implementation teams. FHWA will continue to provide technical assistance to States and industry on how to best tailor implementation plans to fit local conditions and help respond to feedback on implementation.

Question. Please prepare a table comparing current contract funding for all R, D, and T functions with that proposed in the reauthorization bill.

Answer. The information is provided in the following table.

DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION RESEARCH AND TECHNOLOGY PROGRAM—CONTRACT AUTHORITY

[In thousands of dollars]

Contract authority	Fiscal years—						
	1997	1998	1999	2000	2001	2002	2003
Applied Research	41,000	.....	.....	.....	.....	.....	.....
National Technology Deployment Initiatives	.....	56,000	56,000	56,090	84,000	84,000	84,000
Technology Implementation and Professional Capacity Building:							
National Highway Institute	[1] [4,269]	8,000	8,000	8,000	14,000	14.000	14.000
University Transportation Centers	6,000	6,000	6,000	6,000	6,000	6,000	6,000
University Research Institutes	6,250	6,000	6,000	6,000	6,000	6,000	6,000
Eisenhower Fellowship Program	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Locol Technical Assistance Program:.							
Contract Authority	6,000	12,000	12,000	12,000	12,000	12,000	12,000
Limitation on General Operating Expenses	[2] [2,827]	.....	.....	.....	.....	.....	.....
Technology Implementation Partnerships	14,000	11,000	11,000	11,000	11,000	11,000	11,000
Subtotal	34,250	45,000	45,000	45,000	51,000	51,000	51,000
Long Term and Advanced Research:.							
Long-Term Pavement and Performance	6,000	15,000	15,000	15,000	15,000	15,000	15,090
Advanced Research	.....	10,000	10,000	10,000	20,000	20,000	20,000
Subtotal	6,000	25,000	25,000	25,000	35,000	35,000	35,000
Intelligent Transportation Systems:							
ITS Contract Authority	113,000	.....	.....	.....	.....	.....	.....
ITS Research and Technology transfer	.....	96,000	96,000	96,000	130,000	130,000	130,000
Total Contract Authority	194,250	222,000	222,000	222,000	300,000	300,000	300,000
Intelligent Transportation Systems: ITS Deployment Incentives	.....	100,000	100,000	100,000	100,000	100,000	100,000

[1] NHI is included in LGOE in fiscal year 1997.
[2] LTAP is included in LGOE in fiscal year 1997.

Question. The Local Technical Assistance Program (LTAP) is basically an outreach program to the highway community serving local governments. How have you responded to the Committee's directive to improve the LTAP centers? How are these centers contributing to the dissemination of increase information on highway and traffic safety? How did you convince the LTAP centers to undertake this mission? How has NHTSA assisted FHWA in this effort? How will efforts be continued during fiscal year 1998?

Answer. Considerable efforts and funding have been directed at improvements for the LTAP centers. Many new LTAP products are currently underdevelopment which will improve the centers' ability to train local agency personnel through better training materials and techniques. Some of the new products which are being completed this year include: A training package on improved training techniques and methods; Training packages on pavements including: Asphalt Rehabilitation, Asphalt Construction Inspection, Chip Seals, Gravel Roads, and Utility Cuts; Training packages on management systems including: Road Surface, Sign Inventory, Equipment Maintenance, Sidewalks, Curb, Gutter and Storm Drains, and Culvert and Drainage Systems; Training on tort liability, risk management, accident investigation, and giving depositions; Individualized training on motor grader operations; Training package on sign maintenance and installation; Training to develop new trainers on inspection of work zones; Individualized training on improved supervision; Training on handling transportation related hazardous materials by local agencies and recycling of waste products by local transportation agencies; Training course on wetlands requirements for local agencies; Development of a pedestrian road show package with NHTSA including a video; Training on the use of a motor grader with wings to plow snow.

In addition to the above packages, we have initiated efforts this year to develop new packages in the following subject areas: Traffic calming techniques; Road drainage systems; Traffic control for short-term and moving maintenance and construction work zones; Heavy equipment operator training programs; Highway incident and transportation emergency management; Air quality transportation planning; Traffic generation, access review and parking lot layout review; Models for in-class training in nine technical subject areas; Benefits of technology transfer.

We have also increased our funding of the LTAP Technology Transfer Clearinghouse and they have added a second person to improve their responsiveness to Center requests. The Clearinghouse video library and publication library continue to expand to provide additional resources for the LTAP centers' use.

We completed a consultant contract this past year which evaluated the SHRP products to identify and further promote those which were considered most applicable to local agency use. The sixteen products identified by the advisory board for this study were promoted to the LTAP centers through presentations, written articles for publication in LTAP Newsletters, demonstration projects and loan and purchase of new SHRP equipment. This effort was highly successful and many implementation opportunities were identified by local and LTAP participants.

Evidence of the gap between the state of the practice and the state of the art being narrowed for local agencies through the LTAP and the technology transfer centers is visible in the products being developed for the centers. In the past, efforts for LTAP products were directed at the more basic needs of local transportation agencies—such as how to patch a pothole or basic traffic engineering concepts. These more basic needs are still reflected somewhat in the above list of products being completed this year. The new list of products being initiated this year, however, suggests some very new and innovative activities and interests by the LTAP centers for their local constituents. Current transportation areas of interest such as traffic calming techniques, incident management, and air quality transportation planning demonstrate the LTAP centers have brought many of their customers through the basics and prepared them for consideration of more advanced transportation subjects. Other evidence of the closing gap could be inferred from the every increasing number of agencies listed on the LTAP centers mailing list and the increased attendance at training sessions conducted by the centers, both of which suggest a broadening of the LTAP audience. A broadened audience and updated training topics should lead to further closing of the gap between the state of the practice and state of the art for local agencies.

The LTAP centers have historically provided highway and traffic safety information to their constituencies through training, publications, videotapes and other means. In recent years, the centers have increased this effort, particularly as it relates to the programs of the National Highway Traffic Safety Administration (NHTSA). To encourage this relationships, centers have published articles in their newsletters detailing the Committee's interest in this relationship and reporting on some of these activities. In addition, representatives from NHTSA spoke about their

programs at the annual LTAP meeting (August 1996), which included representatives from virtually all of the LTAP centers.

The FHWA further promoted the relationship with NHTSA in its recently published Local Technical Assistance Program Field Manual. This publication is designed to provide a framework for technology transfer center operations within the broader context of the overall program. Its purpose is to present information and suggestions for designing efficient and comprehensive programs and activities.

Through its program to promote products from the Strategic Highway Research Program, FHWA has considerable success in LTAP centers using the highway and traffic safety products as well as support products to promote the use of the products. Products such as the stop/slow paddle, opposing traffic lane dividers, multi-directional barricade, all-terrain sign, and others were reported to have been used by a high number of centers. Similarly, the centers reported high use of the supporting products, such as publications, training packages, and promotion articles published in the centers' newsletters.

There are a number of ways through which the LTAP centers contribute to the dissemination of information on highway and traffic safety:

—They have expanded their existing customer base by adding on those identified by NHTSA's local Governors' Highway Safety Representatives (GHSR) and other contacts identified by the FHWA Office of Highway Safety.

—Their quarterly newsletters have provided feature articles on initiatives being undertaken by NHTSA and the FHWA Office of Highway Safety. The centers have included flyers and public service announcements on new safety information in their newsletters or, in some cases, distributed them separately.

—The centers have provided jointly sponsored workshops and circuit-rider on-site training for these initiatives particularly targeting, for example, the Safe Communities program. They included new workshops on highway safety information in their generalist "Roads Scholar" programs or created within this program a transportation safety specialist curriculum for those local communities that can dedicate an individual to become such a specialist.

—They have provided clearinghouse support both as depositories and sources for increased information on highway safety to local transportation agencies. Through their own networking, the centers have identified safety activities and initiatives being conducted by other centers for feedback and information on what programs and activities are proving successful.

—The centers have included as members of their advisory committees, participants from NHTSA's local GHSR's, FHWA Region and Division offices, as well as State DOT safety program specialists; members that can provide an assessment of needs for such information from the ground up and guide the centers on how best and in what form to provide the needed information to the locals.

The centers have historically provided training on highway safety issues, such as safety through work zones, as resources were available, in addition to national educational packages delivered by the centers. Local advisory committees help identify needs for training provided and center personnel make the advisory committee members aware of the availability and importance of highway safety information and training. Working jointly, they establish a program of training for the coming year and develop the content of their "Roads Scholar" programs. There has been no need to convince the LTAP centers to undertake the mission of safety training and promotion as they are well aware of the benefits of such efforts and needs of their customers in this area.

Question. Please discuss the relative allocation of ITS activities compared to non-ITS activities (or the more traditional FHWA R, D, and T program).

Answer. For fiscal year 1998, the budget requests $71.5 million for ITS R&D and Advanced Vehicle Control and Information Systems, $178.5 million for other ITS activities and $241.053 million for non-ITS activities. This allocation reflects the relative priority of the ITS program.

Question. FHWA is requesting roughly a $1 million increase for technology assessment and deployment. Why is this increase judged critical at this time in view of the substantial increases requested for related contract funds?

Answer. The vision of the FHWA is to "create the best transportation system in the world for the American people through proactive leadership, innovation and excellence in service." This vision has been advanced through a distinguished history of development, adaptation, and delivery of innovative technologies for the transportation community. The FHWA has operated the Technology Assessment and Deployment (TAD) Program as part of a complementary array of technology transfer programs in parallel with the growth of the overall FHWA Research and Development Program. To help fulfill the FHWA's vision its programs have evolved with a strong technology focus that will lead to "the best transportation system in the world." But

there is a recognized gap that must be closed in the technology available and accessible to the transportation community and in the professional knowledge within that community. The overall R&T program, including TAD and related programs, is designed to close the technology gap which exists between new technologies and the current state of the practice by introducing innovations and new technologies on the road, while at the same time pushing the state of the art to higher levels.

Each of the programs addresses closing the gap in a different way, for different technologies and different audiences. In the case of TAD, various approaches are taken to reach a largely State and industry audience—such as demonstration project mobile laboratories, technical assistance, videotapes, interactive programs, exhibits, and other media—covering the array of topics among highway technologies. The TAD program identifies and assesses innovative research results, technology, and products and promotes the application of those that are determined to be of potential benefit to the highway community through increased productivity, safety, and operational efficiency. The program includes efforts in the areas of roadway applications, structures and soils, safety and design, traffic and motor carrier, technology marketing, and technology operations. Related programs focus on select priority areas (such as in the National Technology Deployment Initiatives), use training as its primary medium (such as in the National Highway Institute), or focus on a precise audience that other programs don't fully reach (such as the Local Technical Assistance Program).

These programs are designed to complement each other in an effort to accelerate the adoption of innovations and new technologies and to close the knowledge gap in what is increasingly a technology driven transportation industry

Question. Please compare your actual GOE expenditures for each R&D and technology transfer activity against the amount actually appropriated for fiscal year 1995 and fiscal year 1996. Please indicate on a year-by-year basis the amount of carryover funds for each year by category.

Answer. The information is provided in the following table.

DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FISCAL YEAR 1995 CONTRACT PROGRAMS—FISCAL YEAR 1995

[In thousands of dollars]

Research, development, and technology transfer	Fiscal year				
	1995 enacted	1995 recissions	1995 enacted [1]	1995 obligations	1995 carryover
Highway Research Development and Technology	53,552,000	(8,030,000)	45,522,000	(44,842,727)	679,273
Intelligent Transportation Systems	114,500,000	(26,700,000)	87,800,000	(85,425,730)	2,374,270
Long-Term Pavement Performance	8,739,000	(220,000)	8,519,000	(8,519,000)	.....
Technical Assessment and Deployment	12,622,000	(1,000,000)	11,622,000	(10,526,007)	1,095,993
Local Technical Assistance Program	3,015,000	.....	3,015,000	(2,819,512)	195,488
National Highway Institute	4,369,000	.....	4,369,000	(4,325,239)	43,761
Rehabilitation of Turner Fairbanks	3,000,000	.....	3,000,000	(649,363)	2,350,637
Grand total	199,797,000	(35,950,000)	163,847,000	(157,107,578)	6,739,422

[1] Reflects fiscal year 1995 recessions.
Note.—Enacted funds are available for 3 fiscal years.

DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FISCAL YEAR 1995 CONTRACT PROGRAMS—FISCAL YEAR 1996

[In thousands of dollars]

Research, Development, and Technology Transfer activities	Fiscal year—		
	1995 carryover	1996 obligations	1996 carryover
Highway Research, Development and Technology	679,273	(652,973)	26,300
Intelligent Transportation Systems	2,374,270	(2,374,270)	.....
Long-Term Pavement Performance	.....	123,188	123,188
Technical Assessment and Deployment	1,095,993	(1,076,198)	19,795
Local Technical Assistance Program	195,488	(192,155)	3,332

DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FISCAL YEAR 1995 CONTRACT PROGRAMS—FISCAL YEAR 1996—Continued

[In thousands of dollars]

Research, Development, and Technology Transfer activities	Fiscal year—		
	1995 carryover	1996 obligations	1996 carryover
National Highway Institute	43,761	(43,761)	.....
Rehabilitation of Turner Fairbanks	2,350,637	(2,350,637)	.....
Total	6,739,427	(6,566,806)	172,616
Other	1,187,469	(1,091,259)	96,210
Grand total	7,926,891	(7,658,065)	268,826

Note.—Carryover funds are available until fiscal year 1997.

DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FISCAL YEAR 1996 CONTRACT PROGRAMS—FISCAL YEAR 1996

[In thousands of dollars]

Research, development, and technology transfer activities	Fiscal year				
	1996 enacted [1]	1996 recissions	1996 enacted [1]	1996 obligations	1996 unobligated
Highway Research Development and Technology	56,772,000	(1,303,000)	55,469,000	(52,851,387)	2,617,613
Intelligent Transportation Systems	109,779,000	(4,777,000)	105,002,000	(102,471,016)	2,530,984
Long-Tenm Pavement Performance	8,739,000	(431,000)	8,308,000	(8,090,190)	(217,810)
Technical Assessment and Deployment	12,622,000	(123,000)	12,499,000	2,498,410	590
Local Technical Assistance Program	3,015,000	(149,000)	2,866,000	2,865,886	114
National Highway Institute	4,369,000	(42,000)	4,327,000	(4,012,203)	314,797
Total	195,296,000	(6,825,000)	188,471,000	(182,789,092)	5,681,908
Other	.....	.....	12,975,000	(12,836,938)	138,062
Grand total	.....	.....	201,446,000	(195,626,030)	5,819,970

[1] Reflects fiscal year 1996 recessions.

Note.—Enacted funds are available for 3 fiscal years.

Question. Please discuss why such a large increase in funds for the National Highway Institute is requested.

Answer. Many reasons have contributed to the increased budget request. Listed are four of the main reasons:

1. Although the appropriated budget for NHI has traditionally been consistent at about $4 million per year, additional internal funds have been allocated to supplement the development and offering of training courses. In fiscal years 1995 and 1996, these additional funds amounted to $2 million and $3.8 million respectively. The funding source for the additional funds was the 6005 program which will lapse at the end of this fiscal year.

2. NHI's customer base, which mostly consists of public sector employees at all levels of government, is quickly and drastically changing. These agencies are downsizing and shifting their roles. As such, there is an increased demand for NHI courses to provide retraining of personnel and to augment their technical competence in other technical areas. In 1996, NHI trained 1,400 more students than in 1995, reaching a total audience of about 16,500 professionals.

3. Rapid changes in technology are now allowing for the training and education of personnel that would otherwise not attend NHI courses. Computer-based training, training through the Internet, satellite-based transmission, etc., are providing (just in time) training to people that cannot afford to travel or people that have extensive responsibilities that hamper their ability to be away from their offices for several days. NHI is actively pursuing the packaging of its training and education programs in a way that would not only maximize the targeted audience, but would

also gain access to the audience by using the most appropriate media. Also, what traditionally used to be a three-day course, say on Superpave technology, is now being offered as three separate training options: (1) a seminar for managers and decision makers that need to become conversant with the subject matter (to the extent that it influences budgets and policy); (2) engineers that will bring the technology to implementation; and (3) technicians who will have the overall responsibility for supporting and maintaining the technology once implemented.

4. Because of technological advances, research and development are yielding advanced technologies in a shorter time frame. For example, Intelligent Transportation Systems and Superpave have yielded new products and technologies in just a few years. As such, the cycle of training and education programs is much shorter and the quantity much larger, which requires NHI to invest accordingly. Training and education is an integral and critical component of facilitating and accelerating the field implementation of state-of-the-art technology.

Question. If fees for industry attendance at NHI were increased, could federal outlays be reduced?

Answer. Not in the foreseeable future. Over the last three years, attendance at NHI courses from the private sector has averaged 8 percent of the total, or approximately 1,250 participants per year. Most of the private sector attendees are instructed to attend by their public sector customers who find NHI fees very reasonable. If we were to raise the fee, we would expect a drop in attendance and minimal gain in net dollars.

Question. Please breakout in detail the fiscal year 1997 pavement research spending plan on a project-by-project basis and justify the fiscal year 1998 request considering the LTPP contract request. Also please specify how much is allocated towards exploratory research for fiscal year 1997.

Answer.

Projects included in fiscal year 1997 pavements R&D program

	Amount
Laboratory Support at TFHRC	$2,294,000
WesTrack	2,000,000
Waste Materials Study	2,000,000
LTPP Technical Assistance	1,986,000
TFHRC Management and Coordination	1,582,000
LTPP Regional Office (North Central)	1,566,000
LTPP Regional Office (North Atlantic)	1,500,000
LTPP Regional Office (Southern)	1,500,000
LTPP Regional Office (Western)	1,500,000
LTPP Pavement Distress Identification	1,500,000
LTPP Data Analysis	1,000,000
Superpave Support and Performance Models Management	1,000,000
Transportation Research Board Cooperative Agreement	910,000
LTPP Information Management System Technical Assistance	700,000
LTPP Incentive Funding	670,000
ADP Support Services for TFHRC	559,000
LTPP Laboratory Testing	555,000
Bragg Grating Fiber Optics	475,000
Support for the Pavement Testing Facility	400,000
LTPP Materials Reference Library	358,000
Support for the Asphalt Research and Technology Program	332,000
Validation of Performance Models for PCCP	315,000
Support of AASHTO Materials Reference Laboratory	305,000
Laboratory Support at TFHRC	283,000
Highway Concrete Technology	200,000
PCC Rheology and Workability	200,000
Concrete Protection, Rehabilitation, and Testing	200,000
Model of Combined Pavement Damage	200,000
Advanced Materials Model of Concrete Frost Resistance	165,000
Materials-Related Distress in PCCP	151,000
Innovative Pavement Repair	113,000
Support for Heavy Vehicle Research	111,000
Fast Track Paving	101,000
Agreement for CCMO Personnel	100,000
Concrete Mixture Optimization	94,000
LTPP Traffic Technical Assistance	80,000
Lab/Field Investigation of Performance-Related PCCP	72,000

	Amount
Study of Film Distress Surveys	65,000
Use of Waste Materials in Pavement Construction	63,000
Damage Due to Microcracking	63,000
Microwave Thermoreflectometry	60,000
Scanning Acoustic Microscope Study	57,000
Pavement Performance Data Collection and Processing	51,000
Distress Identification Calibration Workshop	50,000
Plasticity Model Testing and Support	47,000
Prediction of Asphalt Temperatures	40,000
Pavement Maintenance Effectiveness	38,000
Validation of Superpave Tests	28,000
Ultrasonic Investigation of Cement Rheology	28,000
Study to Investigate Pavement Roughness	27,000
Health-Related Aspects of CRM Asphalt	24,000
Graduate Research Fellow (Craig Miller)	21,000
LTPP Load Tests	18,000
Analysis of Acoustic Emission Moment Tensor	13,000
Conference on Nondestructive Characterization	10,000
Development and Compilation of Aggregate Database	10,000
Sponsor Fiber Optics Symposium	10,000
Temporary Assignment for Seishi Meiareshi	7,000
International Personnel Exchange (Dr. M. El-Gindy)	7,000
Sponsor Symposium on Hardened Cement Paste	5,000
Total	27,819,000

Note.—Projects totaling $1,000,000 from the above list are in the Exploratory (Advanced) Research area.

These projects are: Part of 1 (>$200,000), Part of 16 (>$50,000), 18, Part of 31 (>$20,000), 43, 44, 45, 48, 57, 58, 60, 63.

Funds available for pavements R&D program in fiscal year 1997:	
GOE Activity 13	$19,731,000
ISTEA 6001	6,088,000
ISTEA 6005	2,000,000
Total	27,819,000
Funding request for fiscal year 1998:	
Pavements R&D	$11,150,000
LTPP	15,000,000
Advanced research	2,000,000
Total	28,150,000

Notes.—1. The original request for Pavements R&D was $12,775,000. This was later reduced to $11,150,000.

2. The line item for Advanced Research is currently $10,000,000. It is assumed that approximately $2,000,000 of this amount will be made available for pavement-related activities.

There will be no significant change in pavement-related needs from fiscal year 1997 to fiscal year 1998. As a result, the total available funding level proposed for fiscal year 1998 pavement activities is consistent with the overall funding level that was available in fiscal year 1997.

Question. Please breakout in detail the fiscal year 1997 structures research spending plan on a project-by-project basis and explain why a substantial increase is requested for fiscal year 1998.

Answer. In the following information.

[In thousands of dollars]

Non-Destructive Evaluations (NDE)—Structures (8 studies)	1,580
Advanced Composite Materials—Bonded Structural Repair	1,500
Geotechnical:	
Foundations (10 projects)	730
National Geotech Data	149
Projects/Studies	562
Subtotal	1,441
Structures Lab Tech Support (4 contracts)	1,227
Composite Materials—Piles	800

Exploratory Research—12 studies including fractography and digital waveform for acoustic emissions, pattern recognition, neutron scattering techniques, and materials characterization	775
Alternative Bridge Paint/Coating Systems	600
Computer Support for R&D program	548
High Performance Steels for Bridge Construction and Bridge Design	500
Corrosion Inhibitors in Concrete	400
Hydraulics Lab Tech Support	350
Prediction Chloride Penetration in Concrete (BAA)	350
Williamsburg Bridge—Orthotopic Deck Study	300
Machine Shop—Materials/Equipment/Support	282
Scour Model Development and Studies (4 projects)	281
Interagency Agreements—Seismic, Tunnels, NDE, Fatigue, others	280
Graduate Research Fellows	263
Electrochemical Chloride Extraction	200
Research on I–15 Bridges in Utah	200
Develop Training Course on Bridge Paint Systems	200
Behavior of Thin Wall Concrete Box Sections	150
Aerodynamics Laboratory Tech Support	150
Development of an Embeddable Micro-Instrument	100
Knowledge Based Bridge Coatings System	100
Enhanced Technologies for Coating Durability Testing	100
Anti-Icing Study in Chicago	100
Other Studies, Cooperative Agreements, Small Purchases	434
Total	13,211

The budget for fiscal year 1997 is	13,211,000
The fiscal year 1998 requested budget is	15,256,000

In order to make the transportation infrastructure perform at a higher level, new and better technologies must be developed and implemented. Making Bridges Better using higher performing materials and methods offers an opportunity to significantly improve the life of our nation's bridges which will have economic advantages to both individuals (in terms of less delay, better safety, and convenience) and business (lower transportation costs, higher safety, faster delivery, etc.) Our fiscal year 1998 budget offers a prudent increase in Structures R&D aimed at accelerating some of this very high payoff research. Additionally, our engineers, scientists, and laboratories have served the country (and the world) in times of natural disasters—earthquakes, floods, wind storms, etc., with the highest level of analysis so as to assure the safety of bridges, structures, and highway pavements, slopes and embankments. Our scour detection work saved lives in the recent North Dakota flood. Funding for this on-demand service has in the past been ad hoc and taken from other projects which were then delayed. Some funds for this work are included in our fiscal year 1998 budget.

Question. Please quantify for each of the last two years the extent of cost sharing that FHWA obtained for the structures research program. What could you do to increase cost sharing? Which part of your research program received cost shared funds or in-kind services?

Answer. Cost sharing with other Federal agencies, State DOT, universities, and the private sector is a way we leverage our scarce research dollars. The cost sharing is in terms of pooled fund studies, donated materials, in-kind services, loaned equipment and facilities, use of State and other forces for items like traffic control, testing, collecting samples, etc., as well as joint funding.

In more recent years we have included within appropriate proposals and agreements opportunities for commercially available products with corresponding cost sharing. Our work in high performance steels, aluminum, composite materials and concrete; coatings; cost effective foundations; non-destructive evaluation; inspection systems; seismic; aerodynamic and hydraulic programs all benefitted from some form of cost sharing.

It is estimated that for fiscal year 1996 cost sharing in the range of 30–35 percent of our budget ($3.5 to $4.5M) was accomplished. For fiscal year 1997 the range is estimated to be 25–30 percent ($3 to $4M). Funding of several pooled fund projects may boost this figure in the remainder of fiscal year 1997.

The year to year budget and program changes make it difficult to develop longer term relationships that could more easily accommodate joint funding and cooperation. The start and stop nature of the yearly process discourages potential investors.

Question. Please quantify for each of the last two years the extent of cost sharing that FHWA obtained for the pavement research program. What could you do to increase cost sharing? Which part of your research program received cost shared funds or in-kind services?

Answer. In the following information.

Program area/type of service	1996 cost shared	1997 cost shared
LTPP Program As part of LTPP data collection activities the State DOT's provided FHWA with traffic control (personal, materials, and equipment)	$1,208,000	$1,340,000
LTPP Program State DOT's provided FHWA with material and traffic data, traffic equipment and maintenance of LTPP sites	600,000	600,000
Crumb Rubber Study EPA and other organizations are sharing the cost of the Crumb rubber study	500,000	500,000
WesTrack Program Truck Manufacturers have provided vehicles (trucks), parts, and supplies either free or at significantly reduced costs	400,000	400,000
WesTrack Program The companies and organizations which make up the research team at WesTrack are sharing the public information costs for the track	100,000	100,000
State highway agency, university, and private laboratories are using their own equipment and personnel in a joint operation with FHWA to evaluate how well various laboratory tests can predict the rutting performance	50,000	50,000
Pool Fund Study SPR–2(193) Traffic Monitoring State participation.		124,000
Pool Fund Study SPR–2(182) Traffic data editing		365,000
Pool Fund Study MinRoad	200,000	150,000
Pool Fund Study SPR–2(176) Validation of SHRP Mix Specifications Mix Specifications	200,000	200,000

Several other fiscal year 1997 cost shared projects from the exploratory (advanced) research area are:

Joint funding with NSF:

a. Impact Echo Technique (Cornell U.) FHWA = $63K NSF = $50K.

b. Fiber Optic Bridge Monitoring: (New Mexico State) FHWA = $52K NSF = $50K (New Mexico State DOT is also funding this).

State Pooled Fund Study on Aerial Robot FHWA = $214K States = $186K.

Scanning Acoustic Microscope (U. Hawaii) FHWA = $57K Hawaii = $38K.

Delayed Ettringite with T x DOT FHWA = $40K T x DOT = $100K.

FHWA will continue to aggressively seek outside participation wherever appropriate.

OFFICE OF HIGHWAY SAFETY (OHS) AND SAFETY R&D/TECHNOLOGY TRANSFER ACTIVITIES

Question. Please describe how the OHS activities help rural America.

Answer. OHS activities benefit Rural America in many ways. Among them:

Speed management.—Speed is a contributing factor in more than one-third of all fatal crashes. Rural roadways by their design are often less forgiving of driver error than urban roadways, and speeding compounds this problem. The OHS Speed Team has prepared a 5-year plan for the Department outlining research, engineering studies, enforcement initiatives, and other programs to reduce speeding.

Work Zone Safety.—More than half of all work zone fatalities occur in rural areas. The OHS Work Zone Team has a variety of safety initiatives to increase worker and traveler safety.

Improved roadway markings.—OHS has initiated rulemaking to encourage expanded and more effective use of pavement markings. Center lane and edge line markings are of proven safety benefit, especially on rural roads which tend to have narrower lane widths. Pavement edge markings in particular are useful when there is no ambient light, soft shoulders, or steep drop-offs; features often found on rural roads. The Federal Register Notice suggests making standard: center line markings on all rural arterials and collectors with a travel way of 18 feet or more in width with an average daily traffic of 1,000 or greater and edge line markings on rural collectors with a travel way 20 feet or more in width and where the edge of the travel way is not otherwise delineated.

Improved visibility.—OHS is developing, as part of the Manual for Uniform Traffic Control Devices (MUTCD) revision, guidelines for a minimum level of retroreflectivity for all pavement markings and signs on public roads. Such guidance will be of benefit to rural travelers who travel at night on unlit or poorly lit roads.

New signs.—Also as part of the MUTCD revision, a "Share the Road" sign has been developed to warn motorists to watch for slower forms of transportation such as farm machinery traveling along the highway. Local jurisdictions may now install this sign on their highways.

Intelligent Transportation Systems (ITS).—To ensure that rural safety issues are addressed, OHS staff serve on the Department's intermodal team on Advanced Rural Transportation Systems (ARTS), and staff has served as the DOT Secretary of the ITS America Rural Committee. ITS holds great promise to increase the safety of the rural traveler, through application of advanced hazard warning systems, weather advisories, lane tracking and other technologies designed to prevent run-off-the-road accidents, traveler information systems, and Mayday systems. The latter system is of special safety importance to rural travelers since a rural motorist can expect to wait twice as long for emergency medical assistance than an urban motorist.

Run-off-the-road accidents.—In 1998, OHS will begin a new emphasis area: single vehicle run-off -the-road accidents. This accident configuration is quite common in rural areas, and the countermeasures developed will benefit rural travelers.

Question. Please update us on the implementation of the OHS five-year strategic plan. What operational changes and new perspectives have resulted from implementing the strategic plan? When will you prepare your next plan? Which aspects of the plan are behind schedule or need to be modified based on your progress and experience?

Answer. The 5-Year Strategic Plan for the Office of Highway Safety (OHS) was submitted to the Congress in May 1995. Since the submittal of the plan, OHS has continued to address the goal and objectives stated in the plan. The OHS has focused on the implementation of safety management systems in each State, improved and expanded public outreach efforts to address various safety problems/issues, improved pedestrian safety and pedestrian access, improved understanding of speed and speed management issues, and a reduction of single vehicle crashes. A current major emphasis in OHS is the revision and update of the Manual on Uniform Traffic Control Devices which is due to be published in the year 2000. In addition, OHS is actively working with outside partners to implement our safety mission and with our DOT partners, NHTSA, FTA, and FRA to address common areas of interest.

Following the submittal of the strategic plan, OHS undertook a review of all ongoing safety initiatives (both team and non-team) and the level of effort involved in each of these initiatives. After the review, there were some modifications to the number of persons assigned to each of the teams, and discussions were initiated regarding continuation of some of the non-team activities and the level of effort devoted to these activities. The responsibilities for hazardous materials routing, formerly in OHS, were transferred to the Office of Motor Carriers. In recognition of the importance of data, and the criticality of data to all current team activities and future planning and evaluations, a new team was added to address safety data and information needs.

The Federal-aid part of FHWA has Safety as a strategic goal. OHS is leading the effort in developing performance and assessment plans in response to the Department's fiscal year 1999 Budget in accordance with the Government Performance and Results Act of 1993. The current Strategic Plan will be revised in that initiative. The performance plan, now under development, includes outcome goals, output goals, and performance indicators.

The 5-Year Strategic Plan did not contain a rigid time schedule, and several efforts mentioned in the plan have not yet been initiated. The establishment of a university-based safety training program for highway safety professionals to improve the quality of highway safety programs has not been initiated; but we have created a four-week training program on Safety Management Systems. Special safety programs for the elderly and special needs drivers has not yet been initiated, however guidelines to design highways with the elderly have been developed. Rotational assignments between FHWA and NHTSA have occurred mainly in the field. A Senior Management Safety Team has been established in headquarters and staff from each agency serve on the other agency's project teams.

Question. How much money are you spending in fiscal year 1997 and planned for fiscal year 1998 on work zone safety? Please provide exhaustive detail on current projects and their funding amounts and sources.

Answer. We expect to spend $445,762 in fiscal year 1997 and a planned $390,000 in fiscal year 1998. The dollar amounts shown above are for the completion of the

following two projects: the establishment of a national work zone safety information clearing house and the production of public outreach/education material for use in work zone safety media campaigns. The outreach pooled fund project was let in July of 1996 with in initial obligation of $250,000 of fiscal year 1996 Office Of Technology Applications (OTA) General Operating Expenses (GOE) funds. The project is scheduled for completion at the end of August 1997, with the delivery of contract items. An additional $145,762 of fiscal year 1997 OTA (GOE) funds were recently obligated to complete the contract work. It is estimated that another $50,000 of fiscal year 1998 OTA funds will be used for kicking off the campaign and making a distribution of the contract products (video and audio tapes of the PSA's and other hard copy products) per the individual state needs. Part of these costs will be covered by the contributions from the pooled fund participating states ($100,000).

The clearing house project has been advertized as a cooperative agreement with cost sharing. Applications have been received and an award is expected in July. The project is for three years with declining Federal support. The clearing house is to be self sustaining at that point. Initial funding of $300,000 will be obligated using fiscal year 1997 OTA funds. About $340,000 of fiscal year 1998 OTA funds will be obligated to cover next year's operating expenses. Approximately $150,000 of fiscal year 1999 funds may be needed to complete the project depending on the final negotiated cooperative agreement price.

The cost and source of providing the various work zone safety training courses for fiscal year 1998 are unknown at this time, although the presentations are usually funded through the National Highway Institute and off set by received fees.

Question. Please specify the progress made in implementing each of the items listed in the DOT Rail-Highway Grade Crossing Action Plan that were assigned to FHWA.

Answer. The FHWA is responsible for implementing 22 of the 55 individual elements of the 1994 DOT Rail-Highway Grade Crossing Action Plan. The FHWA has developed plans to implement each of the 22 assigned elements. Activities to date are as follows:

DOT RAIL-HIGHWAY CROSSING SAFETY ACTION PLAN STATUS OF FHWA IMPLEMENTATION PLAN—JUNE 11, 1997

1. Action element—commercial drivers license

The FHWA will work with the American Association of Motor Vehicle Administrators (AAMVA) to examine the need for rulemaking to make a grade crossing violation a "serious traffic violation" on a Commercial Drivers License (CDL).

Action to date.—The FHWA has discussed this issue with the AAMVA and is considering a possible rulemaking action later this year.

2. Action element—national highway system (NHS)

The FHWA will encourage that statewide and metropolitan organizations and safety management systems (SMS) address the upgrading or elimination of at-grade crossings on the NHS and give priority to the long-term goal of eliminating (through closure or grade separation) NHS intersections with Principal Rail Lines (PRL).

Action to date.—The FHWA will explore grade crossing design standards/performance criteria that may be developed for the NHS. In the interim, our division offices have been working closely with States and metropolitan planning organizations to ensure that grade crossing issues are considered in the planning process. They are encouraging the States to focus on eliminating crossings or installing active warning devices at NHS grade crossings, particularly at intersections with the PRL's. They are encouraging the States to incorporate the upgrading and elimination of NHS grade crossings under the umbrella of their Safety Management Systems; and several States have agreed to revise their prioritization procedures to give additional weight to crossing closure proposals. Additional guidance, "Safety Management Systems: Good Practices for Development and Implementation," was issued in a further effort to assist the States.

3. Action element—upgrade signing and marking

The FHWA will encourage States to increase the Conspicuity of signs and markings at grade crossings by promoting greater use of longer lasting, high-grade reflective materials.

Action to date.—A number of States are using Federal funds to upgrade rail-highway crossing warning signs by installing improved retroreflective materials. In many cases, the highly reflective material is being installed on both sides of the crossbuck sign and the sign's support post. This increases dramatically the conspicuity of these traffic control devices.

4. Action element—consider installation of STOP signs where warranted

The FHWA will encourage States to consider the installation of STOP signs at grade crossings where they are warranted. Guidance on STOP sign installation was issued in a July 8, 1993, joint memorandum from FHWA and FRA to their respective field offices.

Action to date.—Our division offices have discussed the use of STOP signs with the States, but many are reluctant to place them on State routes—especially on those that carry significant volumes of traffic. They are considering STOP signs where they are warranted and where they can be deployed without creating other safety problems. Most States have endorsed placing STOP signs at crossings on low-volume local roads.

5. Action element—incentives for crossing consolidation (bonuses)

Legislation will be proposed to allow Federal funds to be eligible for paying a bonus to a local community that would close a grade crossing.

Action to date.—Section 353 of the Department of Transportation Appropriation Bill of 1997 provided incentive payment to local governments for the permanent closure of grade crossings.

6. Action element—incentives for crossing consolidation (100 percent funding)

Legislation will be proposed that will allow 100 percent Federal funding for projects to close grade crossings.

Action to date.—Section 353 of the Department of Transportation Appropriation Bill of 1997 provided incentive payment to local governments for the permanent closure of grade crossings.

7. Action element—check list for corridor reviews

The FHWA, in coordination with FRA, will develop a "check list" of items to be considered in a corridor analysis of crossings.

Action to date.—The "check list" (now called the "Corridor Analysis Guide") was developed in coordination with FRA and distributed to our field offices in May 1995. Some States have incorporated the guide in their Safety Management Systems. The corridor concept has been generally well received by the States.

8. Action element—railroad-highway grade crossing handbook

The FHWA, in cooperation with other DOT agencies, will revise and update the 1986 issuance of the Railroad-Highway Grade Crossing Handbook.

Action to date.—A contract was awarded for revising the Handbook. The FHWA plans to complete distributing the updated Handbook by September 1998.

9. Action element—vegetation clearance

The FHWA will encourage States to incorporate in their Safety Management Systems guidelines to ensure that vegetation is continually cleared on highway rights-of-way at grade crossings.

Action to date.—FHWA field offices have discussed with State maintenance and operations personnel the need to establish maintenance practices to ensure that any obstructing vegetation is cleared from highway rights-of-way at crossings. All States have maintenance programs to keep vegetation under control. Clearance, however, is generally limited to the State's right-of-way, as most have no jurisdiction to enter private or railroad property for this purpose. Most States have included this item in diagnostic reviews as well as in Safety Management Systems.

10. Action element—corridor review participation

Legislation will be proposed to allow Federal funds to be used as an incentive to States that review crossings for improvement on a corridor basis rather than individually.

Action to date.—Section 353 of the Department of Transportation Appropriation Bill of 1997 provided incentive payment to local governments for the permanent closure of grade crossings. This should encourage jurisdictions to review crossings on a corridor basis.

11. Action element—distribution of funds

The FHWA, in cooperation with FRA, will initiate a study of the formulas used to apportion funds to the States for grade crossing improvements to determine if there may be a more equitable distribution formula, possibly including the number of crossings and accidents in each State.

Action to date.—The DOT reauthorization proposal included changes in the distribution of rail-highway crossing funds to the States. The proposed distribution would be based on the number of crashes at public grade crossings (25 percent), the

number of fatalities at public grade crossings (25 percent), the number of public grade crossings (25 percent), and on the number of public crossings with passive warning devices (25 percent).

12. Action element—on-guard notice

Publish and distribute to all 270,000 interstate motor carriers an On-Guard notice to alert the truck and bus industry to the danger at crossings.

Action to date.—This was completed in February 1996.

13. Action element—advisory bulletin

Send an advisory bulletin to the trade press about the danger of accidents at crossings.

Action to date.—This was done in February 1996.

14. Action element—public service print advertisements

Prepare public service print advertisements for the trade journals on truck and bus accidents at highway-rail crossings.

Action to date.—Print ads have been developed and distributed.

15. Action element—"Trucker-on-the-Train" program

Work with Amtrak, the American Trucking Associations (ATA), Brotherhood of Locomotive Engineers (BLE), OLI and FRA to create a "Trucker on the Train" program where motor carrier executives and drivers accompany train engineers on the engine of a train to view first hand dangerous highway-rail crossings.

Action to date.—A press conference was held in September 1996, at Washington's Union Station. The "kickoff" train ride was held on November 17, 1996, between Cleveland and Toledo. Other such events are being considered.

16. Action element—operation lifesaver (OLI)

Encourage OLI staff to meet with trucking companies and associations regarding the dangers at crossings.

Action to date.—Representatives from FHWA, FRA, OLI, Amtrak, railroads, etc. are meeting on a continuing basis with trucking companies and associations.

17. Action element—national safety organizations

Address the issue at meetings of national safety organizations such as the International Association of Chiefs of Police.

Action to date.—This issue is being included and will continue to be included in speeches to appropriate organizations. We supplied major amounts of editorial material to the National Safety Council (NSC) for inclusion in a widely distributed booklet, "Don't Gamble at the Tracks," aimed at professional drivers. The booklet was distributed by NSC in March 1995. In 1996, FHWA provided additional funds to Operation Lifesaver, which developed and distributed the training video for school bus drivers titled "The Responsibility Is Ours." A total of 600 videos was distributed, at no charge, to key education and pupil transportation groups in each State and the regional offices of each of the modal administrations.

18. Action element—on-site compliance reviews

Ensure that at on-site compliance reviews conducted by the Office of Motor Carriers (OMC) field staff and State personnel, the motor carrier is informed of the risks at highway-rail crossings.

Action to date.—A December 14, 1994, memorandum was issued to OMC Regional Directors instructing them to discuss this matter when carriers are contacted. Printed material outlining the risks at grade crossings is being provided to carriers during on-site visits.

19. Action element—operation lifesaver (OL) matching funds

Legislation will be proposed to provide additional Federal funding for Operation Lifesaver.

Action to date.—In June 1994, DOT submitted legislation to Congress relating to this issue but it was not enacted. Operation Lifesaver received an additional $100,000 in fiscal years 1995 and 1996. In the DOT reauthorization legislation, $300,000 is proposed annually.

20. Action element—signs and signals

The FHWA, in cooperation with FRA, will initiate conceptual studies of new highway rail crossing warning devices with the goal of providing additional information to motorists about whether there is an active or passive warning system at the crossing and information about the direction from which a train is approaching the crossing.

Action to date.—A contract has been awarded to develop signing that provides motorists cleaner and better information at grade crossings and to examine the use of regular highway traffic signals at grade crossings.

21. Action element—MUTCD

The FHWA will propose changes to the MUTCD pertaining to high-speed rail crossings, work zones, STOP signs, DOT/AAR Inventory numbers, and light rail.

Action to date.—A final rule that contains amendments to the MUTCD was published in the Federal Register in January 1997. A notice of proposed rulemaking addressing the issue of light rail will be published in July 1998.

22. Action element—national inventory

The FHWA will encourage States to incorporate in their Safety Management Systems means of ensuring that the DOT/AAR Inventory is updated on a systematic basis.

Action to date.—The FHWA field offices are encouraging States to incorporate in their Safety Management Systems means of a process for systematic updating of the highway data in the national grade crossing inventory. There have been problems getting update information from some highway agencies and railroads because of staffing shortages and competing priorities.

Question. Which action items have not yet been completed and what is the time schedule and approach for doing so?

Answer. Of the 22 action items assigned to FHWA from the 1994 DOT Rail-Highway Grade Crossing Action Plan, eight are still ongoing. A number of these action items are long term and are designed to reduce the number of fatalities at rail-highway grade crossings by 50 percent by the year 2004. The FHWA will continue to work with the other involved DOT agencies, the States, the railroad industry, Operation Lifesaver, and the enforcement community on all items in the Action Plan.

Question. How has FHWA responded to the results of its comprehensive national review of highway-rail crossing design and construction?

Answer. The results of the review of highway-rail crossing design and construction can be found in the March 1, 1996, report to the Secretary, "Accidents That Shouldn't Happen." It included a number of short-term and long-term recommendations.

Shortly after the report was issued, the FHWA Executive Director issued implementation guidance to FHWA field offices that addressed the short-term recommendations pertaining to interconnected signals and storage.

One of the long-term recommendations in the report called for the FHWA and FRA to convene a Technical Working Group (TWG) to review existing standards and guidelines and develop new ones, if appropriate, on several grade crossing safety issues. The TWG was established, consisting of representatives of agencies, professional organizations, and other groups that had knowledge and interest in assisting the U.S.DOT in improving railroad-highway grade crossing safety. The TWG held three formal meetings and addressed the following issues: terminology; interconnected signals and vehicle storage; high profile crossings; joint inspections; and training. The TWG made 35 recommendations in the June 1, 1997 report to the Secretary, "Implementation Report of the U.S.DOT Grade Crossing Safety Task Force".

The FHWA, in conjunction with the FRA where appropriate, continues to implement the recommendations from both reports.

Question. What were the major challenges that your grade crossing team dealt with during the last 12 months? What were the major accomplishments of this team?

Answer. The primary challenge addressed by the Rail-Highway Crossing Safety Team during the past year was to implement the recommendations contain in the Grade Crossing Safety Task Force's report to the Secretary in March 1996. This Task Force was established following the rail-highway crossing accident at Fox River Grove, Illinois, which involved a school bus and a commuter train and resulted in the deaths of seven students.

Among the noteworthy accomplishments of the U.S.DOT Task Force are: the convening of a Technical Working Group (TWG) that made 35 recommendations for standards, guidelines and other grade crossing safety issues; the identification of focal points to coordinate railroad safety issues in each State; the initiation of regional State/railroad conferences; and the creation of an advance warning sign for motorists approaching high-profile crossings. The TWG's accomplishments are: development of a common glossary for railroad and traffic engineers; development of an interconnected warning placard on controller cabinets; recommendations in the areas of interconnected signals, vehicles storage, joint-inspections, and high profile

crossings; and the submission of the Task Force Report to the Secretary of Transportation on May 28, 1997.

Question. How does each of the program areas proposed in your fiscal year 1998 program relate to the R&D needs identified by the TRB? Be certain to address how your fiscal year 1998 program addresses pedestrian and bicycle safety.

Answer. It is not certain what TRB identified R&D needs are being referred to TRB participated in the recent AASHTO effort to update their strategic highway safety plan/implementation plan. The Offices of Highway Safety (OHS) and Research and Development (HRD) were actively involved in this effort. The combined plan has just been drafted and will be circulated for comment to the responsible AASHTO committee and the individual participants involved in the effort. Therefore, the R&T needs are not yet finalized. TRB also funded an NCHRP study to develop a strategic plan for improving roadside safety. OHS and HRD are also involved in this effort. This study is also in final stages of drafting and will need to be circulated for comment and subsequent revision. Therefore, the R&T needs are again not finalized. From our involvement in both these efforts, thus being acquainted with what is being proposed, we feel that our currently planned fiscal year 1998 R&T program is relative to many of the AASHTO and TRB strategic plans' objectives.

The fiscal year 1998 R&D program includes a new High Priority Area (HPA) entitled, "Engineering Improvements for Enhanced Safety and Operations". This area includes four planned research projects for fiscal year 1998 that relate to pedestrian and bicycle safety. Additional ped/bike safety related projects are planned for future years. It should be noted that due to a lower level of fiscal year 1998 budget approval for Safety R&D than available in previous years, and the uncertainty of any supplemental funds until there is a Transportation Reauthorization Act, new starts in this new HPA may have to be delayed until fiscal year 1999.

As a result of the previous R&D HPA on "Pedestrian and Bicycle Safety", there are completed or soon to be completed research results that will be available for use in technology transfer and training activities starting in fiscal year 1998 and continuing into subsequent fiscal years.

Question. What are you doing to develop educational and outreach efforts to combat the problem of drivers running off the road? Please estimate fiscal year 1996, fiscal year 1997 and fiscal year 1998 funds allocated for this purpose and provide the funding sources of these monies.

Answer. Educational and outreach programs include training and technical assistance provided to both State and local officials. The Office of Highway Safety coordinated with the National Highway Institute (NHI) and the Office of Engineering in the development and implementation of several courses that address highway, roadway and operational design. These areas are three of the primary areas related to safety and can be used to reduce the number of run-off-the road crashes, or when these crashes do occur, significantly reduce the severity of the crash. The following training courses have, or are being, developed:

—"Design, Construction, and Maintenance of Highway Safety Features." This course was developed and is partially supported with FHWA funds from the NHI budget, and additional funds come from States requesting this training. The estimated cost of course development for fiscal year 1996 and fiscal year 1997 is approximately $150,000. The estimated cost for training activities for fiscal year 1997 is $25,000, and for fiscal year 1998 is $35,000.

—A new "Design and Operation of Safer Highways" course currently is in development. The course will be based on the new AASHTO guide on the same subject and will be available for training in late fiscal year 1998. The development and partial training funds will come from NHI and are approximately $20,000 for fiscal year 1997 and $100,000 for fiscal year 1998.

The Office of Highway Safety in coordination with the Offices of Engineering and Safety and Traffic Operations Research and Development has begun the process of recertification of safety appurtenances, such as guardrail, used on the roadside. These systems are being recertified or modified as safer hardware. They are required for use on new National Highway System projects after August 1998. It is anticipated that the safety appurtenances recertified under the new criteria (National Cooperative Highway Research Program Report 350) will reduce the severity of run-off-the-road crashes. The process of recertification and providing State and local agencies plans and details for this safety hardware cost approximately $80,000 in fiscal year 1996, $100,000 in fiscal year 1997 and will cost approximately $50,000 in fiscal year 1998. The funds being used to crash test existing and modified safety hardware are primary those allocated to Research and Development for testing and development.

The Office of Highway Safety has, and is continuing, to prepare technical guides and informational packages for local agencies that relate to safety improvements. These guides are designed to bring to the attention of local agencies design, and operational conditions that can result in run-off-the-road type accidents. The cost of preparation and distribution of these guides comes out of the budgets of the Offices of Highway Safety and Technology Applications. The estimated cost of providing this technical information to local officials using the Office of Technology Applications General Operating Expense funds was approximately $5,000 in fiscal year 1996 and will be approximately $15,000 and $25,000, respectively for fiscal year 1997 and fiscal year 1998.

Signs and markings are extremely important in keeping drivers on the roadway. They often convey important warnings about appropriate driving speed or warn of situations where a driver could have trouble maintaining their path on the highway. Currently, the Office of Highway Safety is involved with developing sign and pavement marking retroreflectivity guidelines. A Federal Register Notice will be published this fall for signs and in the fall of 1998 for pavement markings. This will improve nighttime visibility in adverse weather, on curves, and better delineate fixed objects. The estimated cost of providing this information to state and local officials as well as the public using the General Operating Expense funds was approximately $10,000 in fiscal year 1996 and will be approximately $10,000 and $10,000, respectively for fiscal year 1997 and fiscal year 1998.

In accordance with the 1993 DOT Appropriations Act, the FHWA is in the process of developing changes to the Manual on Uniform Traffic Control Devices for new centerline and edge line requirements for all roads and highways open to public travel. These new guidelines should provide better nighttime guidance on more highways and therefore improve safety. A Federal Register Notice was published August 2, 1996, for public comments and a final rule is scheduled to be published in the Federal Register Notice in the fall of 1997. The estimated cost of providing this information to state and local officials as well as the public using the General Operating Expense funds was approximately $10,000 in fiscal year 1996 and will be approximately $10,000 and $10,000, respectively for fiscal year 1997 and fiscal year 1998.

FHWA has made several presentations to national and local highways agencies concerning this rulemaking and the need for better nighttime visibility. In addition there is an Internet web page site for the public to make inquiries about traffic control device questions. In the near future, the OHS will have a website with the most frequently asked questions and the appropriate answers.

As a part of the 1991 Intermodal Surface Transportation Efficiency Act Section 6005, we are conducting an evaluation of all-weather pavement marking to determine the visibility, durability and safety impacts of several new pavement marking materials in various States in the country. There are presently 23 States participating in this program where testing and evaluation of over twelve different types of innovative pavement marking materials are being conducted. In addition, the FHWA has developed new technology—a mobile pavement marking retroreflectometer van (Laserlux) that effectively measures levels of retroreflectivity of pavement markings. This technology allows for the safe, fast, accurate and efficient measurement of pavement markings at highway speeds up to 55 miles per hour. We have also developed a Pavement Marking System (PMS) to reflect the status of pavement markings throughout a jurisdiction's roadway system. This new equipment and PMS system will assist highway agencies in managing their pavement markings on their roadways in a safer and more cost effective manner. Additional vans that were developed and equipped with this technology were demonstrated 64 times in several States nationwide to their traffic and pavement marking specialists. The estimated cost of conducting this technical information and evaluation program in various States using the Office of Technology Applications 6005 funds was $3.15 million in fiscal year 1994, $3.16 million in fiscal year 1995, $1.55 million in fiscal year 1996, and approximately $2.30 million in fiscal year 1997.

Question. What quantitative analysis has been conducted to determine the scope and nature of the problem of drivers failing to comply with yield right-of-way signs?

Answer. The existing data on the scope and nature of failure to yield right of way is outdated and inconclusive. An 1989, FHWA-sponsored research study—Motorist Compliance with Standard Traffic Control Devices (FHWA-RD–89–103), investigated the general area of traffic control compliance, including yield right-of-way. This study indicates that compliance with several traffic control devices—especially traffic signals, STOP signs, and speed limits—is considered to be a problem by law enforcement agencies, but did not rank compliance with yield signs as significant. It is difficult to determine the true extent of this problem through the Fatal Accident Reporting System (FARS) because FARS has two separate data reporting ele-

ments related to failure to yield. The first combines failure to comply with the actual Yield Right of Way sign along with all other traffic control devices; none of these are discrete elements that can be extracted for further analysis. The second data element refers to a driver failing to yield right of way, implying that this would include both signed and not signed instances of failing to yield. However, anecdotal information implies that failure to yield is a more serious traffic safety problem that has not been specifically identified and addressed.

Question. What is the scope and nature of your activities to address this highway problem?

Answer. The FHWA recognizes that the public's perception of the seriousness of traffic control devices has been diminishing, which led to the development and implementation of the successful national campaign against Red Light Running. Anecdotal information—coupled with the emerging phenomenon of aggressive driving—indicate that failure to yield right-of-way is also a cause of concern. As a preliminary step, this issue has been incorporated within the Read Your Road highway users manual and FHWA's interactive Highway Safety Kiosks. These kiosks engage users via a highway safety quiz, which includes sections relating to proper and safe driving behavior when merging in traffic and yielding right of way.

Question. Please specify funding amounts allocated or planned for this effort for each of the last two fiscal years and planned for fiscal year 1998.

Answer. Since other safety issues are addressed in both the Read Your Road partnership program and the interactive Highway Safety Kiosks, it is difficult to extract the amount of funding dedicated specifically to yield right of way and would be an extrapolation at best. However, the FHWA plans to budget $100,000 in fiscal year 1998 to include funds for focus group research targeted to yield right of way.

Question. In Conference Report 104–286, the conference agreement provides $8,768,000 for safety related R&D. The conferees directed that the total R&D safety activity be funded at a level of at least $12,768,000, including both ISTEA and appropriations authority. Please show the allocation of any ISTEA, Section 6005, and GOE funds used to implement this directive. Please show the amounts allocated to key safety projects.

Answer. The breakdown of R&D GOE funds and 6005 funds by safety High Priority Areas are as follows:

HPA's/Administration costs	Fiscal year 1996	
	GOE	6005
Advance traffic control devices	$300,000	$550,000
Highway safety information management	700,000	900,000
Interactive highway safety	1,600,000	250,000
Roadside safety hardware	1,200,000	300,000
Pedestrian and bicycle safety	1,900,000	.....
Human factors research	1,100,000	1,175,000
Supportive services:		
Safety design information	400,000	.....
Behavorial systems	700,000	825,000
Management and coordination	825,000	.....
Total	8,750,000	4,000,000

The total funds obligated for safety R&D equaled $12,750,000.

Question. In Conference Report 104–286, $1,000,000 was allocated to the Office of Highway Safety to support the Red Light Running Campaign and to increase compliance with yield right-of-way or grade crossings signs. What is the status of these efforts?

Answer. The Red Light Running (RLR) effort has been extremely successful, as evidenced by the tremendous amount of media interest in red light running in general and this program in particular. Despite the fact the RLR campaign is nearly two years old, there continue to be numerous print articles in major national journals, newspapers and magazines praising the program, as well as national television and radio features on red light running. The actual campaign is nearing completion with over 30 communities across the country implementing RLR programs. Thus far, summary reports indicate that public recognition of the seriousness of RLR is at 48 percent, RLR crashes have been reduced by 24 percent, and RLR citations have doubled in the communities participating in the campaign. In addition, RLR

communities have more than doubled the amount of funds dedicated to the RLR campaign, by securing over $2 million in private and local contributions—effectively leveraging the Federal funds dedicated to this serious traffic safety issue. We expect a final report on the national RLR campaign in Spring, 1998.

While there is anecdotal evidence that the RLR campaign has had a "spill over" effect on compliance with other traffic control devices (ie railroad grade crossings and yield right of way), in response to Conference Report 104–286, the FHWA developed additional safety outreach items that address both these issues. Among these is the development and planned distribution of Read Your Road (RYR), a comprehensive highway users manual filled with important roadway information which is designed for drivers of all ages. RYR includes information what to do at a rail-highway grade crossing, the meaning of yield right of way signs, and how to safely merge into traffic. Another is the development of the interactive Highway Safety Kiosks. These kiosks engage users via a highway safety quiz which includes sections relating to proper and safe driving behavior when approaching grade crossings, merging and yielding right of way. Currently, the FHWA has produced three kiosks, which have literally toured the country and been featured at national conferences, State Fairs and expositions.

Question. What new safety outreach campaigns are planned for fiscal year 1997 and fiscal year 1998? Please indicate funding amounts for each project.

Answer. The FHWA will continue to spend over $1,000,000 each year on highway safety outreach activities. In fiscal year 1997, OHS is focussing on the Read Your Road Partnership Program, in an effort to print and distribute RYR manuals to motorists across the country. In fiscal year 1998, FHWA intends to expand safety outreach to address run-off-the-road crashes and will develop a public information campaign directed at storage space at rail-highway grade crossings. Additionally, FHWA will continue its activity in work zone safety, with the development of public service announcements in late fiscal year 1997 and distribution in fiscal year 1998, subject to funding availability.

In response to the Committee's direction that the Office of Highway Safety (OHS) utilize advanced technology to expand safety outreach to the motoring public, pedestrians and bicyclists, the OHS has developed an Internet Home Page, with a comprehensive array of highway safety information that encompasses all OHS team activities, as well as special projects, programs and special initiatives. Planning for fiscal year 1998 includes enhancing existing home page information and converting information from the Highway Safety Kiosks to a CD-ROM format to allow for greater penetration and a reduction in shipping and handling costs associated with the large kiosks.

Activity	Fiscal years—	
	1997 estimated funding	1998 estimated funding
Read your road	$200,000	$50,000
Red light running	20,000	.....
Grade crossings	[2] 75,000	100,000
Work zones	[3] 270,000	[1] 285,000
Yield sign	.....	100,000
Single vehicle run-off-the-road	[1] 150,000	[1] 150,000
Pedestrian/bike	150,000	150,000
CD-Rom kiosk information	25,000	75,000
Training [4]	.....	250,000

[1] Includes funds for Training Activities.
[2] $75,000 was spent on grade crossing outreach activities in fiscal year 1996.
[3] $250,000 was spent on work zone safety outreach activities in fiscal year 1996.
[4] To be determined.

Question. When and how will you reorient the activities and projects funded by the safety R&D and OTA budget, to those which will have the greatest impact on reducing fatalities?

Answer. As part of the government-wide effort to comply with the Government Performance and Results Act (GPRA), the Office of Highway Safety has expended considerable effort to develop performance goals and strategies in conformance with the FHWA strategic plan. This effort has included identifying the safety needs of our partners and stakeholders through the use of focus groups. It also included di-

rect involvement in the two efforts for developing safety strategic plans—one by AASHTO and one by a TRB study for roadside safety. Although both are in the final stages of initial drafting they are not ready for publication yet. However, the process used in both cases made extensive use of using national experts in the various areas of highway safety to identify major problems and strategies that could impact the problems. Subsequently, the Safety Research and Technology Coordinating Group is using this valuable information to help direct future research and technology needs.

A recent review of a wide range of needs indicates that our R&T program has and is generally on target for meeting national R&T needs. Several R&D safety High Priority Areas (HPA) are in their final stages and outputs from this research will be the basis for technology transfer and training activities. A new planned HPA (engineering improvements for enhanced safety and operations) will contribute information for improving pedestrian and bicycle safety which is an area that has a significant percent of the total highway fatalities that occur yearly in the U.S. Other ongoing HPA areas (enhanced driver visibility, roadside safety hardware, interactive design model, and human factors) are and will provide information that will help reduce the number of single vehicle runoff-the-road accidents and also reduce the severity of the roadside crash when it does occur. This area is also a very significant part of the annual fatalities occurring on highways. There are a number of technology application and training courses that have been identified that will carry a greater focus on mitigating the run-off-the-road problem.

It should be noted that safety R&D funds may also be needed to fund needed research in the more traditional traffic operations area where their is usually a secondary impact of safety. This has been assigned to the Safety RTCG for consideration of funding. The bottom line is that safety R&D needs of about $14 million has been identified for the next several years if we are to meet identified national needs. Currently we are budget approved for $9.0 million which means a several year delay in advancing some projects.

Question. Is it correct that this is the second year in a row that FHWA has not requested funds for pedestrian R&D safety? Last year did you indicate that you would be proposing a major new initiative in this area in the fiscal year 1998 budget request?

Answer. It is true that no R&D funds for pedestrian/bicycle safety new starts were included in the budget request for fiscal year 1997. Due to the availability of fiscal year 1996 R&D funds and the importance assigned to the Ped/Bike Safety High Priority Area (HPA), not only were the planned fiscal year 1996 projects advanced, but the preplanned fiscal year 1997 projects were also advanced. Those essentially were the last projects planned under this HPA. Therefore, no additional pedestrian research projects were funded in fiscal year 1997. As noted in your second part of this question, a new HPA is scheduled to fully start in fiscal year 1998 with at least four of the projects directly impacting pedestrian safety problems and maybe two others having an indirect impact. The full implementation as planned for this HPA is subject to availability of sufficient fiscal year 1998 funds to start this HPA. On the Technology Applications side, several activities are planned for fiscal year 1998 and beyond to implement and use the information coming from the R&D projects.

Question. What are the performance measures or goals of your safety R&D and Technology Transfer Programs?

Answer. Since research and technology programs are primarily support for the program offices' functions, the safety R&D and Technology Transfer programs are being linked to the FHWA federal-aid safety measures and goals as developed by the OHS. Two of the Outcome goals for the FHWA federal-aid safety program are: improve safety management processes, including data collection and analysis and professional competencies, to better identify and resolve highway safety problems: and improvements in priority safety areas (run-off-road and pedestrian/bicycle). Although the present R&T programs are focusing on these goals and will continue to do so in even a more focused manner starting in fiscal year 1998, the fiscal year 1999 R&T programs will begin the formal integration of safety R&T and safety program goals/strategies and performance measures. The Safety RTCG will be working over the next several months to develop the "roadmap" for this full integration process.

PLANNING

Question. What are you doing to encourage the States to include the costs of highway operations and management in the planning process?

Answer. ISTEA emphasizes the management of the existing system and non-capital alternatives to maintaining system performance. We are encouraging through our policies, certification reviews, technical assistance, and training: (1) consider-

ation of operations and management strategies in the decision-process at the regional level; (2) improved coordination of operations and management activities at the regional level. We are also supporting those States and MPO's who are continuing their management system efforts and encouraging those who are considering implementing them. State programs and MPO plans and programs include prioritized financial plans, which address management and operations costs. Together, these activities support better operations and management of the existing highway system.

We currently have an emphasis in our reauthorization language on strengthening the current operations and management focus of enabling legislation. If adopted in NEXTEA, one of the goals of the transportation planning processes will be operations and management of the transportation system including strategic ITS services and sub-systems. This will support the building and operation of regional infrastructures (including ITS) over time within the context and forum of the traditional transportation planning process. In addition, fiscal constraint requirements that include operations and management elements will be incorporated into the State and MPO planning processes.

Question. What are you doing to increase the use of Geographical Information Systems in planning? Please delineate fiscal year 1996, fiscal year 1997, and planned fiscal year 1998 funding and activities in this area.

Answer. The FHWA supports and promotes Geographic Information Systems (GIS) as an essential analytical and presentation tool to support transportation planning and project development activities. In the current environment of shrinking staffs and funding resources, GIS is an efficient and effective means of integrating large amounts of data and information to support effective decision making in transportation planning as well as in other areas such as integrated information systems, sustainable development and early consideration of the environment in the planning process.

FHWA has a number of staff and research activities designed to promote the increased application of GIS at all levels of government (metropolitan, state and federal). The program consists of staff, applications research, and training and technical assistance activities.

Staff.—FHWA GIS Coordination.—FHWA has designated a national expert in GIS as the FHWA GIS Coordinator, who is responsible for maintaining a comprehensive knowledge of GIS activities at all levels of government and using this knowledge to promote GIS usage. FHWA participates in a large number of activities such as national and state conferences and committees, technical seminars and on-site technical assistance. The FHWA serves on the Federal Geographic Data Committee (FGDC), Ground Transportation Subcommittee, Transportation Research Board (TRB) Committee on State Transportation Data and Information Systems, TRB Task Force on GIS, TRB Committee on Computer Technology, and the AASHTO Task Force on GIS.

National Highway System (NHS) Activities.—GIS was used to develop the maps to support NHS legislation activities. The National Highway Planning Network (NHPN) was established and used to document the NHS. NHS promotion efforts, map production of the NHS, and use of this material in technical assistance activities increased the awareness and use of GIS in transportation.

Development of National GIS.—The FHWA is building upon the NHPN to develop a national GIS database by integrating data from the Highway Performance Monitoring System (HPMS) and the National Bridge Inventory (NBI). This effort has done a great deal to promote the use of GIS in planning by advancing scheduled individual state GIS implementation efforts.

R&T.—Applications.—FHWA promotes the use of GIS in transportation planning and project development activities by developing applications and case studies highlighting exemplary usage of the technology. Applications development and documentation is being pursued in areas such as NHS database development, freight flow analysis, traffic flow analysis, environmental impact assessment, application and testing of travel and land use models, sustainable development applications, intermodal decision support, facility management, and major investment studies. Funding for research to support these applications is:

Fiscal year:	
1996	$475,000
1997	610,000
1998	[1] 800,000

[1] Proposed.

T²—Training and Technical Assistance.—FHWA staff GIS expertise and the FHWA National GIS activity are utilized to provide training and technical assistance to customers and thus advance the state of the practice in both statewide and metropolitan GIS applications. FHWA supports the use of GIS through training courses, such as the "Application of GIS for Statewide Transportation" (NHI 15129) course. Current and future efforts focus on the integration of training modules into other courses (travel demand forecasting, freight planning) and further on-site technical assistance. FHWA also takes a very active leadership and participation role in the GIS-T Symposium, an annual GIS technology transfer forum. Funding for these activities is as follows:

Fiscal year:	
1996	$100,000
1997	85,000
1998	[1] 210,000

[1] Proposed.

Question. Please prepare a table showing the expected sums required for each of the next few years to bring TRANSIMS to completion, breaking out both FHWA and other funds. When will the FHWA support for TRANSIMS be substantially diminished?

Answer. FHWA anticipates completing the basic TRANSIMS core development by the year 2000. After completion FHWA will continue support for packaging and deploying TRANSIMS. There will also be a separate effort to include ITS capabilities within TRANSIMS. The cost of that effort is above the $25,200,000 core development cost. The expected remaining costs to complete the core TRANSIMS effort are outlined in the table below:

Fiscal year	TRANSIMS core development			ITS enhancement ITS funds [2]
	GOE funds	Contract funds	EPA funds	
1998	[1] $5,000,000	([1])	$250,000	$2,000,000
1999		$3,000,000	250,000	2,000,000
2000		2,000,000		2,000,000
2001		2,000,000		

[1] A total of $5,000,000 will be allocated to TRANSIMS. This will be a combination of GOE and contract funds. The exact distribution depends upon final budget allocation and ISTEA reauthorization.

[2] Funding for ITS development is a separate effort and is not included in the $25,200,000 for TRANSIMS core development.

We have not included contributions from FTA. We anticipate FTA will provide direct financial support to MPO's implementing TRANSIMS. In addition FHWA expects approximately $250,000 in funds from EPA each year. However, the decisions for this are made on a year by year basis by EPA depending upon funding availability; EPA may designate these funds for research other than TRANSIMS core development.

FHWA anticipates completion of the TRANSIMS core development by the year 2000. Additional funds will be required to package TRANSIMS in a user friendly format, provide technical assistance to users, and to provide seed money to support early applications. $2,000,000 in contract funds in fiscal year 2000 and fiscal year 2001 have been allocated to this activity. We anticipate that FHWA's support will decline after the year 2000 and will become part of FHWA's ongoing support for travel modeling after the year 2003.

Question. How much money was allocated to TRANSIMS during fiscal year 1995, fiscal year 1996, and fiscal year 1997, and planned for fiscal year 1998? Please breakout all FHWA monies, including GOE (including ITS), ISTEA, and Section 6005 monies spent on this activity, indicate the amounts of cost sharing received from other Federal agencies for this project. Please breakout in detail the specific activities funded with these monies.

Answer. The table below lists funds provided for the TRANSIMS core development, the basis for TRANSIMS operations. In fiscal year 1998, additional funds will be required to develop the ITS component of TRANSIMS.

The activities funded to date include identification of TRANSIMS design requirements to address Federal Legislative initiatives; interviews with MPO's to determine specific analytic needs; development of the cellular automata traffic microsimulator; development of the TRANSIMS core data handling capabilities including representation of networks, households, individuals and automobiles; identification of

approaches to air quality models, data sources to support air quality modeling, and contractor support for air quality modeling; and specification of activity analysis requirements and contracting with the National Institute of Statistical Sciences to support activity analysis.

In addition to the technical activities identified above, a field test on the traffic microsimulator was conducted in Dallas Texas. This field test included modification of existing highway networks to conform to TRANSIMS data structures, changing existing forecasting procedures to "emulate" portions of TRANSIMS not yet developed, and testing the procedures using available data.

The field test resulted in the successful development of the microsimulator and testing of alternative transportation policies which can not be evaluated by current methods. A video has been produced to document the results of the test.

Fiscal year	TRANSIMS core development				ITS enhancement ITS funds [1]	Total
	GOE funds	Contract funds	FTA funds	EPA funds		
1995	$1,673,832	$1,400,000	$500,000	$250,000		$3,823,832
1996	1,500,000	2,000,000	500,000	525,000		4,525,000
1997	2,000,000	2,000,000	([2])	[3] 375,000	$500,000	4,875,000
1998	[4] 5,000,000	([4])		250,000	2,000,000	7,250,000

[1] Funding for ITS development in TRANSIMS is a separate effort and is not included in the $25,200,000 for TRANSIMS core development.
[2] FTA has allocated $600,000 to Portland, Oregon to support the innovative transit planning aspects of TRANSIMS. A portion of this will be used by Portland and a portion contracted to the Los Alamos Laboratories, the TRANSIMS developers.
[3] These funds have been committed by EPA but have not yet been transferred.
[4] A total of $5,000,000 will be allocated to TRANSIMS. This will be a combination of GOE and contract funds. The exact distribution depends upon final budget allocation and ISTEA reauthorization.

Question. What are the remaining technological challenges and pilot testing needs to be addressed in the TRANSIMS?

Answer. The remaining technical challenges include selecting an activity based forecasting method and integrating it into the TRANSIMS architecture; specification of transit operations within the micro-simulator including fixed guideway, exclusive guideway and scheduled vehicles; including transit in trip planning and path finding; freight planning; and final specification and testing of the air quality module. In addition, extensive testing of these modules will be required to determine their sensitivity to changes in input data.

We are currently beginning the second pilot test in Portland, Oregon. This test will address the above technical challenges. We are also exploring the possibility of allowing universities to use early versions of TRANSIMS for testing and educational purposes. This will be at no cost to DOT, will provide additional field testing, and will train students who will then be able participate in the application of TRANSIMS when it becomes available on a broader basis.

Question. What did you do to seek additional non-DOT funds for the TRANSIMS? How successful were you? Please show all contributions for each of the last three years.

Answer. We have continued to seek additional funding from EPA. We have provided ongoing briefings and involved EPA staff in the management of the TRANSIMS development process. EPA has provided direct financial support to TRANSIMS. FTA provided funds to support the innovative transit planning aspects of TRANSIMS in the Portland, Oregon MPO.

In addition to direct financial support, TRANSIMS will draw on research currently funded by the National Institute of Statistical Sciences and the National Academy of Sciences. This research will greatly improve the activity forecasting and air quality components of TRANSIMS.

Fiscal year	EPA	FTA
1995	$250,000	$500,000
1996	525,000	500,000
1997	375,000	([1])

[1] FTA has allocated $600,000 to Portland, Oregon to support the innovative transit planning aspects of TRANSIMS. A portion of this will be used by Portland and a portion contracted to the Los Alamos Lab.

Question. What was the origin of the $4.25 million initiative requested on page 118? Which agency or entity proposed this concept?

Answer. The sustainability initiative was proposed by the Department of Transportation in recognition of the need to plan, design and operate transportation facilities and services in the context of the linkages among transportation and the other

factors defining the quality of life. These other factors include site-design and regional scale land use, all aspects of the environment and economic development.

Though originally conceived of by the Department of Transportation, the Environmental Protection Agency (EPA) and the Department of Housing and Urban Development (HUD) are being asked to participate as partners.

Question. Please break down the intended use of these funds and specify research versus pilot project amounts and likely request groups.

Answer. The Department's intent is to use the majority of funds for this initiative to benchmark current practices and develop case studies of best practices encompassing comprehensive planning of transportation, land-use, the environment, economic and community development, etc. The goal of this effort would be the identification and deployment of analytical and decision support tools for use by state, Metropolitan Planning Organization (MPO) and local officials in their respective planning processes. Primary among these tools would be methods to asses the impact on land-use of the full variety of transportation investment, management and operations strategies, and the impact of site and transportation design features (e.g., street widths and topology, on-street parking, building set-backs, pedestrian amenities, etc.) on travel demand. A small portion of these funds would be used for consensus building activities such as conferences, workshops and other types of outreach activities.

Question. Did the Research and Technology Coordinating Council (RTCC) or the Research and Technology Executive Board (RTEB) critically review the proposal?

Answer. As is the case for all major FHWA R&T activities, the Sustainability Initiative was presented to the RTEB for their critical review.

Question. Why is FHWA proposing this? Will this work also be partly conducted by EPA? Why isn't this being partly funded by HUD?

Answer. The Department in general and FHWA in particular are interested in this subject because we believe that comprehensive planning is the only way to get the maximum benefit from increasingly precious transportation investment and operating funds. For example, we can no longer afford to make investments in new highway facilities that cannot be safely and effectively used to their full people and goods moving design capacity because of poor site planning along adjacent rights-of-way. Similarly, we can no longer afford to invest in new transit guideway facilities with patronage significantly below that used to justify them because land surrounding stations and elsewhere was not developed as originally conceived.

We have coordinated our plans for the initiative with both EPA and HUD, and fully expect them to contribute personnel and financial resources to the initiative during the NEXTEA authorization period.

Question. How long do you anticipate this initiative to run? How much will it cost during the next few years?

Answer. We expect the initiative for six years at annual funding levels of 4.25 million beginning in fiscal year 1998.

Question. Please compare this initiative in terms of relative priority to other components of your planning budget.

Answer. The highest priority for the planning research program is to continue existing initiatives such as development of the Transportation Analysis and Simulation System (TRANSIMS) through to completion. The sustainability initiative is our highest priority new planning effort.

Question. Please discuss the purposes and possible benefits of the pilot test components of this initiative.

Answer. The purposes of the case study component of the initiative is to demonstrate how transportation planning can be effectively accomplished as part of a comprehensive, holistic process where sustainability from environmental, ecological, financial, community, and economic perspectives is a key objective. Different institutional arrangements for effecting the necessary coordination will be demonstrated along with application of analytical and decision support tools developed as part of the initiative.

The results of the case studies will be documented, evaluated and synthesized for use by state, metropolitan planning organization and local officials.

Question. Are any States or urban areas requesting these funds? Or was this initiative formulated by EPA? How does this initiative effect other components of the budget request.

Answer. The general experience with planning under ISTEA suggests that if we are to achieve maximum benefit from existing and future transportation resources, they must be planned, designed and operated as part of an integrated development package for the communities and regions they serve. From Washington's Maryland suburbs to Portland, Oregon, transportation planners have learned the importance of working with their partners in land use, economic development and environ-

mental planning. The Department had discussions with EPA, HUD, other interested Federal Government parties and state and local officials which led up to the initiative, but it is very much motivated by the Department's desire to use transportation resources more cost-effectively. Though no specific agreements for case studies have been reached with any State, Metropolitan Planning Organization or local partner at this time, significant interest has already been expressed.

As for the impact of the initiative on other components of the planning research and development program, our first priority is to complete ongoing work such as the development of "TRANSIMS" as part of the Travel Model Improvement Program. No net increase is anticipated in the overall R&T budget for this initiative. The annual $4.25 million initiative will be funded off the top; thus each office will be contributing to the activity.

Question. What are the major challenges that the planning research program seeks to address during the fiscal year 1998 and how is this emphasis different than the fiscal year 1997 approach?

Answer. The major new challenges for the fiscal year 1998 program with respect to the fiscal year 1997 program are: (1) the need to quantitatively benchmark, measure, and report program success; and (2) the need to address the strategic concerns of sustainable development.

The fiscal year 1998 program will begin to examine and implement methods to track mobility changes at the national level. In addition, ways of measuring program outcomes and impacts will be examined. These new challenges will afford another significant opportunity to work with our partners at all levels within the transportation sector.

As discussed in response to earlier questions, there are significant environmental, public investment, and community concerns that have gained substantial national attention with resulting pressures to examine and address them at the Federal level. In response to these pressures, the Sustainable Development Initiative has been proposed to deal with these concerns in objective detail. This new program will identify and deploy tools to decision makers in support of their comprehensive planning efforts.

Question. Please prepare a description of your major fiscal year 1997 research topics or activities and associated fiscal year 1997 funding allocations.

Answer. *Travel Demand Forecasting Improvements—$3,200K.*—The objectives of the program are: (1) To make existing travel forecasting procedures responsive to emerging issues, including environmental concerns, growth management, and lifestyle, along with traditional transportation issues; (2) To make travel forecasting processes responsive to changing travel behavior, greater information needs, and changes in data collection technology; and (3) To make travel forecasting model results more useful for decision makers. This research area includes developing metropolitan and statewide applications and manuals of practice. It also includes TRANSIMS.

The planning tools developed in this program will provide improved forecasts of the effects of transportation improvements on congestion, energy, air quality, and land development. The Clean Air Act Amendments (CAAA) of 1990 provided major motivation for travel model improvements. The act mandates details and accuracy not currently available from travel models.

Ensuring Efficiency of Future Transportation Systems—$600K.—Current legislation encourages consideration of full costs of transportation in planning evaluation, including both direct and indirect costs, and assessments of the impacts of transportation investments on regional economies. Transportation decision-makers are seeking ways to evaluate alternative land use, pricing, demand management, congestion relief strategies, capacity expansion, ITS, etc. in the planning process. Increased emphasis is also being placed on using innovative ways of financing federal-aid highway project. It is essential that these innovative financing mechanisms are considered within the financial segment of the transportation planning process. Special emphasis will be placed on monitoring the effectiveness of financial planning efforts. This research area includes improving benefit cost accounting procedures, innovative financing, data collection, and freight planning.

Training, Education, and Technical Assistance—$690K.—A comprehensive planning research program is being established to close the gap between state-of-the-art and state-of-the-practice in the next five to 10 years. The resulting information, data and technical procedures will be integrated with advanced technologies such as GIS, geographic positioning systems, and multimedia presentations and will be packaged into courses, seminars, conferences and technical assistance efforts to promote better multi-modal planning. A major effort will also be devoted to transferring technical information to our clients. This is a continuing effort to maintain state-of-the-art capabilities in these areas. Finally, we will improve our understanding of ad-

vancing technologies and promote the use of these technologies to enhance intermodal data collection, communications, analyses, and information display and exchange. This activity area includes training development, information materials, and conference support.

Intermodal Statewide Transportation Planning—$1,000K.—The objective of this research is to support the States as they improve their statewide planning efforts and to maximize the effective and efficient use of limited financial resources as called for in ISTEA. Research efforts provide the basis for statewide transportation planning training, education and improved technologies. A significant multi year effort is devoted to developing a FHWA Geographic Information System to provide a planning tool to support statewide planning, analysis of the NHS, and environmental activities. This GIS serves as a planning tool for the complete transportation community. This research area includes data collection, manuals of practice, and applications development.

ENVIRONMENT

Question. What recent proposals for changes in EPA requirements have stimulated the need for additional research by FHWA? Please relate this need to the requested increase in the fiscal year 1998 budget.

Answer. *Air Quality*.—EPA's November 1996 proposals to tighten the National Ambient Air Quality Standards (NAAQS) for ozone and particulate matter (PM) have generated considerable need for more research into transportation-air quality relationships. Tighter air quality standards are likely to produce more areas around the country that will fall under some level of transportation-emissions regulation. Previous studies of the linkages between transportation and air pollution have yielded incomplete results and frequently have posed as many questions as provided answers. FHWA is just beginning a mid- to long-term effort to fine-tune many of the less understood linkages between transportation and air pollution. The agency is considering efforts on better understanding the nature of and mitigation strategies for fine particulate matter and to meet the new ozone standard. We also anticipate research on the emission characteristics of heavy duty engines. A more detailed research plan will not be possible until the final form of these standards is decided upon. These efforts in addition to many other research efforts will seek a better knowledge base of the impacts that transportation sources and programs may exert on regional and national air quality planning.

Water Quality.—Changes to the Clean Water Act in 1987 established a two-phased approach to addressing storm water discharges under the National Pollution Discharge Elimination System (NODES). Phase I is currently regulating storm water sources of large and medium-sized municipalities (100,000 or greater in population) and industrial sites, including construction sites of at least 5 acres in size. Under Phase II, dischargers to be covered include communities of less than 100,000 inhabitants and construction sites under 5 acres. EPA is currently under a court order to propose supplemental rules for the Phase II storm water sources by September 1, 1997. The NODES Phase II program will include, at a minimum, requirements for Water quality Best Management Practices (BMP's) at construction sites, BMP's for existing storm water sources, and monitoring/enforcement requirements for local communities. Our current and projected water quality research program includes BMP development and assessment, as well as, monitoring techniques and analysis of data. Our program will emphasize the cost and effectiveness of BMP's, particularly those appropriate for limited-space applications in urban areas. Another emphasis area of our research which has been stimulated by EPA requirements is the determination of possible water quality impacts from highway storm water runoff. Our understanding of the chemical constituents in runoff is well documented. However, very little is known regarding the impacts to water bodies that these constituents may pose. The effects of dilution, bio-availability, exposure time, and other factors must be determined before any conclusions about impacts are possible.

Question. The validity of several air quality models is being criticized by several groups. Please discuss how your fiscal year 1997 and fiscal year 1998 research program addresses these criticisms. Please specify funding amounts on a project level for both fiscal year 1997 and fiscal year 1998.

Answer. The Federal Highway Administration has research underway to attempt to improve the accuracy of both transportation and air quality models and analysis methodology. Result are just beginning to emerge. Our approach will be to build on the current work to refine new understanding and design new research efforts to fill in gaps that remain. Until result from current efforts are in and the form of the new standards are established it is difficult to determine exact additional amounts needed in each area. Current work underway and amounts dedicated are: Travel

Model Improvement—$10 million; Regional Simulation Modeling—$26 million; Hot Spot Modeling—$2.5 million; Motor Vehicle Emission Estimation—$2 million; Long Range Emission Estimating Model—$5 million;and PM–10 Emissions Estimation—$0.5 million. It is unclear at this point if improved analysis accuracy to the level required in each area will be possible. The form of the National Air Quality Standards is currently focused on extreme events (i.e. second worse hour of the year) and for long periods into the future (typically 20 years). Developing models that can perform well under these expectations is at best extremely difficult and may never achieve the level of accuracy needed to eliminate all the criticisms.

Question. Is FHWA requesting additional funds for environmental research regarding wetlands? What are the consequences of not funding this work? Please specify funding amounts on a project level for both fiscal year 1997 and fiscal year 1998.

Answer. FHWA has requested $620,000 in fiscal year 1997 and $500,000 in fiscal year 1998 as additional funding for wetland research. A total of $400,000 in each year are to be used to assist in completion of the Hydrogeomorphic Approach to wetlands functional assessment, an on-going effort being undertaken primarily by the Corps of Engineers, with technical and funding support from the USDA, EPA, USFWS, and FHWA. The Hydrogeomorphic Approach, when development is sufficient for implementation, will be the primary approach to functional evaluation of wetlands for Section 404 purposes, and will be important to assessment of impacts and determination of mitigation needs. The objective of the Hydrogeomorphic Approach is to more accurately identify and define the natural functions of wetlands in ecosystems and watersheds on a regional basis. The data being collected will enable more accurate modeling and evaluation of wetlands impacts on water quality, wildlife and habitat integrity, and water supply and storage. Completion of this phase of program development will allow resource agencies to make more flexible decisions regarding allowable impacts and mitigation needs, and could result in reduced construction costs and help eliminate delays in environmental reviews concerning wetlands. Over the two years, $280,000 is planned for work to develop methods for wetland assessment, mitigation, and preservation planning in a watershed-based context. Theses efforts will tie into the overall transportation / watershed planning and development efforts being pursued by FHWA. Part of these efforts will be to develop training materials and resources to educate highway planners and designers in use of this approach to wetlands assessment and mitigation planning. This includes an additional $40,000 to develop and implement needed reference and training materials. Failure to fund this work will result in a failure to realize these benefits to the State construction programs. In addition, the objective of no-net-loss of wetlands functions and values will not be realized, and wetlands resources values and benefits will continue to be lost due to highway and transportation project construction and development.

	Fiscal years—	
	1997	1998
Functional Evaluation of Wetlands (EPA)	$250,000	$250,000
Functional Evaluation of Wetlands (COE)	150,000	150,000
Ecosystem/Watershed Planning	50,000	100,000
Wetland Restoration and Watershed Planning	80,000	.....
Alternatives for Wetland Mitigation	50,000	.....
Wetland Plant Database (NRCS)	25,000	.....
Wetland Workshops	15,000	.....

Question. Please breakout in detail your fiscal year 1997 spending plan for the environmental research program, explaining the purpose of each major project and the associated amount.

Answer. The goals of the fiscal year 1997 research program are to develop (1) improved tools for assessing highway impacts on air quality, wetlands, hazardous waste sites, water quality, etc.; (2) more effective and innovative avoidance, detection, mitigation, and enhancement techniques; and (3) environmental expertise within FHWA and State and local transportation agencies that will significantly contribute to a more efficient environmental and project development program and to an enhanced environment in accordance with the Department of Transportation's Strategic Plan and the Federal Highway Administration's Environmental Policy Statement.

Air Quality

Passage of the Clean Air Act Amendments of 1990 significantly altered the relationship between the development of transportation improvements and the air quality within the area. The emphasis on modeling and analytic compliance was significantly increased. This increase in analysis requires travel, emission, and dispersion modeling techniques that are considerably more sophisticated than current methods. There is therefore considerable pressure to develop new models to better meet the need. Experience with transportation programs, projects, and activities which have emission reduction benefits is also limited and in need of clarification. Finally, there is the need to provide information and technical guidance to Federal, State, and local officials as well as the public at large on the new requirements and methods for compliance. Because these changes represent a fundamental shift in transportation goals and objectives, research in these areas will be a continuing emphasis.

Expected fiscal year 1997 Products and Milestones.—Publish evaluation of emission control potential of transportation Control Strategies.

Fiscal year 1997 Program Request.—$2,250,000.

New Initiatives for fiscal year 1997.—Examine the emission impacts of alternative fuels. Examine the impacts on the transportation program, and the additional controls needed to comply with the revised standards for ozone and particulate matter. Examine mitigation for reducing emissions from heavy duty diesel engines.

Wetland Resources

The U.S. Fish and Wildlife Service National Wetlands Inventory, responding to government and public concerns that the Nation's wetlands resources, essential to important wildlife and fisheries resources, were being irretrievably lost, determined that between the initial European settlement of North America and the early 1970's, up to 50 percent of existing wetlands were filled, lost, or converted to other uses by agriculture, housing, industry, and highway construction. The Federal Government, responding to a need to conserve wetlands critical to both water quality, fisheries, and wildlife, enacted legislation which established the framework within which wetlands protection and management have developed. Section 404 of the Clean Water Act regulates discharge of dredge and fill materials into waters of the United States, including wetlands. The Fish and Wildlife Coordination Act requires Federal agencies to coordinate with the Fish and Wildlife Service on projects which will impact aquatic resources. Many of the species listed as protected under the Endangered Species Act depend on wetlands. Many States have passed legislation to manage and protect important wetlands resources.

The construction, use, and maintenance of highway systems have potential primary and secondary impacts on wetlands resources and other ecosystems. Due to the linear nature of highway projects, many cross watercourses or wetlands. The tendency of planners to locate highways in river valleys and on drainage boundaries increases the potential for interaction between highway facilities and wetlands resources. The land use changes that often provide the impetus for highway construction or that follow highway construction as a secondary development generate impacts to wetlands resources in addition to those directly attributable to the highway itself. Known potential impacts of highways and associated development on wetlands and aquatic resources include destruction of the wetland by fill, removal or alteration of wetland vegetation, changes in hydrology, both surface and ground water, vehicle-caused wildlife mortality, fragmentation of wildlife habitat, and pollution of waters by highway runoff.

This research plan contributes to a more effective environmental management program in the project development process by emphasizing critical aspects of wetland management in highway environments. Major emphasis is placed on (1) the development and implementation of improved methods, tools, and techniques to identify and delineate wetlands, assess wetland impacts and evaluate wetland functions; (2) improve the effectiveness of compensatory mitigation through better techniques of wetland restoration, enhancement, and creation; (3) improve and enhance the use of mitigation banking as a viable, effective, tool of choice in situations where compensatory mitigation is necessary; (4) refine FHWA policies and regulations to accomplish the Administration objective of No Net Loss of Wetlands; (5) to improve training and educational tools available to the State Highway Agencies for wetlands impact management; and (6) improve coordination with other wetland resource mange agencies.

Expected fiscal year 1997 Products and Milestones.—Methodology for Functional Assessment of Wetlands under §404 (Regionalized HGM approach, in part; in cooperation with COE). Improving Strategies for No-Net-Loss of Wetlands in Highway Development. Wetland Habitat Requirements of New England Birds: Assessing Impacts and Mitigation Needs. Mitigation Manual for Estuarine Wetlands.

Fiscal year 1997 Program Request.—$640,000.

New Initiatives.—Improving Runoff Water Quality Through Design of Highway Wetland Mitigation. Evaluating the Effectiveness and Success of Wetland Mitigation in the Federal Aid Highway Program: On-Site Mitigation versus Banking. Integrating Watershed Management Planning with Highway Project Development.

Highways And Water Resources

In the early 1970's a growing awareness of the potential threat to water resources by highway construction and operation emphasized a need to identify and quantify water quality impacts. With the passage of the National Environmental Policy Act and the Clean Water Act of 1972, as amended, Federal decision makers were to be accountable for activities having the potential to impact features of the natural environment, in particular water quality.

The planning for and implementation of highway systems can interact with the Nation's water resources in numerous ways. Since most highway sections lie within or cross a watershed, all phases of project development have the potential for impacting both surface and underground water resources. Highway project planning, location, and design activities can greatly influence future uses of water resources in localities by determining patterns of growth, secondary development, and water supply distribution. Construction and maintenance activities can have direct impacts to both supply and water quality characteristics of the project area. A variety of impacts are possible, ranging from the erosion of disturbed soils to the chemical pollutants associated with highway maintenance practices. Finally, the operation of highways open to traffic cause numerous other potential pollution sources created by the chemical and biological contaminants present in roadway storm water runoff.

Previous research sponsored by the FHWA has provided tools to State and local transportation for assessing potential water quality impacts of transportation improvements and has developed mitigation techniques to lessen the pollution effects of storm water runoff. Ongoing studies and those planned for the future address the continuing concern over non-point water pollution from highway facilities and the ever present need to meet statutory and regulatory requirements. The eventual reauthorization of the Clean Water will undoubtedly affect transportation development activities. Also, as EPA's Phase II of the National Storm water Program is fully implemented over the next 5 years, State and local transportation agencies will continue to rely on FHWA's water quality research products in order to reduce pollution concerns and comply with regulatory requirements.

This research plan will contribute to a more efficient environmental process and project development program, and will enhance the environment by supporting: (1) the development of improved methods, techniques, tools, models, and procedures to evaluate the water quality impacts of highway development and operation activities, particularly storm water runoff and changes in hydrology; (2) the identification and development of innovative best management practices, devices, and other mitigation measures; (3) the development of expertise within FHWA and State transportation agencies which integrates highway water quality and storm water issues with all water resource problems associated with highways, including hydraulic and hydrological concerns; (4) the coordination with other agencies to ensure that Federal storm water and non-point source pollution policies are incorporated into FHWA and State policies and procedures; and (5) the participation in national and international research on transportation-related water resource, water quality, and storm water issues.

Expected fiscal year 1997 Products and Milestones.—Publish evaluation of best management practices for controlling storm water runoff from highways. Complete updating existing baseline data on storm water characteristics.

Fiscal year 1997 Program Request.—$900,000.

New Initiatives.—Determine the Potential for Impacts to Receiving Waters Caused by Highway Storm water Runoff—This study will identify short and long term water quality effects on surface and groundwater receiving storm water runoff from roadway surfaces. Develop an Assessment Methodology and Management Guidelines for Cumulative Water Quality Impacts of Highway Storm water Runoff. This research will examine long term and additive effects of highway storm water runoff on an area-wide or watershed basis. Comprehensive Integrated Water Quality and Water Resource Management This research will determine how to integrate highway planning, design, right-of- way, construction, operation, and maintenance issues with water resource protection in a watershed context.

Environmental Process

In order to comply with the requirements and the intent of the National Environmental Policy Act, we are (1) evaluating procedural, technical, and legal issues to

reduce project impacts, costs, and controversy, while ensuring consistency and implementation of land use and transportation plans; and (2) investigating and documenting the various techniques and procedures, as well as innovative mitigation, design, and construction techniques, used on projects that have been developed with mutually fruitful results benefiting both transportation and environmental protection purposes. The goal is to integrate environmental considerations into the project planning and development process.

Expected fiscal year 1997 Products and Milestones.—Computerized "Catalog of Excellence in Highway Design Photographs and Data" will be distributed on CD/ROM.

Fiscal year 1997 Program Request.—$600,000.

New Initiatives.—Develop methods and techniques to conduct economic analyses of alternative corridors, examine broad land use controls, and integrate corridor preservation concepts with the urban transportation planning process. Determine remote sensing signatures of surface and subsurface resources for environmental analysis.

Community Impacts And Public Involvement

In order to comply with the requirements and the intent of the National Environmental Policy Act, we need to evaluate (1) policy, procedural, technical, and legal issues associated with community impact analysis and abatement; and (2) data needs and assessment techniques and methodologies to allow for efficient determination of community impacts of proposed highway projects. We need also to document the application of new public involvement techniques to highway projects and investigate the effective management of the public involvement function as an integral part of the project development process. Such techniques include the open forum hearing format, the use of marketing techniques, and graphic techniques based on video cameras and personal computers.

Expected fiscal year 1997 Products and Milestones.—Develop case studies on community impact analysis and abatement.

Fiscal year 1997 Program Request.—$395,000.

New Initiatives.—Improve social and economic projection techniques. Analyze and incorporate secondary impacts into social and economic impacts. Evaluate highway department organizational structure and effective public involvement techniques.

Historic And Archeological Preservation And Aesthetics

Historic and archeological preservation research addresses the procedural, technical, and legal issues associated with resource identification, evaluation and rehabilitation in the highway and transportation context. Historic and archeological preservation policy and procedures are changing due to current regulatory revisions and the recognition of Native American religious and cultural values. Research results will provide the tools necessary to meet these technical and procedural requirements.

Highway esthetics research includes the different visual impact evaluation methods and their associated assessment techniques. Information will be developed to identify the viability and the manner in which the various methods can be used to effectively determine the visual impact of highway project proposals. Also, this program includes the various cultural practices of roadside maintenance which can benefit visual quality such as the use of wildflowers and other native plant species.

Expected fiscal year 1997 Products and Milestones.—Design standards for the rehabilitation and preservation of historic highway bridges.

Fiscal year 1997 Program Request.—$475,000.

New Initiatives.—Develop standards and guidelines for historic highways which provide identification and evaluation criteria for use by transportation and historic preservation planners. Synthesize information on local efforts to preserve and relocate historic structures, including highway bridges. Summarize innovative solutions and techniques to fund and maintain these structures for continued public use and benefit. Identify naturally occurring plant communities and plant species which, if used in a comprehensive revegetation management strategy, would render roadside maintenance practices environmentally sensitive, safe, and less costly.

Question. What are the major challenges that the environmental research program needs to address during fiscal year 1998, and how is this emphasis different from the fiscal year 1997 approach?

Answer. Most of the challenges will remain the same; however, we have the following new challenges and additional research:

Air Quality standards.—Changes to the national ambient air quality standards for ozone and fine particles are currently under consideration by the Environmental Protection Agency. Final Action is expected in mid 1997. Since highway travel contributes to both of these air pollution concerns, significant research will be needed

to reestablish understanding of transportation contributions to the new standards along with methods of control.

Watersheds.—There is a need to incorporate watershed-based water resource protection and management into various highway planning, project development, and operation/maintenance processes. Proposed research will integrate environmental and transportation planning and assessment (particularly in the watershed management and land-use planning arenas) and explore innovative ways to bring about a merger of the environment/planning and permit processes, etc.

Communities, Neighborhoods, and People.—The President's Report on Sustainable Development emphasizes the importance of sustainable transportation projects that contribute to sustainable communities; and the DOT and FHWA Strategic Plan highlights the importance of putting people first in transportation decision making. Research will focus on the role of transportation systems and projects in contributing to sustainable communities, reflecting community values in design and placement of facilities in communities, and protecting and enhancing the social infrastructure. It will be even more critical now to research ways to improve the link between transportation and sustainable development within communities.

Reinventing NEPA.—The National Performance Review, findings of the NEPA 25th Anniversary workshop jointly sponsored by DOT and CEQ, U.S. Senate NEPA roundtables, and Congressional concerns highlighted growing customer dissatisfaction with lead agencies implementation of NEPA, interagency coordination and conflicts, and the time and cost associated with project decision making. As a result, FHWA must continue to research ways to improve the FHWA NEPA decision making process. Research will focus on ways to streamline the manner in which environmental considerations are integrated into transportation decision making at the planning and project levels; build the capacity of State DOT's to effectively implement NEPA through training and technical assistance; and apply emerging and current advanced technologies.

Environmental Justice.—Since Title VI of the 1964 Civil Rights Act, the transportation and highway program has been involved in implementing nondiscrimination programs, and addressing associated impacts, complaints and concerns. The Executive Order on Environmental Justice reemphasizes the need to address adverse human health or environmental effects, including social and economic effects of its programs, policies, and activities on minority and low income populations. FHWA will research methods and demonstrate exemplary practices of effective transportation decision making which evaluates and mitigate impacts to disproportionately high and adverse human health or environmental effects of transportation projects.

Additional research

National Environmental Research Needs Conference.—An Environmental Research Needs Conference, jointly sponsored by the Transportation Research Board (TRB), the Center for Transportation and the Environment (CTE) at North Carolina State University, the Federal Highway Administration (FHWA), and the Federal Transit Authority (FTA) was conducted November 14–16, 1996, in Washington, D.C. The conference was attended by approximately 140 participants from State DOT's and environmental agencies, regional and local governmental agencies, university and research institutes, private non-profit environmental organizations, the American Association of State Highway and Transportation Officials (AASHTO), and four Federal agencies in addition to FHWA and FTA. The participants generated approximately 95 detailed problem statements totaling over $28 million.

POLICY

Question. Now that most of the policy studies related to reauthorization have been completed, why can't we reduce the FHWA request for policy research?

Answer. The Comprehensive Truck Size and Weight Study and Highway Cost Allocation Study represent only a portion of the Policy research program. Other high priority policy research activities including data management and dissemination, innovative finance, further development of the Highway Economic Requirements System, and analysis of interrelationships between highways and economic productivity, have continuing research needs. In fact, projects in several of these areas have been deferred to allow essential truck size and weight and cost allocation projects to be completed. Furthermore, even though reports on these two major policy studies will have been submitted, continuing work in both areas is needed. Documentation of data and analytical tools used for the two studies was deferred to allow work essential for the study reports to be completed; this documentation should be completed as quickly as possible to assure that details of the data collection, analysis, and model development processes are not forgotten or do not have to be recreated by the consultants. Also, both studies analyzed only a small set of policy scenarios.

It is anticipated that further policy analysis in these two controversial areas will be required even after the reports have been submitted, and further validation and update will be required for models used in both studies. For the Truck Size and Weight Study, in particular, substantial work remains to incorporate results of the Commodity Flow Survey into the freight diversion model which is the basis for estimates of changes in travel by different vehicle classes and different modes in truck size and weight scenario analyses and to make tools developed for the national level study available to States for use in analyzing impacts of truck size and weight proposals at the State level. Performance measurement is a new research area that requires additional funding. The Government Performance and Results Act places many requirements on Federal agencies to measure results of their programs and to establish target outcomes that will be achieved through program funding. Research is required to conduct baseline analyses that relate investment in various programs with outcomes. These causal relationships are needed in order for future budget requests to estimate quantitatively changes in relevant performance measures that can be anticipated for a given program level. Finally, once surface transportation reauthorization legislation has been passed, significant policy research is anticipated in connection with implementing that legislation.

Question. What is the most pressing policy research problem that needs additional attention during fiscal year 1998? How much do you plan to spend on this research during fiscal year 1998, and how much is being spent during fiscal year 1997 on this topic?

Answer. In a time of limited resources we must strive more diligently than ever to use those resources most efficiently. New ways must be found to stretch limited public funds through innovative financing strategies, public private partnerships, and other means. Technical assistance must be provided to State and local agencies to help them minimize institutional and other impediments to use of these innovative financing mechanisms. Tools must be developed that allow Federal, State, and local transportation agencies to evaluate alternative investment strategies, including intelligent transportation systems and other new technologies, to determine the mix of investments that will provide the greatest return from limited resources. Infrastructure and demand management strategies must also be evaluated to assess their potential for reducing investment requirements for new capacity and to provide State and local partners with information on lessons learned by others that have been in the forefront of implementing such strategies. Data to support analyses of these various investment and systems management options must also be collected. A total of approximately $2.95 million is planned to be spent on research and technology transfer activities related to this key policy research problem in fiscal year 1998. About $2.4 million is anticipated to be spent on these activities in fiscal year 1997. These monies reflect research in four areas—innovative finance, market-based pricing and demand management, highway investment analysis, and related data collection activities. Many other elements of policy research relate to this overall issue, but not as directly as these four specific research areas.

Question. Please breakout in detail your fiscal year 1997 spending plan, explaining the purpose of each major project and the associated amount.

Answer. The following table.

Project area	Fiscal year 1997 expenditures	Purpose
Comprehensive Truck Size and Weight Study.	$830,000 GOE ...	To provide data and analysis in support of the Department's Comprehensive Truck Size and Weight Study. Fiscal year 1997 funds were expended primarily on refinement of the freight diversion model, surveys of shippers, research on stability and control characteristics of different vehicle configurations, review of size and weight enforcement issues, and analysis of bridge and other infrastructure impacts of size and weight scenarios.
Highway Cost Allocation	180,000 GOE ..... 300,000 line item	To develop data and methods based upon the Federal cost allocation study for use by States in conducting their own cost allocation studies, and for follow-on activities to the Federal study including conference support and pooled fund study with several States to refine relationships between registered weights and operating weights of vehicles.
Relationship Between Highway Investment and Economic Productivity.	200,000 GOE	To extend and refine analyses demonstrating relationships between highway investment and economic productivity. This research examines changes in productivity at the firm level as highway services change and develops adjustment factors to account for changes in the quality of highway services over time.
Congestion Pricing	50,000 GOE 200,000 6005	To provide technical support to State and local congestion pricing initiatives including evaluation of equity and other implementation issues.
Innovative Finance/Public Private Partnerships.	75,000 GOE 850,000 6005	Purposes include: (1) to evaluate and synthesize experiences and lessons learned from innovative finance test and evaluation projects, State Infrastructure Bank pilot projects; (2) to provide technical assistance to State and local partners in deploying innovative finance projects; (3) to identify gaps in our knowledge of innovative finance issues by examining financial practices and needs; (4) to provide training, conference support, newsletter, and other outreach activities; (5) to provide assistance for new innovative finance initiatives; and (6) to evaluate public/private partnership activities.
Highway Investment Analysis	675,000 GOE	To develop enhancements to the Highway Economic Requirements System highway investment/performance analytic capabilities. The major enhancements are (a) consideration of the costs of vehicle emissions in the selection of highway improvements and (b) implementation of travel demand elasticity in calculating the travel that would occur on a particular section of highway under analysis. Development of BIAS, a bridge investment analysis system designed to bring an economic dimension to estimates of bridge investment requirements has entered the second phase.
Performance Measurement	225,000 GOE	The purposes of this project are to (a) develop customer outreach activities to obtain customer input for the selected performance measures, (b) to track and monitor strategic planning indicators, and (c) to develop a handbook on strategic performance and planning.
Reauthorization Issues	250,000 GOE	Purposes include: (a) to analyze specific reauthorization issues that arise, either during Congressional debate or as a result of stakeholder inquiries; (b) to synthesize information on reauthorization proposals and issues; (c) to convene and conduct forums to discuss ISTEA reauthorization issues; and (d) to disseminate ISTEA reauthorization information to transportation, environmental, and other interest groups, as well as the public. If funds are available they will be used to summarize, synthesize, and communicate the enacted reauthorization legislation to all ISTEA stakeholders.

Project area	Fiscal year 1997 expenditures	Purpose
National Freight Partnership	150,000 GOE	The National Freight Partnership work in fiscal year 1997 supported a series of national public/private meetings on issues of national and regional freight and international trade significance. These included (a) the Second National Freight Symposium, held in October, 1996 at the Port of Los Angeles on the subject of international trade corridors and (b) a series of four regional meetings on the impact of changes in maritime vessel design on U.S. ports, port operations, and intermodal connections.
Fuels and Finance Data Collection, Analysis, and Dissemination.	343,000 GOE	To collect and analyze information on highway fuel use and highway finance necessary for transportation decisionmakers. Key research products include the improvement of data for local highway bond finance, collection of information for the publication ''Highways Taxes and Fees,'' and the publication of the ''Highway Funding Bulletin.''
Systems Performance Data Collection, Analysis, and Dissemination.	303,000 GOE 300,000 6005	To develop user friendly, PC based, HPMS software for use in a file server environment. The software extends the capabilities beyond the data submittal phase and into a phase that will enable staff to perform more comprehensive and less labor intensive data reviews , develop a server- based data base query capability, and to enable the production of reports for Highway Statistics and other dissemination venues off of the file server. Another focus of fiscal year 1997 research is to support the ongoing Strategic Reassessment of the HPMS.
Traffic Monitoring Data Collection, Analysis, and Dissemination.	496,000 GOE 450,000 6005	To collect, analyze, summarize, and disseminate traffic data to support program needs at the Federal, State, and local levels. These data include traffic volumes, vehicle classification, truck weights and related traffic characteristics. Within these areas, the primary focus is to develop guidelines for cost-effective data collection, evaluate and assess equipment deployment, including non-intrusive technologies, and develop enhanced procedures for efficient data management, handling and analysis to ensure the availability of quality data for decisionmaking.
Transportation Surveys and Censuses.	665,000 GOE	This activity includes efforts directed to the collection and application of household travel data of the Nationwide Personal Transportation Survey, and the application of data from related surveys such as those of the U.S. Census to national transportation issues. Activities include data analysis, interpretation and distribution. In addition to these basic data support activities, efforts also encompass cutting-edge efforts such as on-the-fly analysis over the Internet, development of procedures to apply national level data to metropolitan zones based on demographics, and evaluation of automated data collection techniques.
International Border Crossing Analysis.	500,000 6005 ...	To support land transportation planning process in the U.S./Mexico border region, the North American Technology Exchange Program, and binational planning and identification of trade corridors along the U.S./Canadian border.

Question. What were the major findings or tentative conclusions of the truck size and weight study? Are any fiscal year 1998 monies requested for this study. If so, please justify in detail.

Answer. The Department has underway a Comprehensive Truck Size and Weight Study. This fall, the Study will be transmitted to Congress in four volumes: Volume I—Executive Summary, Volume II—Issues and Background, Volume III—Scenario Analysis and Volume IV—Guide to Documentation. A draft version of Volume II was provided, for review and comment, to Congress and other interested parties on June 11. It is premature at this time to delineate the major findings or even tentative conclusions as the material has not yet been adequately reviewed.

As the Study will be complete by the end of the fiscal year, we are not requesting fiscal year 1988 monies to produce the report. However, we intend to continue work in this area on an ongoing basis, building upon the significant analytical tools now in place.

Question. What does your study conclude regarding the safety impacts of increasing current truck size and weight limits?

Answer. An array of alternative truck size and weight policies will be evaluated under the umbrella of the Comprehensive Truck Size and Weight (CTS&W) Study. While the analytical tools required to assess the impact of the alternative scenarios on factors such as safety, productivity, and infrastructure are now in place, the evaluation process (to include internal Departmental review) is not yet complete. The final CTS&W Study will be transmitted to Congress this fall.

Question. What were the major findings or tentative conclusions of the cost allocation study. Are any fiscal year 1998 funds requested for cost allocation work? If so, please justify in detail.

Answer. Preliminary conclusions of the highway cost allocation study, which is still in the review process within the Department and OMB, are that inequities remain in the Federal highway user fee structure, but that those inequities are smaller than inequities found in the last Federal highway cost allocation study completed in 1982. Several factors account for the improved equity of Federal user fees including (1) changes in the composition of the highway program with a greater portion of the funds being used for transportation systems management, safety, environmental purposes, and system enhancements for which trucks have a lower cost responsibility than they do for added lanes or improvements to the condition of existing pavements and bridges; (2) changes in the Federal user fee structure; and (3) the dedication of Federal user fees beginning in 1982 for mass transit purposes which are largely attributable to personal transportation.

Some fiscal year 1998 funds are requested for highway cost allocation to support essential follow-up work to document data and analytical tools developed in connection with the cost allocation study while those items are still fresh in the minds of consultants who worked on them, to improve the integration of software developed for the current study in preparation for future studies which we are committed to doing on a regular basis, to further explore implications of greater use of life cycle cost analysis principles in infrastructure investment decisions, to evaluate specific highway user fee proposals that may come from others during and following the reauthorization debate, and to pursue recommendations by the Transportation Research Board Peer Review Committee that we validate and extend the new pavement distress models developed for the study and evaluate implications of highway user fee options on economic efficiency.

Question. Please specify total expenditures by year and by funding source for all activities related to the truck size and weight studies and the cost allocation study for each of the last three fiscal years. How much will be spent on continuing these activities during fiscal year 1998?

Answer. The following table shows expenditures for the truck size and weight and highway cost allocation studies by fiscal year and source of funds for the last three fiscal years.

Fiscal year and source of funds	Truck size and weight study	Highway cost allocation study
1995:		
GOE	$630,000	$694,000
6005	325,000	175,000
1996:		
GOE	300,000	266,666
6005	300,000	300,000
HCAS Line Item	1,000,000	991,000

Fiscal year and source of funds	Truck size and weight study	Highway cost allocation study
1997:		
GOE	825,000	180,000
HCAS Line Item		300,000

In fiscal year 1998, $500,000 is estimated to be required for truck size and weight-related research including amounts to develop tools for use by States as is being done for the cost allocation study, refinement and integration of analytical tools used in evaluating impacts of truck size and weight scenarios, and incorporation of Commodity Flow Survey data into the freight diversion model. Approximately $350,000 is estimated to be required to for cost allocation-related research. As noted in the response to a previous question, these funds would support essential follow-up work to document data and analytical tools developed in connection with the cost allocation study while those items are still fresh in the minds of consultants who worked on them, to improve the integration of software developed for the current study in preparation for future studies which we are committed to doing on a regular basis, to further explore implications of greater use of life cycle cost analysis principles in infrastructure investment decisions, to evaluate specific highway user fee proposals that may come from others during and following the reauthorization debate, and to pursue recommendations by the Transportation Research Board Peer Review Committee that we validate and extend the new pavement distress models developed for the study and evaluate implications of highway user fee options on economic efficiency.

Question. Please show the number of FTE and FTP assigned to the Office of Policy for the last four fiscal years.

Answer. The answer follows.

Fiscal year	*FTE/FTP*
1997	90
1996	94
1995	94
1994	94
1993	96

INTERNATIONAL ACTIVITIES

Question. Please breakout in detail your fiscal year 1997 spending plan, explaining the purpose of each major project and the associated amount. Please provide sufficient detail so that we can gain a better understanding of the scope and nature of the international program and the benefits to FHWA, industry, and State and local governments of this investment.

Answer. The answer follows:

FISCAL YEAR 1997 INTERNATIONAL OUTREACH PROGRAM

Program element	Funding	Program description
International Marketing	$200,000	Initiated study entitled ''Improving Flow of Trade-Related Information for Highway and Transportation Specific Companies'' which examines current trade promotion initiatives underway by other U.S. Government agencies as well as covers needs of highway and transportation specific companies Develop instructional materials and meetings with private sector to assess findings of the study. Participated in the International Road Federation World Congress, including promotion of U.S. highway transportation expertise with the U.S. private sector. This includes an FHWA exhibit at the Congress. Provided guidance to Russian Federal Highway Service (RFHS) during the development of bid packages for a $1.5 billion project in Siberia and the Russian Far East. As a result of the FHWA's cooperation with the RFHS, U.S. firms are being given preference in undertaking this project. Promote a proposal to implement an electronic road pricing system for truck transportation in Russia using U.S. equipment and services. Continued facilitation of U.S. firms' efforts to export highway construction equipment to Russia and other countries.

FISCAL YEAR 1997 INTERNATIONAL OUTREACH PROGRAM—Continued

Program element	Funding	Program description
Technical Exchange	200,000	Continue support for the FHWA's World Road Association participation and their work programs Provided logistical support for U.S./Japanese technology exchange activities which included a technical exchange workshop in the U.S. Continued support for the FHWA's participation in the World Interchange Network, a network which improves the flow of road-related technology world-wide. Concluded FHWA's work with the APEC Congestion Points Study. Continued work with the Finnish Road Administration and the cooperative program for promoting technology in the Baltic countries.
Foreign Visitor Program	75,000	Continued contract for the Foreign Visitor Program Coordinator Facilitated Visitor Exchanges, including site visits to area transportation research and demonstration facilitates to demonstrate U.S. highway technology.
Total funding	475,000	

FISCAL YEAR 1997 RUSSIAN TECHNICAL ASSISTANCE PROGRAM

Program element	Funding	Program description
Technical assistance	$200,000	Continue support of the FHWA's contractor in Moscow, Russia with the following work objectives: —Providing information on U.S. legal basis for toll road authorities. —U.S. study tour, advice, and support on establishing a national network of centers to provide training and technology transfer. —Support for twinning State highway agencies in Maryland and Alaska with counterparts in Russia. —Advice and data processing support for establishing a bid estimating system for the Russian Federal Highway Service. —Appraisal of further institutional development needs in the highway sector.

Question. Please breakout in detail your fiscal year 1998 spending plan, explaining the purpose of each major project and the associated amount. Please provide sufficient detail so that we can gain a better understanding of the scope and nature of the international program and the benefits to FHWA, industry, and State and local governments of this investment.

Answer. See chart below.

FISCAL YEAR 1998 INTERNATIONAL OUTREACH PROGRAM

Program element	Funding	Program description
International Marketing	$225,000	Launch part II of study on ''Flow of Trade-Related Information'' which includes regional seminars for U.S. industry on opportunities and assistance available in U.S. Manage FHWA participation in 4th World Congress on ITS in Berlin, Germany, including sponsoring U.S. technology promotional support and activities. Development of marketing and promotional materials for ITS Latin America Conference focusing on U.S. technology. Develop promotional materials for FHWA and coordinate materials on U.S. technology to be developed by privates sector. Undertake technical exchange mission to Korea with objective of promoting private sector. Continue promotion and support of U.S. firms for Russian continental highway project. Continue promotion and development support to advance electronic road pricing system for charging trucks using U.S. technology and equipment. Development of other projects in the NIS region that would promote U.S. exports of highway-related goods and services.
Technical Exchange	300,000	Continue support for the FHWA's World Road Association participation and their work programs. Continued support for the FHWA's participation in the World Interchange Network, a network which improves the flow of road-related technology world-wide. Continue cooperative program with the Finnish Road Administration and technical cooperation with the Baltics. Provide logistical support for the U.S./Korean technology exchange activities which include a technology exchange workshop in the U.S. Initiate technology exchange program with the New Zealand Department of Transport. Continue FHWA support for OECD cooperative activities. Initiate phase II of study of international transportation information resources which focuses on a specific technological area.
Foreign Visitor Program	75,000	Continued contract for the Foreign Visitor Program. Facilitate site visits for foreign visitors, including site visits to U.S. technology demonstration and research location.
South Africa Program	300,000	Continue working with republic of South Africa Department of Transport (RSADOT) to improve the transfer of technology/information in order to strengthen the transition to a post-apartheid, democratic governing system. To transfer appropriate technology to RSADOT and promote U.S. technology and industry through: (A) Holding joint U.S./South Africa pavement workshop; (B) Construction of two sections of pavement in the U.S. using South African technology; (C) Continue support of training in RSADOT and Technology Transfer Centers as appropriate; (D) Link U.S. and South African private sectors to promote partnering on African projects. Begin transition of this program into a Sub-Saharan Africa Program: (A) In cooperation with the World Bank and RSADOT, coordinate the development of Technology Transfer Centers in Tanzania and Mozambique. (B) In cooperation with the World Bank and other international organizations, identify other sub-Saharan countries which would be possible candidates for establishing Technology Transfer Centers. (C) Develop strategy for including U.S. private sector in these activities.
Total funding	900,000	

FISCAL YEAR 1998 RUSSIAN TECHNICAL ASSISTANCE PROGRAM

Program element	Funding	Program description
Technical Assistance	$400,000	Continue support of FHWA contractor in Moscow, Russia, with the following work objectives: —Continue institution building in the Russian highway sector aimed at improving processes and organizations within the Russian Federal Highway Service (RFHS). —Provide guidance to the RFHS during the development of international control procedures for managing and administering its programs. —Support U.S. States twinning with counterparts in Russian provinces. —Continued support for Russian technology transfer centers and networks. —Establish two new Technology Transfer Centers in NIS states.

Question. FHWA is requesting almost a doubling in funds for the international program. Why is such an increase necessary at this time?

Answer. The FHWA's request of $900,000 for fiscal year 1998 represents only a $125,000 increase over the FHWA's fiscal year 1997 funding level for international activities. For fiscal year 1998, it includes funding for the FHWA's South Africa Program which is presently being funded through other program areas with GOE funds. The FHWA's planned spending for each program is as follows:

Program	Fiscal years—	
	1997 funding amount	1998 funding request
International Outreach Program	$475,000 GOE	$600,000 GOE
South Africa Program	[1] 300,000	300,000 GOE

[1] Technology Assessment and Deployment GOE funds.

Question. Please specify the number of planned and completed international scanning trips taken during fiscal year 1996, fiscal year 1997 and planned for fiscal year 1998. Please specify the total costs of these trips for each year and specify which portion of the GOE or ISTEA funds supported these trips.

Answer. See chart below:

Source of funding	Budget	Names of scanning missions
Fiscal year 1996: Section 6005 ISTEA funds	$400,000	Bridge Maintenance Coating. Traffic Management and Traveler Information Systems. South African Pavement and Other Highway Technology and Practices. European Traffic Monitoring Programs and Technologies Scanning Review.
Fiscal year 1997: Section 6005 ISTEA funds	451,000	Advanced Composite Materials in Bridges in Europe and Japan. Study Tour for Road Safety Audits. Transportation Agency Organization and Management Scanning Review. Bridge Structures Scanning Review.
Fiscal year 1998: NEXTEA Technology Assessment and Deployment Funds.	462,000	Railroad-Highway Grade Crossing Protection Technology and Closing Programs Review. Improved Roadway Safety through Application of Intelligent Traffic Control Devices, Practices, and System Review. Highway Performance Management System Scanning Review. International Scanning Tour for Geotechnology—Canadian and European Review.

Question. Why can't the State Department fund the technology transfer program for the Republic of South Africa?

Answer. The FHWA did initially hold discussions with Department of State officials concerning the availability of funding for the South Africa Program. While these officials, as well as officials at the U.S. Embassy in South Africa, did agree that the FHWA's program had considerable merit, the Department of State indicated that it was unable to provide the FHWA with any funding at this time due to existing resource constraints. In light of these constraints, and because this program has provided a valuable, two-way exchange of advanced highway engineering technology and practices for both countries, the FHWA is funding this program through its own GOE funds.

Question. For fiscal year 1996, fiscal year 1997, and planned for fiscal year 1998, please specify current or planned funding amounts for activities to promote or conduct technology transfer or educational activities associated with the Republic of South Africa? What are the sources of these monies?

Answer. The funding amounts are as follows:

Fiscal year	*GOE*
1996	$800,000
1997	300,000
1998	[1] 300,000

[1] Planned estimate.

Question. Why can't the monies to support the Pan American Institute of Highways be funded out of the contract program for the National Highway Institute?

Answer. While the Pan American Institute of Highways (PIH) is currently funded through funds from the National Highway Institute (NHI), the PIH is in the process of being transferred to the Office of International Programs (HPI). The FHWA believes it is preferable to use NHI's funding to address the large number of domestic training needs, and that PIH's mission can be better realized if it is as a part of the Office of International Programs.

Question. What are the major challenges and opportunities facing the international program during fiscal year 1997 and expected for fiscal year 1998? How will the reauthorization affect this program?

Answer. In fiscal year 1997, the Office of International Program's primary international challenge has been to make the most of the FHWA's existing international commitments while developing a strategy for fiscal year 1998 which supports the needs of its customers and partners in the domestic highway community and compliments the Administration's foreign policy objectives. A part of this strategy includes more sharply focusing the FHWA's international cooperative activities to gain additional benefits at the present program funding levels. The Office of International Programs has identified three primary areas of focus for fiscal year 1998 which represent the interests of the FHWA's constituents and build on present strengths and investments: (1) international scanning and information management, (2) private sector support, and (3) support of administration commercial and foreign policy initiatives.

International scanning and information management

The FHWA's international information initiative focuses on meeting the growing demands of its partners at the Federal, State, and local levels for access to information on state-of-the-art technology and the best practices used world wide. While the FHWA is a world leader in the area of highway transportation, the domestic highway community is very interested in the advanced technologies being developed by other countries as well as innovative organizational and financing techniques used by the FHWA's international counterparts. This growing interest is best demonstrated by the recent creation of the Special Committee on International Activity Coordination as a regular part of the American Association of State Highway and Transportation Officials (AASHTO). This committee was established to better coordinate the international activities of AASHTO, including the various members' participation in international highway-related organizations.

To help meet this demand for information on foreign innovations, the FHWA has an established International Technology Scanning Program. This program serves as a vehicle for assessing and importing foreign technologies which could significantly benefit the U.S. highway community. This approach is similar to the bench marking process that is widely used by major private firms. It allows for advanced technology to be adapted and put into practice much more efficiently without spending scarce research funds to recreate technology already developed by other countries. To date, the FHWA has undertaken over 20 of these reviews. For fiscal year 1998, the FHWA will continue to stress the successful implementation of technology identified through the scanning program and work to improve the dissemination of this information to the State and local levels.

The second component of the FHWA's information management strategy is improving U.S. transportation officials' access to the large body of highway transportation-related information available internationally. The FHWA has already sponsored one scanning mission which identified these international information resources with the end product being a directory for use by U.S. transportation professionals. In cooperation with the Transportation Research Board and AASHTO, the FHWA is planning a second, more specific study of one technological area in order to focus on improving the flow of information into the U.S. and any barriers or gaps in information access training which may need to be addressed. The results identified through these efforts will be tied with the FHWA's on-going efforts to improve the dissemination of information collected through its scanning program and the development of an overall communications strategy for its international activities.

Private sector support

The FHWA has developed a marketing strategy for U.S. technology and industry to assist the U.S. private sector in meeting stiffer competition in the global market place from foreign firms receiving support from their own governments. One component of this strategy is to ensure that every technical assistance activity in which the FHWA participates showcases U.S. technology and U.S. firms. By supporting government-to-government relationships, the FHWA is helping to establish a U.S. presence and reputation in foreign markets. This can, and has, resulted in sales of U.S. technology and services.

The second component of this strategy more directly supports U.S. firms and their international commercial activities. The Intelligent Transportation Systems arena in Latin America and South East Asia are the first areas where the FHWA is concentrating its efforts. The FHWA can directly assist these firms by monitoring regional market conditions and identifying suitable local partners for U.S. firms. The FHWA also coordinates the participation of U.S. companies in trade exhibitions and conferences and ensures U.S. interests are represented on international committees and organizations engaged in setting standards.

Support of administration commercial and foreign policy objectives

The FHWA is seeking better ways of supporting the Administration's efforts to pool the resources of U.S. Government agencies in pursuing U.S. international objectives. The FHWA is conducting a study to better understand what other agencies are doing with regard to the export of U.S. goods and services. The objective of this study is to identify FHWA's appropriate role in the trade promotion process and improve coordination with the efforts of the Department of Commerce and other agencies which are members of the Trade Promotion Coordination Council. The FHWA's technical expertise and leadership in the field of highway transportation allows it to fill a special niche role in the U.S.'s trade promotion activities.

The FHWA Office of International Programs also coordinates with the DOT Office of International Transportation and Trade and the Department of State to respond to specific U.S. foreign policy objectives. Many initiatives undertaken by U.S. foreign affairs agencies have significant transportation-related implications. The agency also supports the Administrations's involvement in the NAFTA, the Free Trade Agreement of the Americas, and elsewhere, which complements the U.S. government's other assistance efforts in these countries. The DOT will be expected to continue numerous interagency initiatives abroad and associated technology exchanges.

Reauthorization

The Administration's reauthorization proposal will not seek a change in the current enabling statutes or line item authority for particular program elements or country specific projects. Instead, it suggests that State DOTs and local entities should become effective partners in the FHWA International Outreach Program, by permitting the discretionary use of Federal highway research and planning funds for certain international activities. State DOT and local officials are increasingly involved in FHWA-sponsored technology "scanning" reviews, as well as the ITS, SHRP and other research and development programs which have engendered great international interests and led to numerous bilateral cooperation activities.

Question. Please provide estimates for fiscal year 1996, fiscal year 1997, and fiscal year 1998 of the amount of funds used or planned to promote the marketing of highway-related technologies abroad. Why is this an FHWA function?

Answer. The market development function on behalf of the private sector is one of the principal objectives included in the broad enabling statues establishing the FHWA International Outreach Program in Title 23, U.S.C., Section 325. In addition, the DOT/FHWA is a constituent member of the Interagency Trade Promotion Coordinating Council (established by statute), which is continuously refining the National Export Strategy, to be developed cooperatively and implemented by all 19

participating agencies. This is part of the Administration's efforts to maximize resources by engaging all Executive agencies with international initiatives in the promotion of U.S. foreign policy goals. The FHWA is a world leader in highway technology and the only Executive agency with the necessary technical expertise, experience, and partnerships with the domestic highway community to fulfill this role.

Estimated funding for promoting the private sector is difficult to separate out as a specific amount since these activities are usually incorporated as a part of a larger technical exchange or assistance program. The estimates are:

Fiscal year:	
1996	$125,000
1997	200,000
1998	200,000

Question. What are the benefits to the United States for this allocation?

Answer. The primary objective of the FHWA's marketing activities is to increase the export and sales of U.S. highway-related goods and services, thereby benefitting the U.S. economy.

The FHWA's marketing activities specifically benefit the U.S. in three ways: The FHWA supplies much needed information on markets, trade shows, and other such events in countries with high export potential. This information is particularly helpful to small and medium sized companies in the U.S. highway industry that are looking for opportunities to become export-ready, but lack the experience or resources to seeking out appropriate commercial opportunities for their products and services.

The FHWA provides countries information and training concerning U.S. transportation technology and practices. This information and training is provided through technology transfer networks and centers, bilateral technical assistance programs in selected countries, and the international visitor program. Recipient countries are able to more effectively use U.S. exports to construct and manage their transportation systems.

The FHWA strengthens and enhances the U.S. participation in the development of selected international technical standards to help ensure these standards are inclusive of U.S. products. This support is important to U.S. companies who are now facing strong competition, particularly in Latin America and Southeast Asia, from Asian and European companies who have the support of their respective governments.

Examples of benefits are: The FHWA supported Hoffman International in its efforts to develop an equipment leasing joint venture in Russia. The venture has resulted in shipping over $15 million in U.S. equipment to Russia and training in U.S. pavement construction techniques for over 80 Russian highway officials and contractors.

The FHWA's support of the Russian Federal Highway Service's (RFHS) efforts to model its highway program after the U.S. highway program have resulted in commercial opportunities and design contracts for several U.S. firms. The RFHS has set aside exclusively for U.S. firms a large design and construction project that would complete the last section of the trans-Siberian highway. The estimated export potential of this project for U.S. firms is $250 million.

GENERAL ADMINISTRATION AND OVERSIGHT REGARDING LGOE

Question. Please present a detailed, side-by-side table showing all fiscal year 1997 ISTEA contract funds, contract funds requested in your reauthorization proposal, fiscal year 1997 GOE funds (with and without research and technology support costs—formerly referred to as management and coordination costs or M&C costs), and proposed fiscal year 1998 LGOE funds related to each category of research, development, technology transfer and training (with and without apportioned support costs).

Answer. The information is provided in the following tables.

RESEARCH AND TECHNOLOGY PROGRAMS, FEDERAL HIGHWAY ADMINISTRATION—MANAGEMENT COORDINATION COST DISTRIBUTED

[In thousands of dollars]

	Fiscal years—	
	1997 enacted	1998 request
Highway Research, Development and Technology [4]	61,972	73,903
LGOE:		
Safety	7,958	9,000
Materials	.....	.....
Pavements	[1] 18,149	11,150
Structures	13,211	15,256
Environment	5,061	5,566
Right-of-Way	300	365
Policy	4,954	8,000
Planning	5,477	16,025
Motor Carrier	6,862	8,541
Intelligent Transportation Systems (ITS) [4]	229,326	250,000
LGOE	116,326	54,000
Research and Development	24,573	33,000
AHS/Advance Crash Avoidance	22,000	.....
Architecture and Standards	5,000	.....
Operational Test	54,992	.....
Evaluation	2,000	9,000
Mainstreaming	.....	3,000
ITS Deployment Incentives Program	.....	.....
Commercial Vehicle Operations	.....	.....
ITS Program and System Support	7,761	9,000
Advanced Technology Applications	.....	.....
Contract Authority	113,000	196,000
Research and Development	4,300	12,500
AHS/Advance Crash Avoidance	.....	26,000
Architecture and Standards	7,300	13,000
Operational Test	5,400	24,500
Evaluation	300	.....
Mainstreaming	10,000	19,000
Commercial Vehicle Operations	.....	.....
Priority Corridors	71,700	1,000
National Advanced Driver Simulator	14,000	.....
ITS Deployment Incentives Program	.....	100,000
Long-Term Pavement Performance (LGOE)	([1])	([1])
Technical Assessment and Deployment (LGOE) [1]	12,802	[3] 14,800
National Advanced Driver Simulator	.....	12,250
Local Technical Assistance Programs [4]	8,764	12,000
LGOE	2,764	.....
Contract Authority	6,000	12,000
Rehabilitation of Turner Fairbanks	500	2,000
Truck Dynamic Test Facility	.....	.....
National Highway Institutes [4]	4,167	8,000
LGOE	4,167	.....
Contract Authority	.....	8,000
University Transportation Centers	6,000	6,000
University Research Institutes	6,250	6,000
State Planning and Research	80,367	90,307
Strategic Highway Research Program Implementation	20,000	.....
SHRP Implementation (LTPP)	6,000	.....
SHRP Implementation	14,000	.....
Technology Partnership Support	.....	11,000

RESEARCH AND TECHNOLOGY PROGRAMS, FEDERAL HIGHWAY ADMINISTRATION—MANAGEMENT COORDINATION COST DISTRIBUTED—Continued

[In thousands of dollars]

	Fiscal years—	
	1997 enacted	1998 request
Long-Term and Advanced Research	.....	25,000
LTPP	.....	15,000
Advanced Research	.....	10,000
Eisenhower Transportation Fellowship Program	2,000	2,000
Applied Research and Technology	41,000	.....
National Technology Deployment Initiatives	.....	56,000
Seismic Research and Development Program	2,000	.....
Fundamental Properties of Asphalts	.....	.....
Timber Bridge Research Program	1,000	.....
GPS Support	.....	2,100
R&T Technical Support	10,358	[2] 10,000
Grand total	486,506	581,360

[1] The LTPP program is now incorporated under Highway Research, Development, and Technology.
[2] R&T Technical Support will be included as a separate line item begining in fiscal year 1998.
[3] The International Scanning program is now incorporated within Technology Assessment and Deployment.
[4] R&T Technical Support were distributed among these programs.

RESEARCH AND TECHNOLOGY PROGRAMS, FEDERAL HIGHWAY ADMINISTRATION—MANAGEMENT COORDINATION COST NOT DISTRIBUTED

[In thousands of dollars]

	Fiscal years—	
	1997 enacted	1998 enacted
Highway Research, Development and Technology	67,124	73,903
LGOE:		
Safety	8,650	9,000
Materials	.....	.....
Pavements	[1] 19,731	11,150
Structures	14,362	15,256
Environment	5,443	5,566
Right-of-Way	322	365
Policy	5,328	8,000
Planning	5,889	16,025
Motor Carrier	7,399	8,541
Intelligent Transportation Systems (ITS)	233,358	250,000
LGOE	120,358	54,000
Research and Development	28,605	33,000
AHS/Advance Crash Avoidance	22,000	.....
Architecture and Standards	5,000	.....
Operational Test	54,992	.....
Evaluation	2,000	9,000
Mainstreaming	.....	3,000
ITS Deployment Incentives Program	.....	.....
Commercial Vehicle Operations	.....	.....
ITS Program and System Support	7,761	9,000
Advanced Technology Applications	.....	.....
Contract Authority	113,000	196,000
Research and Development	4,300	12,500

RESEARCH AND TECHNOLOGY PROGRAMS, FEDERAL HIGHWAY ADMINISTRATION—MANAGEMENT COORDINATION COST NOT DISTRIBUTED—Continued

[In thousands of dollars]

	Fiscal years—	
	1997 enacted	1998 enacted
AHS/Advance Crash Avoidance	.....	26,000
Architecture and Standards	7,300	13,000
Operational Test	5,400	24,500
Evaluation	300	.....
Mainstreaming	10,000	19,000
Commercial Vehicle Operations	.....	.....
Priority Corridors	71,700	1,000
National Advanced Driver Simulator	14,000	.....
ITS Deployment Incentives Program	.....	100,000
Long-Term Pavement Performance (LGOE)	([1])	([1])
Technical Assessment and Deployment (LGOE)	13,811	[2] 14,800
National Advanced Driver Simulator	.....	12,250
Local Technical Assistance Program	8,827	12,000
LGOE	2,827	.....
Contract Authority	6,000	12,000
Rehabilitation of Turner Fairbanks	500	2,000
Truck Dynamic Test Facility	.....	.....
National Highway Institute	4,269	8,000
LGOE	4,269	.....
Contract Authority	.....	8,000
University Transportation Centers	6,000	6,000
University Research Institutes	6,250	6,000
State Planning and Research	80,367	90,307
Strategic Highway Research Program Implementation	20,000	.....
SHRP Implementation (LTPP)	6,000	.....
SHRP Implementation	14,000	.....
Technology Partnership Support	.....	11,000
Long-Term and Advanced Research	.....	25,000
LTPP	.....	15,000
Advanced Research	.....	10,000
Eisenhower Transportation Fellowship Program	2,000	2,000
Applied Research and Technology	41,000	.....
National Technology Deployment Initiatives	.....	56,000
Seismic Research & Development Program	2,000	.....
Fundamental Properties of Asphalts	.....	.....
Timber Bridge Research Program	1,000	.....
DGPS Support	.....	2,100
R&T Technical Support	[10,358]	[2] 10,000
Grand total	486,506	581,360

[1] The LTPP program is now incorporated under Highway Research, Development, and Technology.
[2] The International Scanning program is now incorporated within Technology Assessment and Deployment.

Question. During the last two years, the Appropriations Committees placed a limitation on M&C costs. How did this limitation affect the R, D, and T program?

Answer. There has been no significant or adverse impact on the vitality of the R, D, and T program. We have had to shift some program funding responsibilities, but this has been done without detriment to the program.

Question. What expenses were reduced as a result of this limitation?

Answer. None of the expenses were reduced; the costs were reassigned. Management and coordination has been used as a mechanism to ensure that all R, D, and T programs contribute a share of the funding to those activities where there is a mutual need or responsibility. To stay within the limits which were imposed on the

FHWA, we had to shift program funding responsibilities. Consequently, there has not been a reduction in expenses. There has been a reduction in the cost of the management and coordination activity; however, there has been a corresponding increase in the cost to certain R, D, and T programs.

Question. How could the technical support costs be further reduced?

Answer. It would be extremely difficult to reduce the costs for technical support. The contribution to the Small Business Innovation Research Program, which is the largest costs under M&C, is fixed by law. The increases in our work with the Transportation Research Board have been primarily a result of inflation. Our recent increases in the editorial and publication support reflect the additional work from significant R&D funding increases brought about by ISTEA. We will continue to look for ways to reduce the costs of technical support.

Question. Why is it of critical importance to support the TRB visits to States?

Answer. Each year, the TRB staff members visit every State highway and transportation department, many transit agencies, other modal agencies and universities, and private industry. During these visits, the TRB learns about the problems facing the organizations and passes on information pertinent to the solution of these problems; learns of research activities in progress or planned, and informs the visited organization of ongoing similar activities to avoid duplication; and identifies new methods or procedures that might have application elsewhere. Although other information sharing exists, such as publications and electronic services, one-on-one discussions during these field visits explore areas of mutual interest and identify innovative or experimental work that will not be published for wide dissemination, yet are worth bringing to the attention of others. The TRB summarizes and distributes the results of its field visit program to the States, FHWA, and other interested parties.

Question. Please breakout in detail each of the current fiscal year 1997 contract and associated amounts that FHWA has with TRB. Please specify the purposes of these contracts and estimate fiscal year 1998 continued funding levels.

Answer.

Fiscal year 1997: Cooperative Agreement	$2,611,000
Fiscal year 1998: DTFH61–97–X–00001	2,665,740

This agreement is FHWA's contribution to TRB and is used to help support the following activities:

—*TRB Technical Committees and Publications*.—The TRB maintains standing committees in subject areas of interest to the FHWA. The committees promote the exchange of technical research information, advance the state-of-the-art in their respective specialized field, and identify research needs. The Committees also sponsor technical workshops and conferences.

—*TRB Annual Meeting*.—The TRB conducts an annual meeting in Washington, D.C., as a forum to review and discuss the results of highway transportation research. Approximately 7,200 people from the United States and around the world participate in the 5-day conference, involving over 700 technical sessions and committee meetings. About 75 percent of the sessions and meetings are highway related. In conjunction with the meeting, the TRB provides FHWA with display areas and meeting facilities. The TRB also registers all FHWA employees attending the meeting and provides copies of all highway related papers.

—*TRB's Field Visit Program*.—Each year, the TRB staff members visit every State highway and transportation department, many transit agencies, other modal agencies and universities, and private industry. During these visits the TRB learns about the problems facing the organizations and passes on information pertinent to the solution of these problems; learns of research activities in progress or planned and informs the visited organization of ongoing similar activities to avoid duplication; and identifies new methods or procedures that might have application elsewhere. Although other information sharing exists, such as publications and electronic services, one-on-one discussions during these field visits explore areas of mutual interest and identify innovative or experimental work that will not be published for wide dissemination, yet are worth bringing to the attention of others. The TRB summarizes and distributes the results of its field visit program to the States, FHWA, and other interested parties.

—*TRIS*.—The TRB maintains a bibliographic database that contains citations and abstracts for research literature published in the transportation field and related disciplines. Transportation Research Information Service (TRIS) personnel also process summaries of research projects in progress being conducted by organizations throughout the U.S. TRIS has been upgraded to integrate document

management with the TRIS system by providing each State DOT's with (1) a compatible data entry and text retrieval system to enable uploading of research summaries, and (2) text retrieval capabilities for downloading research summaries.

—*RTCC*.—The Research and Technology Coordinating Committee (RTCC) is composed of 15–20 members selected from among researchers, administrators, research users and practitioners from the public, private and academic sectors. The RTCC assists the FHWA by identifying gaps in research, exploring ways to increase State, local and private sector participation in highway research, addressing issues related to the implementation of research results, identifying areas of duplication, and providing a mechanism for gathering research needs.

—*NCHRP-IDEA Program*.—The Innovations Deserving Exploratory Analysis (IDEA) program solicits projects with the potential to produce significant technological improvements in the highway community from individuals, public and private institutions, and small and large businesses. Proposals are evaluated by a technical committee and contracts in the amount of $50,000–100,000 are awarded, about 10 projects annually. The FHWA has contributed 75 percent of the expenses for the IDEA program, and the States contributed 25 percent. For the fiscal year 1998 program the FHWA share will be 67 percent as the States' contribution will increase.

Question. Which FHWA sponsored projects or activities does TRB manage or help manage? What amount is required to pay for this TRB support annually?

Answer. The Research and Technology Coordinating Committee (RTCC) is an FHWA activity that is managed by TRB. The TRB also conducts special studies, conferences and reviews when requested by the FHWA. The fiscal year 1997 budget for the RTCC is $388,500. The amount for special studies, conferences, etc., varies from year to year depending on need, but averages about $200,000.

Question. For each of the major research areas, please prepare a chart showing separately LGOE, contract, and other funds provided for each of the last five years.

Answer. The information is provided in the following table.

FEDERAL HIGHWAY ADMINISTRATION RESEARCH AND TECHNOLOGY PROGRAMS

[In thousands of dollars]

Programs	Fiscal years—						
	1992 enacted	1993 enacted	1994 enacted	1995 enacted	1996 enacted	1997 enacted	1998 President
Funded by a takedown:							
Highway Research and Development	28,500	43,860	42,525	55,153	56,772	67,124	73,903
Intelligent Transportation System	139,800	30,000	90,300	14,450	109,779	120,358	54,000
Technology Deployment	.....	.....	.....	13,000	12,622	.....	.....
Long-Term Pavement and Performance	10,000	6,000	7,000	9,000	8,739	.....	.....
Advance Research	.....	.....	.....	.....	.....	.....	.....
Technical Assessment and Deployment	8,000	8,000	12,000	.....	.....	13,811	14,800
National Advanced Driver Simulator	.....	.....	.....	.....	.....	.....	12,250
Local Technical Assistance Program	3,750	4,000	500	3,105	3,015	2,827	.....
Rehabilitation of Turner Fairbanks	.....	1,940	1,250	3,000	.....	500	2,000
National Highway Institute	3,000	4,500	4,500	4,500	4,369	4,269	.....
University Transportation Centers	.....	.....	.....	.....	.....	.....	.....
University Research Institute	.....	.....	.....	.....	.....	.....	.....
State Planning and Research	.....	.....	.....	.....	.....	.....	.....
Strategic Highway Research Program Implementation (SHRP)	.....	.....	.....	.....	.....	.....	.....
Technology Partnership Fellowship Program (Formerly SHRP)	.....	.....	.....	.....	.....	.....	.....
Eisenhower Tranportation Fellowship Program	.....	.....	.....	.....	.....	.....	.....
Applied Research and Technology	.....	.....	.....	.....	.....	.....	.....
National Technology Deployment Initiatives (Formerly Applied R&T)	.....	.....	.....	.....	.....	.....	.....
Seismic Research and Development Program	.....	.....	.....	.....	.....	.....	.....
Fundamental Properties of Asphalts	.....	.....	.....	.....	.....	.....	.....
Timber Bridge Research	.....	.....	.....	.....	.....	.....	.....
GPS Oversight	.....	.....	.....	.....	.....	.....	2,100
R&D Technical Support	.....	.....	.....	.....	.....	.....	10,000
Subtotal	193,050	98,300	158,075	102,208	195,296	208,889	169,053

Direct contract authority:							
Highway Research and Development	.....	.....	.....	.....	.....	.....	.....
Intelligent Transportation System	94,000	113,000	113,000	113,000	97,910	113,000	96,000
Technology Deployment	.....	.....	.....	.....	.....	.....	.....
Long-Term Pavement and Performance	.....	.....	.....	.....	.....	.....	15,000
Advance Research	.....	.....	.....	.....	.....	.....	10,000
Technical Assessment and Deployment	.....	.....	.....	.....	.....	.....	.....
National Advanced Driver Simulator	.....	.....	.....	.....	.....	.....	.....
Local Technical Assistance Program	6,000	6,000	6,000	6,000	6,000	6,000	12,000
Rehabilitation of Turner Fairbanks	.....	.....	.....	.....	.....	.....	.....
National Highway Institute	.....	.....	.....	.....	.....	.....	8,000
University Transportation Centers	5,000	6,000	6,000	6,000	6,000	6,000	6,000
University Research Institute	6,250	6,250	6,250	6,250	6,250	6,250	6,000
State Planning and Research	.....	.....	.....	.....	.....	.....	.....
Strategic Highway Research Program Implementation (SHRP)	12,000	16,000	20,000	20,000	20,000	20,000	.....
Technology Partnership Fellowship Program (Formerly SHRP)	.....	.....	.....	.....	.....	.....	11,000
Eisenhower Tranportation Fellowship Program	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Applied Research and Technology	35,000	41,000	41,000	41,000	41,000	41,000	56,000
National Technology Deployment Initiatives (Formerly Applied R&T)	.....	.....	.....	.....	.....	.....	.....
Seismic Research and Development Program	2,000	2,000	2,000	2,000	2,000	2,000	.....
Fundamental Properties of Asphalts	3,000	3,000	3,000	3,000	3,000	.....	.....
Timber Bridge Research	.....	.....	.....	.....	.....	.....	.....
GPS Oversight	.....	.....	.....	.....	.....	.....	.....
R&D Technical Support	.....	.....	.....	.....	.....	.....	.....
Subtotal	165,250	195,250	199,250	199,250	184,160	196,250	222,000
ITS Incentive Programs	.....	.....	.....	.....	.....	.....	100,000
Total	165,250	195,250	199,250	199,250	184,160	196,250	322,000
Funded by direct contract authority and administration takedown:							
Highway Research and Development	28,500	43,860	42,525	55,153	56,772	67,124	73,903
Intelligent Transportation System	233,800	143,000	203,300	127,450	207,689	233,358	150,000
Technology Deployment	.....	.....	.....	13,000	12,622	.....	.....
Long-Term Pavement and Performance	10,000	6,000	7,000	9,000	8,739	.....	15,000

FEDERAL HIGHWAY ADMINISTRATION RESEARCH AND TECHNOLOGY PROGRAMS—Continued

[In thousands of dollars]

Programs	Fiscal years—						
	1992 enacted	1993 enacted	1994 enacted	1995 enacted	1996 enacted	1997 enacted	1998 President
Advance Research	.....	.....	.....	.....	.....	.....	10,000
Technical Assessment and Deployment	8,000	8,000	12,000	.....	.....	13,811	14,800
National Advanced Driver Simulator	.....	.....	.....	.....	.....	.....	12,250
Local Technical Assistance Program	9,750	10,000	6,500	9,105	9,015	8,827	12,000
Rehabilitation of Turner Fairbanks	.....	1,940	1,250	3,000	.....	500	2,000
National Highway Institute	3,000	4,500	4,500	4,500	4,369	4,269	8,000
University Transportation Centers	5,000	6,000	6,000	6,000	6,000	6,000	6,000
University Research Institute	6,250	6,250	6,250	6,250	6,250	6,250	6,000
State Planning and Research	.....	.....	.....	.....	.....	.....	.....
Strategic Highway Research Program Implementation (SHRP)	12,000	16,000	20,000	20,000	20,000	20,000	.....
Technology Partnership Fellowship Program (Formerly SHRP)	.....	.....	.....	.....	.....	.....	11,000
Eisenhower Tranportation Fellowship Program	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Applied Research and Technology	35,000	41,000	41,000	41,000	41,000	41,000	56,000
National Technology Deployment Initiatives (Formerly applied R&T)	.....	.....	.....	.....	.....	.....	.....
Seismic Research and Development Program	2,000	2,000	2,000	2,000	2,000	2,000	.....
Fundamental Properties of Asphalts	3,000	3,000	3,000	3,000	3,000	.....	.....
Timber Bridge Research	.....	.....	.....	.....	.....	.....	.....
GPS Oversight	.....	.....	.....	.....	.....	.....	2,100
R&D Technical Support	.....	.....	.....	.....	.....	.....	10,000
Subtotal	358,300	293,550	357,325	301,458	379,456	405,139	391,053
ITS Incentive Programs	.....	.....	.....	.....	.....	.....	100,000
Total	358,300	293,550	357,325	301,458	379,456	405,139	491,053

Question. Please specify how FHWA obtained its share of the $25 million of administrative cost savings required in the 1996 DOT Appropriations Act. In your fiscal year 1998 budget request have you restored these cost savings?

Answer. To achieve its share of the required fiscal year 1996 funding reductions, the FHWA continued to implement cost savings initiatives which were begun as part of our streamlining efforts to implement the NPR objectives. We took reductions in a broad range of related administrative areas as we reduced our FTE levels in targeted administrative and crosscutting populations. Our cost savings included reductions in administrative costs associated with salaries and benefits by limiting the backfilling of positions and we realized savings in related travel costs, space and facilities costs, and other administrative areas. Our fiscal year 1998 budget request has not restored these cost savings. We are requesting, however, nominal increases in our ADP and communications area to continue to move forward with enhancements to our IRM infrastructure which are essential as we continue to downsize and redeploy our staff, and streamline our operations.

Question. Are any fiscal year 1997 GOE or ISTEA funds being used to pay for various initiatives of concern to OST, the FHWA Administrator, or the Secretary that were not specifically requested in the fiscal year 1997 budgt? If so, please delineate these expenses in detail.

Answer. The FHWA has not used any funds for initiatives of OST, the FHWA Administrator, or the Secretary that were not requested in the fiscal year 1997 budget or authorized under existing law.

Question. Are you spending any monies during fiscal year 1997 on the promotion of technology transfer or educational activities in the Republic of South Africa, a summer jobs program related to transportation, or the support of possible careers in the transportation field for disadvantaged youth?

Answer. The FHWA is spending fiscal year 1997 funds on program activities related to the technology transfer activities between the two countries. Approximately half of these activities are education or training-related. The U.S. transfers information to South Africa on Technology Transfer Centers, education, and training, while South Africa transfers technical information on pavement technologies to the U.S. Presently, the FHWA is working with two States to plan and construct sections of pavement using this South African technology. In addition, the FHWA is work with South Africa to develop and present a pavement workshop in the U.S. in 1998.

Question. If yes, please indicate the source and amount of funding for each activity listed above and discuss how these expenditures affected the amount of funds available during fiscal year 1997 for R, D, and T program that were justified in your request. Specify whether the funds came from the LGOE account or from other sources.

Answer. For fiscal year 1997, an estimated $300,000 will be spent from Technology Assessment and Deployment GOE funds. Of this, approximately $150,000 will be sent on the Technology Transfer Center and training activities and the balance on pavement-related technology transfer activities. When developing the budget request for fiscal year 1997, international activities were considered as an element of the overall FHWA technology transfer program. These expenditures did not affect the amounts of funds available during fiscal year 1997 for research, development, or technology transfer programs since the major thrust of the FHWA's South Africa program is specifically to exchange advanced technical information.

Question. How much funding is FHWA providing for research conducted at or through the Transportation Research Board in fiscal year 1997? How much is requested for fiscal year 1998?

Answer. The FHWA is providing $750,000 in fiscal year 1997 and $750,000 in fiscal year 1998 for the Innovations Deserving Exploratory Analysis (IDEA) program. These funds are used for projects with the potential to produce significant technological improvements in the highway community. Proposals are evaluated by a technical committee and contracts in the amount of $50,000–$100,000 are awarded.

Question. Please present a table showing carryover funds for each of the last two years for each LGOE category.

Answer. The information is provided in the following table.

DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION—TOTAL CONTRACT PROGRAMS

[In thousands of dollars]

	Fiscal years—	
	1995 carryover	1996 carryover
Highway Research, Development and Technology	3,761,065	4,308,282
Intelligent Transportation Systems	4,792,045	4,692,235
Long-Term Pavement Performance	.....	379,371
Technical Assessment and Deployment	1,272,414	88,159
Local Technical Assistance Program	650,206	74,794
National Highway Institute	345,361	385,066
Minority Business Enterprise	492,400	652,764
OJT Skill Training	1,150,388	90,345
International Transportation	332,679	121,791
Rehabilitation of Turner Fairbanks	2,473,150	.....
Russia Technical Assistance	29,944	10,199
Truck Dynamic Test Facility	.....	22,917
Cost Allocation Study (Truck Size and Weight)	.....	.....
Grand total	15,299,652	10,825,922

Question. Please prepare a chart of: (a) equipment and communications expenses and (b) rent and utilities expenses (p. 30) for each of the last five years.

Answer. The information is provided in the following table.

Object classification	1993	1994	1995	1996	1997	1998
GOE:						
Communications and Utilities Expenses	7,805	7,826	8,317	10,120	8,444	9,929
Rent	([1])	16,472	16,619	17,598	17,294	18,275
Equipment	10,699	9,598	7,088	3,894	3,512	6,938
MCS:						
Communications and Utilities Expenses	282	309	362	270	240	240
GSA Rent	N/A	N/A	N/A	N/A	N/A	N/A
Equipment	1,547	3,049	1,287	499	770	900
LGOE (GOE/MCS):						
Communications and Utilities Expenses	8,087	8,135	8,679	10,390	8,684	10,169
GSA Rent	([1])	16,472	16,619	17,598	17,294	18,275
Equipment	12,246	12,647	8,375	4,393	4,282	7,838

[1] GSA Rent was paid by OST until fiscal year 1993.

Question. Please discuss in extensive detail the need for each of the increases proposed on page 39.

Answer.

OBJECT CLASS 2300

The requested increase of $1,474 is required to:

—Continue the implementation of additional Electronic Data Sharing links between FHWA division offices and their State partners. This will enhance the speed and quality of business processes for delivering the Federal-aid highway program to the State DOT's, including Electronic Data Sharing and Electronic Signatures for Project Authorizations and Agreements and Vouchers for Payment (Current Bill) and access to each other's project databases and e-mail systems, thus improving service to our partners and customers ($100).

—Provide for the installation and operation of high-speed data lines in FHWA division offices upgrade the speed of the FHWA Wide Area Network to allow for remote access to file server based applications. This will enhance field office access to new graphical user interfaces for nationwide information systems,

streamline remote local and wide area network management services, and provide the medium for expanding video-conferencing capability—see below ($666).

—Complete the expansion of the FHWA videoconferencing system to the remaining division offices. This will enhance internal communcations and coordination without increasing travel costs or non-productive travel time ($440).

—In addition, FHWA is a participant in the US DOT Intermodal Data Network (IDN), which provides "backbone" connectivity for all FHWA Headquarters Local Area Networks within the US DOT Headquarters building. The IDN also provides intermodal E-mail links among the DOT Operating Admininstrations and access to the Internet for all DOT employees. As a participant in this network, the Operating Administrations are required to provide funding to support the continuing operations and maintenance of this system ($268).

OBJECT CLASS 2500

The requested increase of $1,300 is required to:

—Provide FHWA with sufficient funding to provide service to mainframe users during the period when systems are being converted to accommodate the Year 2000 (which will require additional mainframe test time), as well as provide funding to begin testing at alternate mainframe sites in the likelihood that the Transportation Computer Center will be consolidated into another site under OMB Bulletin 96–02 and it becomes necessary for FHWA to obtain mainframe support from other than TASC ($600).

—Provide for annual cost of living adjustment as detailed in the contract for the employees supporting FHWA's nationwide information systems, but no additional level of effort/staffing ($200).

—Provide services for implementing upgrades to FHWA's Local Area Networks (LAN's) and cover the cost of living adjustment detailed in the contract for employees providing operational support of the FHWA Help Desk, but no additional level of effort/staffing ($200).

—Provide for necessary upgrading and annual maintenance of Agencywide software site licenses for suites of FHWA's standard PC Office Automation software according to the upgrade/migration plan developed by the FHWA Infrastructure Steering Committee. Agencywide site licenses eliminate individual acquisitions and reduce overall costs ($300).

OBJECT CLASS 3100

The requested increase of $2,411 is required to:

—Provide for the implementation of the recommendations of the FHWA Infrastructure Steering Committee to include the purchase of upgraded individual workstations and LAN servers to meet the requirements of new, graphical-based nationwide information systems and to replace the current outdated and unsupported equipment. This is the second year of a three year project ($790).

—Initiate new IRM improvement projects and local applications development as identified in the annual FHWA IRM Plan to include such items as electronic recordkeeping systems, engineering workstations for electronic plans reviews, enhanced remote LAN access capabilities, expanded electronic data interfaces with State DOT's. These enhancements improve the management and delivery of the Federal-aid highway program to our customers ($1,341).

—Complete the acquisition of desktop videoconferencing equipment for 25 division offices. This will enhance internal communcations and coordination without increasing travel costs or non-productive travel time ($250).

—Emergency replacement of computer equipment for hardware/software that may be stolen, lost, or not cost-effective to repair ($30).

Question. Why can't these expenses be split funded or spread over the next three years?

Answer. The FHWA's request for increases in Administrative expenses included funds for critical IRM infrastructure activities to meet the changing role of the FHWA, and further the streamlining of its program delivery processes and the restructuring of its organization. These funds are required to directly support our program delivery efforts at our Division Offices located in each State. They are a part of a multi-year plan the timing of which is necessary to continue our streamlining and restructuring efforts.

Question. Reprogramming guidelines state that congressional approval is required for funding shifts of ten percent or more among programs, projects and activities. Did you exceed this 10 percent threshold without notification since this requirement went into effect?

Answer. The FHWA has not exceeded the 10 percent threshold without notification since this requirement went into effect.

Question. Please prepare a table showing actual expenses versus appropriated funds as specified in the conference report for each LGOE program area and category for fiscal year 1996 and fiscal year 1997 planned expenses.

Answer. The information is provided in the following table.

DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION—FISCAL YEAR 1996 CONTRACT PROGRAMS—FISCAL YEAR 1996

[In thousands of dollars]

Research, development, and technology transfer activities	Fiscal year				
	1996 enacted [1]	1996 recissions	1996 enacted [1]	1996 obligations	1996 unobligated
Highway Research Development and Technology	56,772,000	(1,303,000)	55,469,000	(52,851,387)	2,617,613
Intelligent Transportation Systems	109,779,000	(4,777,000)	105,002,000	(102,471,016)	2,530,984
Long-Term Pavement Perfommance	8,739,000	(431,000)	8,308,000	(8,090,190)	217,810
Technical Assessment and Deployment	12,622,000	(123,000)	12,499,000	(12,498,410)	590
Local Technical Assistance Program	3,015,000	(149,000)	2,866,000	(2,865,886)	114
National Highway Institute	4,369,000	(42,000)	4,327,000	(4,012,203)	314,797
Minonty Business Enterprise	10,000,000	(494,000)	9,506,000	(9,449,860)	56,140
Intemational Transportation	500,000	(25,000)	475,000	(425,569)	49,431
Truck Dynamic Test Facility	750,000	(37,000)	713,000	(690,083)	22,917
Russian Technical Assistance Program	400,000	(20,000)	380,000	(370,426)	9,574
Cost Allocation	2,000,000	(99,000)	1,901,000	(1,901,000)	.....
Grand total	208,946,000	(7,500,000)	201,446,000	(195,626,030)	5,819,970

[1] Reflects fiscal year 1996 recessions.

Note.—Enacted funds are available for 3 fiscal years.

DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION—FISCAL YEAR 1997 CONTRACT PROGRAMS

[In thousands of dollars]

	Fiscal year		
	1997 enacted	1997 obligations [1]	1997 unobligated
Highway Research, Development, and Technology	67,124	(37,158)	29,966
Intelligent Transportation Systems	120,358	(71,468)	48,890
Long-Term Pavement Performance	.....	.....	.....
Technical Assessment and Deployment	13,811	(5,919)	7,892
Local Technical Assistance Program	2,827	(1,889)	938
National Highway Institute	4,269	(482)	3,787
Minority Business Enterprise	9,378	(1,089)	8,289
International Transportation	475	(251)	225
Russia Technical Assistance	200	(38)	162
Rehabiliation of TFHRC	500	(471)	29
Federal Lands Contamination Site Clean-up	2,466	(692)	1,774
Transportation Investment	250	(250)	.....
Cost Allocation Study	300	.....	300
Total	221,958	(119,705)	102,253

[1] Reflects obligated balances as of 5/31/97.

Note.—Enacted funds are available for 3 fiscal years.

DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION—FISCAL YEAR 1997
CONTRACT PROGRAMS—FISCAL YEAR 1996

[In thousands of dollars]

Research, development, and technology transfer activities	Fiscal years—		
	1996 carryover	1997 obligations [1]	1997 unobligated
Highway Research, Development, and Technology	2,117,613	(1,178,283)	939,330
Intelligent Transportation Systems	2,530,984	(2,161,086)	369,898
Long-Term Pavement Performance	217,810	(9,194)	208,616
Technical Assessment and Deployment	590	(73,293)	(72,703)
Local Technical Assistance Program	114	(10,725)	(10,611)
National Highway Institute	814,797	3,956	818,752
Minority Business Enterprise	56,140	.....	56,140
International Transportation	49,431	(2,635)	46,796
Truck Dynamic Test Facility	22,917	.....	22,917
Russian Technical Assistance Program	9,574	(1,765)	7,809
Cost Allocation	.....	.....	.....
Grand total	5,819,970	(3,433,095)	2,386,945

[1] Reflects obligations as of 5/31/97.

Question. Please assess the costs and benefits of the FHWA investment in the Pan American Institute of Highways. Please estimate separately fiscal year 1996, 1997, and fiscal year 1998 funds allocated or planned for this purpose and provide the funding source of these monies.

Answer.

Fiscal year	*GOE*
1996	$400,000
1997	275,000
1998	[1] 200,000

[1] Planned.

The benefits of the FHWA investment in the PIH can be summarized in the following paragraphs:

The PIH provides FHWA with an efficient mechanism through which FHWA can know of new developments in highway and transportation technology in the Americas. This also allows the FHWA to be aware of opportunities for U.S. Private Sector and helps to find reliable and credible partners for the U.S. Private Sector when needed.

The FHWA can promote new technologies where the U.S. has a technological advantage, such as Intelligent Highway Systems, Highway Safety, SUPERPAVE, and similar technologies. This partnership with U.S. industry facilitates contacts and setting up of initial meetings that can result in sales.

The PIH provides a forum for developing and implementing international standards for highways and transportation technologies.

The PIH has become a prime example of on operational public/private partnership. As of May 1997, 8 U.S. firms are making financial contributions to the operation of the PIH Headquarters and they have been cooperating with FHWA to send speakers to international events. It is anticipated that the number of firms will increase over the coming months.

The FHWA serves as the Headquarters for the PIH, and as such plays a major role in setting the agenda for international congresses, conferences, and other such events, ensuring that U.S. firms are given favorable treatment at trade shows and international conferences held throughout the region. This also allows the PIH to know of when and where the events will take place so that it can then make sure interested U.S. firms know of the events. The PIH can even assist representatives from U.S. firms in making the appropriate initial contacts.

With a network of 80 Technology Transfer Centers throughout the Americas, the PIH provides FHWA with a programed and efficient mechanism to respond to and interact with the highway community of the Americas. This mechanism provides a focused, efficient, and effective base from which to respond to numerous requests for

technical assistance, training, technical materials, software, and contacts for goods and services produced in the U.S.

Through the PIH Network, the FHWA identifies and selects outstanding young professionals from throughout the Americas who can be brought to the U.S. to work on specific projects of research and technology transfer. These professionals take back a familiarity with, and often a preference for U.S. highway products and technologies which helps U.S. firms in establishing market foot-holds in these countries.

Question. What were the actual fiscal year 1996 and what are the expected fiscal year 1997 M&C expenses?

Answer. The actual fiscal year 1996 expenses were $8,535,868, and the estimated expenses for fiscal year 1997 are $10.7 Million.

Question. In recent years, FHWA has held the line on its administrative costs. Why do you judge it essential to increase these expenses during fiscal year 1998?

Answer. Other than for cost-of-living increases for our approved level of employees, our fiscal year 1998 Budget request includes nominal increases in our ADP and communications areas to continue to move forward with enhancements to our IRM infrastructure, and a small increase for Permanent Change of Station (PCS) moves. These are essential as we continue to downsize and redeploy our staff, and streamline our operations. The increase, excluding the increase for our Motor Carrier operations, represents only a 2.7 percent increase over the enacted fiscal year 1997 annual administrative funds.

Question. Please further justify in detail why increases are sought in travel expenses.

Answer. Increases in travel are requested to implement field-wide training initiatives and to provide technical assistance to States.

With the transfer of the responsibilities of the Interstate Commerce Commission and subsequent rulemakings which affect how those responsibilities are carried out, the FHWA must develop and conduct training of its field staff and state partners. These enforcement personnel do not have the appropriate background nor have they been trained to enforce registration and insurance provisions of economic regulations.

In addition, the Federal Motor Carrier Safety Regulations are undergoing a complete renovation as a result of FHWA's zero base regulatory reform project. The Federal and State enforcement staff must be trained in the use of these new regulations which are critical to developing enforcement cases.

To provide the necessary training for these two initiatives and to make the most efficient use of Federal funds, the FHWA plans to train Federal staff on both programs during the same session.

The FHWA also requests travel funds to provide a national network of Federal personnel to educate judges and legislators on commercial vehicle safety programs and advise them on procedures and methods to uniformly apply fines and penalties for non-compliance. Courses and educational materials have been developed and are ready for delivery to the target audience. The result of this assistance will be effective judicial and legislative support for commercial motor vehicle safety.

Question. Please list all reports prepared by the FHWA Office of Program Review, key recommendations of each report, and resulting improvements in FHWA policies and programs.

Answer. The Office of Program Quality Coordination (formerly the Office of Program Review) list of reviews and status of recommendations July 1997:

1986 REVIEWS

"Turnkey"—Right-of-way Projects.—Led to a model contract to carry out full-service acquisition and relocation for local public agencies (LPA's) by consultant or State. Many LPA's adopted these provisions for obtaining specialized consultant services. (Closed.)

Design Monitoring Program.—Pre-ISTEA Report stressed early review of major projects and more process reviews. (Closed.)

Financial Management Program.—Led to a Handbook which increased flexibility in reviews and reports. (Closed.)

The use of Consultants.—Led to revised regulations whereby the FHWA approved consultant selection processes of States based on more definitive guidance. Removed FHWA from review of contracts. (Closed.)

1987 REVIEWS

Bridge Replacement and Rehabilitation Program: Unit Cost Determination.—Assessed how unit costs are determined by States. Led to the clarifications by the FHWA and reduced data requirements on States. (Closed.)

Contaminated Sites: Impact on Highway Project Development and Construction.—Early effort to assess issues and address policy. Led to guidance on early testing, avoidance, mitigation, and acquisition of sites and potential for State liability. This was followed by training. (Closed.)

Incentive/Disincentive for Early Contract Completion.—Led to the issuance of a Technical Advisory on I/D Contracting and provisions for A+B bidding. These procedures are now widespread throughout the country. (Closed.)

Managing Unexpended Balances of Obligated Funds.—Review curtailed after agreements were reached on providing improved reporting and controls. (Closed.)

Motor Carrier Safety Assistance Program.—Reviewed and commented on Chapter 3 of the Motor Carrier of Safety Manual—Guidelines for the review of MCSAP. (Closed.)

RD&T Contracts and Staff Research Program.—Looked at changes in the Research Program management as well as the need for basic research. Both areas were changed based on a RD&T Actions Plan. (Closed.)

1988 REVIEWS

Evaluation of FHWA'S Wetland Program.—Assessed effectiveness of discussions in the environmental document on wetlands values and avoidance to minimize problems at the 404 Permit Stage. Led to additional guidance and delegated levels of approval. (Closed.)

FHWA Training System Review.—Reviewed the implementation of Task Force recommendations to set goals, narrow course offering, properly schedule call for training, ensure courses offered, timely approvals and guidance on management training. Report concluded all recommendations fulfilled. (Closed.)

I–4(R) Apportionment—Vehicle Miles Traveled (VMT) Determination.—Evaluated the effectiveness of the FHWA oversight of the State's data collection, analysis and reporting of VMT. Concluded data collection and oversight had weaknesses. Led to a definitive policy on oversight and major efforts to upgrade collection. (Closed.)

Property Management Program: Disposal of Excess Property.—Assessed the impact of a policy directing States to dispose of excess property in a 2-year time frame. Found time frame too exacting and led to numerous improvements in management systems. (Closed.)

Marketing of FHWA'S Research Program.—Determined that the FHWA's ability to transfer technology (TT) had eroded over the years. Resulted in TT becoming a strategic goal of the agency. Led to policy changes, a field focus and employment of staff with professional marketing skills. (Closed.)

1989 REVIEWS

Administrative and Legal Settlements Program Evaluation.—Assessed the application of legal and administrative settlements in the Right-of-Way Program. Led to an optional, appraisal-free administrative settlement approach for properties under $2,500 (30–40 percent of acquisitions), and more liberal application of legal settlements to avoid costly court proceedings. (Closed.)

Local Public Agency (LPA) Acquisition Program Evaluation.—Reassessed State oversight and assistance to LPA's in Right-of-Way acquisition. Determined most States were performing satisfactorily. Recommended more State up-front assistance and training, and more utilization of simplified techniques. The FHWA updated its "Real Estate Acquisition Guide for LPA's" to accomplish these objectives. (Closed.)

A Study of the FHWA Audit/Review Follow-up Processes.—Studied the FHWA methods for implementing audit recommendations. Resulted in a central clearing house for follow-up and an upgraded response system. (Closed.)

Use of Consultants for Construction Engineering and Inspection.—Review determined wide variations in practice and a high level of confusion. The FHWA issued a Technical Advisory to assist States in developing and negotiating contracts, and to provide technical guidance to the FHWA on program oversight. (Closed.)

1990 REVIEWS

Access Management Program Evaluation.—Looked at the management of Access Control (AC) on the Interstate System and other principle arterial. Concluded policies and training programs were effective. Specific recommendations with regard to fencing of AC facilities for safety and clarification on the selling of access were issued. (Closed.)

Bus Safety Inspection Program.—Recommendations led to actions that formally incorporated bus safety inspections into State Enforcement Plans and the Office of Motor Carriers oversight programs. (Closed.)

Evaluation of Relocation Services.—Found instances where project schedules resulted in insufficient time for adequate relocation services. Guidance issued and a follow-up review was scheduled. (Closed.)

Traffic Control Systems Operations and Maintenance.—Found most of the 24 systems reviewed to be operating at less than optimum conditions due to a lack of local technical expertise. An Action Plan was developed focusing on nine priority recommendation and implementation was begun. A follow-up review was scheduled. (Closed.)

Independent Assurance Sampling and Testing.—Found wide variations in the FHWA program administration and State certification practices. Resulted in improved internal guidance and training and increased emphasis on accredited State labs and certified technicians. (Closed.)

Bid Rigging Review.—Reviewed progress made on program controls and developed a list of most susceptible States for the OIG. Led to increased emphasis on computer analysis. (Closed.)

1991 REVIEWS

Effect of Hazardous Waste on the Acquisition Process.—Found the FHWA Division Offices and States handling hazardous waste considerations properly. Updated some training and guidance. (Closed.)

Pan American Institute of Highways Evaluation.—Reviewed the strengths and weaknesses of this technology transfer institution and developed an Action Plan to improve performance long term. (Closed.)

A Report on the FHWA'S HP&R Research Program.—Reviewed the FHWA's management of the program and made recommendations which were implemented to delegate authority, improve efficiency and broaden involvement in program development. (Closed.)

A Review of the Fiscal Management Information System (FMIS) Technical Data Elements.—Determined that data input quality varied by elements and usage. Some data elements on pavements, safety, and right-of-way were dropped as requirements. (Closed.)

A Report on Technical Expertise (T.E.) Needs Within FHWA.—Internal report assessed T.E. needs. It was used by the Strategic Planning Group on Human Resources Goal, and by a reorganization task force. A similar study is currently underway by a consultant to the FHWA. (Closed.)

1992 REVIEWS

Periodic Inspection of Commercial Motor Vehicles.—Determined the extent to which interstate commercial vehicles were complying with Federal inspection requirements. Report was disseminated throughout the agency with direction to implement. (Closed.)

Management of Highway Airspace.—Recommended that policy on airspace management and credit be clarified and encouraged a single SHA Office be designated responsible. Policy was issued and Divisions worked with States to assign responsibilities. (Closed.)

Value Engineering Change Proposals.—Assessed the relative progress being made on implementing Value Engineering (VE). Concluded that while most States have a VE construction specification, actual usage was limited. Recommended increase marketing of the process by the FHWA and States and more efficient handling of change proposals. With the ISTEA requirements for VE and the FHWA endorsement, VE applications have increased. (Closed.)

Design Exception Process.—Assessed the analysis and documentation of design exceptions under the ISTEA. Recommendation led to the issuance of a single policy statement for all design exceptions. (Closed.)

1993 REVIEWS

Relocation Services Revisited.—This review was a follow-up to a 1990 review. The review concluded that improvements had been made to the program such that time allowances and services to relocatees were adequate. (Closed.)

Evaluation of Environmental Mitigation.—Determined that environmental mitigation measures were effective and for the most part were being fully implemented. Recommended sensitivity training be developed for State and Federal construction and maintenance staffs and measures to ensure implementation of mitigation. (Closed.)

Contractor Acceptance Sampling and Testing.—Recommended clarification of the FHWA's policy on Contractor Sampling and Testing. Resulted in a policy to accept

Contractor Performed Sampling and Testing (CPSAT) as a part of an overall, well documented Quality Management System. (Closed.)

Report on Stewardship Under the ISTEA Program Efficiencies.—Assessed the impact of the oversight exemptions allowed by the ISTEA on FHWA Stewardship. Concluded that all States had taken some forms of exemptions; although some reluctantly. Also, found extremely strong support for maintaining the geographically assigned area engineers. Specific recommendations on guidance and best practices were assigned to program managers which were reported on at the following FHWA/AASHTO Annual Meeting. (Closed.)

FHWA Specification Approval Process.—Recommended a strong facilitation and technical assistance role for the FHWA Headquarters Office of Construction and Maintenance (C&M) in the Specifications Approval Process. Recommended a continuing involvement by the field offices of the FHWA in the development and enhancement of State specifications. Led to an Action Plan by C&M which produced computerized AASHTO guide specifications in clear, concise language. (Closed.)

Identification of Procedural Differences on Transit/Highway Projects.—A joint FHWA/FTA team looked at similarities and differences in the FHWA's and FTA's administration of jointly funded projects. An Action Plan has been developed to implement the twelve recommendations of this report. These recommendations impact legislative and regulatory, as well as operations and coordination. (Open.)

A Report on Research and Development (R&D) Contracting and Assistance.—The FHWA staff teamed with academia and private industry to look at ways the FHWA R&D Program's contracts and procurements procedures could be broadened to facilitate more basic (long-term) research. Resulted in formal guidance being directed and an overall coordinator for the program being designated. (Closed.)

1994 REVIEWS

The Implementation of Transportation Enhancements.—Concluded that the TE program had sufficient projects to not lapse funds in the setaside. However, a the nature of the program (i.e., large number of small, local projects of nontraditional nature) is such that Federal requirements are costly and cumbersome. Led to many State and Federal initiatives to improve program efficiency. Also, had legislative and regulatory considerations that have been explored during reauthorization. (Pending.)

Report on the Follow-up Review of the Operation and Maintenance of Traffic Control Systems.—This was a follow-up to the 1990 review. This study concluded that progress had been made since the 1990 report on that front. It recommended a strong role for the FHWA in the development of these systems to continue to improve technical expertise and to facilitate technology deployment and transfer. (Open.)

State Oversight of Locally Administered Federal-aid Projects.—Reviewed State oversight and control of local projects which for the most part are not on the National Highway System (NHS). Concluded that State practices vary greatly on degree of oversight. Study identified several best practices and recommended specific areas requiring State oversight and the need to provide guidance and leadership in those areas. The FHWA Division Offices were directed to take the lead in follow-up actions. (Pending.)

Review on the use of Partnering in Federal Highway Programs.—Looked at the implementation of partnering and assessed best practices. Concluded major benefits in both design and construction partnering. Found that partnering works best where operating criteria are developed and project personnel are empowered. There is a need for management to continually assess how the program is working. Transmittal asked the FHWA Division Administrators to be proactive in advancing the partnering concept and best practices. (Pending.)

Report on the Surface Transportation Program (STP) Safety Setaside Program.—Assessed the impact of the STP setaside for safety, State methodologies and the FHWA program involvement. The Report recommended a continuing program involvement at the Division level including implementing certain technical aspects of the Program and for Headquarters and Regions to take a more active role in meeting technical and data needs and overall technology transfer. (Pending.)

Kazakstan Transportation Mission.—This review, at the request of the Kazakstan Government, assessed the current transportation (air, rail, highway, and transit) infrastructure and recommended a plan of action between the FHWA and Kazakstan Ministry of Transportation. The areas covered technical assistance and future cooperation. (Closed.)

Joint FHWA/Caltrans/Industry Task Force.—Documented lessons learned during the Northridge Earthquake to facilitate future emergency relief efforts. Rec-

ommendations have been enacted to make these lessons to future emergencies, recommendations included emergency teams, Incentive/Disincentive clauses with A + B Bidding, quick funding mechanisms, open communications, etc. (Closed.)

1995 REVIEWS

The FHWA Oversight of the Central Artery/Third Harbor Tunnel Project.—Assessed the quality of the FHWA oversight on the Harbor Tunnel Project. Concluded overall oversight was excellent and commensurate with the level of activity underway. Made specific recommendations accepted by the field staff with regard to adding process reviews to design and construction monitoring. These included impact of tight design schedules on plans, quality, delegations of approval authority for nonmajor changes and extra work, and more empowerment of the area engineer staff. (Open.)

Tracking of its Expenditures in FMIS.—Reviewed the type of data, consistency/quality of data, and use and retrieval of FMIS information. Concluded that data sets did not meet program office needs; data input needed more guidance, training, and control; retrieval should be more user-friendly. A series of recommendations have been submitted to the program office responsible for FMIS which is working to update FMIS to meet overall program needs. (Pending.)

The Federal-aid Highway Program the District of Columbia Department of Public Works (DC DPW).—This report used a Federal/State/Industry team to assess DC DPW staff capabilities in all functional areas and made extensive recommendations concerning organization, staffing, training, computer systems, budget, procurement and finance. Resulted in the formation of a DC transportation trust fund, a memorandum of understanding concerning operational efficiencies, technical assistance offered and provided by the FHWA, and the design of a transportation element as a part of the President's proposed D.C. Revitalization Act of 1997. Coordination with the DC DPW indicates progress has been made on many fronts but substantial effort remains to overcome many impediments. (Open.)

1996 REVIEWS

Evaluation of Maintenance and the use of Preventive Maintenance on the Interstate System.—Looked at the value of the Annual Interstate Maintenance Program (IMP) Report, preventive maintenance practices of the Interstate System and the effect of of Interstate Maintenance Funds (IM) transfers on the program. Concluded the Annual Report was of little value to the program and that transfers have not diminished IM effectiveness. Recommended a broader IM program to stress preventive maintenance. Based on these findings, Headquarters has dropped the Annual Report requirement and has recommended system preservation as an eligible item for IM funding under reauthorization. (Pending.)

Stewardship Follow-up Review.—Took another look at field office stewardship following the 1993 review. Concluded that the Agency continues to make progress in its transition from project oversight to program quality improvement. Recommendations were accepted by the FHWA Executive Director and issued as a policy response to the FHWA management. Included was clear cut guidance on the FHWA role in non-NHS projects, commitment to customer responsive training and strong technical expertise, and the dropping of the Headquarters requirement for Division Office Stewardship Plans. In addition, Headquarters recognized States' comments on the need for strong Division Offices and a continued strong emphasis on interagency coordination. (Pending.)

Process Review/Product Evaluation (PR/PE) Program: Use and Practices Within FHWA.—Looked at PR/PE as a tool for oversight within the FHWA and concluded that its employment continues to grow. The report noted concern that this technique can not be the only means to accomplish the FHWA objectives. It noted strong State support for overall program management as opposed to project management. It provided a list of best practices for quality improvement. As a result of this review, Headquarters revised its overall stewardship philosophy to one of program management to achieve continuous quality improvement. It noted PR/PE as one aspect of this. The report also contained specific recommendations to broaden PR/PE training to encompass total quality enhancement, to focus on proliferation of best practices and to move toward more partnering and joint reviews. (Pending.)

A Review of State Transportation Improvement Programs (STP) and Metropolitan Transportation Improvement Program (TIP).—Joint FHWA/FTA review found overall support for the TIP/STIP processes as mandated by the ISTEA. Recommended some "clean up" exceptions affecting legislation or regulation, long-term administrative and short-term administrative procedures. These include more cooperative financial target setting, more flexible certifications and plan updates, more FHWA/

FTA compatibility, more State/MPO plan compatibility, more widespread access to Federal financial information and more education and training. The FHWA and FTA have developed an Action Plan to address each of these recommendations. (Pending.)

Interagency Coordination With Federal Agencies During the FHWA Project Planning and NEPA Processes.—Looked at the role of the FHWA, State, and other Federal agencies in the NEPA/Project Planning process and established a current baseline of operations. Found a variety of conditions and an outstanding list of best practices. Laid out a framework of recommendations at each level of the FHWA to improve communications and understanding, determine and implement best practices, and move the Agency and others to a resource preservation concept of environmental enhancement on a programmatic basis as opposed to "postage stamp" types of spot mitigation on individual F/A projects. (Pending.)

1997 REVIEWS

The following reviews are currently underway:

—Review of Longitudinal Utility Accommodation

—Efficiencies in Program Delivery of Small Federal-aid Programs

—Early Environmental Considerations in Planning Process

—Federal Role in Highway Safety

Question. Was there an additional or separate tithing for ADP support or for the FHWA electronics laboratory that was not included in the TFHRC support and overhead charges during fiscal year 1997?

Answer. No, the costs for ADP support and the FHWA electronics were charged directly to offices that received the benefits.

Question. How was the study on the District of Columbia transportation needs paid for? How did this expense affect the R&D programs?

Answer. The FHWA paid for the study with funds from prior years' balances. It did not affect expenditures for the research program in fiscal year 1997.

Question. Please breakdown and futher justify the $934,000 requested for high speed data lines on p. 35 of the justification.

Answer. FHWA's Wide Area Network, installed using GSA's FTS 2000 network, provides FHWA field offices with access to e-mail, FHWA's Intranet, the Internet and to FHWA's nationwide information systems, which are processed at the US DOT Transportation Computer Center. The network was installed in 1992 and provides access to 64 FHWA field offices for agencywide E-mail and for access to FHWA's nationwide mainframe systems, which are used by FHWA field offices to track funding and project data for the $20 billion Federal-aid highway program. The State DOT's also directly access and transmit data electronically to these mission-critical mainframe-based systems. Since that time the usage of the network has been expanded to handle video conferencing, access to the Internet and to FHWA's (internal) Intranet, and to additonal field offices, including DOT's new intermodal Metropolitan Offices.

To cover the increasing usage and to provide the bandwidth required to maintain satisfactory response times for access to the information systems that are used to manage the Agency's programs, it has become necessary to upgrade the line speeds and connections to the Wide Area Network. The request for additional funding provides for upgrading the data circuits to FHWA's Division Office in each State and for the increased cost of operating these upgraded data circuits. It also covers data communications costs for the new intermodal Metropolitan Offices. This line item also supports the data lines that provide access for all FHWA employees to the standard, Department-wide administrative systems that are processed for DOT by the FAA. With the new Management Information Reporting capability for the DOT-wide personnel and accounting systems, FHWA's data access to these systems will increase significantly. In addition, as the FHWA implements more client/server applications that have graphical user interfaces and that transfer increasing amounts of data between the application server and the individual desktop PC's, additional data line capacity is needed to accommodate these systems. This increase will provide this required additional data transfer capacity and speed. ($666)

In addition, FHWA is a participant in the US DOT Intermodal Data Network (IDN), which provides "backbone" connectivity for all FHWA Headquarters Local Area Networks within the US DOT Headquarters building. The IDN also provides intermodal E-mail links among the DOT Operating Admininstrations and access to the Internet for all DOT employees. As a participant in this network, the Operating Administrations are required to provide funding to support the continuing operations and maintenance of this system. ($268)

Question. Please discuss the components of FHWA's latest strategic plan, GPRA initiatives, and total quality management objectives and analyze how these are reflected in the fiscal year 1998 budget request.

Answer. The FHWA is currently in the process of developing a Strategic Plan for 1998 through 2003 that will reflect the programs and funding levels in reauthorization. The Vision, Mission, Strategic Goals, and Values sections of the Plan have been developed and we are currently in the process of developing measurable objectives, indicators and strategies. Over the past several months we have consulted with our customers and partners to get their input into defining our objectives and indicators through a series of focus group meetings in Washington and a Federal Register notice requesting written comments from those who were unable to attend a focus group meeting. The first draft of the strategic plan will be presented to agency management for consideration in August and we expect to have the draft ready for review outside of the agency by the Fall. The Plan will not be completed until after the reauthorization since the final plan may need to be adjusted to reflect changes in program design and funding levels from those proposed by the Administration.

The FHWA strategic planning process is considered to be a key component of the agency's quality management initiative. Strategic planning is one of the cornerstones of quality in the President's award criteria and we are implementing a process that is consistent with this criteria. In addition, our strategic planning process includes many of the other characteristics of a well managed organization: customer focus, an emphasis on results, and performance measurement. Since these are also key components of the GPRA initiative, the performance information required by GPRA are a product or our quality management initiative. This has eliminated the need for creating a separate process to initiate GPRA.

The FHWA Strategic Plan and the Program Performance Plans being developed by our three major programs, Federal-aid, Federal Lands and Motor Carriers for fiscal year 1999, will provide the performance information required by the GPRA initiative for our budget submissions. Although these plans were not ready at the time the fiscal year 1998 budget request was completed, the fiscal year 1998 request did include some preliminary performance information to show how the agency expected to use the resources requested to meet its goals and objectives. For example, the Federal-aid Program identified as one of its goals an increase in the percentage of mileage of pavements in good condition on the National Highway System as measured by pavement condition (PSR or IRI) and discussed the expected impact of available Federal, State and local funding for highways on our ability to meet this goal. However, performance indicators and baseline data were not available for many of the goals and we were unable to fully link resources to expected results. We expect to have a more complete set of goals and indicators available for the fiscal year 1999 budget request but there will still be gaps in our ability to link resources to results. The next phase in our implementation of performance based management will be focused on collecting and analyzing the data needed to identify these links and to doing the in-depth analysis required to better understand the causal relationships between our programs and the goals we are working to achieve in cooperation with our partners.

Question. Please prepare a list of any reports or letters that were requested during the last three years by either of the Appropriations Committees that have not yet been submitted, and discuss their status and expected submittal date.

Answer. The outstanding reports as of June 1997 are as follows:

House Report "Belford Ferry Terminal".—Status—The report is in the final stages of the analysis should be released by August 1997.

Senate Report "Multimodal Noise Prediction Model".—Status—Conducting research and final report should be released Spring 1998.

Senate Report "User Financed CVISN".—Status—A report which will lay out both the methodology for determining the transition and a plan of action will be ready in September 1997.

Conference Report "Pilot Safety Rating Program".—Status—Developing a pilot project expect to release the report in February 1998.

Senate Report "Commercial Drivers License".—Status—Incorporating changes and expect release date July 31, 1997.

Senate Report "Motor Carrier 5-year Research Plan".—Status—Incorporating OMB/OST changes expect to release September 1997.

House Report "I–5 Corridor in California".—Status—FHWA (ITS), FTA and the California DOT, are developing a comprehensive transportation plan, report released date to be determined.

Senate Report "Commercial Vehicle OPS Network Cost-Share".—Status—Developing a preliminary report expected to release October 1997.

Senate Report "Grade Crossing Plan".—Status—FHWA completed its study and FRA is in the process of making update, release date to be determined.

Question. What is the scope and nature of the research, development and technology transfer activities actually conducted at Turner Fairbanks? How are these activities integrated into the FHWA R, D, and T program?

Answer. The Turner-Fairbank Highway Research Center (TFHRC) is the primary location for research and development (R&D) within FHWA. The major areas of R&D performed at the Center include safety, intelligent transportation systems, pavements, structures, and materials. The activities of the Center are integrated into the FHWA's R, D, and T program through the Research and Technology Coordinating Groups and the Research and Technology Executive Board (RTEB). Technical staff from the Center serve as members on the individual coordinating groups where the R, D, and T programs are developed. The Associate Administrator for R&D who is responsible for the TFHRC serves on the RTEB which approves the programs.

Question. Please breakout the total annual costs required to maintain and operate the Turner Fairbanks Research Center.

Answer. The information is provided in the following table.

[In thousands of dollars]

Item	*Amount*
Salaries and Benefits	10,031
Utilities	550
Communications (voice only)	412
Alterations	50
Supplies	70
Other Services	1,200
Total	12,313

Question. Please evaluate the benefits and costs of maintaining the Turner Fairbanks Research Center.

Answer. The benefits of the TFHRC far outweigh the costs of maintaining the Center. Regarding general benefits, the Center:

—has a critical mass of highway research in one place. The Center has significant capabilities both in the areas of research laboratories and research intellect.

—provides research, services, and technology that others can't either because of limited resources or for intellectual reasons. This role is especially true in the area of long-term, high risk research. TFHRC has essentially the same number of PhD's that all the State highway agencies have combined in the research area.

—provides economy of scale in having a collection of unique laboratories in one place rather than having these laboratories located throughout the country. Everyone cannot afford to have each of these laboratories.

—helps provide legitimacy for a national highway program. Since we are national in scope, the results of our R&D can be much more easily adopted on a national scale.

—provides training in cutting edge technologies.

—serves as an arbitrator and final authority on many highway technology issues.

—a complete research facility at TFHRC permits and encourages the synergy among staff that results in improved technologies in related fields as well as more innovations in the specific fields of endeavor. As an example we will just touch on pavements and the impact of TFHRC work over the last several years. Today's (and tomorrow's) pavements are better than yesterday's in many ways as a result of the research and development work led by FHWA—in portland cement concrete pavement we have: drainable bases, chemical enhancers (set retarders, plasticisers, etc.), engineered joints, improved placement techniques, sawing technologies, curing systems, recycling, significantly better mix designs, rapid testing techniques, smoothness specifications and measurements, high-performance concretes and patching materials, performance and QA/QC specifications, high speed insitu testing of surface texture and skid resistance and noise and subgrade support (FWD), void/delamination/etc., detection thru high speed imaging and pattern recognition systems, pavement management systems and software, sophisticated forensic analysis of pavement failures and state of the art material characterization. In the area of asphalt pavements (with some assistance from SHRP initiated research) the researchers at TFHRC have led work resulting in better asphalt pavements including: chemically modified asphalt binders, rut resistant pavements, cold temperature crack resistant pavements, anti-strip agents, understanding the effects of construction variation on performance, accelerated pavement testing (accelerated loading facilities at

TFHRC, French/Hamburg/Georgia/gyratories/etc., laboratory test equipment, test tracks), impact of different tire geometry on pavement life, open graded friction courses, aggregate properties, recycling, bound/unbound bases, SUPERPAVE (development, validation, testing procedures, training, equipment ruggedness testing and calibration, etc.), specifications (smoothness, performance, QA/QC etc.), nuclear testing, rapid testing, crack sealing materials, pothole patching materials and techniques.

—There are, of course, synergistic relationships as can be drawn from the above concrete and asphalt improvements but furthermore there are the many truck—pavement interaction issues relating to our research in dynamic loadings and suspension systems, weigh-in-motion technologies, and testing protocols. The Long Term Pavement Performance program run from TFHRC draws on the reservoir of pavement technologists, laboratories, computers and data to conduct tests and analyze an international pavement data base so as to provide performance related decision tools ranging from testing protocols to best maintenance strategies to best design parameters so as to lead the nations pavement managers to utilizing the best practices available when designing, building and maintaining the nations highways.

—As evidenced in the above example of just pavements, one can see that TFHRC brings long-lasting national value to the highway program because of its people, laboratories, international networks, data bases and recognized national highway technology leadership in Making Roads Better. The research Center has contributed to major accomplishments and it is well positioned to deliver the innovation that will lead our industry into the next century.

Question. Why does this research need to be conducted at this particular location?

Answer. There are several reasons why the research needs to be conducted at the TFHRC. First and foremost, communications and coordination with the FHWA Headquarters program office and technology transfer personnel would be greatly reduced if the Center were at another location. There would not be the daily contact which is so important to the success of our research program. Communications and coordination would also suffer between the FHWA research program and the Transportation Research Board, as well as with the many other public and private organizations which are located in the Washington, D.C. area. It would be prohibitive from a travel budget standpoint to maintain the degree of communications and coordination that currently exists within the research program if the Center were at another location. Because of the Center's location, development of personnel is facilitated through exchanges with staff at the Headquarters offices. Also, we have a very large investment at TFHRC both in terms of capital assets and intellectual knowledge. There is a unique complex of R&D laboratories which has been established at the TFHRC. It would be very expensive and disruptive to the highway R&D program to recreate these laboratories at another location.

Question. Could the facility be better housed at a UTC or URC to achieve synergistic benefits?

Answer. There would be some benefits to housing the facility at a UTC or URC. The interaction with the academic community at a university would be beneficial, and there would be excellent opportunities for students to participate in the research activities. However, for the reasons stated in the response to the previous two questions, there are significant and substantial advantages in having the TFHRC at its present location in the Washington, DC area.

It is also important to note that we do have the synergistic benefits of approximately 20 graduate research fellows (most students are working on their doctorates) and this is typically more doctorate students than are in doctorate programs in Civil Engineering at most universities. We also host 3–5 university professors and a like number of post doctorate scholars at TFHRC. The dynamic is further improved through visiting researchers from foreign countries (5± at any one time), from State DOTs and from other FHWA offices. The ability to direct a long term research, development, and technology program and to attract such a broad based intellectual component is something that is not easily accomplished in the university environment.

Program	Fiscal years—				
	1993	1994	1995	1996	1997
Safety:					
ISTEA	.....	.....	.....	.....	.....
Applied Research Technology	.....	.....	$4M	$4M	$4M
LGOE: Highway R&D	$8.862M	$5,738	8M	8.768M	8.768M

Program	Fiscal years—				
	1993	1994	1995	1996	1997
Materials:					
LGOE	.....	.....	.....	.....	.....
Highway Research and Development	5.923	3.685	5.614M	None	None
Pavements:					
ISTEA	.....	.....	.....	.....	.....
SHRP Implementation	6M	8M	6M	6M	6M
Applied Research and Technology	.....	.....	2.8M	2M	2M
Seismic Research	2M	2M	2M	2M	2M
Fundamental Prop. Of Asphalt and Mod. Asphalts	3M	3M	3M	3M	None
LGOE	.....	.....	.....	.....	.....
Highway Research and Development	7.278	7.259	7.7M	9.247M	20M
Structures:					
ISTEA	.....	.....	.....	.....	.....
Timber Bridge Research (1039)	1M	1M	1M	1M	1M
Applied Research and Technology (6005)	.....	.....	3.4M	None	None
LGOE	.....	.....	.....	.....	.....
Highway Research and Development	6.203	4,860M	6.5M	13.211M	14.558M
Long-term Pavement Performance:					
LGOE	.....	.....	.....	.....	.....
Highway Research and Development	6M	7M	9M	[1] 8.739M	None
Advanced research	.....	.....	.....	.....	.....
ISTEA: Applied Research and Technology (6005)	.....	.....	3.6M	0.600M	None
National Highway Institute:					
ISTEA	.....	.....	.....	.....	.....
Applied Research and Technology (6005)	None	None	.6M	2M	3M
Research and Technology (6001)	.....	.....	.....	.....	.....
Eisenhower Fellowships	2M	2M	2M	2M	2M
LGOE: NHI	4.5M	4.5M	4,369,000	4,327,000	.....
National Center for Advanced Transportation Technology ISTEA–X379	3M	2.5M	None	None	None
University Trans. Centers (6023)–X329	6M	6M	6M	5,247,459	.....
Fiscal year 1996 reduced by Sec. 1003(c), Public Law 102–240	.....	.....	.....	5,247,459	.....
University Research Institute—X331	6.250M	6.250M	6.250M	5,466,103	
Reduced by Sec. 1003(c), Public Law 102–240	.....	.....	.....	.....	.....
Fairbank building renovation:					
LGOE	1,940,000	1,250,000	3,000,000	None	500,000
Truck Dynamic Test Facility	.....	.....	.....	.750M	.....
Section 6005	.....	.....	.....	.....	.....

FEDERAL RAILROAD ADMINISTRATION

OFFICE OF SAFETY

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

SAFETY FISCAL YEAR 1996–1998 FUNDING

Question. Please prepare a comparative funding table for the Office of Safety for fiscal years 1996–1998, broken out in the following manner:

Answer. Information follows.

[Dollars in thousands]

	Fiscal years—		
	1996 actual	1997 estimate	1998 estimate
Federal enforcement program:			
Program Costs	.....	.....	.....
PC&B and Support Costs	$37,061	$39,196	$41,081
Number of staff: (Field)	449	456	456
Automated track inspection program:			
Program Costs	$1,351	$1,203	$4,220
PC&B and Support Costs	.....	.....	.....
Number of staff	.....	.....	.....
Safety regulation and program administration:			
Program Costs	$1,882	$1,760	$2,058
PC&B and Support Costs	$9,262	$9,179	$9,708
Number of staff: (Headquarters)	82	87	90

CONGRESSIONAL REPORTS

Question. For each of the rail safety studies specified on page 127 of Senate Report 104–325, please summarize your findings and conclusions to date. When will the studies be released?

Answer. FRA has been directed by Congress to complete by June 1, 1997 studies on the following four topics. The studies are currently being reviewed by both DOT and OMB. We plan to submit them to Congress by mid to late August.

1. Study the technical, structural, and economic feasibility of automatic train escape devices and their benefits to public safety.

A reliable technology to sense emergency situations does not currently exist. This makes automatic escape devices not technically feasible, and the additional risks that they create would cast serious doubts on their benefit to the public.

As a result, FRA believes increased emphasis on manually operated emergency escape devices will meet the intent of the Committee's concern. Manually operated emergency escape devices include: emergency windows, manual door releases on powered doors, roof hatches and kick-out panels or pop-out windows in doors that may become jammed. Working with the Passenger Equipment Safety Standards Working Group, FRA has developed a Passenger Equipment Safety NPRM. The NPRM proposes separate safety standards for equipment that travels at speeds up to 125 mph (Tier I equipment) and for equipment that travels at speeds greater than 125 mph up to 150 mph (Tier II equipment).

2. Study whether the development of minimum safety standards for fuel tanks of locomotives of rail passenger trains is warranted, taking into account environmental and public safety.

FRA has determined that minimum standards for fuel tanks are warranted. The standards proposed by the NPRM for passenger equipment safety standards include:

—The Association of American Railroads Recommended Practice RP–506 as minimum standards for fuel tanks on Tier I passenger equipment.

—Ruggedized construction with bottom skid surfaces and more rail clearance for Tier II or high speed equipment.

3. Study the feasibility of establishing minimum crashworthiness standards for passenger cab cars, including requiring crash posts at the corners of rail passenger cars and safety locomotives on rail passenger trains.

FRA has determined that establishing crashworthiness requirements for newly constructed cab cars is feasible. The NPRM for passenger equipment safety standards will propose such standards including minimum requirements for corner posts and increased strength collision posts.

4. Study the placement of rail signals along railways, including whether FRA should require that a signal be placed along a railway at each exit of a rail station, and that a signal be placed so that it is visible only to the train employee of a train that the signal is designed to influence.

FRA's Emergency Order 20 addressed the issue of signal compliance following station stops through imposition of the "delayed in block rule," which requires that the engineer operate the train in the same conservative manner after each station prior to a home signal that can require a stop. The requirement is underscored by appropriate signage. In FRA's judgment, placing a second distant signal following the station stop would not enhance safety. Further, FRA rules already address the need for signals to be clearly associated with the track they control, and FRA will continue to address the need to properly align and focus individual signals through its field compliance.

NATIONAL TRANSPORTATION SAFETY BOARD RECOMMENDATIONS

Question. What are the remaining open NTSB recommendations, and what is FRA doing to respond? Please also list all NTSB recommendations for the last three years that have been addressed, and closed, indicating whether or not NTSB was satisfied.

Answer. As of July 11, the FRA has 45 open NTSB recommendations (See attached list). They relate to the following areas:

Track	4
Equipment	27
Signals	5
Operating Practices	4
Hazardous Materials	5
Total	45

The FRA is working to address all of them and a large majority are included in ongoing regulatory development projects. The 4 recommendations related to track are included in an ongoing rulemaking. The Notice of Proposed Rulemaking on Track Safety Standards was published July 3. The Motive Power and Equipment recommendations primarily relate to locomotive cabs, brake systems, passenger equipment, steam locomotives or locomotive event recorders. Most of these items are included in rulemaking projects or being considered by the Rail Safety Advisory Committee (RSAC) for potential rulemaking. The major signal and train control issue is positive train control. There are 3 demonstration projects and additional developmental efforts are underway. An updated report is about to be transmitted to the Congress on this issue. The major operating practices issue is the vision of the locomotive engineer, and RSAC is addressing it. The hazardous materials recommendations relate to tank cars. Action has been completed on 2 and is underway on the third.

The NTSB has closed the following recommendations in the past 3 years:

Recommendations	Subject	Closed based on
1994:		
88–23	Alcohol/Drug Testing	Reconsidered.
88–24	Alcohol/Drug Testing	Acceptable Action.
88–25	Alcohol/Drug Testing	Reconsidered.
88–29	Alcohol/Drug Testing	Acceptable Alternate Action.
88–31	Alcohol/Drug Testing	Acceptable Action.
88–32	Alcohol/Drug Testing	Acceptable Alternate Action.

Recommendations	Subject	Closed based on
80–02	Tank Cars	Acceptable Action.
84–10	Maintenance of Way Cars	Unacceptable Action.
87–47	Hazardous Materials	Acceptable Action.
1995:		
90–51	Grade Crossings	Acceptable Action.
91–25	Train Control	Acceptable Action.
93–11	Assessments	Acceptable Action.
89–82	Telemetry Devices	Superceded.
92–11	Locomotive Fuel Tanks	No longer applicable.
92–11	Locomotive Fuel Tanks	Acceptable Action.
92–13	Locomotive Fuel Tanks	Reconsidered.
94–15	Train Control	Acceptable Action.
91–39	Hours of Service Records	Acceptable Action.
92–1	Engineer Training	Acceptable Action.
1996:		
94–1	Track Inspection	Unacceptable Action.
94–2	Track Standards	Unacceptable Action.
85–64	Tank Cars	Acceptable Action.
88–59	Tank Cars	Acceptable Action.
88–61	Tank Cars	Acceptable Alternate Action.
88–63	Tank Cars	Acceptable Action.
88–64	Tank Cars	Acceptable Action.
92–21	Tank Cars	Acceptable Action.

List of NTSB recommendations:

NTSB number	Subject	Status	Classification
	Track (4):		
91–65	Review Track Standards	NTSB Response Received 7–13–92	OAA
91–66	CWR Standards	NTSB Response Received 7–13–92	OAA
96–13	Research—Flat Rail Heads	NTSB Response Received 4–16–97	OAA
96–14	Regulation—Flat Rail Heads	NTSB Response Received 4–16–97	OAA
	Motive power and equipment (27):		
87–23	Locomotive Cabs	NTSB Response Received 1–9–96	OAA
88–20	Locomotive Sill Heights	FRA Update Sent 11–30–90	OUA
89–51	Shelf Couplers on Locomotives	FRA Update Sent 11–30–90	ORR
89–81	Brake Tests (Cold Weather)	NTSB Response Received 6–28–91	OAA
90–23	Dynamic Brakes—Indicator	FRA Update Sent 5–10–91	OUA
90–24	Dynamic Brakes—Functional	FRA Update Sent 5–10–91	OAR
91–26	Alerters	NTSB Response Received 9–22–93	OAA
91–51	Special Use Equipment—Inspection	NTSB Response Received 8–31–93	OAA
91–52	Special Use Equipment—Derailment Notice.	NTSB Response Received 8–31–93	OAA
91–53	Special Use Equipment—Reporting	NTSB Response Received 8–31–93	OAA
91–54	Special Use Equipment—Haz-Mat	NTSB Response Received 8–31–93	OAA
92–10	Research Loco Fuel Tanks	NTSB Response Received 2–21–96	OAA
93–16	Passenger Train Brake Inspections	NTSB Response Received 11–22–93	OAA
93–24	Passenger Car Corner Posts	NTSB Response Received 4–29–94	OAA
95–1	Passenger Car Wheels	NTSB Response Received 8–16–95	OAA
95–21	TOFC/COFC	NTSB Response Received 8–4–95	OAA
96–7	Commuter-Rail Emergency Exits	FRA Initial Reply Sent 6–6–96	ORR
96–53	Steam Locomotives	FRA Initial Reply Due 2–3–97	OAR
96–54	Steam Locomotives	FRA Initial Reply Due 2–3–97	OAR
96–55	Steam Locomotives	FRA Initial Reply Due 2–3–97	OAR
96–57	Steam Locomotives	FRA Initial Reply Due 2–3–97	OAR
96–58	Steam Locomotives	FRA Initial Reply Due 2–3–97	OAR
96–59	Steam Locomotives	FRA Initial Reply Due 2–3–97	OAR

NTSB number	Subject	Status	Classification
96–70	Event Recorder—Testing	FRA Initial Reply Due 5–8–97	OAR
96–71	Event Recorder—Inspections	FRA Initial Reply Due 5–8–97	OAR
96–72	Event Recorder—Inspection Form	FRA Initial Reply Due 5–8–97	OAR
96–73	Event Recorder—Lead Locomotive	FRA Initial Reply Due 5–8–97	OAR
	Signal, communications and grade crossings (5):		
87–16	Train Control System	FRA Update Sent 8–24–94	OAA
93–12	Dates for ATCS	NTSB Response Received 9–22–95	OAA
94–13	Train Control—Identify Benefits	NTSB Response Received 11–13–95	OAA
94–14	Train Control—Cost/Benefit Analysis	NTSB Response Received 11–13–95	OAA
96–50	Grade Crossing Inventory	FRA Initial Response Sent 4–3–97	ORR
	Operating practices (4):		
87–66	Train Dispatchers—Selection/Training	NTSB Response Received 12–20–95	OAA
96–56	Hours of Service—Tourist Railroads	FRA Initial Reply Due 2–3–97	OAR
97–1	Color Vision Testing—Engineers	FRA Initial Response Due 7–8–97	ORR
97–2	Engineer Ceritification Requirments	FRA Initial Response Due 7–8–97	ORR
	Hazardous materials (5):		
89–48	Closure fittings on tank cars	FRA Update Sent 3–25–97	OAA
89–49	Tank car valves and gaskets	FRA Update Sent 3–25–97	OAA
90–38	Position of HM in Train	FRA Update Sent 3–25–97	OAA
92–22	Develop Tank Car Testing Requirements.	FRA Update Sent 3–25–97	OAA
95–9	Tank Car Interiors	FRA Update Sent 3–25–97	OAA

NTSB classification summary:

Open Await Reply (OAR)	12
Open Reply Received (ORR)	5
Acceptable Response (OAA)	26
Open Unacceptable Action (QUA)	2
Total	45

The three NTSB recommendations that are not covered in rulemaking proceedings are as follows:

—Recommendation R–95–21 requested the FRA to advise the NTSB of our progress in implementing remedial actions regarding the securement of containers or trailers on flat rail cars. The Board has been provided with the requested information.

—Recommendation R–96–50 requested that FRA include information regarding preemption of interconnected signals at highway-rail grade crossings in our inventory. This effort is underway. We expect it to be completed by the end of August. The Board has been notified as to the progress and is satisfied.

—Recommendation R–96–56 requested that we work with the Tourist Railway Association in promoting awareness of compliance with the Hours of Service Act. A Tourist and Historic Railroads working group has been established under the Railroad Safety Advisory Committee to address safety issues on these railroads. FRA has provided the group with Hours of Service information for their members and invited them to our regional training sessions on operating practices safety matters.

RAILROAD USER FEES

Question. Are the railroad safety user fees described in Sec. 328 of the bill language in the fiscal year 1998 Budget Appendix to be imposed and collected beginning in fiscal year 1998? Why is this proposed in appropriations legislation? Isn't "prescribing by regulation a schedule of fees for railroad carriers" a legislative matter under the jurisdiction of the authorizing committees?

Answer. Our railroad user fee proposal envisions collection of railroad user fees in fiscal year 1998. Congress originally established the railroad user fee program for a five-year term in the 1990 Budget Reconciliation Act. We believe the Congress should reauthorize the program this year and could do so either through the reconciliation legislation being enacted to carry out the fiscal year 1998 Budget Resolution or, due to its close relationship to the Department's overall funding, through

the fiscal year 1998 DOT Appropriations Act. Accordingly, we have included enabling language for the program as part of our proposed 1998 DOT appropriations bill language.

OFFICE OF SAFETY USER FEES

Question. Are these fees designed to fully offset the costs of the FRA's Office of Safety programs in fiscal year 1998? How much money is expected to be collected from these fees? How is this reflected in the fiscal year 1998 budget request?

Answer. The Administration's proposed reauthorization for FRA's Office of Safety user fees has been expanded to cover all funding of Safety Appeals and the Safety Law Division of the Office of Chief Counsel. While collections will equal the sum of the two programs, collections will not offset FRA appropriations, but instead will be reflected as a general receipt to Treasury. The fiscal year 1998 estimate for these collections is $59.8 million. Additional information can be found on pages 3 and 5 of FRA's Congressional Budget Submission.

INDUSTRY RESPONSES TO USER FEES

Question. What are the responses from the railroad industry to the user fee proposal?

Answer. The railroad industry has consistently opposed railroad safety user fees. The industry considers these fees to be an inequitable financial burden which affects their ability to compete with other transportation modes.

GOVERNMENT PERFORMANCE AND RESULTS ACT

Question. Please discuss how FRA is moving towards performance-oriented regulation.

Answer. Risk assessment is the key to establishing performance-oriented regulations. FRA is using risk assessment to evaluate rail corridors, which may become candidates for the installation of Positive Train Control Systems. The Agency foresees increasing use of this technique in the future. But creating the climate for performance-oriented regulation requires building confidence among critical constituent groups. In addition, it is essential that any new regulatory approach considered by FRA provides a constructive means of engaging the railroads. This can best be accomplished by developing performance standards that address discrete areas of concern, implementing those standards successfully, and moving toward more flexible approaches as experience is acquired. The Railroad Safety Advisory Committee (RSAC) and other collaborative rulemaking forums provide venues for moving this evolution forward at a pace that is realistic in light of available technical knowledge and all relevant externalities.

The field of high-speed rail is one in which FRA has been most aggressive in utilizing system safety and risk assessment techniques to fashion a regulatory approach. Our forthcoming notices of proposed rulemaking for passenger equipment safety and for the Florida Overland Express strongly emphasize system safety planning. FRA believes that this effort can provide the beginning of a template for dedicated operations. However, the reality confronted by a regulatory agency in evaluating an entirely new service involves many complex issues. Benchmark criteria are needed for systems, subsystems and critical components in order to evaluate the nature and magnitude of technical risk before system risk can be fairly estimated.

The complexity of the effort is certainly no reason not to implement the system safety concept. FRA's Safety Assurance and Compliance Program shifts the Agency's routine safety monitoring from a site-specific to a systems assessment approach. However, system safety is a process and discipline that must be internalized by the entity actually operating the service. Prior audits of entities that have prepared system safety plans have sometimes found that planning documents have become stale and were not well integrated into the actual operation of the service. FRA seeks to foster meaningful system safety planning that becomes an essential element in the way the system is actually operated. To the extent this safety focus is established and maintained, reinforcement can be provided through allowance for much greater flexibility with respect to the manner in which safety objectives are achieved.

FEDERAL ENFORCEMENT PROGRAM INCREASE

Question. Please provide additional justification for the nearly $1,900,000 increase requested for fiscal year 1998 as indicated on page 43 for the Federal Enforcement Program. Why couldn't some of these funding expenditures be delayed?

Answer.

—The total fiscal year 1998 request for the Federal Enforcement Program is $41 million, which supports the 456 field FTE that are directly involved in monitoring the railroads to ensure that they are complying with Federal Safety rules and regulations.
—Increase over fiscal year 1997 is $1.885 million.
—Of this amount, $1.866 million or 99 percent is for non-discretionary increases that must be paid in fiscal year 1998 since they represent operating costs to maintain ongoing field operations.
—Costs related to pay raises, inflation, vendor increases, TASC, telephone and other support costs cannot be delayed as they are mandatory bills that must be paid.
—Only $19K represents new funding for FRA's Video Conferencing initiative. The Safety office is a primary user of this system.
—If the non-discretionary increases are not funded, the Office of Safety would be required to either reduce the number of inspections or restrict the enforcement activities of each inspector. Either option would jeopardize FRA's safety program.

OFFICE OF SAFETY FTES

Question. Please break down the number of FTE in each region. What does the FRA anticipate the runover rate to be, and are there plans or resources for hiring additional staff? How is this reflected in the fiscal year 1998 request? How is the staff allocation related to problem railroads and risk?

Answer. The information follows:

Region	*Number of FTES*
Cambridge	50
Philadelphia	68
Atlanta	68
Chicago	59
Hurst	67
Kansas City	52
Sacramento	44
Vancouver	48
Total	456

FRA anticipates the turnover rate to be approximately 2.6 percent. The FRA does not have any plans or resources to hire additional staff in fiscal year 1998, and no funding was included in the Office of Safety Budget Submission.

The Regional Administrators, Safety Coordinators, and headquarters managers are responsible for the development of an annual strategic resource allocation plan. They meet annually to plan how resources will be used for the year. The team uses the Annual Allocation Analysis (AAA) model as the starting point for targeting resources.

The AAA model allocates inspection resources to geographical areas that have a higher than average risk factor. This model provides information about railroad systems based on a select group of risk factors, such as the number of train accidents, serious injuries, train miles, employee hours, defect ratio, false proceed signal indications, and freight and hazardous materials tonnage.

SAFETY FIELD OFFICES/FTES

Question. Please display, by region, the current safety inspection field offices and number of personnel at each office.

Answer. The information follows:

Location	*Number of employees*
Region 1:	
Cambridge	22
Clifton Park	7
Newark	14
Buffalo	5
Bangor	2
Subtotal	50
Region 2:	
Philadelphia	26
Cincinnati	6

Location	*Number of employees*
Cleveland	4
Columbus	3
Charleston	5
Norfolk	4
Hanover	6
Pittsburgh	7
Roanoke	3
Toledo	2
Harrisburg	2
Subtotal	68
Region 3:	
Atlanta	24
Jacksonville	9
Louisville	7
Nashville	4
Knoxville	2
Memphis	4
Mobile	5
Charlotte	7
Birmingham	6
Subtotal	68
Region 4:	
Chicago	33
Indianapolis	9
Ft. Snelling	9
Detroit	6
Peoria	2
Subtotal	59
Region 5:	
Hurst	28
Houston	12
Little Rock	6
New Orleans	8
Oklahoma City	3
San Antonio	4
Shreveport	3
El Paso	3
Subtotal	67
Region 6:	
Kansas City	28
St. Louis	7
Lakewood	9
Omaha	5
Des Moines	1
Wichita	2
Subtotal	52
Region 7:	
Sacramento	27
Salt Lake City	6
Riverside	11
Subtotal	44
Region 8:	
Vancouver	23
Spokane	4
Seattle	4
Pocatello	5

Location	*Number of employees*
Bismark	5
Billings	7
Subtotal	48
Total	456

SAFETY OFFICE TELECOMMUTERS

Question. How many Office of Safety employees have elected to telecommute since the National Partnership Council implemented Phase I of the telecommuting process in September 1995 (please break out by fiscal year 1996 and 1997)? When will this process be complete? How many field offices have been closed (please name locations)?

Answer. Since the inception of telecommuting in 1995, 122 employees have elected to telecommute: 53 in fiscal year 1996 and an additional 69 in fiscal year 1997.

It is anticipated that the Office of Safety's telecommuting program will be fully implemented by fiscal year 1999 with approximately 200 employees telecommuting.

The following ten (10) field offices have been closed: Bangor, ME; Memphis, TN; Knoxville, TN; Tampa, FL; Shreveport, LA; San Antonio, TX; Spokane, WA; Wichita, KS; Peoria, IL; Roanoke, VA.[1]

INSPECTOR WORKLOAD

Question. Last year, how many miles of railroad track, freight cars, locomotives, and track miles with signal and train control systems were inspected? Please compare this level of inspection activity with that achieved during the two preceding years. How were these activities focused on high risk railroads and shippers?

Answer.

INSPECTION DATA

	1994	1995	1996[1]	Percent change
Track:				
Number of inspections	15,449	12,668	11,522	−9
Miles inspected	329,019	272,476	260,422	−4
Records inspected	169,849	132,420	132,972	.....
Defects recorded	88,611	69,817	65,731	−6
Signal:				
Number of inspections	6,553	5,391	5,327	−1
Units inspected	86,456	55,414	51,097	−8
Records inspected	92,939	66,823	83,486	+25
Defects recorded	11,522	22,169	19,078	−14
Motive power and equipment:				
Number of inspections	16,956	15,579	14,798	−5
Locomotives inspected	33,597	29,916	24,257	−19
Cars inspected	832,197	700,838	628,250	−10
Defects recorded	134,185	123,078	107,633	−13
Operating practices:				
Number of inspections	17,710	13,501	12,801	−5
Complaints received	4,177	1,519	1,383	−9
Defects recorded	17,621	35,880	16,758	−53
Hazardous materials:				
Number of inspections	12,047	10,461	10,462	.....
Tank cars inspected	99,356	77,992	76,348	−2
Defects recorded	17,073	21,649	17,856	−18

[1] Preliminary

The Regional Administrators, Safety Coordinators, and headquarters managers are responsible for the development of an annual strategic resource allocation plan.

[1] The Roanoke office, originally scheduled to close in fiscal year 1998, closed late April 1997.

They meet annually to plan how resources will be used for the year. Accident and inspection data that highlight questionable safety performance by a railroad are analyzed to decide if a Safety Assurance and Compliance Program (SACP) project is appropriate or whether traditional site-specific inspection actions are needed. FRA uses its SACP process for system-wide improvements of safety problems and traditional site-specific inspections to target individual problems.

HAZMAT ACCIDENTS

Question. Please chronicle all major hazmat-involved rail accidents in calendar year 1996, noting date, location, railroad, type of hazmat, any fatalities, injuries, evacuations or other complications, and the estimated cost of damage and loss for each. Please also summarize the probable cause of each accident Answer: The following major rail accidents involving the release of a hazardous material are summarized below:

Date.—02/01/96

Location.—Cajon, California

Railroad.—Burlington Northern/Santa Fe (BNSF)

Type of hazmat.—Hazmat involved: Three cars each of either petroleum distillates, denatured alcohol, and trimethyl phosphite burned completely. One tank car of butyl acrylate in a pressurized tank, was exploded to relieve pressure and released 1,700 gallons of product. The remainder was transloaded. One car of methyl ethyl ketone derailed one wheel, but was upright and undamaged.

Fatalities.—2

Injuries.—1

Evacuations or other complications.—50

Estimated cost of railroad damage.—$3,765,294

Probable cause.—Insufficient braling force allowed the speed of the train to increase, making it impossible for the train to negotiate the seven degree curve to the left. A blockage in the train line (air brake system) occurred which prevented proper application of the air brakes from the point of blockage rearward to the end of train. Due to the massive destruction of the derailed equipment, the exact point of blockage could not be determined.

Date.—02/06/96

Location.—Waverly, West Virginia

Railroad.—CSX Transportation

Type of hazmat.—One empty car contained potassium nitrate RESIDUE, but did not lose product. The derailment ruptured a buried, privately owned 2 inch gas transmission line running from a nearby oil well to a local cement castings plant. The ruptured gas line began venting natural gas, so a nearby school was evacuated. Approximately 150 residents and students were evacuated.

Fatalities.—0

Injuries.—0

Evacuations or other complications.—150

Estimated cost of railroad damage.—$43,000

Probable cause.—Broken rail (transverse/compound fissure).

Date.—02/07/96

Location.—Powersville, Missouri

Railroad.—SOO Line

Type of hazmat.—Eight boxcars containing EXPLOSIVES 1.1 were derailed. Five of the eight were on their sides and three were leaning. Twenty-nine bombs had broken out of the lead car and fouled the right-of-way. A precautionary evacuation affected one family.

Fatalities.—0

Injuries.—0

Evacuations or other complications.—2

Estimated cost of railroad damage.—$294,903

Probable cause.—Broken rail (split web).

Date.—02/21/96

Location.—Leadville, Colorado

Railroad.—Southern Pacific (SP)

Type of hazmat.—Six tank cars containing sulfuric acid derailed and spilled 51,351 gallons of product.

Fatalities.—2

Injuries.—1

Evacuations or other complications.—20

Estimated cost of railroad damage.—$4,907,872

Probable cause.—The student engineer's failure to control the train speed on a steep grade by use of the available train air brake system.
Date.—02/28/96
Location.—Cushing, Minnesota
Railroad.—Burlington Northern/Santa Fe (BNSF)
Type of hazmat.—Two tank cars derailed containing liquid propane gas (one car leaked it's product) and four tank cars containing anhydrous ammonia (one car leaked it's product).
Fatalities.—0
Injuries.—0
Evacuations or other complications.—33
Estimated cost of railroad damage.—$691,350
Probable cause.—Broken joint bar (track).
Date.—03/04/96
Location.—Weyauwega, Wisconsin
Railroad.—Wisconsin Central (WC)
Type of hazmat.—Seven tank cars containing liquid petroleum gas ignited, seven tank cars containing propane derailed and two cars containing sodium hydroxide were on their side and breached.
Fatalities.—0
Injuries.—0
Evacuations or other complications.—3,155
Estimated cost of railroad damage.—$1,165,277
Probable cause.—Broken right-hand switch point on main track turnout (bolt hole break out).
Date.—03/06/96
Location.—Selkirk, New York
Railroad.—ConRail (CR)
Type of hazmat.—A tank car containing liquid petroleum gas (LPG) exploded as it coupled to two other tank cars containing LPG. The result was a violent rupture and ensuing fire.
Fatalities.—0
Injuries.—0
Evacuations or other complications.—150
Estimated cost of railroad damage.—$12,525
Probable cause.—Tank car shell fracture caused by impact coupling forces combined with an ambient temperature below the tank shell ductile to brittle transition failure. Contributing factors, the existence of a defect in a weld overlay repair to the tank shell provided a crack initiation site for the failure.
Date.—03/21/96
Location.—Ada, Oklahoma
Railroad.—Burlington Northern/Santa Fe (BN)
Type of hazmat.—Nine tank cars containing denatured alcohol derailed. Seven of the cars released 195,841 gallons of product and caught fire.
Fatalities.—0
Injuries.—0
Evacuations or other complications.—816
Estimated cost of railroad damage.—$203.113
Probable cause.—Broken axle (casting defect) on tank car GATX 79780.
Date.—04/11/96
Location.—Alberton, Montana
Railroad.—Montana Rail Link (MRL)
Type of hazmat.—One tank car containing chlorine derailed and released product, one tank car containing sodium chlorate derailed and spilled product, and one tank car containing potassium cresylate derailed.
Fatalities.—1
Injuries.—123
Evacuations or other complications.—500
Estimated cost of railroad damage.—$382,100
Probable cause.—Broken rail (vertical split head).
Date.—06/29/96
Location.—Singer, Louisiana
Railroad.—Kansas City Southern (KCS)
Type of hazmat.—Six tank cars containing propylene oxide, no leaks; one tank car Alcohol ethyoxylate, lost ⅔ of its contents; one tank car diethanolamine, triethanolamine, lost entire contents.
Fatalities.—0
Injuries.—0

Evacuations or other complications.—50
Estimated cost of railroad damage.—$840,923
Probable cause.—Burned off journal caused by a failed roller bearing on tank car SUNX 24805.
Date.—10/04/96
Location.—Lovell, Wyoming
Railroad.—Burlington Northern (BN)
Type of hazmat.—Approximately 9,690 gallons of diesel fuel reportedly spilled from the ruptured fuel tanks and a fire ensued.
Fatalities.—0
Injuries.—3
Evacuations or other complications.—11
Estimated cost of railroad damage.—$1,519,000
Probable cause.—Head-end collision. The crewmembers of BN 01–223 did not operate their train at restricted speed.
Date.—11/07/96
Location.—Lake Cormorant, Mississippi
Railroad.—Illinois Central (IC)
Type of hazmat.—One tank car containing hydrochloric acid residue and one tank car containing toluene diiscyanate derailed and 19,000 gallons of product was released.
Fatalities.—0
Injuries.—0
Evacuations or other complications.—2100
Estimated cost of railroad damage.—$81,094
Probable cause.—The cause of the derailment was excessive slack action and buff forces within the train.

HAZMAT IMPROVEMENTS

Question. What improvements to FRA's hazmat program have been made since last year. Answer: All FRA and State hazardous materials inspectors have recently attended a one week recurrent course that updated them on the 29 final rules published by RSPA since August 1995. State inspectors have been issued lap top computers to assist them in preparing their reports. In addition, FRA and State HM inspectors have been furnished with a computer program, for their lap tops, (developed by FRA field forces) to compute filling densities. This eliminated the timely task of performing hand calculations.

FRA field forces are being furnished with recently published notices and final rules issued by RSPA through FRA's Internet system (E-Mail). This provides inspectors with a timely notice of what has been published and directs them to effective dates of the notice. The system is being expanded to our State partners.

FRA is in the process of updating inspectors laptop computers for CD ROM capability. FRA's goal is to provide a CD disk to inspectors (including State) that will have FRA interpretations, 49 CFR citations, technical bulletins and enforcement manual.

FRA has been partnering with U.S. Coast Guard (USCG) in their Container Inspection Training and Assistance Team training (CITAT). Over 40 FRA Hazardous Materials Inspectors have attended CITAT courses offered and sponsored by USCG. These courses have assisted our inspectors identifying problems with containers and IM portable tanks used to transport hazardous materials at port facilities and rail container yards. In addition, FRA Hazardous materials inspectors have participated in over 10 multi-modal inspections at various port facilities involving USCG, Customs, Federal Highway Administration, RSPA, and State governments.

Implementation of a major rulemaking affecting tank car safety. Dockets HM–175A and HM–201 pertaining to the crash worthiness protection requirements for tank cars; detection and repair of cracks; pits; corrosion; lining flaws; thermal protection flaws and other defects of tank car tanks. This also includes damage tolerance analysis and quality assurance programs for manufacturing and repair facilities.

FRA's Hazardous Materials Division is currently working with RSPA and Transport Canada in developing a North American Standard for tanks cars that will be performance based and follow U.N. guidelines.

FRA continues to partner with its external customers on "Ensuring Tank Car Safety", numerous meetings have been conducted with rail management and labor, chemical shippers, tank car manufacturers, repair facilities and suppliers in determining what type of research government and industry is currently performing, in an effort to consolidate research programs and optimize research dollars available

for research, and provide direction in areas that need to be addressed (e.g.; use of modern technology—Acoustic emission).

HIGH RISK HAZMAT SHIPPERS

Question. Previously, FRA promised that FRA inspectors would direct adequate focus on high risk hazmat shippers. How is this now done? How are high risk shippers identified?

Answer. FRA has issued, February 28, an Annual Allocation Analysis Model to its field that highlights railroad safety performance information for use with other resources to determine if a Safety Assurance Compliance Program action is needed or whether a focused site-specific inspection is needed. The model will be a valuable tool in assisting FRA's field in the deployment of field resources to ensure that acute compliance problems and other significant safety issues are identified and resolved. The model includes a hazmat model that covers railroad operations. Another model is near completion that will address high-risk hazmat shippers.

SACP—RAILROAD SYSTEM ANALYSIS

Question. FRA is performing safety analyses of railroads on a system-wide basis, in an effort to be more risk based and cooperative in its safety enforcement efforts. How many railroads have been analysed by FRA so far (list by name of railroad and class)? What analyses are ongoing?

Answer. Since October 1994, thirty-six railroads have been analysed in conjunction with the Safety Assurance and Compliance Program (SACP).

	Name	*Class*
1.	Chicago & North Western	I
2.	Southern Pacific	I
3.	Iowa Interstate	II
4.	Conrail	I
5.	Kansas City Southern	I
6.	Florida East Coast	II
7.	Tri-County Commuter Rail	Other
8.	Union Pacific	I
9.	Montana Rail Link	II
10.	CSXT	I
11.	Dakota, Minnesota and Duluth	II
12.	Gateway Western	II
13.	Northeast Illinois Regional Commuter Metra (Chicago)	II
14.	Southeastern Pennsylvania Transit (SEPTA)	II
15.	Wisconsin Central	II
16.	Long Island Rail	II
17.	Springfield Terminal	II
18.	Belt Railway Company of Chicago	II
19.	Norfolk Southern	I
20.	Alaska Railroad	I
21.	Railtex	Other
22.	New Jersey Transit Rail Operations	II
23.	Elgin, Joliet & Eastern	II
24.	Metro North Commuter	II
25.	Burlington Northern/Santa Fe	I
26.	Canadian National (GTW/DWP)	I
27.	Illinois Central (Chicago Central)	I
28.	Amtrak	I
29.	Canadian Pacific (SOO)	I
30.	Canadian Pacific (Delaware & Hudson)	I
31.	Indiana Harbor Belt	II
32.	MetroLink (SCRRA)	Other
33.	Central Oregon & Pacific	Other
34.	Texas Mexican	II
35.	North American Rail Net	Other
36.	I&M Rail Link	Other

Categorization of railroads is in accordance with guidelines cited in FRA's Accident Incident Bulletin.

Additional railroads scheduled for fiscal year 1997. Texas Oklahoma & Eastern/DeQueen & Eastern; Dakota, Missouri Valley and Western Railroad; Central Railroad of Michigan; Escanaba and Lake Superior; Wisconsin Southern; Toledo, Peoria and Western; Northern Indiana Commuter; Carolina Southern; Arizona and Califor-

nia; Blue Mountain Reading and Northern; Ann Arbor; Kyle Railroad; Wheeling and Lake Erie; Amtrak capital Corridor; Indianapolis and Louisville; Red River Valley and Western Railroad; Farmrail/Grainbelt.

Since the SACP is viewed as a process, FRA continues analysis of a railroad after the "termination or completion" of a specific SACP assessment. The partnerships established as a result of the SACP provide a foundation for addressing future safety concerns between FRA, railroad management, and labor. Examples of current analyses include the following issues:

Amtrak:

—Inaccurate accident/incident reporting.

—Failure to comply with Blue Signal protection regulations.

—Training of mechanical department employees on new equipment.

Kansas City Southern:

—Grade Crossing/Trespasser issues.

Long Island:

—Signal and Train Control issues.

Rail Tex:

—Daily inspection and maintenance of locomotives.

Elgin, Joliet & Eastern:

—Train air brake testing.

The above issues are being addressed by partnerships composed of representatives from FRA, railroad management, and labor organizations.

SACP AGREEMENTS

Question. Please summarize what safety plan agreements between FRA and railroads are now in place. How enforceable are these agreements?

Answer. Under the Safety Assurance and Compliance Program (SACP), FRA seeks to develop partnerships between FRA, railroad management and labor organizations to mutually identify and resolve safety concerns. Where problems are detected, the railroad presents an action plan aimed at resolving them. FRA has entered into informal agreements with the following railroads as a result of a SACP assessment of their respective operating practices and procedures: Southern Pacific, Iowa Interstate, Conrail, Kansas City Southern, Union Pacific, Montana Rail Link, CSX, Dakota, Minnesota & Eastern, Gateway Western, SEPTA, Long Island Rail Road, Norfolk Southern, Alaska, Railtex Amtrak, and Elgin, Joliet & Eastern. The issues cited by FRA's assessments have been addressed by the aforementioned railroads and, with the exception of Amtrak, are in the process of being resolved or closed. Amtrak's Action Plan was recently received in May and FRA is currently reviewing the carrier's response to the various issues cited during our assessment. A preliminary review of Amtrak's Action Plan indicates that the carrier has developed appropriate plans and procedures to rectify all safety concerns raised by FRA.

In general, FRA's experience has been that railroads abide by these informal safety agreements. Where there is a material failure to comply with the railroad action plan resulting in regulatory noncompliance, FRA's policy is to take strong enforcement action. In those situations, FRA is acting to enforce the safety rules themselves, not the terms of an agreement.

In two situations, railroad noncompliance has been so significant that FRA has entered into a more formal Safety Compliance Agreement with the railroad. Under these agreements, FRA refrains from issuing a compliance order or emergency order if the railroad takes very specific steps to improve compliance. Any violation of the agreement may result in FRA's issuance of an appropriate order, which the railroad has agreed not to challenge. To date, the railroads are abiding by these agreements and FRA has not had to issue an order in either case.

SUCCESS OF SACP PLANS

Question. How do you establish that your cooperative strategy is working? Please provide several examples of how this cooperative approach has been effective, and outline how the compliance levels have improved with this approach versus an enforcement approach.

Answer. The most fundamental indicator that the cooperative strategy is working is the safety statistical improvement. Preliminary results from the various SACP's in conjunction with traditional compliance and inspection activities and regulatory initiatives indicate significant improvements in certain key safety categories. For example, as cited below a comparison of 1990–1993 percentages reductions with 1993–1996 percentage reductions clearly reveals a trend in safer conditions for employees and the public:

	Between 1990–93			Between 1993–96		
	1990	1993	Percentage improvement	1993	1996	Percentage improvement
Fatalities	1,297	1,279	1.4	1,279	1,023	20.0
Train Accidents	2,879	2,611	9.3	2,611	2,376	9.0
Crossing Accidents	5,713	4,892	14.4	4,892	4,159	15.0
Crossing Fatalities [1]	698	626	10.3	626	472	24.6
Trespasser Deaths	543	523	3.7	523	472	9.8
EOD Casualties	21,010	15,410	26.7	15,310	8,949	41.9

[1] Includes all trespasser and employee fatalities at highway-rail grade crossings (Preliminary 1996 data.).

Certain improvements in defect ratios are available from a few assessments; however, this type of information is the exception and not the norm and generally relates to a specific carrier and location(s).

FRA has witnessed a profound culture change between railroad management and labor organizations as to their sincerity and willingness to communicate their respective differences regarding safety problems and to modify or alter traditional approaches and viewpoints; approaches that tended to be an antagonistic or adversary in nature due to the parochial interests of the different parties. For example, the Burlington Northern Santa Fe (BNSF) Railroad has taken significant measures to eliminate the issue of fear and intimidation as existing or perceived by their employees in the reporting of an accident/incident. In addition, BNSF has modified their policy and procedures with regard to disciplinary actions against their employees. Both of these actions by BNSF represent a substantial cultural change by management in its handling of employee relations issues. These actions are unprecedented in the industry and provide a substantial impetus in the establishment of additional partnerships with labor organizations. On the other hand, labor organizations have formed partnerships with BNSF in an attempt to resolve safety concerns, including issues sensitive to their members, e.g., accident/incident reporting, processing of disciplinary cases, etc.

Other examples of the effectiveness of the cooperative strategy:

Dakota, Minnesota and Eastern (DME)

In late 1995, DME made a commitment to relay 100 miles of 72 lb. Jointed rail with new 115 lb. continuous welded rail (CWR) because of numerous defective rail and joints between Huron and Pierre, South Dakota. The railroad also experienced excessive track caused derailments. DME announced the project was completed by the end of October 1996. There have been no track caused derailments on this portion of railroad since the relay.

Amtrak

Motivated by a desire to protect the lives and safety of railroad workers who work along Amtrak's high speed, high density Northeast Corridor, representatives from Amtrak management and labor sat down together to objectively analyse the risks faced by roadway workers from trains and moving equipment. The parties then worked together to develop effective safety procedures to minimize those risks. But Amtrak's safety partnership did not end there. Recognizing that railroad safety rules can only be effective if they are understood and obeyed by the people who are affected by them, the parties agreed upon a cooperative program to implement the roadway worker protection rules. This program includes peer training, empowering employees to enforce the rules, and joint labor/management oversight of the program.

During the Amtrak SACP the team examined the quality of the carrier's periodic locomotive inspections after finding an excessive number of defects on out-shopped locomotives. Defective conditions included exhaust leaks, oil leaks over walkways in engine compartments, inoperative sanders and defective alerting devices. As a result of the SACP process Amtrak and its mechanical department employees have made dramatic improvement in the quality of locomotive inspections. FRA follow-up inspections have confirmed that the average number of defects per locomotive dropped from nine to one in the Los Angles area, from eight to one in the Chicago area, and from five to one in the Washington, D.C. area.

Alaska Railroad

More than a dozen unsafe conditions raised by employees were addressed and resolved as the result of findings derived from the SACP assessment. These findings included concerns in the operating practices, motive power and equipment, signal

and train control, and track areas. However, perhaps the greatest accomplishment from the assessment was the opening of communications and the resolution of sometimes long standing contentious issues between management and labor.

SACP PLANS NOT IMPLEMENTED

Question. Please provide several examples of where the cooperative agreement did not work and FRA had to pursue enforcement actions.

Answer. FRA has encountered very few situations where railroads have failed to follow through on commitments they have made as part of a SACP action plan. FRA does have a case pending against Conrail for several hazardous materials violations that the inspector believes stem from a failure by Conrail to live up to relevant portions of its SACP action plan.

There have been several situations, however, where FRA has found significant noncompliance during the early stages of a SACP review and taken enforcement action as a result. For example, prior to the point at which Wisconsin Central was to present a SACP action plan, FRA determined that certain aspects of that railroad's compliance warranted immediate action, especially in the areas of track and equipment safety. In February 1997, FRA and the railroad entered into a Safety Compliance Agreement, in which the railroad committed to specific remedial actions and waived any right to contest a compliance order should there be, in FRA's unilateral view, any deviation from the agreement. Implementation of the agreement has gone smoothly to date. In June 1997, FRA reached a similar agreement with the Northwestern Pacific Railroad in California, where track conditions posed an unacceptable threat to tourist passenger operations.

In 1996, FRA was working with the Central Oregon and Pacific to address certain systemic problems under SACP. The seriousness of some of the problems noted by FRA and the railroad's slowness to respond led FRA to cite the railroad for a variety of violations, especially in the hours of service record keeping and hazardous materials areas. The citations have helped bring about a more cooperative attitude on the part of the railroad, and progress toward improved compliance is occurring.

On the Dakota, Minnesota, and Eastern, SACP activity revealed a significant failure to comply with FRA's rules on alcohol and drug testing. As a result, FRA cited the railroad for several violations, and cases totalling nearly $60,000 are pending.

ENFORCEMENT CASES AGAINST INDIVIDUALS

Question. How have you strengthened since last year the systematic reinspection procedure of monitoring or revisiting either rail management or labor employees who received warning letters from the FRA? How many enforcement actions against these individuals has the FRA taken during each of the last three years? What types of actions were taken?

Answer. FRA does not conduct reinspections focused on individuals who have received warning letters due to noncompliance with the safety laws. Our inspections and reinspections are focused on relative safety hazards presented at particular locations or across railroad systems. If, in the normal course of these inspections, we discover noncompliance by an individual whom we had previously warned, or if we receive a complaint alleging such noncompliance and confirm those allegations, we will pursue enforcement action against that individual. Such action is likely to be stronger than a warning letter, given the earlier attempt to gain compliance through that means.

In 1994, FRA issued one disqualification order and closed six individual liability cases. In 1995, FRA terminated two disqualification cases, closed four individual civil penalty cases, and issued one headquarters-level warning letter. In 1996, FRA closed two civil penalty cases (one was terminated), issued one civil penalty case, and issued two headquarters-level warning letters.

ENFORCEMENT POLICY: BALANCING COOPERATION AND STRONG ACTION

Question. Please explain the policy of the FRA with respect to the use of civil penalties in cases of serious safety violations. How has an appropriate balance been attained between working cooperatively with industry and making strong enforcement cases against it when necessary? Please explain your rationale, procedures, and policies followed to achieve this balance.

Answer. In April 1997, FRA issued guidance to all of its safety personnel on this very subject. When the Safety Assurance and Compliance Program (SACP) was first announced in March 1995, the greatest emphasis was placed on getting to root causes of systemic safety problems through partnership efforts. This was, and is, the program's major innovation. Because this central thrust of the program entailed a certain amount of enforcement forbearance concerning the subjects of a system audit

during the period of the audit, the erroneous impression may have developed that SACP called for refraining from use of enforcement tools in nearly all cases. However, there never was any intent to eliminate or discourage use of the enforcement tools or the exercise of discretion, which is necessary for rational enforcement. In fact, SACP actually involves stronger enforcement than before because it seeks to better target our enforcement efforts toward serious safety problems.

To ensure that all FRA enforcement personnel understand how to achieve a balance between cooperation and enforcement, the recent guidance issued by FRA contained these basic principles:

Use discretion.—Exercise enforcement discretion in accordance with the agency's longstanding criteria found in 49 CFR Part 209 Appendix A. Where, consistent with those principles, the situation warrants use of an enforcement tool to ensure compliance and increase safety, take the enforcement action.

Focused enforcement.—In deciding whether enforcement action is necessary, make a special effort to focus enforcement where it will do the most good, i.e., where accident trends, inspection data, direct observations, and/or the violation's inherent seriousness indicate that enforcement action is needed to address a significant safety risk.

Systemwide audits.—In systemwide audits, refrain from enforcement action concerning the subjects of the audit as long as full cooperation continues, unless a violation is extremely severe. This limited forbearance is an important way of developing a cooperative atmosphere for mutually identifying root causes of problems and achieving solutions.

Safety action plan violations.—Where a railroad or shipper has developed a Safety Action Plan as a response to a Safety Profile and a Senior Management Meeting and then committed violations of the safety laws directly related to the Safety Action Plan, strong enforcement action should be taken in every case, absent a compelling reason.

Small companies.—In dealing with very small railroads and shippers, abide by the dictates of President Clinton and recent small business legislation, which generally require that enforcement agencies, in deciding whether to assess penalties and determining penalty amounts, give great weight to whether violations were committed in good faith and the swiftness of remedial action. As has long been FRA's policy, we strive to assist these small businesses in their compliance efforts. The guidance emphasizes that enforcement is a very important element of SACP, and notes that "balance between firm enforcement and cooperative effort is essential to the program's success." FRA has delivered the written guidance to all of its safety personnel and included presentations on and discussion of these principles at each of its multi-regional conferences in 1997.

INSPECTOR TRAINEE PROGRAM

Question. Please provide information on the success of the inspector trainee program and the retention rate for all individuals who have entered this program since its inception. How many individuals who entered the inspector trainee program now serve as FRA inspectors in the field? How much of the fiscal year 1998 request pertains to this program? Please compare this amount with the amounts spent during each of the preceding three years.

Answer. The FRA Inspector Trainee Program has been very successful. The inspector trainees have brought new and creative thinking to complex safety issues with their various and exceptional educational backgrounds. Significant benefits have been gained by the public and the railroad industry as the trainees become a part of FRA's inspector workforce. The input from the trainees have been significant in helping to bring FRA's inspector program to a fact-based, cooperative approach to safety.

Since the inception of the FRA inspector trainee program in fiscal year 1991, the retention rate has ranged from a low of 88 percent in fiscal year 1992 to a high of 97 in fiscal year 1993 and fiscal year 1996. The retention rate has been well within what we consider acceptable.

Of the 35 inspector trainees currently on-board, 19 have qualified as inspectors and are serving in that capacity. Thirteen additional trainees are expected to meet the journeyman inspector qualifications within the next year.

The fiscal year 1998 request includes $1.9 million to continue this program. The budgeted amount for fiscal year 1997 is $1.8 million, for fiscal year 1996 it was $1.7 million, and for fiscal year 1995 it was $1.5 million.

SAFETY TRAINING BUDGET

Question. Please prepare a chart of your training budget for each of the last four years, specifying the amount spent on Federal and State inspectors separately.

Answer. The information follows:

[In thousands of dollars]

	Fiscal years—			
	1995 actual	1996 actual	1997 budget	1998 request
State	122	210	240	245
Federal	630	675	796	793
Total training	1,758	1,637	1,724	1,736

ATIP VEHICLE

Question. FRA has requested $3 million to acquire a new automated track inspection vehicle in fiscal year 1998. Why can't funding for the ATIP be split funded over the next two years? What additional costs would be encountered?

Answer. Operation of the ATIP vehicle provides FRA with an objective method to monitor compliance with minimum track geometry safety standards over critical line segments such as those which support Amtrak and commuter operations, line segments which support the transport of large volumes of hazardous materials, line segments considered as heavily utilized freight main lines, and line segments designated essential by the Military Traffic Management Command if military mobilization were necessary.

Operation of the ATIP vehicle provides FRA with the opportunity for early identification of trends which indicate various levels of track degradation. FRA uses the information from the ATIP vehicle to supplement its Safety Assurance and Compliance Program (SACP) and to identify those areas of the track structure which may require a focused enforcement approach by FRA inspectors.

Funding for the acquisition of the new vehicle should not be split funded for several reasons: Estimated time from earliest possible contract award to complete the new vehicle is approximately 21 months. It is unreasonable to expect industry to undertake a project of this duration with only one-year funding available. With split funding, contractor costs may be expected to increase by about five to seven percent or $150,000 to $210,000 due to costs associated with obtaining expert staff for a one-year effort only; certain long-lead items could not be ordered until funding was available which could result in additional delays or labor stoppages due to lack of parts; and costs of shutdown to protect the first year's investment if additional funding did not become available.

Operation of the current T–10 vehicle is becoming extremely costly due to high maintenance costs. Additionally, it is uncertain how much longer parts can be obtained to repair the T–10 car. This is a model SPV 2000 as originally produced by the Budd Company in 1980. Budd has been out of business for several years now and FRA's vehicle was one of the last ones produced.

If the ATIP vehicle is not available or inspects at a lesser frequency than what has been normal in the past, the effectiveness of FRA and State inspectors would be compromised as they will be deprived of the critical information which helps them to prioritize their inspection activities. FRA itself will be denied the opportunity to effectively monitor compliance within the higher speed ranges if the ATIP program is not continued and does not keep pace with the changes within the industry.

USE OF ATIP DATA

Question. Please explain how FRA has incorporated data provided through the ATIP program into its overall safety strategy of ensuring the safety of the nation's railroad systems.

Answer. Operation of the ATIP vehicle provides FRA with real-time track geometry data which serves as an excellent indicator of overall track quality. This data is analyzed for the early identification of trends which can indicate various levels of track degradation. This process is an essential part of FRA's overall strategy for monitoring compliance, especially on those critical safety-sensitive line segments which support Amtrak and commuter operations, those that support the transport

of large volumes of hazardous materials, and those line segments designated essential by the Military Traffic Management Command if military mobilization becomes necessary.

FRA further uses the data from the ATIP vehicle to supplement its Safety Assurance and Compliance Program (SACP) by enabling FRA and State inspectors to make prioritized judgements on where future on-the-ground inspection time would be most beneficial in ensuring railroad safety.

TRACK SAFETY STANDARDS

Question. To what extent will the revised Track Safety Standards contain language to accommodate the Gage Restraint Measuring System (GRMS) technology?

Answer. The draft Notice of Proposed Rulemaking (NPRM) recommended by the Railroad Safety Advisory Committee (RSAC) does not incorporate rule text language which would accommodate the GRMS technology. Lengthy discussions within the Track Working Group which drafted the NPRM did not yield agreement about the use of the GRMS technology as an alternate performance standard.

Although the Track Working Group could not reach consensus on whether or not the revised standards should contain language to accommodate this technology, RSAC has recommended that a small task group continue evaluating the possibility of developing GRMS standards for broad application within the industry. The draft NPRM invites public comment regarding the feasibility of this technology as an alternate inspection standard or as an additional inspection method.

Discussions within this small task group, along with public comment to the NPRM regarding this issue, will ultimately decide to what extent this technology will be accommodated in the Final Rule.

ATIP VEHICLE

Question. Can you justify the cost of purchasing a new ATIP vehicle before the RSAC resolves issues concerning a revision of the Track Safety Standards that might include a GRMS that could replace the need for an ATIP?

Answer. The Gage Restraint Measurement System (GRMS) must be viewed as a technology application which is totally different when compared to FRA's ATIP program. The GRMS measures the lateral restraint provided by the crossties and rail fasteners under constant applied lateral and vertical loads. Lateral restraint can be described as the ability of the track to resist gage widening forces and therefore is a direct indication of track strength. The only track geometry parameter which is of concern is the gage of the track.

FRA's ATIP vehicle measures all track geometry parameters which are addressed in the track safety standards. These parameters include track gage, track alignment, and track surface which include the parameters of crosslevel, warp, and profile. The ATIP vehicle also calculates the maximum allowable curving speed based on the existing alignment and superelevation.

GRMS and ATIP can not be considered as compatible systems on the same vehicle if the maximum benefit is to be achieved from each system. Due to the limitations imposed by the response time of the hydraulic split axle, the maximum testing speed of a GRMS vehicle is in the range of 30 to 35 mph. Collecting track geometry data at this speed would drastically reduce FRA's annual test miles, as our present vehicle tests the track at its posted speed up to 80 mph. Conversely, collecting track geometry data at 80 mph with a vehicle equipped with a retracted (cut out) GRMS split axle assembly, would result in extensive wear and tear to the GRMS system.

The cost of purchasing a new ATIP vehicle is justified regardless of what, if any, GRMS language may be included in the revised track safety standards.

FISCAL YEAR 1996 REGULATORY INITIATIVES

Question. Please list all final regulations, ANPRM's, NPRM's, and any new regulatory projects issued or pursued last year.

Answer. In 1996 FRA issued or pursued the following regulatory projects:

—Issued a final rule on roadway worker protection. This was FRA's first formal negotiated rulemaking.
—Issued a final rule on devices to enhance the visibility of locomotives at highway grade crossings.
—Issued a final rule concerning accident reporting.
—Issued hazardous materials penalty guidelines.
—Issued final rules revising signal regulations.
—Amended a final rule on maintenance, inspection, and testing of grade crossing signal devices.

—Drafted a proposed rule on emergency response for passenger operations, which was developed as part of a statutorily authorized collaborative process.
—Drafted a proposed rule on passenger equipment, also developed as part of a collaborative process.
—Drafted a proposed rule on track safety, developed by an RSAC working group.
—Drafted a proposed rule on radio communications (RSAC).
—Drafted a final rule on the use of two-way end-of-train devices.

REGULATORY EFFORTS

Question. Please explain why there is a regulatory backlog of 22 projects. What is the nature and status of each of these projects.

Answer. FRA has an ambitious regulatory agenda that fluctuates as Final Rules are issued and new rulemaking efforts are added. FRA's rulemaking agenda includes 12 Congressionally mandated reports and rulemakings, five of which are overdue. This is an inescapable consequence of both the complexity of the industry and the colossal changes that have occurred in railroading in recent years.

The Rail Safety Advisory Committee (RSAC) was created in 1996 in response to FRA's critical need to address over 40 pending rulemaking initiatives and President Clinton's Regulatory Reform Initiative, which directed agencies to substantially expand efforts at promoting consensual rulemaking. Collaborative rulemaking ensures regulatory decisions are based on complete and accurate data, balances costs and benefits, accommodates the rapidly evolving changes in the rail transportation industry, and allows for the best use of resources. Regulations resulting from this collaborative process are more likely to be reflective of all the affected interests and more readily implemented. Because the final rule is based on consent, acceptance and understanding are widespread and compliance is at high levels from the start.

RSAC is working on some of FRA's toughest, most controversial regulatory challenges. It is expected that RSAC involvement can shorten a rulemaking process. Since RSAC was chartered on March 25, 1996, the scope of involvement has included the 50 full Committee members and their alternates (110), six working groups (217 members and alternates), and 15 task forces (140 members).

The $200,000 requested for RSAC in fiscal year 1998 would support RSAC activities at the optimum level for addressing FRA's regulatory program. Railroad labor and management are dedicating significant resources to the success of this rulemaking process. Funding below the requested level would severely impact the effectiveness of this process and the resulting critical contributions to public safety envisioned by all parties dedicated to the success of collaborative rulemaking.

The 4 new FTE's in the Office of Safety and the Office of Chief Counsel will be hired to help resolve highly technical and legal issues that evolve during the RSAC rulemaking process. Many of the rules to be done in 1998 will be developed through the RSAC. The RSAC establishes working groups to gather and analyze relevant data and develop Notices of Proposed Rulemakings. The experience and expertise of an industrial hygienist, mechanical engineer, electrical engineer and safety attorney are needed to help with RSAC regulatory projects.

Current consensus rulemakings under RSAC include Locomotive Engineer Certification, Maintenance of Way Equipment Safety Standards, Gage Restraint Measurement System, Tourist and Historic Railroads, Locomotive Crew Safety (Crashworthiness and Working Conditions), and Event Recorder Requirements. Future rulemaking through RSAC include Positive Train Control and Accident/Incident Reporting.

The additional FTE's will certainly improve our ability to handle our regulatory workload.

Attached is a comprehensive overview of FRA's Railroad Safety Regulatory Program.

[U.S. Department of Transportation, Federal Railroad Administration, June 20, 1997]

OVERVIEW OF THE RAILROAD SAFETY REGULATORY PROGRAM AND STANDARDS-RELATED PARTNERSHIP EFFORTS

Legend:

ANPRM=Advance Notice of Proposed Rulemaking

Italics=Indicates project has been identified for development through the Railroad Safety Advisory Committee or a similar forum for collaborative rulemaking

NPRM=Notice of Proposed Rulemaking

RSAC=Railroad Safety Advisory Committee

SUMMARY OF CONSENSUS RULEMAKING EFFORTS

Roadway Worker Safety.—Consensus achieved in formal negotiated rulemaking; final rule published 12/16/96; effective 1/15/97. Denial of AAR and APTA petitions for reconsideration published 4/21/97. Misc. waiver petitions pending (hearing 5/22/97; comments closed 6/9/97).

Passenger Equipment Safety.—Partial consensus achieved; NPRM circulated to working group 3/19/97. Includes power brake rules for passenger service. In review and clearance.

Passenger Train Emergency Preparedness.—NPRM based on working group recommendations was submitted for review and clearance; NPRM was published 2/24/97 with significant additions, and a notice of public hearings was published 3/6/97. Public hearings were held in Chicago on April 4 and in New York City on April 7. Written comments were due by 4/25/97. Next step will be identification of options based on comments to date; working group will be asked to help resolve final rule issues.

Railroad Safety Advisory Committee.—Last full committee meeting: 3/24/97. Next meeting 6/24/97.

Task No.	Subject	Status
96–1	Power Brake Regulations, freight, general revision.	Working group charter extended to 1/15/97 to produce NPRM; impasse reached at 12/4/96 meeting, and subsequent efforts to renew talks were not successful. FRA withdrawing task at 6/24/97 meeting. FRA is drafting second NPRM for early issuance.
96–2	Track Safety Standards, general revision.	Consensus achieved; in balloting that concluded 11/21/96, RSAC voted to accept working group report and recommend NPRM. NPRM signed 6/19/97 and forwarded to Federal Register for publication.
96–3	Railroad Communications (including revision of Radio Standards and Procedures).	Final meeting of working group was held 1/23/97. Working group provided consensus NPRM to RSAC at 3/24/97 meeting. RSAC voted to accept the NPRM and forward to the Administrator in voting concluded 4/14/97. NPRM signed 6/11/97 and forwarded to Federal Register for publication.
96–4	Tourist Railroads	Open task to address needs of tourist and historic railroads; working group is monitoring steam task.
96–5	Steam-Powered Locomotives, revision of inspection standards.	Task force of Tourist & Historic Working Group held final meeting week of 5/19/97 and completed agreement on rule text. Final drafting underway at FRA on NPRM, which will be considered in the Tourist & Historic Railroads Working Group in June and if possible will be available to the full Committee 6/24/97.
96–6	Locomotive Engineer Qualification and Certification, general revision.	Task accepted 10/31/96; first working group meeting held 1/7–1/9/97; meetings continue monthly. Meeting to review final draft rule language scheduled 10/7/97; expect consensus approval and submission to full Committee by 10/15/97.
96–7	Track Motor Vehicle and Roadway Worker Equipment.	Task accepted 10/31/96. Task force of Track Safety Standards Working Group last met 5/29–5/30, and the task force expects to report to the Working Group by 9/30/97.
96–8	Locomotive Crashworthiness and Working Conditions (planning task).	Planning task accepted 10/31/96; planning group met 1/23/97; FRA will present two task statements to full Committee at 6/24/97 meeting.
[97–1]	Event Recorder	Committee requested opportunity to address crash survivability and other NTSB-initiated issues on 3/24/97. Task statement to be presented to full Committee at 6/24/97 meeting.

GENERAL SAFETY RULES AND REPORTS

Accident/Incident Reporting

Summary: The Rail Safety Enforcement and Review Act of 1992 barred FRA from adjusting the monetary threshold for reporting of train accident (presently $6,300) until the methodology is revised. In addition, FRA identified the need to comprehensively revise these regulations, which had not be revised since 1974.

Deadline: The report of the Committee of Conference on the Department of Transportation and Related Agencies Appropriation Act, 1996, directed FRA to issue a final rule in this proceeding by 6/1/96.

History: An NPRM was issued 8/19/94, followed by public hearings and written comment. A public regulatory conference was convened 1/30–2/3/95 in an effort to resolve outstanding issues. A notice of decision to issue a supplemental NPRM was published 7/3/95, but was withdrawn in a notice published on 1/24/96.

Status: Final rule was issued 5/30/96 and published 6/18/96. Stay requests have been denied, and technical amendments were published 11/22/96 (61 FR 59368). A notice of availability of custom software was also published 11/22/96 (61 FR 59485). On 12/16/96, the Administrator signed final rule amendments, which were published 12/23/96 (61 FR 67477). Final rule became effective 1/1/97. Industry training partnerships are being executed.

Regulatory Reinvention

Summary: In response to the President's call for regulatory review, elimination and reinvention, FRA took several actions to repeal obsolete regulations and simplify agency processes that affect external customers. Major elements of this effort are included in regulatory revision efforts described below under other headings.

Status: Interim final rule amendments reducing frequency of reporting regarding signal and train control systems (49 CFR Part 233), simplifying review requirements for certain modifications of signal systems (49 CFR Part 235), and making conforming changes regarding inspection of ATC/ATS/ACS (49 CFR Part 236) published 7/1/96 (61 FR 33871). These changes should be finalized in 1997. The Department of Transportation has offered legislative proposals to permit flexibility for small railroads to make accident/incident report less frequently than monthly and to eliminate outdated requirements for notarization of reports.

SAFETY OF RAILROAD OPERATIONS

Track Safety Standards

Summary: The Rail Safety Enforcement and Review Act of 1992 required FRA to revise the Track Safety Standards, taking into consideration, among other things, the "excepted track" provision. Other prominent issues include updating the standards to take advantage of research findings for internal rail flaw detection and gage restraint measurement. FRA also proposes to adopt track standards for high-speed service.

Statutory deadline: Final rule by 9/1/95.

Status: FRA published an ANPRM 11/6/92 and conducted workshops in the period 1/93–3/93. The Railroad Safety Advisory Committee accepted task of preparing an (NPRM) on 4/2/96. The Track Safety Standards Working Group reported a draft NPRM to the full committee on 10/31/96. In balloting that concluded 11/21/96, RSAC voted to accept the working group report and recommend issuance of the NPRM. NPRM signed June 19, 1997, and forwarded to Federal Register for publication. (RSAC Task 96–2).

Power Brakes

Summary: The Rail Safety Enforcement and Review Act of 1992 required FRA to revise the power brake regulations. The statute required adoption of requirements for 2-way end-of-train telemetry devices (EOT's) and "standards for dynamic brakes."

Statutory deadlines: Final rule by 12/31/93; 2-way EOT's to be used on trains operating greater than 30 miles per hour or in mountain grade territory to be equipped by 12/31/97.

Status: FRA published an NPRM 9/16/94 and conducted six days of public hearings ending 12/94. Due to strong objections to the NPRM, additional options were requested from passenger interests by 2/27/95 and from freight interests by 4/3/95. Further action is as follows:

(1) *Passenger standards revision*: FRA requested the Passenger Equipment Safety Standards Working Group to incorporate new proposals for revisions of the power brake regulations in the NPRM for passenger equipment safety. Working group proceedings on the elements of the NPRM concluded 10/2/96 without full agreement on

power brake elements. See Passenger Equipment Safety Standards for current status.

(2) *Freight standards revision*: On 4/1/96, the RSAC accepted the task of preparing a second NPRM. The working group initiated its efforts in May, and on 10/31/96 the RSAC extended the deadline for a final report until 1/15/97. At the working group meeting 12/4/96, an impasse was declared, and subsequent efforts to revive discussions were not successful. On May 29, FRA notified the working group by letter that the task will be formally terminated. FRA will withdraw task at 6/24/97 full Committee meeting. FRA is preparing a second NPRM. (RSAC Task 96–1)

(3) *Two-way end-of-train devices*: FRA published notice on 2/21/96 that this issue would be separated from the balance of the freight issues and expedited for completion of a final rule. A public regulatory conference was convened 3/5/96 to explore remaining issues, and written comments were due 4/15/96. (Railroads also agreed to an expedited schedule that will ensure application of this technology by 12/15/96 on 2 percent or greater grades and by 7/1/97 for other trains.) The final rule was published 1/2/97 (62 FR 278), and it becomes effective 7/1/97. FRA received two petitions for reconsideration ("local train" definition and implementation date for smaller railroads). A notice denying the request to delete the tonnage restriction for local trains and granting extension of the compliance date for railroads with fewer than two million work hours was published 6/4/97 (62 FR 30461).

Note: On 2/6/96, the Administrator issued Emergency Order No. 18, requiring use by the BNSF of 2-way EOT's or equivalent protection for heavy grade operations over the Cajon Pass.

Bridge Structural Safety

Summary: Following a survey of bridge conditions and railroad inspection practices, FRA determined that regulatory action is not necessary, but that FRA should continue to exercise an oversight role regarding bridge structural safety programs. FRA issued an interim statement of policy 4/27/95, with comments due 6/26/95.

Status: Comments support continued FRA partnership role. Final statement of policy forthcoming ASAP.

Note: On 2/12/96, the Administrator issued Emergency Order No. 19, which removed from service a bridge on the Tonawanda Island Railroad in New York State pending necessary structural repairs.

Bridge Displacement Detection Systems (Report)

Summary: The Swift Rail Development Act of 1994 required FRA to submit a report on systems to detect bridge displacement of the type that caused the derailment of the Sunset Limited at Mobile, Alabama, 9/23/94.

Statutory deadline: 6/2/96.

Status: A technical evaluation report was published 6/23/94 and made available to the respective committees. The formal report to Congress is in preparation.

Freight Car Safety Standards; Maintenance-of-Way Cars

Summary: Cars not in compliance with the Freight Car Safety Standards may be operated at track speed in revenue trains if they are company-owned, stenciled cars. FRA published an NPRM 3/10/94 to close this loophole. FRA requested the Association of American Railroads to amplify its comments by letter of 12/20/94.

Status: AAR response received 8/4/95 is under review with further action to be determined through the Railroad Safety Advisory Committee.

Railroad Communications (includ. Radio Standards and Procedures)

Summary: In submitting the required report to the Congress on Railroad Communications and Train Control on 7/13/94, FRA noted the need to revise existing Federal standards for radio communications in concert with railroads and employee representatives.

Status: On 4/1/96, the RSAC accepted the task of preparing an NPRM, including consideration of communication capabilities required in railroad operations. The working group has presented a consensus NPRM to the full Committee on 3/24/97, and the Committee voted to recommend issuance of the NPRM to the Administrator in balloting that ended 4/14/97. NPRM signed June 11, 1997, and fowarded to Federal Register for publication. (RSAC Task 96–3)

Northeast Corridor (NEC) Signal & Train Control

Summary: Amtrak is planning operations to 150 mph on portions of the NEC and is implementing improvements to the automatic train control system that will provide positive stop and continuous speed control capabilities. FRA's Northeast Corridor Safety Committee (NCSC) met 9/20/94 and approved a set of performance criteria for the new system.

Status: On January 30, 1997, Amtrak provided to FRA a detailed system concept for the Advanced Civil Speed Enforcement System (ACSES), including conditions for operation on designated territories on the south and north ends of the NEC. A notice of Proposed Order for the new signal and train control system authorizing speeds to 150 miles per hour (135 mph on the South End with only high-speed trains equipped under "flanking protection") is being drafted for early issuance. The NCSC will be consulted in finalizing appropriate orders.

NEC System Safety

Summary: Mixed passenger and freight operations at speeds to 150 mph have not previously been attempted in this country. Through the Northeast Corridor Safety Committee (or successor), FRA intends to develop system safety criteria for this service territory, integrating existing safety measures and identifying any areas of material risk not previously addressed.

Status: Timing of project initiation to be determined.

Positive Train Control (Status Report)

Summary: The Swift Rail Development Act of 1994 required FRA to submit a status report on the implementation of positive train control as a follow-up to the 7/94 Report entitled *Railroad Communications and Train Control.*

Statutory deadline: 12/31/95.

Status: FRA has provided testimony to the committees of jurisdiction reporting the status of efforts to promote implementation of positive train control. The report is under review at FRA.

Tourist Railroad Report/*Review of Regulatory Applicability*

Summary: The Swift Rail Development Act of 1994 required FRA to submit a report to the Congress regarding FRA's actions to recognize the unique factors associated with these generally small passenger operations that often utilize historic equipment.

Statutory deadline: 9/30/95.

Status: Report submitted to the Congress 6/10/96. The RSAC authorized formation of a Tourist and Historic Railroads Working Group 4/1/96. The working group held its initial meeting 6/17–6/18/96 and is presently monitoring completion of the steam task. (RSAC Task 96–4)

Passenger Safety Standards

Summary: The Federal Railroad Safety Authorization Act of 1994 (enacted 11/2/94) required FRA to issue initial passenger safety standards within 3 years and complete standards within 5 years. The agency was authorized to consult with industry parties outside the Federal Advisory Committee Act, making it possible to conduct an informal negotiated rulemaking.

Statutory deadline: 11/2/97 (initial); 11/2/99 (final).

Status: An initial meeting of the Passenger Equipment Safety Working Group (passenger railroads, operating employee organizations, mechanical employee organizations, and representatives of rail passengers) was held on 6/7/95, and the group has been meeting regularly and conducting task force activities since that time. Manufacturer/supplier representatives are serving as associate members. FRA prepared an Advance Notice of Proposed Rulemaking indicating the issues under review by the working group, which was published 6/17/96. The working group held its final meeting on the NPRM 9/30–10/2/96, having reached consensus on a portion of the issues presented. An NPRM was circulated to the working group on 3/19/97, and that document (with minor changes requested by members) is under review and clearance.

Passenger Train Emergency Preparedness

Summary: The Federal Railroad Safety Authorization Act of 1994 required FRA to issue emergency preparedness standards for passenger service. Initial standards were required within 3 years and complete standards within 5 years. The agency was authorized to consult with industry parties outside the Federal Advisory Committee Act, making it possible to conduct an informal negotiated rulemaking.

Statutory deadline: 11/2/97 (initial); 11/2/99 (final).

Status: An initial meeting of the working group for passenger train emergency preparedness standards was held on 8/8/95. The group met 2/6–7/96 to develop elements of an NPRM and met jointly with the Passenger Equipment Safety Standards Working Group on 3/26/96 to consider related issues, including the implications of Emergency Order No. 20 and recommendations of the National Transportation Safety Board. The working group includes representatives of passenger railroads, operating employee and dispatcher organizations, and rail passenger organizations, and

an advisor from the National Transportation Safety Board. The working group approved draft rule text, which was incorporated in an NPRM forwarded for review and clearance. Changes requested during review and clearance were provided to the working group during the week of 12/16/96. The NPRM was published 2/24/97 (62 FR 8330), and a notice of public hearings was published 3/6/97 (62 FR 10248). Public hearings were held in Chicago on April 4 and in New York City on April 7. Written comments were due by 4/25/97. FRA is reviewing comments and preparing options for discussion with the working group.

Emergency Order No. 20

Summary: This order deals with the safety of push/pull and electric multiple unit service. The order was issued 2/20/96, and amended 2/29/96. Intercity and commuter passenger railroads were required to adopt operating rules providing for observance of reduced speed where delays are incurred in blocks between distant signals and signals at interlockings or controlled points. Marking of emergency exits and testing of emergency windows was required. Interim system safety plans were required to be filed.

Status: The order has been fully implemented. On 3/26/96, the Passenger Equipment Safety Working Group and the Emergency Preparedness Working Group met jointly to consider implementation issues and crossover issues with the two rulemaking proceedings and recent recommendations of the National Transportation Safety Board. The American Public Transit Association and it members have undertaken a number of actions in response to the emergency order, including development of comprehensive system safety plans (work ongoing). Codification, revision or termination of provisions will be considered during the second phase of passenger safety standards rulemaking beginning in 1998.

Florida Overland Express

Summary: FRA has received a petition for a rule of particular applicability for operations over a new high-speed railroad between Miami and Tampa via Orlando. The State of Florida has established a dedicated funding stream of $70 million per year towards creation of this new private/public partnership.

Status: Received petition for rule of particular applicability 2/18/97. FRA is reviewing the petition and preparing an NPRM for early issuance.

Steam Locomotives

Summary: A committee of steam locomotive experts from tourist and historic railroads has sought a partnership with FRA to revise the steam locomotive regulations. Proposed revisions would relieve regulatory burdens while updating and strengthening the technical requirements.

Status: Revision of the Steam Locomotive Inspection regulations was tasked to the RSAC on 7/24/96. A task force of the Tourist & Historic Railroads Working Group is actively working toward finalization of an NPRM. The task force has finalized rule text, and preamble language is being completed at FRA for review by the task force and working group. Full NPRM should be circulated 6/97. (RSAC Task 96–5.)

Locomotive Engineer Certification; Miscellaneous Revisions

Summary: The final rule for locomotive engineer certification became effective in 1991, but certain issues were left unresolved. Experience under the rule has raised additional issues. Examples of issues under review include the status of operators of specialized maintenance of way equipment and types of conduct for which decertification is appropriate.

Status: An interim final rule amendment dealing with agency practice and procedure concerning engineer certification appeals was published 10/12/95. Issues related to procedures on the properties, offenses warranting decertification, periods of decertification, operation of specialized equipment, etc., are pending. The RSAC accepted this task on 10/31/96. The working group's initial meeting was held 1/7–1/9/97; meeting to review final draft rule language scheduled 10/7/97; expect consensus approval and submission to full Committee by 10/15/97. (RSAC Task 96–6.)

Hours of Service Pilot Projects; Report to Congress

Summary: The Federal Railroad Safety Reauthorization Act of 1994 (enacted with the Swift Rail Development Act) authorized FRA to approve one or more pilot projects to address fatigue and alertness issues among employees subject to the Hours of Service laws. Projects were required to have the support of the railroad and affected labor organizations. FRA was to report the results of those projects.

Statutory due date: 1/1/97.

Status: FRA has encouraged submission of pilot projects and has worked with several railroads regarding innovative work and rest practices; however, only one formal applications for pilot projects has been submitted, and that petition did not involve fundamental reform of work and rest requirements. FRA will report regarding the status of work and rest issues in the industry.

Small Railroads; Policy Statement on Penalty Program

Summary: The Small Business Regulatory Enforcement Fairness Act of 1996 amended the Regulatory Flexibility Act and required, among other things, that each agency establish a program to reduce or waive civil penalties for small entities under certain circumstances.

Statutory deadline: 3/29/97.

Status: Consultations have been initiated in support of this effort.

Wisconsin Central R.R.; Informal Safety Inquiry

Summary: FRA seeks to gather information regarding plans by the railroad to expand use of one-person crews and remote control operations. The information may assist in evaluating emergency order requests submitted by the United Transportation Union.

Status: A notice of special safety inquiry was published 11/18/96 (61 FR 58736). A public hearing is scheduled for 12/4–12/5/96 in Appleton, Wisconsin. Written submissions were requested by 12/2/96. FRA has entered into an agreement with the railroad providing for a moratorium on new single person crew and remote control operations, together with other undertakings related to compliance with FRA regulations.

EMPLOYEE SAFETY

Roadway Worker Safety

Summary: In requiring the review of the Track Safety Standards, the Rail Safety Enforcement and Review Act of 1992 required FRA to evaluate the safety of maintenance of way employees. In addition, the Brotherhood of Maintenance of Way Employes and the Brotherhood of Railroad Signalmen petitioned FRA to issue "on-track safety" rules.

Status: FRA published a notice 8/17/94 initiating a formal negotiated rulemaking, and the negotiated rulemaking committee reported a statement of principles 8/95. NPRM published 3/14/96 (61 FR 10528); initial written comments were due 5/13/96. Public hearing 7/11/96. The final rule was published 12/16/96 (61 FR 65959); effective 1/15/97. Petitions for reconsideration were denied in a notice published 4/21/97. A consolidated hearing on waiver petitions was held 5/22/97, and written comments are due 6/9/97.

Railroad Operating Practices (Blue Signal Protection)

Summary: On 8/16/93, FRA published a final rule permitting one or more utility employees to associate themselves with a train crew for the purpose of performing normal operating functions that require employees to go on, under or between rolling stock, without use of blue signal protection (which is ordinarily appropriate for mechanical duties). During the proceeding it was noted that rules for locomotive engineers working alone were not clearly defined. FRA published a final rule amendment governing single engineers working alone on 3/1/95, but granted a requested suspension of the amendment on 6/9/95 pending development of additional facts.

Status: Awaits consultation with objecting parties to develop additional facts. On 10/31/96, the RSAC advised FRA that this project should not be proposed for early tasking, given conflicting demands on the resources of member organizations.

Locomotive Crashworthiness and Working Conditions

Summary: The Rail Safety Enforcement and Review Act of 1992 required FRA to conduct a proceeding regarding locomotive crashworthiness and working conditions and to issue regulations or submit a report. Areas for consideration included structural means of preventing harm to crew members in collisions (collision posts, anticlimbers, etc.) and matters related to safety, health and productivity (e.g., noise, sanitation).

Statutory deadline: 3/2/95.

Status: FRA has conducted research, outreach, and a survey of locomotive conditions and has finalized a report to the Congress transmitted by letter of September 18, 1996. The report conveys data and information developed by FRA to date, closes out those areas of investigation for which further action is not warranted, and defines issues that should be pursued further in concert with the industry parties, either for voluntary or regulatory action. On 10/31/96, the RSAC accepted a prelimi-

nary planning task. The Locomotive Crew Safety Planning Group met 1/23/97, but agreement could not be reached on several items. Two task statements will be presented to the full committee 6/24/97. (RSAC Task 97–1; locomotive crashworthiness issues and Task 97–2; cab working conditions and ergonomics).

Track Motor Vehicle and Roadway Equipment Safety

Summary: A 1990 petition to FRA from the Brotherhood of Maintenance of Way Employes asked FRA, among other requests, to propose standards for MOW equipment related to the safety of persons riding or operating that equipment. FRA elected not to pursue that issue at that time given other pending workload. However, this issue was renewed during the deliberations of the RSAC Track Safety Standards Working Group.

Status: On 10/31/96, the RSAC accepted a task of drafting proposed rules for the safety of this equipment. A task force of the Track Safety Standards Working Group has met several times, and the task force is expected to report to the working group by 9/30/97. (RSAC Task 96–7)

HIGHWAY-RAIL CROSSING SAFETY

Grade Crossing Signals (Inspection, Testing and Maintenance)

Summary: FRA issued a final rule for inspection, testing and maintenance of automated warning devices 9/30/94, and the rule went into effect 1/1/95. During the initial year, FRA worked with railroads and signal employees to disseminate information, conduct training, and identify any areas of ambiguity or weakness in the standards. At a technical resolution committee (TRC) meeting during the week of 3/13/95 that included participation by railroads, the Brotherhood of Railroad Signalmen, and States, several issues were identified that require clarification or refinement. An interim manual dated 4/14/95 incorporated the findings of the TRC.

Status: Interim final rule amendments published 6/20/96 (61 FR 31802). FRA is preparing a notice to make the changes final.

Selection of Grade Crossing Automated Warning Devices

Summary: FRA published a Notice of Proposed Rulemaking 3/2/95 and received over 3,000 written comments through 6/14/95.

Status: Further action to be determined.

Locomotive Visibility/Auxiliary Alerting Lights

Summary: In 1991, FRA initiated a new phase of research on locomotive conspicuity in relation to safety at highway-rail crossings. The Amtrak Authorization and Development Act of 1992 mandated that the research be completed and that a regulation be issued to apply alerting lights to locomotives.

Statutory deadline: Final rule by 6/30/95.

Status: FRA published a "grandfathering rule" on 2/3/93 and amendments on 5/13/94. After the research was substantially completed in early summer of 1995, FRA briefed the industry parties on the results, discussed options for regulatory action, and elicited additional information concerning railroads' progress in equipping their fleets. A Notice of Proposed Rulemaking was published on 8/25/95. The AAR and the ASLRA requested a technical conference to perfect the rule for final issuance, and that conference was held 11/28/95. Written comments were due by 12/12/95. Final rule was published 3/6/96 (61 FR 31802). Equipping of the locomotive fleet must be completed by 12/31/97, as provided by law.

Audible Warnings at Highway-Rail Crossings (Whistle Bans)

Summary: The Swift Rail Development Act of 1994 required FRA to issue regulations providing for the use of train horns at highway-rail crossings.

Statutory deadline: Final rule 11/2/96 (most hazardous crossings), 11/2/98 (other crossings).

History: This legislative mandate anticipated FRA follow up to Emergency Order No. 15, which addressed local whistle bans on the Florida East Coast Railroad between Jacksonville and Miami. FRA released a report on the national impacts of local whistle bans on 6/1/95 and has conducted an extensive program of public outreach to make communities aware of the forthcoming rulemaking and to seek information on supplementary safety measures that would support allowance of quiet zones in communities sensitive to train horn noise. Contacts have been made with 160+ jurisdictions known to have whistle bans in place. FRA representatives have met with or addressed forums of state and local officials and community groups. Met with AAR/BRS/AAHSTO/FHWA 12/13/95 to address technical specifications for 4-quadrant gates.

Status: Numerous congressional offices encouraged FRA to continue outreach and data collection. FRA advised the Congress that the deadline for an initial final rule would not be met as a result. Immediately prior to adjournment, the 104th Congress enacted the FAA reauthorization bill, H.R. 3539, which included amendments to the original whistle ban legislation. In general, the legislation affirms the latitude available to the Secretary to provide for phase-in of regulations and focus on safety results. Missing data on Chicago-area commuter lines is being added to the national study. FRA is preparing an NPRM for early issuance.

Private Highway-Rail Grade Crossings

Summary: The Secretary's Action Plan for Grade Crossing Safety (6/94) commits FRA to conducting a special safety inquiry on private crossings.

Status: Conducted workshop on possible guidelines 7/93; timing of further action to be determined.

HAZARDOUS MATERIALS

Tank Car Crashworthiness and Retest

Summary: Research and Special Program Administration Dockets HM–175A and HM–201 addressed further improvements in tank car crashworthiness, and adoption of advanced non-destructive testing to improve tank retest procedures, respectively.

Status: Final rules published 9/21/95 (60 FR 49048).

Train Placement

Summary: FRA is evaluating whether to recommend that the Research and Special Programs Administration publish proposed amendments to the in-train placement requirements for handling rail cars transporting hazardous materials. FRA is reviewing accident/incident data to determine whether the current non-hazardous materials buffer car requirements are still necessary and whether the (as recommended by the National Transportation Safety Board) a buffer car should be required at the rear of each train.

Status: Preparing a Notice of Proposed Rulemaking; timing of issuance to be determined. Data may be gathered under a requested waiver (Union Pacific Railroad) analyzing impact of requiring buffer cars on the rear of through trains, while omitting buffer cars behind occupied locomotives on local trains.

New Directions for Rail Hazardous Materials Safety

Summary: FRA and RSPA have recently completed the two major pending rulemakings addressing hazardous materials tank car safety (crashworthiness and tank retests). With completion of these tasks, it is now possible to turn attention to recommendations of the Transportation Research Board regarding the tank car design and construction process. In order to further this work, FRA is joining with its public and private sector partners to define and prioritize short and long-range research programs, identify needs for rulemaking, and assist in development of improved industry standards.

Status: A public workshop was conducted 2/13/96–2/14/96 in Houston, with participation by labor, railroads, tank car owners, and shippers. FRA is seeking means of advancing public/private partnerships for North American tank car safety.

OTHER SAFETY PROJECTS AND PARTNERSHIP EFFORTS

Hours of Service Electronic Recordkeeping

Current hours of service record keeping uses paper and ink, but a major railroad has been given relief to keep electronic records. Other railroads have expressed interest, and similar waivers will involve similar issues. At FRA's invitation, the AAR has submitted a petition seeking a master waiver for use of electronic record keeping under regulations supporting administration of the hours of service law. If the master waiver is granted and experience is gained, permanent amendments to the recordkeeping and reporting requirements may be proposed. FRA is assisting railroads in developing electronic systems by providing guidance materials.

Remote Control Locomotives

Current regulations contemplate operation of a locomotive exclusively from within the cab, and provision for the safety of the operation is made within that context. FRA has previously proposed a test program to gather more data on various types of operations. Further action expected.

FRA has also held an informal safety inquiry regarding use of one-person crews and remote control locomotives on the Wisconsin Central (see 61 FR 58736; 11/18/96).

Train Dispatcher Training

FRA submitted a report to the Congress on 1/5/95 regarding the functions of contemporary train dispatching offices. The report noted that traditional pools of candidates for recruitment of train dispatchers are no longer adequate to the need. In partnership with the American Train Dispatchers Department/BLE (ATDD), FRA identified the need for a model train dispatcher training program.

Experts from Amtrak, the ATDD, the Burlington Northern/Santa Fe Railroad and FRA have completed work on a list of elements for dispatcher training programs. Required competencies and training program elements will be abstracted from this effort for a model program. Consideration may be given to referencing appropriate elements of this program in Federal regulations. The RSAC was be briefed on this effort on 3/24/97, with participants in the training task force indicating reluctance to attempt a "one size fits all" regulatory approach.

Discolored Wheels

FRA has granted a master waiver of the Freight Car Safety Standards permitting continued use of discolored heat-treated, curved plate wheels, which have superior resistance to thermal abuse. Data gathered under the waiver, together with results of analysis already provided, may support a permanent change in the regulation.

TOFC/COFC Securement

Summary: Following a serious accident at Smithfield, N.C., on 5/16/94, FRA formed a partnership with major railroads and labor organizations to evaluate and improve securement of intermodal loads. A report to the Secretary dated 9/15/94 documented the initial results of that effort.

Status: FRA held a meeting on 2/22/95 that focused on an item-by-item discussion of the status and progress made within the industry with respect to the seven recommendations identified in the report to the Secretary. The AAR has established an Intermodal Equipment Handling Task Force that has developed a number of training aids. A follow-up TOFC/COFC loading and securement safety survey was conducted during 1996. Further action to be determined.

Event Recorder Next-Generation Performance Standards

Summary: The National Transportation Safety Board has noted the loss of data from event recorders in several accidents due to fire, water and mechanical damage. In issuing final rules for event recorders which became effective 5/5/95, FRA noted the need to provide more refined technical standards. NTSB has proposed performance standards and agreed to serve as co-chair for an industry/government working group that would define appropriate technical standards for next-generation railroad event recorders.

Status: Conducted an initial meeting of a working group comprised of AAR, RPI, and labor, and co-chaired by NTSB and FRA experts, on 12/7/95 to consider development of technical standards. At the RSAC meeting on 7/24–7/25/96, the AAR agreed to continue this inquiry, and on 11/1/6, AAR reported to the RSAC the status of work on proposed industry standards. At that time, the NTSB representative to the RSAC advised that additional recommendations related to event recorders might be forthcoming as a result of recent accidents. On March 5, 1997, NTSB issued recommendations regarding testing and maintenance of event recorders as a result of finding in the investigation of the BNSF accident of 2/1/96 at Cajon Pass, California. On 3/24/97, the RSAC indicated its desire to receive a task to consider NTSB recommendations with respect to crash survivability, testing and maintenance. A task statement will be presented to the full Committee at the 6/24/97 RSAC meeting. (Task No. 97–3).

MANDATED REGULATORY PROJECTS

Question. What are the five regulatory projects that are statutorily mandated, and when were these due for final issuance? What is the status of each?

Answer. The five statutorily mandated rulemakings are:

1. Grade crossing whistle bans.—The Swift Rail Development Act of 1994 required FRA to issue regulations providing for the use of train horns at highway-rail crossings. A final rule was due November 2, 1996, for most hazardous crossings and November 2, 1998 for other crossings. FRA is preparing an NPRM for release by the summer of 1997.

2. Track safety standards.—The Rail Safety Enforcement and Review Act of 1992 required revision of existing regulations; including review of excepted track and standards for high-speed service. A consensus for these rules was achieved by an RSAC working group. In balloting concluded 11/21/96, RSAC voted to endorse the NPRM, which FRA has forwarded for review/clearance.

3. Passenger car safety standards.—The issuance of initial standards by November 2, 1997, and final standards by November 2, 1999, is mandated by the Federal Railroad Safety Authorization Act of 1994. An NPRM is being finalized, which includes power brake rules for passenger service.

4. Passenger Train Emergency Preparedness.—The Federal Railroad Safety Authorization Act of 1994 required FRA to issue emergency preparedness standards for passenger service. Initial standards are due November 2, 1997, and final standards by November 2, 1999. An NPRM was published February 24, 1997, and a notice of public hearing was published March 6, 1997. Public hearings were held in Chicago on April 4 and New York City on April 7. Written comments were due by April 25, 1997. FRA is reviewing comments and preparing options for discussion with the working group preparing the rulemaking.

5. Power brakes.—The Rail Safety Enforcement and Review Act of 1992 required FRA to revise the power brake regulations. The statute required adoption of requirements for two-way end-of-train telemetry devices (EOT's) and "standards for dynamic brakes." FRA published a Notice of Proposed Rulemaking (NPRM) in September 1994. Due to strong objections to the NPRM, additional options were requested from passenger interests and from freight interests. FRA requested the Passenger Equipment Safety Standards Working Group to incorporate new proposals for revisions of the power brake regulation in the NPRM for passenger equipment safety. An NPRM is being drafted. On April 1, 1996, the Railroad Safety Advisory Committee (RSAC) accepted the task of preparing a second NPRM on freight standards. The working group initiated its efforts in May 1996. Consensus could not be achieved and on May 29, 1997, FRA notified the working group by letter that the task will be formally terminated. FRA is preparing a second NPRM. FRA published a notice in February 1996 that the EOT issue would be separated from the balance of the freight issues and expedited for completion of a final rule. The final rule was published January 2, 1997 and becomes effective July 1, 1997.

PENALTY GUIDELINES

Question. Several years ago the Committee directed the FRA to publish in the Code of Federal Regulations the range of penalties to be imposed for violations by rail carriers or rail shippers of the Federal Hazardous Materials Transportation Regulations. What was industry's reaction to this final product?

Answer. FRA published its penalty guideline amounts used in initial determinations of proposed civil penalty assessments for documented violations of the Department's Hazardous Materials Regulations on July 25, 1996 (61 FR 38644). Since publication, FRA has made the industry aware of the guidelines by providing copies at trade association meetings and at numerous presentations given by FRA's Hazardous Materials Division staff. The industry has responded in a positive manner and appreciative to know of the penalty amounts ($$) assigned within the penalty schedule. The penalty amounts makes it easier for safety managers to convince their upper management of the seriousness that FRA places on non-compliance of the Hazardous Materials Regulations.

RAIL SAFETY ADVISORY COMMITTEE

Question. FRA has requested a funding increase from $50,000 in fiscal year 1997 to $200,000 in fiscal year 1998 to support the rail safety advisory committee (RSAC). Please break down all associated spending planned for the $150,000 increase requested to support the RSAC, including facilities, mailings, equipment, contract support and "other" support costs.

Answer. RSAC's scope of involvement since it was chartered on March 25, 1996, to advance critical railroad safety rulemakings through a collaborative process has included the full Committee (50 members and their alternates), six working groups (217 members and alternates)and sixteen task forces (150 members) participating in five full Committee meetings, 33 working group meetings, and numerous task force meetings.

RSAC has accepted tasks involving major regulatory efforts including revisions to the track safety standards, the regulations governing power brake systems for freight equipment, the radio standards and procedures, the regulations governing the qualification and certification of locomotive engineers, and event recorder data survivability. A Working Group on Tourist & Historic Railroads was established to ensure appropriate focus on the unique issues presented by application of safety laws and regulations to these operations. In addition, a Planning Group was formed to evaluate the appropriate responsive actions to recommendations contained in the Report to Congress entitled Locomotive Crashworthiness and Working Conditions.

It is expected that RSAC involvement can shorten a rulemaking process to under the three or more years normally required in such proceedings. The $200,000 requested would support the fiscal year 1998 RSAC activities at the optimum level for reducing FRA's regulatory backlog. Railroad labor and management are dedicating significant resources to the success of this rulemaking process. Funding below the requested level would severely impact the effectiveness of this process and the resulting critical contributions to public safety envisioned by all parties dedicated to the success of collaborative rulemaking.

Funding for meeting space and accompanying audio/visual requirements for the full Committee, Working Groups and Task Forces ($55,000) will provide required space to accommodate meetings based on the number of participants required to be seated at the table and members of the general public. Federal agency space available to accommodate these requirements is extremely limited and in great demand in the Washington DC area. Further constraints for RSAC meetings are restrictions on entrance to many federal agency buildings. The majority of RSAC members and other attendees are not federal government employees and the meetings are open to the general public. Meetings are also conducted at locations outside of the Washington area to facilitate member participation and availability and to equitably distribute the burden of travel time and costs for members. This funding will also provide necessary audio-visual support for these meetings.

Funding for supplies, printing and mailing services ($42,000) are essential to support the meetings and work of the full Committee, the Working Groups and the Task Forces. Adequate funding to support processing and dissemination of information and data crucial to the on-going regulatory tasks and the extensive coordination involved, will ensure the effectiveness of this extremely significant undertaking is not compromised.

Travel funds are required ($20,000) for invitational travel for state organizational employees who serve as Committee, Working Group, and Task Force members. Their participation in the RSAC process is essential to ensuring representation of interests other than railroad management and labor which are directly affected by FRA's safety regulatory program.

Funding for interpreter services ($3,000) is requested to address the requirements of the Federal Advisory Committee Act and the Americans with Disabilities Act.

Facilitation service funding ($25,000) is essential to the success of the negotiated rulemaking process. The demands placed on the limited number of in-house facilitators necessitates the use of professional facilitators. Professional facilitators are crucial to avert delay in the negotiated rulemaking process.

Support for contractual services for specialized data collection and analyses and other technical and administrative requirements in support of Committee, Working Group and Task Force activities ($45,000). These services are a critical requirement to supplement existing staff and address an escalating workload without increasing staffing levels. Meetings of working groups and task forces will have to accommodate the needs of members in order to elicit continued rail labor and management support and participation in the process. Locations outside of FRA headquarters or regional areas will require contractual support to meet the administrative requirements for these meetings. Specialized data collection and analyses will be required to support the work of the task forces. Absent these services, the burden that will be imposed upon existing resources will further strain limited resources and continue to divert and dilute efforts being directed to other critical functions.

Funding for training ($10,000) provides requisite interest-based negotiation training for Committee, Working Group and Task Force members to ensure effective participation in this consensual rulemaking process.

GRADE CROSSING FUNDING

Question. Please list all highway/rail grade crossing safety program in the total FRA budget (i.e., research and development, next generation high-speed rail, safety), and compare funding for each initiative from fiscal year 1997 enacted to the fiscal year 1998 request. If the total funding is less than that in fiscal year 1997, please explain why.

Answer.

	Fiscal years—	
	1997	1998
Railroad Research and Development:		
Equipment, Operations and Hazardous Materials	$985,000	$835,000

	Fiscal years—	
	1997	1998
Track, Structures and Train Control	385,000	562,000
Safety of High-Speed Ground Transportation	650,000	400,000
Subtotal, R&D	2,020,000	1,797,000
Next Generation High Speed Rail: Grade Crossing Hazards and Innovative Technologies	2,965,400	2,500,000
Office of Safety:		
Police Officer Detail	50,000	50,000
Outreach to judges, prosecutors, law enforcement and the public	75,000	75,000
Analysis of High-Profile (Hump) Crossing Problem	25,000	25,000
Software development	50,000	50,000
Support collection and processing of National Inventory and Grade Crossing Accident data bases	266,000	274,000
Subtotal, Safety	466,000	474,000
Total FRA	5,451,400	4,771,000

Under Railroad Research & Development, the $150,000 decrease in Equipment, Operations and Hazardous Materials reflects the $200,000 decrease from 97 to 98 for Operation Lifesaver, offset by a $50,000 increase for a new project for Commuter Rail Safety. The original fiscal year 1997 request for Operation Lifesaver funding was $300,000. However, Congress earmarked an additional $300,000, for a total of $600,000. The fiscal year 1998 request for $400,000 is actually an increase over the original fiscal year 1997 request.

The $250,000 decrease in the Safety of High-Speed Ground Transportation is a result of the completion of a three-part study that examined signaling and train control, obstruction detection, and warning device and barrier technologies suitable for high-speed corridors.

In fiscal year 1997, the $5,000,000 Next Generation HSR appropriation did not specify amounts for Grade Crossing Hazards or Innovative Technologies program elements. The funds shown are those obligated or planned for obligation for grade crossing hazard mitigation in fiscal year 1997, the largest award being $2 million to NCDOT for the Sealed Corridor Initiative. The fiscal year 1998 budget provides $2,500,000 specifically for Grade Crossings.

OPERATION LIFESAVER

Question. Why has FRA's funding request for Operation Lifesaver been reduced below the fiscal year 1997 level?

Answer. In the FRA's fiscal year 1997 budget request to Congress, $300,000 was requested for Operation Lifesaver. The Conference Committee increased this request by $300,000 to $600,000 total. In fiscal year 1998, FRA is requesting $400,000, which is $100,000 over our original fiscal year 1997 request.

FIELD PARTICIPATION IN OPERATION LIFESAVER

Question. Did your inspectors meet FRA's goal of participating in at least four Operation Lifesaver related activities? Is this still a goal in FRA?

Answer. Operation Lifesaver (OL) activities include, but are not limited to, providing educational booths and exhibits at State, county and local fairs, law enforcement meetings, participating in railroad-sponsored safety blitzes and making educational presentations to adults and children in all walks of life. These presentations are made in many areas including educational settings such as all levels of public and private schools, businesses, church groups and nonprofit institutions and agencies. FRA views OL as an integral part of the FRA overall effort to achieve the goal of zero tolerance for highway-rail intersection collisions and trespasser incidents.

As part of FRA's goal to achieve zero highway-rail intersection and trespasser incidents, FRA actively promotes and encourages FRA inspectors to become certified OL presenters voluntarily and to maintain the certification. In order to maintain certification as an OL presenter, each presenter must make a minimum of four presentations a year over and above any participation in other OL-sponsored activities.

As with all volunteer programs, the individual level of participation varies. There are a significant number of inspectors, in addition to numerous other members of FRA staff, who participate in many different OL-sponsored activities and make many more than four presentations a year. FRA is proud of the inspectors who, in addition to the many hours of safety inspections on the job, volunteer for OL activities off the job. While full participation of all the inspectors as part of their job is impractical at this time (on-the-job OL presentations mean they are not doing track, signal, operating practices, hazardous materials and equipment inspections), it is impressive that 60± percent of FRA's inspectors are maintaining their OL presenter certification.

GRADE CROSSING ACCIDENTS BY STATE

Question. Please list the "top ten" states that have the highest number of highway/rail grade crossing accidents, and cite the number of accidents in calendar years 1995, 1996 and thus far in 1997.

Answer. Note: Data for 1996 is 'preliminary,' and no data is yet available for 1997.

State	1995 collisions	1996 collisions
Texas	474	428
Illinois	295	230
Louisiana	223	228
Indiana	271	217
California	200	186
Ohio	239	180
Minnesota	152	156
Alabama	178	154
Georgia	160	150
Wisconsin	140	149

TOP TEN STATES—FATALITIES

Question. Please list the "top ten" states that have the highest number of rail grade crossing fatalities, and cite the number of crossing fatalities for 1995, 1996 and thus far in 1997.

Answer. Note: Data for 1996 is 'preliminary,' and no data is yet available for 1997.

State	1995 fatalities	1996 fatalities
Texas	55	60
Illinois	48	37
Louisiana	28	31
Indiana	29	26
Oklahoma	15	22
California	28	21
Arkansas	22	20
Georgia	17	19
Missouri	22	19
Alabama	16	18

HIGHWAY-RAIL INTERSECTIONS AND THOSE WITHOUT SIGNALS

Question. Please prepare a chart that shows, by state, the total number of at-grade highway/rail crossings, and breaks out the number of those crossings that are not guarded or signaled.

Answer. Note: Figures have been taken from FRA's annual Highway-Rail Crossing Accident/Incident and Inventory Bulletin, No. 18, for Calendar Year 1995, published September 1996.

State	Total public at-grade	Total public without signals	Total private at-grade	Total private without signals
Alabama	3,610	2,638	1,982	1,962
Alaska	225	144	104	104
Arizona	940	502	686	681
Arkansas	3,280	2,485	1,507	1,501
California	7,956	3,491	4,871	4,767
Colorado	2,069	1,423	1,448	1,437
Connecticut	370	126	261	219
Delaware	284	83	119	118
District of Columbia	23	17	8	8
Florida	4,066	1,300	1,480	1,428
Georgia	6,163	4,239	2,775	2,763
Hawaii	6	6	.....	.....
Idaho	1,524	1,216	1,376	1,365
Illinois	10,219	5,313	5,684	5,580
Indiana	6,587	3,655	2,846	2,808
Iowa	5,245	3,582	4,217	4,202
Kansas	7,865	6,189	4,232	4,227
Kentucky	2,626	1,417	2,761	2,730
Louisiana	3,656	2,487	3,222	3,191
Maine	882	423	934	918
Maryland	687	361	712	703
Massachusetts	1,192	503	537	524
Michigan	5,761	3,441	2,717	2,682
Minnesota	5,174	3,961	3,133	3,114
Mississippi	2,971	2,358	2,099	2,094
Missouri	4,864	3,310	3,291	3,265
Montana	1,533	1,184	2,058	2,049
Nebraska	4,034	3,148	2,836	2,830
Nevada	289	146	265	259
New Hampshire	503	315	344	340
New Jersey	1,863	785	596	583
New Mexico	810	513	589	586
New York	3,275	1,168	3,177	3,144
North Carolina	4,859	2,973	3,580	3,560
North Dakota	4,624	4,163	2,180	2,179
Ohio	6,551	3,524	3,704	3,664
Oklahoma	4,561	3,387	1,735	1,726
Oregon	2,302	1,566	2,816	2,793
Pennsylvania	5,583	3,444	3,418	3,380
Rhode Island	128	61	71	70
South Carolina	3,109	1,970	1,348	1,336
South Dakota	2,137	1,944	1,361	1,359
Tennessee	3,368	2,400	1,918	1,906
Texas	12,490	8,016	6,363	6,282
Utah	1,009	667	789	784
Vermont	496	270	650	644
Virginia	2,138	909	2,923	2,882
Washington	2,854	1,950	3,014	2,997
West Virginia	1,893	1,223	2,220	2,205
Wisconsin	4,712	2,810	2,868	2,848
Wyoming	527	288	932	927
Puerto Rico	24	18	2	1
Totals	163,917	103,512	104,759	103,725

FOUR YEARS OF HIGHWAY-RAIL SAFETY PROGRESS

Question. Please provide an update of the progress that has been made in reducing the number of injuries and fatalities at highway-rail grade crossings over the last four years. Please provide a yearly comparison table showing the reductions.

Answer. Preliminary data for 1996 indicates that crossing collisions and casualties at highway-rail intersections nationwide decreased by 10 and 18 percent respectively when compared to 1995 data. These gains can be attributed to multi-modal partnerships which have been fostered in communities nationwide and within the DOT to address this problem. Specific actions include:

—The addition of FRA's eight regional managers for highway-rail safety and trespass prevention programs continues to foster partnerships which work;
—Industry inspection, testing and maintenance practices for highway-rail intersection warning devices enhanced by Federal regulations which became effective January 1, 1996;
—The addition of two alerting lights to the lead-end of locomotives operating over highway-rail intersections. Regulations are not effective until December 31, 1997, but most Class I locomotives have been equipped;
—Increased use of train horns and increased awareness of the crossing issue fostered by debate over train horns;
—Increased public awareness fostered by Always Expect A Train, Highways or Dieways? and related Operation Lifesaver promotions;
—Increased public awareness fostered by the school bus—commuter train collision in Fox River Grove, Illinois, and the aftermath of investigations, hearings and reports;
—More state and community involvement in highway-rail safety issues fostered by the DOT Action Plan initiatives and the Fox River Grove collision;
—Partnering within DOT with NHTSA's "Moving Kids Safely" and "Safe Communities" programs;
—Improving awareness and enforcement practices at highway-rail intersections on behalf of traffic law enforcement officers;
—Outreach to the judicial community seeking increased awareness of the problem and the potential of their acknowledgment and involvement; and,
—Increasing numbers of highway-rail intersection consolidations and closures, and increased awareness of the associated hazards fostered by local debate of the issue.

Note: Data for 1996 is preliminary.

Year	Fatalities	Percent change from previous year	Injuries	Percent change from previous year
1993	626	+8.1	1,837	−7.0
1994	615	−1.7	1,961	+6.8
1995	579	−5.9	1,894	−3.6
1996	471	−18.7	1,552	−18.1

GRADE CROSSING FUNDING

Question. Please indicate how the FRA has worked with other Federal agencies in reducing highway rail grade crossing incidents. What coordinated efforts with other agencies are planned for fiscal year 1998, and how is this reflected in the request? Please show on a project by project basis how the fiscal year 1997 and fiscal year 1996 monies were spent, who the recipients of the funds were, and what the expected results of these efforts are.

Answer. The FRA has coordinated the development of the Highway-Rail Grade Crossing Action Plan and its grade crossing safety initiatives for reducing grade crossing accidents with FHWA, FTA and NHTSA. The FRA will continue to work with the other DOT modes to promote DOT's Safe Communities initiative by employing the Action Plan as the architect for improving community grade crossing safety and continuing to partner with Federal, state and local law enforcement and court officials to increase the effectiveness of the program. A key element will be the further dissemination of the Always Expect A Train public education campaign. FRA will also continue to enhance safety at high profile crossings by conducting advanced analysis that will assist in identifying the best practice of high technology and common-sense solutions.

For fiscal year 1998, FRA will continue to work with FHWA on field testing of the Vehicle Proximity Alert System prototypes, funded by FHWA in fiscal year 1994 and 95. FRA will also coordinate activities with the ITS Joint Program Office (JPO) on development of an Intelligent Grade Crossing Controller, also funded by FHWA, which will link the train control system, the grade crossing warning system and the highway traffic control system, and on the further development and implementation of User Service No. 30 in the National Intelligent Transportation System Architecture, funded by FRA's Next Generation High Speed Rail (NGHSR) program.

The fiscal year 1996 and fiscal year 1997 funding, recipients, and expected results for the grade crossing research projects are shown in the following table.

GRADE CROSSING RESEARCH AND DEVELOPMENT, NEXT GENERATION AND SAFETY PROJECTS

Project	Fiscal years— 1996 funding	Fiscal years— 1997 funding	Recipient	Expected results
Equipment, Operations and HazMat.	735,000	985,000		
Locomotive Conspic	15,000	5,000	Volpe Ctr	Locomotives and freight cars will be more visible to drivers, helping them avoid striking the train.
Freight Car Reflec	50,000	25,000	Volpe Ctr	
Eval Wayside Horns	150,000	12,000	Volpe Ctr	Locomotive horns will be optimized for sound quality and effectiveness while reducing noise pollution in surrounding communities.
Optml Acoustic Warn	40,000	20,000	Volpe Ctr	
Driver Behavior	180,000	65,000	Volpe Ctr	To gain a better understanding of how drivers react to grade crossings and why accidents happen in order to educate drivers and develop new warning devices.
Accident Causation		124,000	Volpe Ctr	
Driver Education		134,000	Volpe Ctr	
Operation Lifesaver	300,000	600,000	Operation Lifesaver Inc	Public education about the laws regarding grade crossing, the dangers at grade crossings and the importance to obey traffic laws.
Track, Structures and Train Control.	330,000	385,000		
Loss of Shunt	300,000	300,000	Association of American Railroads.	Examine causes for loss of contact between rail and wheels, resulting in intermittent operation of grade crossing warning devices (gate bobble).
Illumination Guidelines	10,000	25,000	Volpe Ctr	The use of street lights to illuminate trains at night so drivers can see and avoid running into the train.
Assess Passive System	10,000	20,000	Volpe Ctr	Assess the Ohio crossbuck and traffic signals at crossings to improve warning to drivers.
Assess Highway Signal		10,000	Volpe Ctr	
Photo Enforcement		5,000	Volpe Ctr	Assess the use of cameras to monitor crossings and automatically ticket violators.
Active Device Fail	10,000	25,000	Volpe Ctr	Analyze the data from the failures of automatic warning devices and recommend improvements to increase device reliability.

GRADE CROSSING RESEARCH AND DEVELOPMENT, NEXT GENERATION AND SAFETY PROJECTS—Continued

Project	Fiscal years— 1996 funding	Fiscal years— 1997 funding	Recipient	Expected results
Safety of High-Speed Ground Transportation.	500,000	650,000		
HSR Crossing Tech	390,000	150,000	Volpe Center/Battelle Labs	Examined signalling and train control, obstruction detection and warning devices and barrier system technologies available for use in high speed corridors. Methodology to evaluate improved safety provided by additional devices developed.
Crossing Problem Definition	10,000	10,000	ASTI	Examined the crossing problems in five designated high speed corridors and recommended solutions.
Assess 1036 Demos	75,000	150,000	Volpe Ctr	Evaluate the technology demonstration projects funded under the Section 1036 program in ISTEA (4-quad gate with obstruction detection).
Obstacle/Intrusion Detection	25,000	150,000	Volpe Ctr	Building on the HSR Crossing Technology project, examine the obstruction detection systems suitable for use at grade crossings and expand for use along the right-of-way.
Subtotal for R&D	1,565,000	2,020,000		
Next Generation High Speed Rail	1,600,000	2,500,000		
Grade Crossing Haz. and Innovative Tech. NC Sealed Corridor.	750,000	2,000,000	NCDOT	The North Carolina Sealed Corridor Initiativewill treat every crossing in the 92-mile Charlotte to Greensboro segment of the high-speed rail corridor with innovative crossing devices like median barriers, long gate arms, and 4-quad gates. Redundant crossings will be closed.
NY Locked Gate		215,000	NYSDOT	The Locked Gate at Private Crossings project will design, fabricate, test and evaluate a low-cost grade crossing gate system suitable for low volume traffic crossings on high speed corridors.
TRB IDEA Program	500,000	500,000	TRB	The TRB IDEA Program, supported by FRA, FHWA, NHTSA, and FTA, competitively solicits concepts, conducts peer reviews, and awards innovative technology projects nationwide. Examples of completed projects include a very-wide field of view camera suitable for automated monitoring of grade crossings and a scanning radar antenna for surveillance systems.

ITS Architecture	100,000	100,000	ITS JPO	The ITS Architecture is gaining a new User Service—User Service No. 30—which describes how grade crossings will be incorporated into the overall Intelligent Transportation System and which will link train control systems with advanced highway traffic control systems.
Volpe Center Support	250,000	150,000	Volpe Ctr	Support for assessing hazard elimination projects and conducting a Corridor Risk Analysis.
Safety Office				
Police Officer Detail	50,000	50,000	Washington State	The police officer detail is an outreach program with the law enforcement community to raise awareness of crossing safety and trespass prevention.
Outreach to Law Enforcement	85,000	75,000	IACP, NSA, FOP, etc	Outreach to judges and prosecutors to enhance their knowledge of crossing safety and trespass prevention issues, and defray convention fees and materials support for FRA's regional manager promotions of highway-rail crossing safety and trespass prevention programs.
Analysis of High-Profile Crossings.	25,000	25,000	Univ. WV, Local Survey Firms AMB.	Research and analysis of problems associated with and alternatives for, high-profile crossings and low-clearance vehicles.
Highway-Rail Crossing Inventory and Data Bases.	40,000	50,000	AMB	Simplify and refine the Highway-Rail Crossing Inventory and collision data base reporting procedures.
Information Processing	258,000	266,000	AMB	Information Processing supports Highway-Rail Crossing Inventory and crossing module of Accident/Incident Report processing.
Subtotal for safety	458,000	466,000		
Total for FRA	3,623,000	5,451,400		

In addition to these projects, two efforts are underway paid for with FHWA funds:

Vehicle Proximity Alert System, with $1 million from FHWA ITS program (fiscal year 1994 $600,000 & fiscal year 1995 $400,000) awarded to the Transportation Technology Center in Pueblo, Colorado ($500,000) and Volpe Center ($500,000). VPAS is an in vehicle warning system that alerts motor vehicle drivers of the approach of a train, giving them adequate time to stop. The initial reliability testing of the prototypes has been completed. The next phase of testing will begin later this year in an operating environment on a railroad corridor.

Long Island Railroad Intelligent Grade Crossing, with $7.625 million from FHWA and $3.175 million from General Railway Signal (GRS). This project will connect the GRS Atlas train control system with the grade crossing warning system and local highway traffic control system to enable crossing gates to remain up for trains that will be stopping at stations just before a crossing. Before departing, the locomotive engineer will activate the warning lights and gates. This will minimize motor vehicle delay while improving safety.

1–800 COMPUTER ANSWERING SYSTEM

Question. Section 301 of the 1994 Railroad Safety Act requires the Secretary to conduct a pilot program to demonstrate an emergency notification system using a toll free telephone number for the public to report any malfunctions or other safety problems at highway-rail grade crossings. What has FRA done to implement this requirement, and what are the results to date?

Answer. The 1994 Action Plan established the need for an automated toll-free crossing trouble reporting system. In September 1994, a contract was awarded to develop a Conceptual Design and Implementation Plan.

The Swift Rail Development Act (October 1994) directed the Secretary to demonstrate a toll free emergency notification system to report emergencies, malfunctions and other safety problems, and to conduct a pilot program in two states, but the Act did not appropriate funds.

In the Summer of 1995, the contractor delivered the Conceptual Design & Implementation Plan. Also, preliminary discussions were held with the States of Illinois and Minnesota regarding the pilot project and the FHWA approved the use of Surface Transportation Program Safety Set-aside Funds (Section 130) for the required signage.

FRA proposes to develop and evaluate an automated pc-based computer telephone answering and message forwarding system for handling calls concerning crossing signal malfunctions and other problems at highway-rail crossings. The system will use the U.S. DOT/AAR Crossing Inventory numbering system for crossing location identification and will receive, catalogue and forward telephone messages automatically from concerned callers regarding problems with specific crossing signals.

In 1996, the funds for development of system hardware and the conduct of a two-State pilot program were approved, a draft work statement was prepared, and preliminary discussions were held with the railroad industry to evaluate methods to incorporate similar 1–800 number systems in use on several major railroads.

However, because of the Swift Rail Development Act requirement for reporting emergency situations at highway-rail crossings, both the current Design Concept & Implementation Plan and the previously developed work statement must be revised. This revision and a re-evaluation of the current conceptual design became necessary because of the dual non-compatible requirements. The requirement for an emergency system is not compatible with the originally conceived automatedmalfunction system for which the Design Plan was based. The emergency system must be at least partially manned. The automated system was not manned. A partially manned system will now have to be incorporated or some other way will have to be identified which will accomplish the same mission, such as incorporating the system with a local 911 emergency telephone network.

FRA is committed to achieve the objective of the Action Plan and Swift Act by developing and evaluating an automatic PC-based computer telephone answering and message forwarding system with capability for manned intervention.

Development of a revised work statement and procurement have been initiated. The contract will go through the SBA 8–A approval process. The estimated funding requirement is $625,000, not including the installation of signs at each crossing, nor the public education and awareness program, nor the final report to Congress.

Letters were sent to all States to determine their interest in participating in the pilot program and several responses have been received. Two States will ultimately be chosen.

Our goal is to have a contract in place by late-1997 to develop and establish a computerized 1–800 telephone number call-in facility. Further discussions with the

chosen States and involved railroads will need to take place in order to resolve important interaction details prior to full implementation. Full implementation will take approximately two years.

When the pilot program with two test States is completed and the problems of developing a system that is both (1) cost effective and automated to handle routine malfunctions and problems at crossings, and (2) has the capability to perform as an emergency notification system with minimal labor intensive manned effort, it is then expected that the FRA and FHWA would jointly recommend that individual States adopt such a system.

Question. FRA estimates the total capital costs of a national 1–800 notification program at all signalized crossings to be $11,400,000.00 ($8,100,000.00 to procure and install signs; $2,500,000.00 for a national public education/awareness program; and $725,000.00 for telecommunications and data acquisition). What funds are requested for this effort in fiscal year 1998?

Answer. The original FRA estimate for the total capital cost of a national 1–800 notification system for all signalized public crossings was estimated to be approximately $11,400,000. The bulk of the funds, $8,100,000, was to install two signs at each of all signalized crossings (60,405 in 1995) at an estimated cost of $135.00 per crossing. There was $2,500,000 estimated for a national public education and awareness program, and $725,000 to design, procure and implement one telecommunication and data acquisition set of hardware for a national system. The system tentatively designed can handle the entire country as easily as any individual State.

If it is desired to install the system at all public crossings (approximately 164,000 in 1995), the total cost would escalate to $22,140,000. This does not include those signalized private crossings (1034 in 1995), most of which are for commercial property. These should also be included because the driver can not discern the difference between a public crossing and such signalized commercial private crossings. This would add an additional $140,000 to the total cost for signage. Thus, the total project funding to install such a system nationally could approach $25,530,000 and more if it is determined that each State should have their own computerized telephone data collection system.

The total cost for the public education and awareness program would probably stay the same. This funding estimate is to cover the costs associated with the production of the publicity program and it is anticipated that the media would provide most of the publicity as a public service campaign.

The hardware and equipment costs, including design and development, is sufficient for one system which can be implemented either nationally or for a State. At this time, it is anticipated that it will probably be more desirable to have each State have its own system. Once designed, additional systems are estimated to cost about $300,000 each, including the hardware and the development of the special data files necessary for each State. This amount could be lower, but that will not be known until the first system is completed and operational.

The $625,000 funding for the design and development of hardware and data acquisition system is in FRA's Research and Development "Safety of High Speed Ground Transportation Program" Budget. No additional funds are requested in fiscal year 1998, as all funds requested to complete this project were provided in fiscal year 1996.

HIGHWAY-RAIL INTERSECTION SAFETY IMPROVEMENT STRATEGIES

Question. Please discuss FRA's latest strategies to reduce the number of injuries and fatalities at highway-rail grade crossings. How do you measure the effectiveness of these efforts?

Answer. FRA continues to partner with other DOT administrations, states, industry and associated interest groups in implementation of DOT's 1994 Action Plan initiatives. This has involved the development and support of outreach efforts to the law enforcement and judicial communities, corridor safety improvement programs, highway-rail safety infrastructure improvements as outlined in NEXTEA, crossing consolidation initiatives, public education and awareness (Operation Lifesaver and related programs) and an active research program. Deliverables to date include a National Cooperative Highway Research Program Legal Research Digest titled, "Photographic Traffic Law Enforcement," a revised "Compilation of State Laws and Regulations on Matters Affecting Highway-Rail Crossings," definition of the nation's Principal Railroad Lines, authorizing legislation for incentive payments (Federal funds) from States to communities for closing crossings, legislation making the cost of crossing closures eligible for 100 percent reimbursement from the Federal crossing safety improvement program, nine integrated intermodal transportation planning symposiums, a check list and detailed procedure for corridor reviews, a pro-

posal (in NEXTEA) to provide additional funds to States for crossing safety improvements on the basis of need, On-Guard Notices, Advisory Bulletins and public service print advertisements targeting the nation's trucking industry, a research needs workshop, a study of the demographics of crossing fatalities, improved trespasser casualty reporting, a national and five regional workshops on trespass prevention and a model trespass prevention code. On-going Action Plan initiatives include the Always Expect A Train campaign, the detailing of an active duty police officer to FRA to assist with and promote outreach to the law enforcement community, encouraging states to upgrade signs and markings, promoting broader use of STOP signs, "Trucker on the Train" programs and the collection of crossing collision data regarding light rail crossings. The FRA was also an active participant in the Secretary's Task Force established after the school bus—commuter train collision in Fox River Grove, IL in October, 1995. Since then, FRA has co-chaired (with FHWA) a Technical Working Group which included other DOT agencies, states, industry and interest groups to implement the Task Force recommendations published in March 1996. These recommendations deal with interconnected signals, preemption timing, joint inspections, high profile crossings, light rail crossings and special vehicle operations. A status report was sent to the Secretary on May 28, 1997 and was subsequently approved. The Status Report is being printed and should be available for distribution in mid-July. It is difficult to determine the effectiveness of these individual programs and initiatives, but their collective impact is clear. Preliminary data for 1996 indicates that collisions at highway-rail intersections are down 10 percent, and the number of casualties, both deaths and injuries, has declined 18 percent, the largest single year decline on record and to the lowest point since we have been keeping records.

TRUCKS AND TRACKS

Question. One of the recommendations in DOT's Grade Crossing Action Plan was to examine the need for a rulemaking to make grade crossing violations a disqualifying offense on a commercial driver's license. What is the status of this recommendation?

Answer. The Federal Highway Administration's (FHWA's) Office of Motor Carriers is the DOT principal for this initiative. FHWA anticipates rulemaking to be initiated this Summer in the form of a Supplemental Notice of Proposed Rulemaking; Request for Comments. The FHWA has opened a docket, FHWA Docket No. MC–90–10. Public Law No. 104–88 also applies.

OFFICE OF SAFETY PC&B COSTS

Question. Please prepare a table showing personnel compensation and benefits appropriated and amounts actually spent for fiscal years 1996 and 1997 for field and headquarters staff.

Answer. Information follows:

OFFICE OF SAFETY PC&B COSTS

[In thousands of dollars]

	Fiscal years—			
	1996		1997	
	Plan [1]	Actual	Plan [1]	Estimate
Field	29,781	29,772	31,119	31,119
Headquarters	6,957	6,377	7,430	7,430
Total	36,738	36,149	38,549	38,549

[1] Please note that PC&B costs are not specifically appropriated. Funds are appropriated at the account level with general guidance at the budget activity level.

The difference between "plan" and "actual" does not represent savings, but rather adjustments based on all funding priorities within the Office of Safety. The Office of Safety often has to slow their hiring process in order to cover non-discretionary support costs.

OFFICE OF SAFETY STAFFING (ON-BOARD)

Question. Please provide a break down of all staff utilized by the Safety Division, and compare this to staffing levels of fiscal year 1995, fiscal year 1996, and fiscal year 1997. How many vacancies now exist in the Office of Safety?

Answer. Information follows.

	Fiscal years—		
	1995 actual	1996 actual	1997 [1] estimate
Field	447	449	[2] 442
Headquarters	86	82	[3] 82
Total	533	531	524
Fiscal year 1997 ceiling	.....	.....	543

[1] As of 6/30/97.

[2] Firm commitments (3)—EOD 7/6/97 (1); and 7/20/97 (2). Firm recruit actions (11)—Three selectees will be given a firm EOD pending drug test. Remaining eight actions in various stages of recruit process. Positions should be filled by August 1.

[3] Firm recruit actions (5)—All positions have been paneled. Waiting for interviews and/or final selection.

SAFETY TRAVEL BUDGET

Question. How much was spent on travel during fiscal year 1996, fiscal year 1997, and proposed for fiscal year 1998? Please separate the spending amounts for travel by field staff and headquarters staff, as well as for State employees.

Answer. The information follows:

[In thousands of dollars]

	Fiscal years—		
	1996 actual	1997 enacted	1998 requested
Headquarters	480	281	285
Field	4,671	4,948	5,016
State Inspector Travel	210	240	245
Total	5,361	5,469	5,546

EFFECT OF VIDEOCONFERENCING ON TRAVEL BUDGET

Question. How will the $135,000 that is requested for videoconferencing and imaging be used to reduce the current amount spent on travel? How have these associated reductions been reflected in the fiscal year 1998 travel request?

Answer. The use of an imaging system enhances access of records between offices and allows the reduction of hard copy files and the amount of floor space required for file cabinets. This system would have no impact on travel.

The video teleconferencing system (VTS) will enhance communication between field and headquarters offices, enhance telecommuting efforts, and increase FRA's ability to quickly respond to railroad accidents and emergencies. The use of a VTS will not result in a net reduction in travel, but could reduce the percentage growth in headquarters travel related to the training/meeting of field staff.

OFFICE OF SAFETY—PERSONNEL COMPENSATION AND BENEFITS, AND OTHER SUPPORT

Question. Please break down the fiscal year 1998 requested amount for the following: PCS, inspector trainee program, data collection, grade crossing safety, alcohol and drug testing, overtime, non-mandatory bonuses, training and travel. Please prepare in tabular form comparable expenditures for fiscal year 1996 and fiscal year 1997.

Answer. Information follows:

[In thousands of dollars]

	Fiscal years—		
	1998 request	1997 estimate	1996 actual
PCS	802	744	875
Inspector Trainee Program	1,736	1,845	[1] 1,734
Data Collection	1,291	1,273	1,277
Grade Crossing Safety [2]	.....	.....	.....
Alcohol and Drug Testing	522	515	316
Overtime	88	88	201
Non-mandatory bonuses	16	16	52
Training	314	310	80
Travel	5,546	5,469	5,316

[1] Reflects budgeted amount, trainee costs were not tracked separately.
[2] Funding for grade crossing is not tracked in the budget or accounting reports.

SAFETY TRAINING

Question. How much money was spent for management retreats and diversity training in each of the last three years. How much is planned for similar efforts during fiscal year 1998?

Answer. During the last three years, approximately $25,000 has been spent on diversity training. In fiscal year 1996, supervisors received diversity training as a part of a week-long training course covering many topics. Also, in fiscal year 1996, all employees received diversity training as part of training received during the safety multi-regional conferences. This training was given by in house staff resulting in minimum costs, i.e., travel. No specific diversity training has been identified for fiscal year 1998.

The Office of Safety holds approximately two management retreats each year for strategic planning. The only costs associated with these retreats are travel costs which we do not track separately from other travel costs.

REPROGRAMMING OF SAFETY FUNDS

Question. Please show any reprogramming or reallocation of Office of Safety funding from the appropriated amounts for fiscal year 1996 and fiscal year 1997.

Answer. Funding for the Office of Safety was appropriated at the total account level. fiscal year 1996 and fiscal year 1997 levels were $49.558 million and $51.338 million respectively. FRA has not reprogrammed any funds between the Safety and other FRA accounts.

COST SHARING

Question.What has FRA done since last year to promote additional cost sharing in the research and development program? How does FRA plan to continue this practice in 1998?

Answer. The FRA's Office of R&D has continued to meet with the Association of American Railroads and the railroad industry (railroads, suppliers, unions) to identify cooperative research projects. One major effort is the Facility for Accelerated Service Testing (FAST), a joint government industry research project conducted at the Transportation Technology Center in Pueblo, Colorado. Another effort is with the RPI/AAR Tank Car Research Project where FRA and the industry are cooperating on several research projects to reduce the release of hazardous materials from tank cars involved in accidents. These projects include testing, which FRA funds, and tank cars and other equipment for testing, supplied by the industry. Industry also contributes technical expertise.

To ensure maximum leveraging of research funding and to eliminate duplication in the area of passenger car research, the FRA cooperates extensively with organizations such as the American Public Transit Association and the Federal Transit Administration.

FRA will continue meeting with interested parties to further cooperative research in 1998. FRA will also use the Railroad Safety Advisory Committee process and their Working Groups to investigate additional projects for cooperative research.

NON-FEDERAL COST SHARING IN R&D

Question. Please update and specify cash equivalents, in-kind services, or other funds obtained from non-Federal sources for each of the subcomponents of the R&D program for fiscal years 1996 and 1997. How will cost sharing be encouraged during fiscal year 1998, and how is this reflected in the budget proposal?

Answer.

EQUIPMENT, OPERATIONS AND HAZARDOUS MATERIALS

[Dollars in thousands]

Fiscal year	Federal funds	Non-Federal funds	Total funds	Percent non-Federal
1996	$5,535	$5,728	$11,263	51
1997	5,545	3,295	8,840	37

About half of the cost-sharing under this program is the industry's contribution of equipment for the advanced braking project and the wayside bearing project. Other cost-sharing includes in-kind contributions of technical expertise and equipment and related shipping costs for hazardous materials test projects. Not included in the above figures is the industry contribution to the Operation Lifesaver program which is con-funded by FRA, FHWA, Amtrak, Association of American Railroads, Railway Progress Institute, and individual railroads.

TRACK, STRUCTURES, AND TRAIN CONTROL

[Dollars in thousands]

Fiscal year	Federal funds	Non-Federal funds	Total funds	Percent non-Federal
1996	$7,078	$5,747	$12,825	45
1997	7,346	6,156	13,502	46

Nearly half of the cost-sharing under this program is provided by industry contributions to the Facility for Accelerated Service Testing. Other significant fractions are provided by industry support to the vehicle Track Systems program and by individual railroad contributions of train crews for test operations of the FRA's Gage Restraint Measurement System (GRMS) as well as transportation of FRA's GRMS instrumentation car between test sites.

SAFETY OF HIGH-SPEED GROUND TRANSPORTATION

[Dollars in thousands]

Fiscal year	Federal funds	Non-Federal funds	Total funds	Percent non-Federal
1996	$9,373	$2,300	$11,673	20
1997	4,600	156	4,756	3

There has not been much cost-sharing in this program due to the fact that the freight railroad industry is not conducting research in high-speed passenger car safety issues. Most of the current work is in support of rules of particular applicability for the Office of Safety. This type of research does not lend itself to cost-sharing.

R&D FACILITIES

[Dollars in thousands]

Fiscal year	Federal funds	Non-Federal funds	Total funds	Percent non-Federal
1996	$400	$383	$783	49
1997	420	510	930	55

A major portion of FRA's research funding support projects that are conducted at the Transportation Technology Center (TTC). The TTC is operated for the FRA by the Association of American Railroads (AAR) under a long-term Care, Custody, and Control contract. The total business volume of the AAR at TTC is on the order of $30 million per year. Of this, approximately 25 percent or less is provided by FRA. Therefore, the majority of the costs for operation, maintenance, and a few selectively chosen capital improvements to the TTC is borne by the AAR and its customers via AAR's overhead rate and pricing structure for non-FRA projects at TTC.

R&D PROGRAMS WITH VOLPE

Question. Please list all FRA research and development program contracts with the Volpe National Transportation Systems Center in fiscal years 1996 and 1997, including a short summary of each specific contracted project, and the associated amount.

Answer. The information follows.

RR–03.—Next generation high speed rail support

This project provides support to the FRA's Next Generation High Speed Rail Program. The purpose of this effort is to enhance the deployment of high-speed passenger rail, particularly on existing infrastructure, by improving, adapting and demonstrating innovative and cost-effective technologies which have wide application in U.S. corridors.

The Volpe Center provides technical support to the FRA in assessing candidate technologies and procedures to determine the likely impact on rail operations, including safety, performance, reliability and economic viability.

Research activities conducted under this program include: High-Speed Positive Train Control; Grade Crossing Risk Assessment and Reduction; High Performance Non-Electric Locomotive Development; Innovative Technologies for Track and Structural Improvements; Railroad Test Track Upgrade.

Funding

Fiscal year:	
1996	$1,250,000
1997	600,000

RR–19.—Track systems research

The Track Systems Research Program provides the FRA with engineering analysis tools and analytical and experimental study results. These results will be applied to assess risk of derailment induced by track defects and to manage inspection and maintenance resources to minimize these risks. The results of these studies promote railroad safety and economic efficiency by enabling track engineers to target inspection and maintenance resources based on actual performance on track. Specific tasks are pursued based on accident statistics, track maintenance costs, and engineering expectations of potential problems.

The work conducted under this program is in direct support of the goal of the FRA to promote and improve the safety of the nation's rail system in the area of railroad track systems. The efforts build upon the Volpe Center's engineering capabilities developed as a result of rail and vehicle safety research projects conducted over the years in support of the FRA. The results of this research have been incorporated in the risk management strategies of railroads throughout the United States, and are being applied by the FRA in the development of revisions to the current track safety standards. Analysis tools and studies conducted under this program have provided the FRA with data for use in evaluation of waiver requests and monitoring performance under waivers issued.

Research activities under this program include: Rail Integrity; Track Structural Mechanics; Track Inspection Tools; Vehicle Track Interaction; Train Control Device

Safety; Risk Assessment and Management Strategies; Special Projects related to Track Systems Safety.

Funding

Fiscal year:
1996 ..... $1,810,000
1997 1,772,000

RR–28.—Rail equipment safety

The FRA sponsors research and engineering studies to provide the technology to reduce the likelihood of accidents related to the design and the operating and maintenance practices of railroad equipment.

This project provides the FRA with a base of Volpe Center expertise to support the FRA's research and development program on railroad equipment and operating practices and hazardous material safety. Research activities under this program include: Structural Integrity of Tank Cars/Components; Human Factors Influencing Operator and Crew Performance; Advanced Operation and Information Displays; Train Make-Up, Handling, and Controls; Rail Passenger Evacuation Safety; Rail Equipment Collision Safety; Rail Vehicle Dynamics; Dedicated Trains; Advanced Risk Analysis; Trailer/Container Securement; Steam Locomotive Study.

Funding

Fiscal year
1996 ..... $3,246,576
1997 1,537,000

RR–93.—High speed ground transportation safety

This project provides the FRA with timely technical information for informed rulemaking initiatives and with technical assessments of the safety implications of the implementation of advanced high speed ground transportation systems proposed for construction in the United States. Information is developed in topic areas critical to the safety of HSGT systems that may not have been explored for traditional U.S. rail systems. Technical safety assessments include systems based upon foreign developed technologies that have been proposed for implementation by a variety of private interests and state and local authorities. The Volpe Center staff with support of the Center's contractor base have been conducting studies of the applicability of existing regulations and requirements for new regulations to permit these new technologies to operate safely in the U. S. environment. Volpe Center staff have worked with FRA staff in the drafting of waivers to permit demonstration of new equipment and in preparation of new rules of particular and general applicability to permit safe operation of the proposed systems.

Research activities under this HSGT program include: System Safety/Emergency Preparedness; System-Specific Safety Assessments; Automation Safety and Operational Control-Critical System Monitoring/Alerting; Fire Safety; Corridor Risk Assessment Model Development; Human Factors; Vehicle Crashworthiness; Advanced Braking; Track Standards; Guideway Safety; Aerodynamic Safety Issues-Platform and Vehicle; Glazing Safety; Electrical Safety; Electromagnetic Fields; Magnet Safety.

Funding

Fiscal year:
1996 ..... $1,600,277
1997 1,925,000

RR–97.—Highway-rail grade crossing safety

The Volpe Center is supporting the FRA's highway-railroad grade crossing safety research program. This research includes innovative warning signs, more reliable active signal systems, techniques to increase the conspicuity of trains, improved acoustic warning systems, and technologies applicable to the needs of high speed rail passenger service. Other initiatives include enforcement and education activities as well as a greater emphasis on the human response to grade crossing warning device applications.

Research activities under this program being conducted at the Volpe Center include: Locomotive Conspicuity; Freight Car Reflectorization; Optimal Acoustic Warning Systems; Wayside Horn Systems; Driver Behavior; Causal Analysis of Crossing Accidents; Driver Education Programs; Illumination Guidelines; Active Warning Device Failure Analyses; Assessment of Passive Systems;Obstacle and In-

trusion Detection; Vehicle Proximity Alerting System; High Speed Rail Grade Crossing Safety; High Speed Rail Grade Crossing Demonstration Evaluations; Risk Analysis of High Speed Rail Crossing Improvements.

Funding

Fiscal year:	
1996	$1,595,000
1997	1,103,000

STRATEGIC PLAN AND RESEARCH AND DEVELOPMENT

Question. Please outline how the FRA's strategic plan outlines the direction and nature of research to be conducted during the next five years for the entire research and development program

Answer. The R&D activities in this Plan are those needed both to support the safety rulemaking and enforcement activities of FRA's Office of Safety and to foster the development of technologies needed for high-speed passenger operations. Safety recommendations from the National Transportation Safety Board were taken into account, along with National, Departmental, and Agency strategic goals. Contributions to the plan were solicited and received from across the spectrum of scientific, operational, and user communities. These contributions from both inside and outside government are always welcome, provide valuable inputs, and are greatly appreciated. They provided input for the development of research proposals.

FRA's five-year strategic plan for the Office of Research and Development groups projects into two major program areas that cover 16 program elements:

Improving railroad safety:

—Reduction of human factors accidents.
—Detection of rolling stock defects and improvement of rolling stock performance.
—Detection & prevention of track and structure defects.
—Track/train interaction safety.
—Prevention of train collisions and over speed accidents.
—Prevention of grade crossing accidents.
—Improved hazardous materials transportation safety.
—Improved protection for occupants of trains.
—Improved safety of high-speed ground transportation.
—Improved R&D facilities and test equipment.

Advance technology to accelerate high-speed rail:

—Development of high-speed positive train control systems.
—Development of non-electric locomotives for high-speed passenger corridors.
—Development of high-speed grade crossing protection.
—Track and structures technology.
—Integrated corridor demonstration.
—Advancement of maglev technology.

To review and prioritize these research proposals, review teams of project and program managers were formed for each of the 16 R&D program elements. This prioritization was based on the criticality of project contributions toward eliminating shortfalls that affect FRA strategic goals. Congressional issues, concerns of the railroad community as a whole, as well as cost effectiveness and long and short-term benefits were also considered as prioritization factors. After prioritization within program elements, R&D management worked across element boundaries to develop an integrated R&D program. With this process, FRA believes that it has moved its R&D program from one that was reactive to one that will be more anticipatory.

The FRA, in an effort to ensure maximum leveraging of research funds and to eliminate duplication, cooperates extensively with the AAR, the Railway Progress Institute (RPI), American Public Transit Association (APTA), Amtrak, and the Federal Transit Administration (FTA). Cooperation with the AAR occurs primarily in the areas of track/train interaction, track safety research, bearing defect detection, braking systems, grade crossings, train control, and hazardous materials (hazmat) transportation. The RPI arranges for its supplier-members to provide material and equipment for the Facility for Accelerated Service Testing at the TTC, and also participates in the hazmat transportation projects. The APTA, Amtrak, and the FTA cooperate with the FRA on projects aimed at improving protection for railroad passengers. Representatives from the FRA serve on a number of industry committees to ensure that duplication of effort is avoided.

The FRA continues to investigate avenues for leveraging scarce research resources with other government agencies, the railroads and railroad supply industry, and foreign railroad research and development organizations.

RESEARCH AND DEVELOPMENT/GPRA

Question. Please summarize the office of research and development's efforts to comply with the Government Performance and Results Act.

Answer. Research and development programs pose a special challenge with regard to establishment of outcome-oriented performance measurement as required by the Government Performance and Results Act. FRA recognizes that R&D activities, even when addressing highly applied topics, are not ends in themselves. Rather, they are generally components of broader, outcome-oriented programs, and realization of those goals will ultimately depend in large part on program implementation factors that are typically far removed from the enabling research. Furthermore, in railroading, federal activities are generally only a small part of achieving outcomes, with much of the responsibility for implementation falling to the private sector (and state and local agencies with respect to commuter operations and to grade crossings), and with final success determined by transportation system users and other affected parties. Finally, outcomes are likely to be very distant in time from the R&D that contributes to them.

In spite of these difficulties, FRA's Office of Research and Development is implementing a performance-oriented management process. The Office of R&D has identified its key "customers" for its work, and relates it to their needs. The R&D program elements are linked directly to National, Departmental, and Agency Strategic Goals. The five-year R&D strategic plan explicitly establishes those linkages.

The Office is taking steps to identify the difference between "outputs" and "outcomes" of its R&D projects. These outputs are related to the desired outcomes which are directly linked to FRA goals and objectives. The Office of R&D has recognized that the end of an R&D project is not when a report is printed and distributed, and that staff resources need to be devoted to bringing about the appropriate implementation of the R&D findings.

HUMAN FACTORS RESEARCH

Question. Please provide an update of the progress that has been made in the human factors program since last year. How much of the fiscal year 1996 and fiscal year 1997 allocated funds have been spent, and for what purposes? Please delineate objectives on a project by project basis. Please provide additional details on the plans for any new human factors research in fiscal year 1998.

Answer. Following is a summary of the progress on projects during fiscal year 1997, project objectives, and funding for fiscal years 1996 and 1997 and the fiscal year 1998 request. New phases or extensions of ongoing research are identified where applicable.

Stress and Fatigue

1. Data collection for Enginemen Stress and Fatigue: Phase II was completed in early fiscal year 1997. Reports are being prepared for publication by the end of fiscal year 1997. The majority of this project was funded prior to fiscal year 1996. The objective is to determine if current scheduling practices impose an excessive burden of sleep deprivation, circadian disruption, and fatigue which could degrade the train handling performance and vigilance of locomotive engineers.

Fiscal year:	
1996	$200,000
1997	.....
1998	.....

2. Study design for Engineer Napping Strategies has been initiated and is expected to be completed in fiscal year 1997. The primary purpose of this research is to determine if strategic on-duty napping can improve locomotive engineer performance and safety. Future year funding will be needed to complete this project.

Fiscal year:	
1996	[1] $630,000
1997	355,000
1998	400,000

[1] $530,000 obligate in fiscal year 1997.

3. Information on Vigilance Monitoring devices and techniques that are being marketed or that are in the research and development stages are being assembled during fiscal year 1997 as a part of the Volpe Center's technical support activity. While this has been a low level effort to date, evaluation of these and other potential technologies is planned for fiscal year 1998. Testing of the most promising technologies is also planned. The intent is to identify, test and validate a cost effective

technology for determining the level of alertness of a locomotive engineer while on duty and initiating a fail-safe action, if needed.

Fiscal year:	
1996	.....
1997	$325,000
1998	300,000

4. The study design for Dispatcher Workload, Stress and Fatigue is expected to be completed by the end of fiscal year 1997 and pilot tests of the methodology initiated in early fiscal year 1998. Methods of measuring workload, stress and fatigue (alertness) in a uniform manner and thresholds for safe performance are to be established. Out year funding will be needed to complete this project.

Fiscal year:	
1996	$100,000
1997	200,000
1998	224,000

5. The draft report "Human Factors Phase III: Effects of Control Automation on Operator Performance" is currently being reviewed and revised. It should be published by the end of fiscal year 1997. This work provides background for FRA's concern with High Speed Operator Stress and Fatigue. Another element, to begin by the end of fiscal year 1997, is to evaluate the effects of increased information flow which must be handled by the operator at higher speeds.

Fiscal year:	
1996	$285,000
1997	100,000
1998	200,000

Operating Practices

1. Non-Accident Hazmat Releases was initiated in fiscal year 1997 to examine training practices for, and educational background of personnel handling hazardous materials.

Fiscal year:	
1996	.....
1997	$130,000
1998	.....

2. An evaluation of Yard and Terminal Safety Practices was initiated in fiscal year 1996. An interim report on Phase 1, which is an analysis of accident data bases to determine the major human factors contributing to accident causation, is expected to be completed by the end of fiscal year 1997. The next phase will be an in-depth evaluation of these human factor issues.

Fiscal year:	
1996	.....
1997	$200,000
1998	150,000

3. Dispatcher Training Evaluation was begun in fiscal year 1996. This study was designed to examine training issues for dispatchers in light of recent changes in technology, workload, and operational experience of the job applicant pool. Currently, model syllabi are being drafted for FRA and subject matter expert review. This review will be performed during the early months of fiscal year 1998, and followed with revisions, as needed. A subsequent workshop on the findings of this effort is anticipated.

Fiscal year:	
1996	$300,000
1997	100,000
1998	200,000

Applied Technology

Currently, there is only one project in this group of activities. It is referred to as Knowledge Display Interface and was initiated in fiscal year 1996 to explore innovative ways to visualize and share information, particularly among teams of operating personnel.

Fiscal year:	
1996	$450,000

1997	200,000
1998	200,000

Grade Crossings

1. Operation Lifesaver has historically been funded in the human factors part of the R&D program. This program is managed by the Office of Safety.

Fiscal year:	
1996	$300,000
1997	600,000
1998	400,000

2. Several activities are in various stages under the overall heading of grade crossing safety. They are: Freight Car Reflectorization—report being reviewed; Evaluation of Wayside Horns—report being reviewed; Optimal Acoustic Warning Systems—ongoing; Driver Behavior—initiated in fiscal year 1997; Accident Causation Analysis—initiated in fiscal year 1997.

Fiscal year:	
1996	$435,000
1997	385,000
1998	435,000

LOCOMOTIVE ENGINEER FATIGUE RESEARCH

Question. What are the fatigue mitigation strategies that have been investigated during the last year? What were the results of these efforts?

Answer. Enginemen Stress and Fatigue: Phase II has been completed and two reports are nearing publication. This research determined that: current Federal regulations governing Hours of Service for locomotive engineers allow work schedules that have backwards rotating shift start times that may not allow sufficient sleep; locomotive engineers who work under such schedules can accumulate a progressive sleep debt over a period of days; the locomotive engineers in this study, while working on such schedules, reported progressive decreases in subjective alertness across the duration of the study; and, several aspects of job performance, including safety sensitive tasks, degraded during the same time period. This suggests, that greater care in scheduling train crews is necessary to maintain high levels of safety and efficiency.

FRA plans to evaluate potential strategies to mitigate the effects of fatigue. An evaluation of planned, on-duty napping has been initiated in fiscal year 1997 at an estimated cost of $1.2 million and is expected to require about three years to complete. An evaluation of vigilance monitoring devices is planned to start by the end of fiscal year 1997. Initial cost is expected to be $300,000.

In addition to these research activities, FRA held a round-table last year with labor and management participation and is encouraging industry initiatives demonstrating different approaches to use of napping, scheduling and crew calling.

FATIGUE RESEARCH RESULTS

Question. Please provide updated results of the fatigue research sponsored by FRA. What information has been collected that could lead to regulatory revision of the hours-of-service requirements? How has the fiscal year 1997 program contributed toward this objective, and what are the planned fiscal year 1998 research objectives?

Answer. Enginemen Stress and Fatigue: Phase II was completed in fiscal year 1997 and the earliest stages of Engineer Napping Strategies initiated. While the work just completed provides some basis for considering changes in the way work assignments are scheduled, whether this should be done in a regulatory setting or by some other means remains to be determined. Continuation of the napping study in fiscal year 1998 will move closer to determining if on-duty napping is a useful fatigue mitigation strategy.

PASSENGER EQUIPMENT STANDARDS

Question. Please provide a discussion of how the equipment and components subprogram reflects the congressional mandate for FRA to develop passenger equipment standards. How much money was spent for this purpose in fiscal year 1996 and fiscal year 1997, and how much is planned for fiscal year 1998?

Answer. To respond to the mandate of the Congress to develop passenger equipment safety standards, FRA has expanded its passenger equipment safety project within the equipment and component subprogram since fiscal year 1996. A project

on passenger rail vehicles dynamics was initiated in fiscal year 1996 to verify the safety assessment method and derailment criteria. Another project on passenger restraint systems was initiated in fiscal year 1997 to study the effectiveness of various passenger restraint designs. Funding for fiscal year 1996 and fiscal year 1997 was $500,000 and $800,000 respectively. We are requesting $700,000 for fiscal year 1998 to support this important project, and $100,000 to support research specifically for commuter rail cars.

OPERATING RULES

Question. What additional research might be conducted to improve the clarity and understanding of railroad operating rules? How has misunderstanding these rules contributed to crashes?

Answer. Information derived during fiscal year 1997 from individual interviews and a focus group involving representatives of the Association of American Railroads, National Transportation Safety Board, Federal Railroad Administration and several railroads with responsibility for operating rules development or compliance is currently being evaluated to determine the most productive course of action for further research. The misapplication of rules for "restricted speed" (various definitions, but usually under 20 mph.) is the most frequently cited problem by this group. In 1995, nearly half of all train collisions occurred at speeds under 20 mph.

Several issues regarding the communication and understanding of railroad operating rules may warrant further research. The railroad industry has recognized the importance of having clear, succinct, unambiguous operating rules that can be easily and accurately understood by operating employees. Major railroads in the Northeast enlisted the aid of a language and communications expert when they devised their operating rule book known as the NORAC Operating Rules.

The American Train Dispatchers Division of the Brotherhood of Locomotive Engineers (ATDD/BLE) has conducted preliminary research regarding "active" listening techniques. "Active" listening requires active participation from the listener which may translate into more careful listening and more accurate communication.

Research into the skills and techniques associated with communication and listening may provide valuable information that can enhance the safety of railroad operating rules and procedures.

DISPATCHER WORKLOAD, STRESS, AND FATIGUE

Question. The fiscal year 1997 budget request stated that tests and methodology for the evaluation of dispatcher workload, stress and fatigue would soon be completed. Were they? Please describe the results and how the fiscal year 1998 research and development will continue the progress made in fiscal year 1997. How could the results of the study contribute to a regulatory revision of the hours of service requirements?

Answer. In Phase II of the locomotive engineer research, performance effects of scheduling on sleep deficit, accounting for the circadian cycle, were examined. Research on locomotive engineer stress and fatigue continues with evaluations of mitigation strategies. Currently, this includes on-duty napping and vigilance monitoring. Other strategies such as scheduling alternatives may emerge from tests by various railroads. Stress and fatigue, particularly relating to types of work assignments during different shifts, in the work environment of yard and terminal workers, is likely to become a discreet focus of that broader study.

Methodologies to be used in the examination of dispatcher workload, stress and fatigue are still being developed. They are to be unobtrusive during the dispatcher's work period. Both objective and subjective measures of workload, stress and fatigue will be used. Pilot tests are expected to begin in October 1997, and be completed during the summer of 1998. Amtrak and Conrail have agreed to provide sites and support for these activities. The main body of data collection will begin as soon as possible thereafter. The implications for action on hours of service, workload control and distribution, and other features of the dispatcher job cannot be known until results of the research become available. There have been delays in the original schedule of this project, but they have not adversely affected the direction or relevance of the research.

HIGH-SPEED OPERATOR STRESS AND FATIGUE

Question. One of the ongoing research projects included in the operations subcomponent of FRA's research and development request is to evaluate stress and fatigue issues unique to high-speed train operators. Please explain how the high-speed conditions are replicated in order to conduct this evaluation. Does FRA have a high-speed rail simulator?

Answer. The FRA's Strategic R&D plan identifies stress and fatigue issues unique to high-speed train operators as an area of concern. The FRA's approach to the simulation of high-speed rail operations has emphasized problems caused by the high rate of information flow at high operating speeds. Human capacity to receive, process and react to information is limited. The FRA is using a "part task" simulator at the Volpe Center to simulate visual and other sensory-motor aspects of high-speed operations to evaluate the stress and fatigue caused by high rates of information flow and the requirement to act and react on the basis of that information. Since the conditions of interest are computer generated, they are easily replicated for evaluation. The "part task" simulator which is used for this evaluation does not simulate the physical motion, or many other aspects, of high-speed operations.

HIGH-SPEED SIMULATOR

Question. Are there any plans in the next five years to add the capability for high-speed rail simulation?

Answer. A study to determine the need for and desired characteristics of a high speed simulator is planned for fiscal year 1999. Amtrak has contracted for trainsets based on French technology that are intended to operate on existing, improved track at speeds up to 150 mph. These tracks will also continue to carry slower freight traffic. Florida's FOX system is also based on French technology and is planned to operate at 200 mph on dedicated right of way. French, German, Swedish and Japanese technologies continue to offer promise of faster trains in the future. Each have different views of the most desirable mix of automation and human control. U.S application will likely be variations of these approaches. While no details are known at this point, it is anticipated that the capability to sort through the most likely options will be needed. This can be best provided through the use of well designed simulation.

TRACK RESEARCH FUNDING

Question. How were the funds allocated in fiscal year 1997 spent for track research? Please explain purpose of each project and the amount funded. What are the comparable planned expenses in this area for fiscal year 1998, and how is this reflected in the request? How did the results of the fiscal year 1996 research help FRA?

Answer. In fiscal year 1997, a total of $7.346 million was allocated for track research. The total funding request for track research in fiscal year 1998 is $7.746 million. The following shows how these funds were allocated among the four major program activities for fiscal year 1997 and the allocation planned for fiscal year 1998. A detailed list of projects for fiscal years 1995–1998 can be found on page 75 of FRA's fiscal year 1998 Congressional Budget submission.

[In thousands of dollars]

	Fiscal years—	
	1997 enacted	1998 request
Track and Components	2,785	2,585
Inspection-Detection	2,150	2,750
Track Train Interaction	1,364	1,364
Signal, Train Control, and Electrification	1,047	1,047
Total	7,346	7,746

The purpose for each of these program activities is as follows:

Track and Components.—The purpose of this program activity is to aid in assessing the structural integrity of the existing track structure and its components in light of the changing environment of higher axle loads, traffic densities, and speeds and the recent trends of introducing newer unconventional vehicle types and newer track materials. It includes research on more complex track components, such as turnouts, in addition to more commonly considered track components, such as rail, crossties, and ballast. Emphasis is given to failure modes and degradation processes which most impact the safety of track.

Inspection-Detection.—The purpose of the Inspection-Detection program activity is to improve track defect detection techniques and other technologies related to inspection equipment, with the goal of reducing train accidents resulting from failures

in the track structure. Potential research products include new techniques and equipment that could provide accurate and reliable assessment of track safety, or aid in the effective planning of track maintenance as a preventive measure against hazardous structural failure of track or bridges. The new techniques could serve as the basis for performance based track safety standards which do not inhibit innovation.

Track Train Interaction.—The objective of this research area is to develop analytical tools, instrumentation, and test data that can accurately describe the interaction between the rolling stock and the supporting track structure. This interaction is not limited to the instantaneous transfer of dynamic forces from vehicle to track but extends to cover cumulative effects on track degradation such as wear and surface fatigue of railheads and deterioration of track geometry. Some of the safety related issues which will greatly benefit from progress in this research area include the impact of high speed passenger service on existing track, the development of performance-based track geometry standards, and the development of guidelines for optimum inspection and maintenance practices to enhance track safety and durability.

Signal, Train Control, and Electrification.—The goal of this research area is to evaluate critical and interrelated areas of railway signaling and electrification technology that are outpacing the content of existing Federal standards. Prime emphasis is placed on safety and operability of high-speed guided ground transportation (HSGGT) systems. As a corollary, another related goal is to seek application of existing or new technology to improve railroad safety.

Much has been gained from the track research and test activities that were completed in fiscal year 1996. The most notable accomplishments and their benefit to FRA can be summarized as follows:

Track Safety Standards.—In 1996, a government-industry-labor effort under the auspices of the Rail Safety Advisory Committee was initiated to accelerate the development of revised track safety standards for all present classes of track, as well as new standards for high speed tracks.

This process was greatly influenced and guided by results from research completed in fiscal year 1996. One example is results from testing and analysis of track twist and its influence on vehicle safety, which were completed in fiscal year 1996, and have led to significant revision of current standards. Another notable example is the development of new high speed track geometry and vehicle-track interaction safety standards, where fiscal year 1996 research results provided the very first building blocks allowing the development of comprehensive performance-based standards.

Track Buckling.—Testing and analysis in track buckling mechanism has resulted in maintenance guidelines which have been useful to the industry in combating this source of train accidents. Significant reductions in the number of accidents attributed to track buckling have been seen since this research began. Additional work is still needed on methods and devices to measure track lateral resistance and rail longitudinal force and to extend results to tracks constructed with unconventional crossties.

Gage Restraint.—An ongoing effort in fiscal year 1996, is application of the Gage Restraint Measurement System (GRMS) developed by the FRA to measure the ability of track to maintain gage under service load conditions. In 1996, the GRMS continued to gain acceptance as a mature technology resulting in at least two major railroads acquiring GRMS capabilities, based on this FRA developed prototype, for their own use in locating areas of track with weak or unsafe gage restraint. FRA's longer range GRMS testing continued on a large southeastern railroad. This railroad can now, on the 500-mile test zone, assure that crosstie replacements are being installed in areas of maximum risk for wide-gage derailments from weak ties.

Heavy Axle Loads.—During fiscal year 1996, a new phase of accelerated testing was begun at the Pueblo test track in order to assess track safety and performance under 125-ton cars equipped with improved suspension systems. Initial results from more than 100 million gross tons of traffic accumulated on the test track under these loads indicated a potential enhancement to safety due to reductions in lateral loads and fatigue related rail defects. Experiments on rail grinding practices and their impact on rail wear and fatigue were also begun.

Rail Steel Integrity.—Work supported by FRA grants at the Oregon Graduate Research Institute has resulted during fiscal year 1996 in the completion of two doctoral theses concerning fatigue-induced cracks in rail steel. Research findings documented in these theses have provided valuable insight into the phenomena of crack generation and growth rates under a variety of conditions of instantaneous and cumulative tonnage burden as well as various methods for top-of-rail lubrication. The knowledge gained from these multi-year research projects that have recently come

to fruition will now be employed in devising rail flaw inspection revisit protocols and in generating test procedures for assessing rail lubrication strategies. For instance, one surprising result from the research was that rail lubrication which is often used to reduce flange wear on curved track may actually accelerate the growth of fatigue-induced cracks in the rail head via forced advancement of the crack vertex due to hydrostatic pressure of lubricant trapped in the crack by the wheel tread.

Question. What are the implications of delaying or split funding (half in fiscal year 1998, half in fiscal year 1999) any new initiatives on track technology? In your answer, please address the advantages and disadvantages of split funding the proposed upgrade of the T–6 car.

Answer. FRA is requesting $650 thousand in new initiatives in Track Research. Of this amount, $500 thousand is for the replacement of the T–6 car. FRA is already split funding this cost, as the balance will be requested in the fiscal year 1999 budget. The requested $500 thousand will support the design of the replacement car, initiation of the procurement process and acquiring of long lead items to ensure a delivery date of mid-2000.

The envisioned replacement car is essential for the effective implementation of a number of track safety related initiatives in the Five-Year Strategic Plan. Consequently, our top enhancement priority in fiscal year 1998 is to initiate the replacement of this deteriorating 40-year old railcar that is FRA's only platform for mounting instrumentation to conduct investigations that support development of advanced track inspection technology.

The rapid payoff from this one-time purchase investment will be savings of $400K per year from the combined effect of reduced maintenance costs, increased efficiency of operations (less downtime), and gains in field-testing productivity, thereby providing cost-effective use of Government funds. Furthermore, this investment should enable FRA to automatically detect track flaws related to 87 percent of current FRA cause codes, up from 46 percent now. This new level of capability will move FRA farther along the path toward the Administrator's goal of zero tolerance for derailments.

If we do not acquire a new car, there will continue to be an expenditure of funds on recurrent "band-aid" maintenance of the old car and idle manpower during frequent breakdowns. Equally important, the lack of a suitable testing platform will severely limit our envisioned integration of advanced track inspection technologies with a potential to yield significant synergies and corresponding safety improvements.

It should be noted that the T–6 will have to be adequately maintained and used until the replacement car is available in mid-fiscal year 2000.

The remaining $150 thousand for the advanced braking system project cannot be split funded because it would delay the realization of the benefits of the anticipated technological advances.

ADVANCED BRAKING SYSTEM EVALUATION

Question. Please describe the progress made in evaluating the advanced braking system. Will this study be completed in fiscal year 1998?

Answer. FRA has been working with industry co-operatively in the development of industry performance and interchange requirements for an advanced electrically controlled pneumatic braking system (ECP). Thus far, the train line communications standards have been established and adopted. Performance requirements, similarly, for braking forces, response times, and other key parameters have been selected and adopted. FRA has supported the safety related work inherent in the development of these specifications. Work remains to be done on the electronically controlled pneumatic brake/locomotive systems integration (ECP/LSI) interface and on the standards for the Head End Unit (HEU) control layout and mounting requirements.

Laboratory testing of generic prototypes was conducted to investigate various failure modes and their consequences. Two industry suppliers have emerged to build equipment. These suppliers have selected a hardwired system both as a source of power for individual cars (as opposed to local generators or batteries) and for train line communication of signals. Several trainsets have been placed in test service mainly in unit coal and intermodal trains. The safety of these trainsets is being closely monitored, with failures of individual components being recorded. A system safety and reliability study is planned using the Failure Modes and Effects and Criticality Analysis approach.

Beyond fiscal year 1998 the safety record will be followed and additional control and surveillance functions will be proposed for addition to the total ECP system. We will be examining both hard wired and RF versions of ECP brakes. ECP braking systems have improved the stop distance performance dramatically and the uni-

formity of braking among cars. Use of ECP braking systems will be extended to cars in general service so that the nation's entire fleet can utilize the safety benefits of this new technology. This will require a means to couple adjacent cars electrically and pneumatically in an automated fashion without manual connections. This work will be the principal focus in the ensuing fiscal years. ECP braking represents a major safety improvement in the rail industry.

SAFETY OF HIGH SPEED GROUND TRANSPORTATION

Question. Specifically, what high-speed grade crossing safety research initiatives are ongoing with the fiscal year 1997 funding level of $950,000? What initiatives will be pursued with the requested funding level of $700,000?

Answer. The fiscal year 1997 funding is providing $300,000 for research to support development of track safety standards and $650,000 for grade crossing research. Of the $650,000; $150,000 is being used to evaluate grade crossing improvement projects previously funded, and $500,000 will continue work on intrusion detection and other devices, improved warning systems, and begin work on development of national warrants for grade crossing warning systems. For the fiscal year 1998 request of $700,000; $300,000 will be used for development of track safety standards and $400,000 will continue the fiscal year 1997 grade crossing research efforts.

SAFETY OF HIGH SPEED GROUND TRANSPORTATION

Question. Were any funds spent in fiscal year 1997 on the maglev safety research, and if so, how were these funds used? Are any maglev projects going on at this time?

Answer. No funds were spent in fiscal year 1997 specifically on maglev safety research. Some of the rail safety work such as electromagnetic field effects is also relevant to maglev. At the present time there is one maglev technology project underway, "Maglev 2000 of Florida," using Florida DOT plus matching federal (but not USDOT) funds. In addition there are several local maglev projects seeking funding. These include a Baltimore to Washington project, a Pittsburgh, PA project, a Las Vegas to Southern California project, and the Mashantucket-Pequot Tribal Nation project between Norwich, CT, the Foxwoods resort and Westerly, RI. FRA staff is preparing a mandated report to Congress on the near term applications of maglev technology.

SAFETY OF HIGH-SPEED GROUND TRANSPORTATION

Question. What is the purpose and likelihood of success for the proposed $500,000 in fiscal year 1998 for maglev work as indicated on page 76 of the budget justification? Why is it necessary to go forward with this project? How has the FRA established partnerships with the private sector that encourage cost sharing in this area?

Answer. The bulk of the $500,000 is proposed to contribute to the cost of equipping the Holloman AFB High-Speed Maglev Sled Test Track with 1,000 feet of linear synchronous motor propulsion windings. The advantage to FRA is that it will allow FRA to test a critical subsystem of a maglev transportation system on a much longer track that is already outfitted with magnetic levitation components, at a small fraction of the cost of building the entire track. The Air Force benefits because it allows it to assess the efficacy of eliminating rocket propulsion without equipping the entire maglev track with an electric motor. The major risk is failure of the maglev portion of the system, but inasmuch as the propulsion windings will not be installed until that part of the system is validated, the risk of failure is minimal. What will be learned is the operating characteristics of the propulsion system, its efficiency, power factor, limits of dynamic stability, limitations of computer modeling, and opportunities for cost reduction.

This effort is an attempt to continue meaningful innovative research and development in maglev technology in the environment of severe funding limitations. In this time of budget constraint, keeping alive a modest research and development effort which would at the least keep the U.S. abreast of developments overseas and possibly result in innovations which would afford a future entrée into this world technology,is the most prudent course of action for the Department of Transportation. Cooperation with on-going efforts in maglev, including the Air Force, the Navy and NASA, and with the German and Japanese in maglev is a cost-effective way of making progress in magnetic levitation technology. To the extent that funding permits and within FRA mission constraints, FRA will cooperate in maglev tasks with NASA and the Navy so long as those projects move forward.

R&D FACILITIES

Question. In addition to the Transportation Test Center in Pueblo, Colorado, what other research and development facilities does FRA own? How many non-headquarters staff are associated with other research and development facilities?

Answer. In addition to the Transportation Test Center in Pueblo, Colorado, the FRA owns the Research and Locomotive Evaluator/Simulator (RALES) located at the IIT Research Institute (IITRI) in Chicago, Illinois. IITRI operates and maintains the facility under contract with FRA. Costs are covered by fees charged to all users, including FRA. There are no FRA personnel located at the RALES facility.

RESEARCH AT R&D FACILITIES

Question. Please outline what research projects are performed at each facility, and delineate the associated fiscal year 1997 and requested fiscal year 1998 costs.

Answer. Main research projects being performed at the Transportation Technology Center are as follows:

[In thousands of dollars]

Project Title	Fiscal years		Organization
	1997	1998	
Track Stability Investigations	150	200	FRA, VNTSC, AAR
FAST (Heavy Axle Load Safety)	1,835	1,670	FRA, AAR, RPI
Loss of Shunt	300	300	FRA, AAR
Improved Component Safety	125	200	FRA, AAR
VPAS Prototypes	200	.....	FRA, VNTSC, FHWA
Tank Car Safety	190	300	FRA, VNTSC, AAR, RPI
Rail Defect Farm	150	150	FRA, AAR
Evaluation of New Lubrication Practices	175	100	FRA, AAR, DOE
Vehicle/Track Systems	425	500	FRA, AAR
Total	3,550	3,420	

The projects shown in the above table have been awarded and are at various stages of completion. fiscal year 1998 activities to a large extent will build on the results and accomplishments under these projects. Considering the investigatory nature of research, it is difficult to predict with a reasonable degree of precision the duration of performance and the cost of all research work, particularly the more complex projects. Accordingly, while we cannot accurately delineate the associated fiscal year 1997 and requested fiscal year 1998 costs for each project, we fully expect the FRA goal of $5M per year level of research and test activities at TTC to be met in both fiscal years. For fiscal year 1997 the TTC will gross from FRA well over that figure when facility upgrade costs not listed above are included.

The most recent project to be completed at the RALES facility is Engineman Stress and Fatigue: Phase II (reports in production). Tests in the Engineer Napping Strategies project, which is just beginning, will be conducted on RALES. Fiscal year 1997 funds budgeted to this project are $330,000 and $400,000 is requested for fiscal year 1998.

R&D FACILITIES FUNDING

Question. Please explain in detail why the request for facilities restoration more than doubled over the fiscal year 1997 enacted level. What activities are included in this $850,000 request? What activities would be foregone/deferred if the program were funded at fiscal year 1997 level of $420,000? What activities would be foregone/deferred if the program were funded at $600,000?

Answer. There are two main reasons for this: delayed reinvestment or rehabilitation, and increasing requirements for restoration and upgrade of a mature (25-years old) facility. It should be noted here that during the period 1983–92 no site restoration funds were provided for these facilities valued at well over $200M in current dollars. It should be further noted that, for planning purposes, the typical facilities re-roofing interval which is considered a capital outlay, is in the range of 20 to 25 years.

The activities included in the current $850K request, in order of priority, are as follows:

[In thousands of dollars]

Restoration of site radio communication system to full operation condition	110
Design of HSR Project Maintenance Facility	80
Procurement of 75-Ton mobile crane, front end loader, and grader	380
Rebuilding of Wheel Truing Machine	150
Roof Restoration Program on support buildings	130
Total	850

If the program were funded at fiscal year 1997 level of $420K, the procurement of a front end loader and a grader (item 3, partial), rebuilding of the wheel truing machine (Item 4), and the roof restoration (Item 5) activities would be deferred. Emergency roof repairs (wasteful band-aid) would have to be done to minimize damage to buildings. At $600K level, roof restoration (Item 4) and the procurement of the front end loader would be deferred.

TRANSPORTATION TECHNOLOGY CENTER

Question. How much has the private sector contributed in each of the last few years to improve the Transportation Technology Center?

Answer. Private sector contributions in each of the last few years are as follows:

[In thousands of dollars]

Year	*Amount*
1993	405
1994	474
1995	2,680
1996	383
1997	510
Total amount	4,452

All of these are direct cash investments by the AAR, with the exception of the 1995 figure which includes direct cash investment of $270K plus an installed equipment contribution of $2,410K.

TTC FUNDING

Question. Has FRA been able to maintain its 1992 goal of performing a $5 million level of research and test activities at Transportation Test Center annually, as specified in the TTC operating contract with the Association of American Railroads?

Answer. Yes. The FRA has been able to maintain its goal. The average FRA funding level of research and test activities at the TTC has been about $5.1M per year.

HIGH SPEED GROUND TRANSPORTATION FOR AMERICA

Question. How much closer today, as compared to five years ago, is the Nation to having a reliable, cost effective, and safe high-speed rail passenger transportation system?

Answer. In August 1996, we sent a study to Congress known as "High Speed Ground Transportation for America," in which we examined the potential for public/private partnerships to implement high-speed rail projects. We looked at the full spectrum of high speed technologies, including: upgraded existing rail with top speeds of from 90 mph to 150 mph; new high speed rail on separate rights-of-way at 200 mph; maglev at 300 mph. We studied applications in seven corridors plus the Texas Triangle. We found that in practically all cases, high speed rail could cover its operating costs and continuing investment needs and pay for varying portions of capital costs. In every corridor there was at least one of the high speed technologies in which total benefits exceeded total costs, thus providing justification for the public investment share.

In the five high speed corridors designated under Section 1010 of ISTEA, real progress has been made in construction, planning for high-speed rail, conducting environmental assessments, renovating passenger stations using ISTEA Enhancement Funds and consolidating or reducing the hazards at grade crossings. Beyond all our studies and all the successes of foreign nations, we are well on our way toward implementing high speed ground transportation and can see an accelerating interest in this concept. Most states have adopted an approach which upgrades existing railroads. For example:

Northeast Corridor

The Northeast Corridor is being brought to a still higher plateau of customer service. Amtrak is completing the electrification of the corridor all the way to Boston, allowing rail to tap the lucrative New York-to-Boston market much as it now serves New York-to-Washington. And last Spring, Vice-President Gore and then-Transportation Secretary Pe—a announced the purchase of Amtrak's new 150 mph high speed train sets that will realize the potential of the Northeast Corridor.

Outside NEC

Outside the Northeast Corridor, States and the private sector are driving major efforts to implement high-speed ground transportation. Here are just a few examples.

California

California has just completed an extensive study of a complete high-speed ground transportation system about 680 miles long linking San Francisco and Los Angeles, with extensions to San Diego and Sacramento. Such a system would serve as the backbone of intercity passenger transport in California in the 21st century. Their High-Speed Rail Commission found the proposal feasible, and the State is seeking to send a plan to the voters by the year 2000. The State has invested over $400 million in the last five years to improve its passenger rail system.

Pacific Northwest

The States of Washington and Oregon are upgrading the track connecting Eugene-Portland-Seattle and Vancouver, B.C. for eventual 125 mph service. Last year, Washington signed a contract to purchase two Spanish TALGO tilting trainsets and Amtrak has also signed a contract to purchase one TALGO trainset for use in this corridor. These trains can cut over 15 minutes off of the current running schedule. Within three years, Seattle will also institute commuter rail service between Everett and Tacoma, Washington and this service will share many facilities and some track with the planned high speed rail.

Oregon is working on a satellite based positive train separation project. Two major railroads, BNSF and UP have invested heavily in this project which is targeted at eliminating train accidents in the Portland terminal area.

Illinois

Illinois has begun to upgrade the line between Chicago and St. Louis for 125 mph service. The state plans to demonstrate a high speed train control system on a portion which will then allow passenger trains to achieve 110 mph. Work will soon begin near St. Louis to remove a bottleneck in the service. Also, Illinois will install "arrestor nets" this spring at three grade crossings to test the feasibility of this type of grade crossing protection for high speed service.

Michigan

Amtrak service on the 279 mile line now takes about five and one-half hours and the highway trip takes about five hours. By the end of the upgrading project, Michigan plans for nine round trip frequencies, using 125 mph electric locomotives and a running time of three hours. Some 79 miles of Amtrak owned property already has been fitted with a satellite based train control system which was tested last October 11 at 100 mph and an extensive grade crossing treatment and right of way improvement plan is underway.

Midwest

Nine states in the Midwest have been quick to seize on the potential for a high speed rail network based in Chicago and are presently conducting a feasibility study. This would involve an upgrade of lines for current Amtrak service and eventually provide 125 mph non-electrified service. The states are Illinois, Michigan, Iowa, Nebraska, Missouri, Wisconsin, Minnesota, Ohio and Indiana.

Florida

The State of Florida recently awarded a franchise to the Florida Overland Express (FOX) consortium to design, build, operate and maintain a 200 mph electrified system based on the French TGV system between Orlando, Tampa and Miami—a distance of about 320 miles. Miami to Orlando service would begin in 2004 and the system would be fully built by the year 2006. The State and the FOX group are now working on all of the economic, engineering and environmental studies necessary before construction can begin.

Virginia and North Carolina

The State of Virginia has as its highest rail priority to extend the "Northeast Corridor" to Richmond. The State recently named a High Speed Rail Commission to develop a plan for implementing rail service. A Major Investment Study is also underway to evaluate improvements to the Newport News to Richmond corridor. Virginia is working closely with North Carolina in improving the Washington to Charlotte Corridor for 125 mph service.

North Carolina has been upgrading stations, buying equipment, and improving the track between Charlotte and Raleigh. The State has initiated a "Sealed Corridor Concept" plan for treatment of all grade crossings in the Greensboro to Charlotte segment.

New York

The Empire Corridor ranks with San Diego-LA as second only to the Northeast Corridor in terms of frequency of service. In addition, speeds already reach 110 mph on major portions of the NY-Albany segment. New York State DOT has invested heavily in corridor improvements since the late 1970's and early 1980's. The State of New York retrofitted the two power units of an Amtrak RTL turbo train to demonstrate the efficiencies of new, Turbomeca Makila gas turbine engines. These engines operate at a 20 percent fuel savings and were tested at 125 mph. This was one of the efforts underway in the Next Generation High Speed Rail (NGHSR) non-electric locomotive development program. The success of this project, and its enthusiastic acceptance by passengers, has supported NYSDOT's plan to reconstruct the six remaining RTL turbo trains to be used in the Empire Corridor.

All these are merely some prominent examples. Many other States have studied, or are seriously considering, high-speed rail solutions. Together with FRA's Safety and R&D efforts, we have made significant progress toward bringing safe, reliable high speed ground transportation to more areas of the country.

ISTEA—HIGH-SPEED RAIL DEVELOPMENT

Question. Please specify how other funds authorized in ISTEA have been used to date to promote high speed rail development. Which specific sections of ISTEA authority have been utilized? What specific cooperative agreements or other financial arrangements have been initiated or completed thus far to further high speed rail development? What other actions are being considered? Please be certain to specify the progress made with these funds?

Answer. The largest expenditures so far, though not funded from ISTEA, are for the electrification and upgrade of the Northeast Corridor from Boston to New Haven and the purchase of the American Flyer trainsets for Amtrak.

FRA has been working with FHWA, FTA, FAA, and MARAD through the Intermodal Terminal Committee which meets monthly to promote and find funding for intermodal passenger terminals. For high speed rail to be effective, the terminals must be able to handle high volumes of passengers and must be well connected to each of the other public transportation providers. The intermodal terminal committee has been successful in initiating projects with Amtrak with Next Generation High Speed Rail Planning funding as well as funding from Sections 3, 18 and 21 of Federal Transit Act Funds. CMAQ funds have also been used extensively. These efforts have resulted in the construction of intermodal terminals in Meridian, Ms., Albany, NY, Los Angeles, CA, Seattle, WA, Salem, OR, New Orleans, LA, Portland, OR and many others expected to be key cities in high speed rail development. The committee has worked with several MPO's and state departments of transportation such as California, Florida, Virginia, North Carolina, Louisiana, Illinois, Michigan and others.

Intermodal terminal developments have been initiated through the State Departments of Transportation, cities and MPO's through a variety of grant agreements.

Other activities have included working with state DOT's to apply ISTEA Sections 1010 and 1036 and Title 23 Section 130 funding to remove and protect grade crossings. Several states have used these sources of funding to boost train speeds. For instance, Michigan has removed 12 grade crossings so far and North Carolina is working on its "Sealed Corridor Concept" described more fully below.

FRA's Next Generation High Speed Rail Program a portion of which was funded from ISTEA has led to progress in key areas:

1. Advanced train control

Michigan.—The Incremental Train Control System (ITCS) on the Chicago-Detroit corridor is being demonstrated in a partnership of FRA, Michigan DOT, Amtrak, and Harmon Industries. A successful 100 mph initial demonstration was accomplished in October, 1996. FRA funding is $9M for the train control system, and

$100,000 to date for worker training in the new technologies being used. Michigan and Amtrak have provided over $11M in matching funds and in-kind contributions. Production of hardware is underway to equip the planned 71 mile demonstration segment. Regular train service at 100 mph is targeted for mid-1998.

Illinois.—The High Speed Positive Train Control project will be tested on the Chicago to St. Louis high speed corridor, in partnership with Metra, the State of Illinois, Amtrak, and a supplier yet to be designated. FRA has obligated $7M, matched with over $5M from IDOT. A contract for hardware and software is expected to be let by the State of Illinois this summer, with installation to occur in 1998 and testing to begin in late 1998.

Pacific Northwest.—The Positive Train Separation (PTS) project is sponsored by BNSF and UP railroads on 800-miles of joint trackage in the Pacific Northwest. The two railroads have invested approximately $35 million. Testing of PTS is expected to be completed by the end of 1997. FRA-funded related activities include a computer model of the interaction of high-speed passenger trains and freight trains in the PTS territory, and installation of PTS and evaluation of its impact on Portland Union Station and Vancouver, WA. FRA is also working with the Coast Guard, Oregon, and the US Air Force to establish Differential Global Positioning System (DGPS) coverage in the Columbia River valley to permit testing of the PTS automatic location system.

Conrail/CSX/Norfolk Southern.—The three eastern freight railroads and FRA are jointly undertaking a Positive Train Control (PTC) project on shared trackage between Harrisburg, PA, Hagerstown, MD, and Manassas, VA. The first phase of the project will develop on-board locomotive devices to deal with the different technical approaches used in HSPTC, PTS and ITCS to attain the maximum possible system interoperability. An initial FRA cooperative agreement award of $500,000 to Conrail is pending for Phase 1, to be followed by cooperative efforts to install wayside systems in subsequent years. This work, while not funded under the Next Generation program, is expected to be an incremental step to more advanced train control systems that could be used for high speed passenger service.

2. Non-electric locomotives

The Advanced Locomotive Propulsion System (ALPS) project at the University of Texas, in partnership with AAR, Allied Signal, and GM-EMD and the Advanced Research Projects Agency of DOD, continues to develop a flywheel and turbine powered locomotive to provide acceleration equivalent to that of a an electric locomotive without the need for catenary. The construction of the full-scale flywheel rotor has begun. Discussions are underway with both NYSDOT and Bombardier on alternative prototype locomotive platforms to construct ALPS rolling demonstration units.

Daily service is operating on the Empire Corridor at 110 mph with the RTL–2 Turboliner. NYSDOT is upgrading six Rohr Turboliner trainsets to RTL–3 configuration with advanced turbines to permit operations at speeds up to 125 mph and with enhanced acceleration capability, with a target of Albany-NYC service under 2 hours in 1998. NYSDOT is working with Amtrak and FRA to finance the overall RTL–3 upgrade program. The $4 million earmarked for this project in fiscal year 1997 will be obligated when the program financial structure is defined.

3. Grade crossing hazards and low-cost innovative technologies

The State of North Carolina has begun a demonstration their "Sealed Corridor" Concept to address grade crossing hazards on a comprehensive, corridor wide basis using $2 million in FRA funding. Innovative, low cost techniques, selected and applied on a crossing-by-crossing basis, and thorough evaluations of the needs and the results, are key elements of the approach.

Projects are underway at University of Delaware and Zeta Tech Associates to reduce excessive maintenance requirements and improve high-speed ride quality at track locations such as highway grade crossings and bridge ends, where track stiffness changes lead to high impact forces and chronic problems for both high speed and freight operators. Rapid track degradation at these locations also poses potential derailment hazards.

BBN Systems and Technologies successfully demonstrated a brassboard active noise control unit. It uses roof-mounted loudspeakers driven by computers and sensors which instanteously create "anti-noise" to cancel the noise waves emanating from the locomotive stack. This has the potential to significantly reduce wayside exposure to diesel locomotive engine noise.

Morrison-Knudsen Advanced Systems and the University of Idaho are investigating the requirements to effectively and efficiently interconnect multiple flywheels or other energy sources on a single locomotive.

4. Track and structures technology

Track and signals will be upgraded to permit higher speed operations on the Portland-Eugene, OR portion of the Northwest Corridor, using the $5.65 million earmarked in fiscal year 1997.

5. Corridor planning

Funds to support corridor planning activities have been awarded to several states. See state-by-state corridor status summaries.

Question. Please provide information on how NEXTEA would promote the funding of the high speed rail projects.

Answer. For the first time rail capital projects would be eligible for trust fund funding: Both the National Highway System, under certain circumstances, and the Surface Transportation Program would be open to passenger rail projects, including those involving Amtrak. States and MPO's could now use these funds to support intercity passenger rail service, including high speed rail service, by purchasing equipment, or constructing or improving rail lines, stations or related facilities. States may operate the services directly or under contract with private providers or Amtrak. Direct support of operating costs would remain prohibited.

All rail projects, including high speed rail, continue to be eligible under the Congestion Mitigation and Air Quality Improvement (CMAQ) Program. As long as projects contribute to meeting a non-attainment area's air quality goals, any transportation project would be eligible for CMAQ funding. NEXTEA would provide significant funding increases for CMAQ, allowing states and MPO's more resources to support innovative projects. The Section 130 Grade Crossing Program would be retained, and grade crossing projects would remain eligible under several other programs. Recent changes that allow payments for grade crossing closings would be retained. Educational programs and safety improvements for private crossings could be funded.

Grade separations, clearance improvements, and rail relocations would remain eligible under various FHWA programs.

Intermodal Terminals: Publicly owned terminals could be built using NHS funds as long as the terminal is located at or adjacent to NHS routes or connections—the project need not be constructed in a non-attainment area.

State Infrastructure Banks would be permitted in all states: With additional funding available for "SIB's," and the expanded eligibility described above, this program could provide substantial benefits to high speed rail projects.

The Infrastructure Credit Enhancement Program would be created, offering credit support for major projects. This program, available to projects approved by the Secretary, would offer credit support for major capital projects of national significance. Projects selected would have to have an overall cost of $100 million and generate benefits in more than one state. For each selected project, NEXTEA would establish a fund to reimburse creditors to the extent of the fund (federal share limited to 20 percent of project cost), in the event that project revenues were inadequate. This enhancement, (which would not be a federal guarantee, leaving the project eligible for tax-exempt financing) should enable project sponsors to secure funds at a lower interest cost. Both public or public-private partnerships projects would be eligible (e.g. a high speed rail project where states award a franchise to a private firm could be eligible.)

TRB RECOMMENDATIONS ON HSR

Question. Please provide a listing of the March 1997 TRB recommendations for improving HSR. Also provide a detailed explanation of how FRA is responding to each of the recommendations.

Answer.

FRA Comments on specific TRB committee recommendations

"R1. The (TRB) Committee recommends that FRA staff develop a timetable for the evolution to a performance-oriented regulatory approach. One aspect of such an approach would be requiring a "system safety plan. To accommodate administrative and institutional factors, this evolution could follow two paths—one for dedicated operations and one for mixed passenger and freight operations."

It is not clear how a specific timetable for evolution to a performance-oriented regulatory approach would speed the evolutionary process. FRA is already involved in the development of performance standards in several contexts. Creating the climate for performance-oriented regulation requires building confidence among critical constituent groups. In addition, it is essential that any new regulatory approach considered by FRA provides a constructive means of engaging the railroads. This can best be accomplished by developing performance standards that address discrete areas

of concern, implementing those standards successfully, and moving toward more flexible approaches as experience is acquired. The Railroad Safety Advisory Committee (RSAC) and other collaborative rulemaking forums provide venues for moving this evolution forward at a pace that is realistic in light of available technical knowledge and all relevant externalities.

As the TRB Committee recognizes, FRA is subject to a significant list of legislative mandates requiring specific types of technology and practice. FRA is not at liberty to set these priorities aside in favor of a top-to-bottom rewrite of its regulations. System safety planning and risk analysis are important tools and are increasingly critical as technology presents new challenges. However, safety is earned through daily, sustained effort across a broad front of activities. There is no experience of which we are aware that would warrant wholesale abandonment of safety strategies that work. Prescriptive regulations work well in some contexts without inhibiting innovation (e.g., specific operating rules and restrictions on alcohol/drug use), and some performance standards prove difficult to enforce over time (e.g., verifying the current functioning of high temperature thermal protection for tank cars). Rather, a process of transition and growth must be initiated and tended at whatever pace it can be appropriately sustained.

However, the charge of the TRB Committee relates specifically to high-speed rail service. The field of high-speed rail is one in which FRA has been most aggressive in utilizing system safety and risk assessment techniques to fashion a regulatory approach. The High Speed Ground Transportation research series, produced by the Volpe National Transportation Systems Center, has initiated this process. Our forthcoming notices of proposed rulemaking for passenger equipment safety and for the Florida Overland Express strongly emphasize system safety planning. FRA believes that this effort can provide the beginning of a template for dedicated operations, as the TRB Committee suggests. However, the simplicity contemplated by the supplementary discussion provided by the TRB Committee is far from the reality confronted by a regulatory agency in evaluating an entirely new service. Benchmark criteria are needed for systems, subsystems and critical components in order to evaluate the nature and magnitude of technical risk before system risk can be fairly estimated.

The complexity of the effort is certainly no reason not to implement the system safety concept. Commuter railroads and Amtrak have agreed to undertake broad system safety planning efforts in consultation with FRA. However, system safety is a process and discipline that must be internalized by the entity actually operating the service. Prior audits of entities that have prepared system safety plans have sometimes found that planning documents have become stale and were not well integrated into the actual operation of the service. FRA seeks to foster meaningful system safety planning that becomes an essential element in the way the system is actually operated. To the extent this safety focus is established and maintained, reinforcement can be provided through allowance for much greater flexibility with respect to the manner in which safety objectives are achieved. Arriving at this state of maturity will not come quickly, and it cannot be forced through an administrative timetable.

"R2. The (TRB) Committee also recommends that, as part of a plan for the evolution to a performance-oriented regulatory process, the Office of R&D, in conjunction with the Office of Safety, conduct research on management of the safety regulatory process in order to establish a framework for the transition. (In its December 30, 1996 letter report, the (TRB) Committee listed "safety regulatory processes" as an appropriate subject for future research.) * * *"

The regulatory process itself has been the subject of extensive scholarship, including highly focused work by the former Administrative Conference of the United States. With respect to railroad safety regulation specifically, FRA is scrutinized daily by the National Transportation Safety Board (NTSB), the Office of the Inspector General, the General Accounting Office, various offices within the Office of the Secretary of Transportation, congressional committees, and the full range of external agency customers. FRA rulemakings are subject to Executive Branch and Departmental review and clearance procedures that are identical to those employed for the Federal Aviation Administration, the National Highway Traffic Safety Administration and other DOT agencies. The issues and challenges regarding the manner in which regulations are crafted can be clearly discerned by those who spend time working within the process, though the appropriate way of resolving many of these will remain in dispute.

The TRB Committee's emphasis on risk assessment and system safety is a refreshing counterweight to the understandable and inevitable focus that FRA, NTSB, and industry parties maintain during deliberations on individual safety issues. FRA will share the TRB Committee's views with the RSAC.

"R3. The (TRB) Committee recommends that FRA's approach target performance goals at a higher level of system concept design, rather than at the component level, to provide more flexibility and opportunities for innovation * * *"

FRA agrees in concept; however, component standards, in addition, may still be needed in many cases. For example, a standard for wheel/rail interaction is optimal if there is just one wheel design using the track. Since there are many, the rail specification may need to reflect "worst case."

The proposed high-speed track standards discussed with the TRB Committee feature performance standards for wheel/rail interaction, which are based on extensive research and experience internationally. FRA does not specify wheel metallurgy, wheel profile, rail head profile, truck design, etc. That same document, however, addresses other issues in a more directive manner. Gage and other geometry constants are provided so that a variety of equipment manufacturers will know how to achieve the desired wheel/rail interaction. Other component standards have been proposed where constituent groups engaged in the RSAC negotiation felt that they were necessary (and railroad representatives assented) or where use of performance criteria would really be impractical. Many benefits flow from this pragmatic approach.

In virtually all areas of regulation, further research will certainly be appropriate to broaden our knowledge base so that we can more confidently fashion performance standards (e.g., research into the thermal tolerances of wheels and discs), but where this learning is not available, more traditional standards will have to serve.

"R4. Risk assessment capability is the key to establishing performance-oriented regulations, and FRA has begun to explore risk assessment methodologies. The committee recommends that those efforts continue."

Risk assessment is certainly the key to establishing performance-oriented regulations, and FRA foresees increasing use of this technique in the future. However, critical inputs to risk assessments must be sound. Where insufficient empirically-derived data are available as inputs, endeavoring to conduct a quantitative risk assessment may actually increase the chance that flawed assumptions will not be recognized. Accordingly, risk assessment should only be employed when sufficient valid and current data are available to ensure the objectivity of the inquiry.

TRB Recommendations regarding the next generation HSR program

"R5. To accomplish *any* of the (NGHSR) program goals at the available funding levels, it is necessary to focus on a smaller number of objectives and projects, and the (TRB) Committee therefore recommends that the focus of the program shift accordingly. Specifically * * *

"The (TRB) Committee recommends that in the development of positive train control, the number of corridors where demonstrations are under way or planned be reduced."

FRA agrees that the program should focus on core projects. In particular, we have two corridor demonstrations of train control (Michigan and Illinois). The Pacific NW train control project receives minimum financial aid from FRA except for earmarked infrastructure improvement projects; but, we will learn a lot from the project. In the Next Generation program, FRA is not proposing that demonstrations be conducted on additional corridors.

R5 continued: "The flywheel project, viewed as long-term research, may not produce usable results in the near term and should be terminated. FRA should, however, stay up to date on flywheel research being conducted for other modes to determine whether this technology may become a viable option for use in locomotives."

FRA agrees that the flywheel project, which has the potential for substantially enhancing locomotive performance, may have a longer term delivery than other projects in the program and its development risks may be greater. Existing non-electric locomotives have a speed range of 79 to 110 mph; and, once such locomotives approach 100 mph, they however, have little available power for acceleration. The TRB Committee acknowledged that "even though existing equipment is capable of speeds up to 110 mph, in practical use the maximum speed is limited to about 95–100 mph." FRA believes that the flywheel project risk is justified by the magnitude of the potential performance improvement.

R5 continued: "The grade-crossing effort should be focused on the practical, low-cost and low-tech risk-reduction technologies being applied in North Carolina's "sealed corridor" approach (see Annex B), rather than on more expensive technologies being considered elsewhere (e.g., the "arrester net" project planned in Illinois)."

FRA agrees that the practical, low-cost, low-tech technologies are a highly valuable approach to the grade crossing problem, and we are vigorously pursuing that approach. Nonetheless, we believe that the Next Generation program is an appro-

priate place to demonstrate and test state proposals for innovative technology in arrestor nets and other technology approaches.

R6. "The state-focused program being pursued by FRA is not producing generic technologies for the wider-scale adoption of incremental HSR. In each program area, major projects either have been canceled, have limited application to one state, or have been interrupted by freight railroad mergers that have put project implementation in doubt (see Annex B). The (TRB) Committee recommends that the limited available funds be focused on projects with the greatest potential for widespread applicability. To this end, the (TRB) Committee believes the appropriate investment would be in train control technology."

"For the fiscal year 1998 program, funds allocated to locomotive development and funds available from reprogramming the canceled lightweight diesel project could be reallocated to this area. Locomotive technology for the speed range of 79 to 110 mph already exists to satisfy the needs of many states for incremental high-speed operation. However, positive train control technology is not available, and this is a critical constraint. Development of appropriate technology must meet two conditions: (1) it must be affordable for freight rail operations, and (2) it must be compatible with existing equipment."

The "Next Generation" is primarily a demonstration program. The advantages of having a partner that is invested in eventual implementation outweigh the advantages of direct FRA management of each project. Even with the increased coordination it carries, good progress is being made across the board in the Next Generation program, which has been in existence for only 30 months. FRA acknowledges that demonstrations have some risk; not all will succeed. Successful deployment of incremental high-speed rail will involve multi-faceted participation from states, passenger and freight railroads, suppliers, unions, and FRA. The demonstration programs underway have acknowledged this fact and obtained involvement from all relevant participants. A GPS based train control demonstration has been tested at 100 mph in Michigan, the upgraded Turboliner is running at 110–125 mph in New York, and a "sealed corridor" grade crossing demonstration is taking place in North Carolina. These projects have widespread applicability. The program areas are all crucial for the states to succeed in implementing incremental high-speed rail.

"R7. The (TRB) Committee believes FRA's most effective role in the development of positive train control technology would be in research that would foster the development of reliable safety-critical software by ensuring that the algorithms used in advanced train control systems are sound. These algorithms should address the problem of train separation by treating it as a problem in resource allocation, where the track is the resource being allocated to the users (e.g., freight and passenger trains, maintenance crews). Such algorithms are universal and have generic application. This effort might lead to actual development of software and/or to the development of methods for validating the safety-critical performance of the software."

FRA agrees that an effective role for FRA in positive train control would be in developing safety-critical software. Indeed our proposed "moveable block" activity in fiscal year 1998 would include some of this development. However, the development of "generic" algorithms and software is best pursued in the context of a cooperative demonstration program among freight and passenger railroads and suppliers, with FRA as a necessary catalyst.

"R8. The (TRB) Committee recommends that FRA strengthen its program management capabilities to speed up and better control the individual projects."

FRA agrees. We have taken steps to improve on our management capabilities within overall staffing level constraints.

"R9. The (TRB) Committee recommends that the R&D program and the NGHSR demonstration program be more tightly and explicitly linked together. NGHSR could also be more closely linked with the Commercial Feasibility Study, which points out the importance of advances in train control technologies to permit the mixing of high-speed passenger with freight operations."

FRA believes that our three high-speed rail activities: R&D, NGHSR Demonstration, and Planning/Outreach, are already well linked among themselves and with our Safety regulatory activities. Nevertheless, we would appreciate any suggestions the TRB Committee may have for improving the linkages.

NEXT GENERATION HIGH-SPEED RAIL

Question. Have any States applied under the State Infrastructure Bank program for a HSR corridor project?

Answer. At this time, no States have applied for a HSR corridor project under the State Infrastructure Bank program.

Question. If the final version of NEXTEA does not allow the flexibility that FRA is seeking in terms of allowing states to use STP and other funds for HSR, will FRA need some flexibility to use NGHSR funds to promote planning and associated activities?

Answer: Yes.

LINKAGE OF R&D AND NGHSR

Question. What steps can FRA take to ensure that the research and development program and the NGHSR demonstration programs be more closely and explicitly linked together?

Answer. FRA concurred with the TRB recommendation that the R&D program and the NGHSR demonstration program be more closely linked. A number of steps have been implemented to improve coordination among R&D and the various elements of the high-speed rail program. The Office of Research & Development pursues research activities in high-speed rail an acts as a resource in technical issues for the Office of Passenger & Freight Services, which has the responsibility of implementing the NGHSR demonstration program. The latter office is also closely linked to State sponsors of demonstration projects and high-speed rail corridor implementation programs and thus plays a pivotal role in bringing the R&D results "to market" through the NGHSR demonstration program. Two senior executives, reporting directly to the Associate Administrator, link and coordinate the NGHSR & R&D activities. In addition, the five year strategic plan explicitly addresses both research and technology demonstration activities, as well as the rail safety work that takes place through the Office of Research & Development and NGHSR.

Question. In fiscal year 1997, the appropriated NGHSR program funding level of $24,757,000 was augmented by $1,420,882 in carryover authority. How much carryover is anticipated in fiscal year 1998?

Answer. The $1,420,882 was the amount remaining to be spent from the Highway Trust Fund as provided for high speed rail demonstrations in ISTEA Section 1036c. Congress rescinded authority for this purpose which otherwise would have been provided in fiscal year 1997. The $1,420,882 will be obligated in fiscal year 1997 and no Trust Fund authority will carryover into fiscal year 1998 in the Next Generation program.

RESULTS OF CFS

Question. In 1996, the Federal Railroad Administration issued the Executive Summary of "High-Speed Ground Transportation for America." Known informally as the Commercial Feasibility Study (CFS), this study analyzed the costs and benefits of achieving several thresholds of increased speed on several rail corridors. Please describe the emerging high-speed rail policy issues that have come forth as a result of the CFS. How are these policy issues reflected in the fiscal year 1998 request?

Answer. The CFS demonstrated that in a number of regions of the country, "Accelerail" solutions—upgraded intercity rail passenger services utilizing existing track in cooperation with the freight railroads—may offer the most cost-effective way to provide high-speed ground transportation. This conclusion raises the key question: how can the Federal Government—with its limited discretionary resources that must be conserved for efforts of truly national significance—best support Accelerail implementation? Given the inability of many States to effect Accelerail due to its initial investment threshold requirements, the Department has concluded that Federal efforts would best be focused on developing and demonstrating existing technologies that would materially reduce the capital cost of Accelerail in diverse locations. These promising technologies include: wireless, computer-based train control (allowing higher speeds at lower cost than typical track circuit-based signaling systems); high-speed, non-electric locomotives, offering excellent acceleration without the need to install capital-intensive overhead electric wires and supporting systems; highway/rail grade crossing safety enhancements, reducing risks to occupants of motor vehicles and trains; and more cost-effective means of upgrading and maintaining track for high-speed service. The lion's share of the Next-Generation High-Speed Rail Program, as requested in the fiscal year 1998 Budget, would go toward these four critical technology areas, thus maximizing the benefits of Federal involvement in this promising, but as yet largely unfulfilled, mode of transportation.

COST BENEFITS OF HSR PROJECTS

Question. The CFS identifies projects as having partnership potential when total benefits exceed total costs, and when revenues are sufficient to cover operating costs and continuing investments. However, a majority of total benefits accrue only to users of the systems, and in most cases, each dollar of public investment returns

less than one dollar of public benefits. Is it appropriate for the public at large to find such projects?

Answer. Some additional background is necessary to place the question in context. First, although a majority of "total benefits" (as defined in the CFS) accrue to users, those same users fully pay for a significant portion of their benefits through farebox revenues. When we subtract those benefits for which users pay fully, we find that in several corridors, 50 percent or more of the benefits actually accrue to the public at large. Second, in a number of cases, each dollar of public investment returns much more than a dollar of public benefits: the ratio of public benefits to public costs reaches 2:1, or even 3:1, in regions as diverse as California, the Chicago Hub, the Pacific Northwest, and Texas. Finally, specific States may choose to recognize in their analyses a whole category of public benefits—economic development and job impacts from high-speed rail construction and operation—that the CFS ignored because they might not benefit the Nation as a whole. When we take these three factors into account, we can appreciate that in several States the perceived return to the public on the public's investment in high-speed rail may well exceed the estimates contained in the CFS.

Nevertheless, as your question indicates, the CFS indeed reports on many cases in which the majority of benefits accrue to users. We consider it entirely appropriate for the public to consider partial funding of such cases because transportation benefits are primarily user benefits. They are typically the largest benefit component in the benefit/cost analysis used in project justification for a wide variety of projects including highways, airports, transit systems, canals, etc. Public funding, including Federal assistance, has for decades been associated with such projects. For example, a highway project is justified not according to whether the total additional gas tax collected exceeds the cost of the road, but rather according to what it is worth to users and non-users compared to the cost of the road. Applying the same total benefit/total cost criterion to high-speed rail projects makes sense as a preliminary screening device, as the CFS has done.

PUBLIC FUNDING OF HSR

Question. The General Accounting Office (GAO) reported in 1993 that the federal government is the only public entity capable of funding much of the construction cost of HSGT systems. What portion of the public cost would the federal government be expected to bear?

Answer. We do not believe that the Federal Government is the only public entity capable of funding high-speed rail systems. Many Accelerail options, for example, would have such low capital costs and such favorable operating economics as to make them suitable candidates for State/private partnerships, provided that the State sets a sufficient priority on their implementation. Furthermore, some States may have sufficient resources and will to finance large portions of the cost of New HSR and Maglev systems as well.

Clearly, however, cases would exist for which Federal funding would be indispensable. For administrative convenience, uniform matching ratios are typically established such as 80/20 Federal/State-Local for all surface transportation projects, with some exceptions. By making high speed ground transportation projects eligible for STP funding, for example, we would extend that general matching ratio to high speed ground transportation. However, in particular instances, the Federal Government might be expected to pay more to the extent that the project benefits the nation as a whole, or the benefits transcend State boundaries, or the project responds effectively to national goals.

USEFUL LIFE ESTIMATES

Question. The CFS used a 40-year time frame for considering project costs and benefits, which include the continuing investments required over this period to maintain, replace, and expand the infrastructure. Are there significant capital replacement costs associated with infrastructure components whose useful life is greater than 40 years? If so, do the CFS projections include set-asides for these future funding requirements? Is an additional public investment expected at some point after 40 years as the infrastructure requires major replacements?

Answer. Of course, long-lived items like concrete ties and rail would ultimately require replacement and consequently additional public expenditures after the end of the 40-year cycle. The projections do not include set-asides for these because (1) their impact on the analysis would be relatively small (the present value of one dollar spent 40 years from now at 10 percent discount rate is about two cents) and (2) to fairly assess the period beyond 2040 would also require estimates of revenues,

operating expenses, and operating surpluses, which would likely counterbalance the effect of the future continuing investments.

HSR PROJECTS—PLANNED VS ACTUAL COSTS

Question. Large projects such as these tend to substantially exceed their original construction cost estimates. The CFS includes contingencies for such increases at the rate of 30 percent for the more modest technology options, and 41 percent for new high-speed rail and Maglev options. How were these numbers determined? How do they compare with final vs. Planned costs for recent rail (or other public works) projects in these corridors?

Answer. Our engineers developed these numbers based on their informed judgment and experience with engineering components of the types envisioned in the commercial feasibility study (CFS), as well as public transit and highway projects. Standard practice in engineering cost estimation is to use a higher contingency factor in the preliminary phases of project planning and to reduce the factor as the design becomes more detailed.

CFS cost estimates utilize engineering cost databases that are updated using recently completed projects and thus the costs of key materials and components (e.g., bridges, rail, electrical systems, and tunnels) necessarily reflect the current cost structure. Retrospective studies of "final" versus "planned" costs for similar work (feasibility studies, preliminary engineering, final design, construction) typically yields a series of "planned" costs as the projects become more fully designed. Typically, the project scope changes, so that the costs projected in the feasibility studies are not comparable with the actual completed costs. FRA has no comparable corridor upgrading projects for the more modest options (the Northeast Corridor, with its density of traffic and hundreds of daily commuter trains, is unique), nor does FRA have any new high-speed rail or Maglev projects completed in this country. Cost overruns can occur in projects for any mode of transportation—highway and airport as well as transit and railroad.

FRA can adduce, as recent specific examples, two passenger railroad-related projects that have progressed from a preliminary design level to final design and have been under construction for about the last five years. These two examples illustrate the difference between the preliminary construction cost estimates, with an allowance of 15 percent contingency factor, and the final estimates in each case. These two cases show some variance (plus and minus), but they are typical of well-estimated projects.

NJ Transit Dover and Port Morris storage yard facility

Preliminary estimate including 15 percent contingency	$12,315,000
Final estimate including no contingency	12,756,000
Variance	441,000
	or +3.5%

NJ Transit Morrisville Storage Yard Facility

Preliminary estimate including 15 percent contingency	$15,276,000
Final estimate including no contingency	14,641,000
Variance	(635,000)
	−4.1%

The FRA considers its capital cost estimates to possess a level of accuracy that is sufficient for the purpose of the CFS—to gauge the comparative partnership potential of a spectrum of high-speed rail and maglev projects in a series of illustrative corridors. The States and their public and private partners will need to conduct detailed feasibility, preliminary engineering, and environmental studies for individual corridor projects. Such further studies, including capital costs on a much more site-specific basis than was possible in the CFS, will be prerequisite to any financing and implementation decisions for future corridor projects.

HSR RIDERSHIP FORECASTING

Question. In 1993, GAO reported that HSGT ridership forecasting is more of an art than a science because many of the databases needed do not exist. Has the situation changed since 1993? How does the CFS account for the fact that ridership forecasting is difficult?

Answer. The GAO's statement should perhaps be restated to say that ridership forecasting is more art than science when the data bases do not exist. In fact, one can spend money on market studies geared to specific corridors in order to create specific data bases. There are two types of data bases that are important:

(1) Data on how many persons use different modes of travel between pairs of zones for different trip purposes.

(2) Behavioral data on what percentage of these people would use a new high speed system, depending on the relative trip time, convenience, and price.

Data of type (1) are expensive to collect for individual markets, particularly for automobile travel. We expect a major breakthrough upon publication this year of a nationwide survey of intercity personal travel known as the American Travel Survey sponsored by the Bureau of Transportation Statistics in 1995. Even so, these data must be supplemented by more detailed surveys of selected markets.

Behavioral data of type (2) have become available in data bases applicable to several markets and can be adapted to specific markets based on demographics.

The CFS did not claim that it could produce the accuracy of projections that could be made through these more detailed surveys for any specific corridor. However, its data sources were broad based and its methods consistent across all markets—as appropriate for an objective study designed to draw broad conclusions across many corridors and many forms of high speed ground transportation.

Question. Please prepare a table indicating separately the status, problems, and challenges faced, and the fiscal year 1996, fiscal year 1997, and planned fiscal year 1998 FRA investments made in developing high-speed non-electric locomotive technologies. Please include information on each major FRA project in this area.

Answer. The table follows.

[Dollars in millions]

Project	Fiscal years—			Status 6/97	Problems, challenges
	Federal funds 1996	Federal funds 1997	Federal funds proposed 1998		
Advanced Locomotive Propulsion System (ALPS—Flywheel).	[1] $1.728	$2	$2	Spin testing of rotor components has begun.	High-speed generator needed more development than anticipated to adapt from prior planned DOD application.
Locomotive Integration	.....	.....	6	Project phase will start with fiscal year 1998 funding; manufacturers GM-EMD, Bombardier, plus NYSDOT have expressed strong interest.	Must select suitable demo. platform.
NY Turboliner 3 Upgrades	6	4	.....	First $6M will be under contract 8/97	NYSDOT seeking $20–$40M additional financing to upgrade all 7 RTL trainsets.
Test Track Upgrade	3	3	.....	Nearing completion on schedule	None.

[1] Funded from R&D Appropriation in fiscal year 1996.

FOCUS OF HSR LOCOMOTIVE PROGRAM

Question. Where does FRA believe the focus of the non-electric HSR locomotive program should be now?

Answer. The goal of the non-electric locomotive program remains unchanged; that is, the development of a non-electric locomotive with the acceleration and peak speeds of current NEC electric locomotives but without the inefficiencies and environmental concerns of earlier non-electric locomotives. Within this overall goal, the primary focus of the program today is facilitating the development of a commercially viable locomotive with enhanced capabilities in these areas in the short term to meet the needs of service on intercity corridors that are the subject of State-sponsored incremental high-speed improvements. As examples, Washington has ordered new passenger cars for the Pacific Northwest corridor and North Carolina and Illinois will soon be in the market for equipment on their corridors. However, as of now, the performance of this equipment is limited by the currently available diesel-electric locomotives.

NON-ELECTRIC LOCOMOTIVE DESIGNS

Question. How is the non-electric locomotive program developing a consensus about a common design that could serve several markets and generate sufficient demand? How do the States influence this development?

Answer. FRA will work with teams seeking to demonstrate alternatives for faster, non-electric locomotives. FRA will host quarterly technical sessions between each of the teams and high speed corridor states to discuss performance targets and progress. The project teams and FRA will respond to state questions on timing of availability and performance. As the initial project stages are completed, FRA will initiate a specific outreach project element to attain maximum utility and commonality for the ultimate locomotive test platform.

INVESTMENT IN HSR LOCOMOTIVES

Question. What level of demand for HSR locomotives would be needed to create an incentive for potential manufacturers to invest? Could joint ventures among manufacturers be used to reduce risk and development expenses?

Answer. The willingness of a prospective manufacturer to invest in development of a new high-speed locomotive is dependent on the size of the market, on the manufacturer's production costs, and on the price the manufacturer can charge. A manufacturer has to see a way to recover its development costs and still earn a profit as great as it could earn by investing the same sum of money. The manufacturer's production costs will vary according to the degree to which the new product can be adapted from, or has components in common with, the manufacturer's existing product lines so that production costs for the new design can be shared with other production efforts.

The history most relevant to this subject is the acquisition of Amtrak's order for 150-mph, high technology electric trainsets for the Northeast Corridor. The proposed purchase attracted substantial interest at quantities of 18 trainsets, requiring 36 locomotives once the decision was made that a power car/locomotive would be required at each end of each trainset. However, all the prospective bidders were associated with consortia in which the cost of locomotives was included in an overall trainset purchase price, and the technology being offered was largely to be adapted from units in European service. FRA can not state a specific estimate of demand because the circumstances of each manufacturer, such as product development already planned or underway, are highly proprietary activities—areas in which FRA has no information.

COST SHARE OF NON-ELECTRIC LOCOMOTIVES

Question. What is the status of cost sharing efforts to advance non-electric high-speed locomotives? Please specify amount received for cost sharing for each project.

Answer. The New York State DOT (NYSDOT) turboliner upgrade project is matching Federal contributions on a dollar-for-dollar basis. After 1997 funds are obligated, FRA and NYSDOT will each have funded $10 million, for a project total available funding of $20 million. The Advanced Locomotive Propulsion System Project is being conducted through a Defense Advanced Research Projects Agency (DARPA) program which requires 50–50 matching.

TECHNICAL CHALLENGE OF NON-ELECTRIC LOCOMOTIVES

Question. What are the remaining technical challenges in developing non-electric high-speed locomotives?

Answer. The core technical challenge of achieving a practical high-speed non-electric locomotive is to achieve very high self-contained power levels at relatively light weights. Making such advanced designs work on a daily basis, in quantity, in the railroad environment are the heart of the remaining technical challenges.

LIGHTWEIGHT DIESEL PROJECT

Question. How much money for the lightweight diesel high-speed diesel project has not been obligated, and could be reprogrammed? When will this occur?

Answer. By cooperative agreement, and resulting from a competitive award under a broad agency announcement, FRA obligated a total of $2,000,000 of fiscal year 1995 non-electric locomotive funding to New York State DOT for the lightweight high-speed diesel project. In 1996, NYSDOT awarded the funding by contract to Republic Locomotive of South Carolina. Republic was unable to execute the project, and the contract between NYSDOT and Republic was terminated after total costs of about $250,000 were incurred. NYSDOT must close out the Republic contract to make the remaining funding of approximately $1,750,000 again available. In keeping with the original appropriation, FRA and NYSDOT propose to redirect the funding to the ongoing Advanced Locomotive Propulsion System (ALPS) project at the University of Texas (UT), via contract between NYSDOT and UT. This action is expected to be completed within fiscal year 1997.

NY TURBOLINER TRAIN

Question. How much of the fiscal year 1997 monies will be allocated to upgrade the NY turbo-liner trains? Will fiscal year 1998 monies also be used? If so, how much?

Answer. FRA will obligate $4,000,000 of fiscal year 1997 NGHSR funds to NYSDOT for turboliner upgrades, as directed by the Committees in the 1997 Appropriations Act. This will be added to the $6,000,000 of NGHSR funding provided in fiscal year 1996, and NYSDOT will provide $10,000,000 of state funds to match the FRA funds to provide a total of $20,000,000 to be applied to the performance enhancement and refurbishment of the seven turboliner trainsets. NYSDOT has not sought additional funding for this upgrade program from FRA.

However, the turboliner power car is a candidate platform under consideration for installation and demonstration of the turbine-electric and flywheel energy storage technologies. If the turboliner platform is selected for the ALPS demonstration, a portion of the requested fiscal year 1998 non-electric locomotive funding might be directed to NYSDOT.

FLYWHEEL PROJECT

Question. How many additional years will be required to complete work on the flywheel project? How much will this likely cost? Please provide costs for both development and large-scale testing. What is the likelihood of this technology will be commercialized? What is the status of this project, and what are the planned activities for fiscal year 1998? How much is requested for fiscal year 1998, and how much was spent in prior years? What is the cost sharing arrangement for this project?

Answer. The flywheel project will require at least three additional years through 1998, 1999, and 2000. The flywheel energy storage battery system is expected to cost a total of $9,000,000 including demonstration testing in conjunction with a prototype locomotive. Locomotive manufacturers have shown interest in the potential of flywheel energy storage for railroad use, so commercialization prospects for this technology appear to be possible.

With regard to project status, an initial spin test of a one-third scale flywheel rotor has been completed. In this test, the rotor reached over 39,000 rpm at which its surface was traveling over 2,000 mph. This testing validated rotor design performance in excess of 90 percent of project goals, with further testing to full performance levels scheduled for July and August, 1997. Construction of full-scale flywheel components is underway with initial full-scale tests planned for early fiscal year 1998. Design modifications to adapt the DOD-sponsored high-speed high-power generator are nearing completion. fiscal year 1998 activities will include construction and delivery of the prototype motor/generator for testing with the flywheel, construction of power electronics for the flywheel and turboalternator, and construction of a second full-scale flywheel for safety testing. Integration activities into a prototype commercial locomotive will begin. The following table details spending on the flywheel project:

[In thousands of dollars]

Fiscal year	*Amount*
1995 actual	800
1996 actual	1,728
1997 actual	2,000
1998 request	2,000
Total	6,528

FRA's fiscal year 1998 request for the flywheel is $2,000,000. As shown, through fiscal year 1997, $4,528,000 has been obligated for this project. The cost-sharing arrangement for this project is 50/50.

TIER 2 CAR CONSTRUCTION STANDARDS

Question. Would FRA support a non-electric HSR locomotive project that utilized technology meeting the "tier 2" (126–160 mph) car construction standards? Which current locomotive projects are being designed to these standards?

The energy-absorption capability (crashworthiness) which will be built into equipment to meet the forthcoming "tier 2" standards provides clear safety benefits for passengers and crew, not only in train-train collisions, but also during grade crossing collisions and derailments from any cause. Equipment which successfully meets "tier 2" for operation at very high speeds will also likely be of lightweight construction, to minimize acceleration times and energy consumption. These features make equipment meeting "tier 2" highly desirable for use as part of any high-speed self-propelled locomotive demonstration whether on existing corridors or on dedicated right-of-way, provided the equipment is available at reasonable cost.

The power cars for the Amtrak American Flyer trainsets are being constructed to a design which is likely to meet the forthcoming "tier 2" requirements. FRA is not aware of any other equipment presently existing or under construction which is likely to meet the "tier 2" requirements, in North America or in any other part of the world.

TRAIN CONTROL SYSTEM

Question. Please prepare a table indicating separately the status, problems and challenges faced, and the fiscal year 1996, fiscal year 1997, and planned fiscal year 1998 FRA investments made in developing high-speed train control systems. Please include information on each major FRA project in this program.

Answer. The table follows.

[Dollars in millions]

Project	Fiscal years— Federal funds 1996	Federal funds 1997	Federal funds proposed 1998	Status 6/97	Problems, challenges
Michigan DOT/Amtrak Incremental Train Control (ITCS).	$3	$1	.....	Installation on 80 mile corridor segment continuing; revenue service expected mid-98.	Interoperability with other systems.
Illinois DOT High-Speed Positive Train Control (HSPTC).	6	.....	[1] $3.5	RFP for system integrator to be issued 9/97.	New test zone on METRA under plan resulting from UP/SP merger; interoperability.
Pacific NW BNSF/UP Positive Train Separation (PTS).	[2] 5	3	.....	Release 2 of 4 software releases now under test on each railroad; fiscal year 1997 funds planned for communications upgrade.	Railroads considering implementing PTC rather than PTS; location not certain after PTS tests are completed; interoperability.
Inter-operability demonstration	.....	.....	1.5	Plan is to achieve maximum commonality of FRA-sponsored systems.	Coordinate with freight industry initiatives.

[1] Candidate for flexible block demonstration.
[2] Funded in FRA R&D Safety of High Speed Ground Appropriation, not NGHSR.

TRAIN CONTROL/ITS TECHNOLOGIES

Question. What efforts have been made to link train control systems with ITS technologies? What contracts have been signed in this area? Please specify objectives and funding amounts of specific projects and indicate the status of each and progress to date.

Answer. Several projects, either directly funded by FRA or funded with FHWA funds, are now underway.

1. *Vehicle Proximity Alerting System* (VPAS).—The objective is to develop a method to alert priority vehicles (such as ambulances, police cars, fire engines, school buses, and hazmat trucks) of an approaching train at a highway/rail grade crossing. The challenge is to provide the warning only to priority vehicles approaching the crossing and not to other vehicles near the crossing but not headed towards it. This testing is required by ISTEA Section 1072 and is funded from FHWA ITS funds, and administered by FRA. Reliability testing of three VPAS prototype systems at the Transportation Technology Center (TTC), funded at $600,000, has been completed and the evaluation of the test results is underway by the Volpe Center. The second phase, funded at $400,000, will be field testing in an actual railroad corridor of those systems deemed reliable. The field testing will begin later in 1997. Two systems, a 3-point system from SmartStops Unlimited, Inc. (Which uses a transceiver on the locomotive, at the crossing, and a receiver in the vehicle) and a one-point system from Dynamic Vehicle Safety Systems (which uses a receiver in the vehicle which detects the Front/Rear End Device (FRED)) will be tested. Potential test locations are in Michigan, Minnesota, and Washington State.

2. *Incremental Train Control System* (ITCS).—A portion of the Incremental Train Control System (ITCS) being implemented in the Detroit to Chicago corridor by Michigan State Department of Transportation and Amtrak is developing technologies for ITS and railroad use. This will allow an ITCS-equipped high speed train and the grade crossing warning systems to communicate so that the crossing equipment will provide the required twenty-second warning time without the need for expensive track circuits to be installed. The Federal funding for the ITCS system, so far, has been $6.08 million in fiscal year 1995 and $3 million in fiscal year 1996. Michigan and Amtrak have provided approximately $12.6 million. An additional $1.0 million from FRA may be awarded in fiscal year 1997.

3. *Long Island Railroad/GRS Atlas project*.—General Railway Signal's ATLAS train control technology is being linked to three crossings in the Long Island Rail Road system in heavily congested Queens Borough, New York City. This technology will allow uniform time warnings to roadway motorists, eliminate unnecessary gate down time if a train is stopped at a station near a crossing but not blocking it (the gates will stay up, allowing traffic to proceed; only when the train is ready to depart will the engineer activate the crossing warning devices), detect and report stalled highway vehicles in the crossing, mitigate traffic congestion through intelligent control of highway traffic signals in the immediate streets nearby to direct traffic around blocked crossings, detect the arrival of emergency/priority highway vehicles that require safe passage through the grade crossing, and monitor the health of crossing equipment. The FHWA is providing $7.625 million in ITS funds for this project ($2.625 million fiscal year 1995, $1.25 million fiscal year 1996, $2 million fiscal year 1997 and $1.75 million from the reprogramming of a Mineola grade crossing demonstration). GRS is contributing $3.175 million, for a total project cost of $10.8 million.

4. *Texas Transportation Institute/Washington State DOT*.—The Texas Transportation Institute (TTI) is working with the Washington State DOT and the Union Pacific and Burlington Northern Santa Fe railroads in developing the Positive Train Separation system. Part of PTS development involves examining techniques for connecting the train control system to the grade crossing warning system. In fiscal year 1995, Washington State DOT was awarded $1 million from the Section 1010 program to examine seven techniques for improving safety at grade crossings in the high-speed corridor. Two of the areas to be examined are VPAS systems and integrating the train control system and grade crossing warning system with the local advanced traffic management systems being developed by ITS. Linking the local traffic management system to the grade crossing warning system could be especially useful in preventing through or turning moments to the grade crossing to aggravate any backups that occur when a train blocks a crossing, and alternative signing could be used to direct traffic around a blocked crossing.

POSITIVE TRAIN CONTROL SYSTEMS

Question. Please provide an update on what progress has been made by the railroads in installing positive train control systems. What has been done since last year, and how many of the major railroads have installed these systems?

Answer. Testing of the positive train separation project (PTS) by UPRR and BNSF in the Pacific North West continues; tests of "Release 2" of expected 4 releases will be conducted in June, 1997, to verify differential GPS automatic location capability and begin to verify "smart" braking. Testing is expected to be completed in early–1998, at which time equipment is to be removed from locomotives. UPRR and BNSF are considering next steps to more advanced demo or deployment systems.

The Incremental Train Control System (ITCS) has been tested on a 25-mile portion of the 80-mile Amtrak-owned corridor in Michigan in October, 1996, and hardware is now being manufactured for the remainder of the corridor. Revenue service at high speeds is expected to begin in mid-1998.

The joint CR/CSX/NS project started in mid-1997, and is targeted at creating an interoperable onboard platform. Arinc is their contractor, and testing of an equipped locomotive on the Harrisburg-Manassas corridor is expected in 1999.

The Alaska Railroad is in the process of selecting the contractor for a positive train control system to be installed on the entire 600-mile railroad. Phase 1, the implementation of a computer-assisted conflict tracking system, and Phase 2, the issuance of digital track warrants to trains and maintenance-of way crews, are being funded through a grant for $2.2 million from fiscal year 1997 FRA funds. Phase 3, the installation of on-board computers and GPS receivers on locomotives, and Phase 4, the provision for on-board enforcement of movement authorities, are scheduled to take place in 1998 and 1999.

PTCS—NON-FEDERAL FUNDING

Question. What is the anticipated level of non-federal spending for positive train control systems over the next three years? Please provide further explanation of the importance of these systems, and how appropriated funds will be used to further this development.

Answer. FRA does not know how much non-federal spending there will be for positive train control systems over the next three years. A spate of recent collisions is increasing the pressure from the NTSB, unions, and the Congress on railroads to install PTC and on FRA to require railroads to install PTC.

The Union Pacific Railroad is considering a sizable "initial implementation" of PTC on a major high-density corridor that would involve the equipping of several hundred locomotives. Their project could cost $50 million or more. However, they have not made their decision as yet.

Other railroads appear to be taking a "wait and see" attitude and so far have not indicated an interest in making more than token investments in the next couple of years. Only the Alaska Railroad has committed to installing PTC on their railroad, and their program is estimated to cost about $11 million.

FRA is considering the possibility of initiating a rulemaking later in 1997. Studies are underway to examine corridor safety risks as well as PTC business benefits, and these studies are scheduled for completion in August, 1997. What kind of regulation might result from the rulemaking, and what territories it might cover, are unknown at this time.

GRADE CROSSING HAZARD MITIGATION/INNOVATION TECHNOLOGIES

Question. Please prepare a table indicating separately the status, problems and challenges faced, and the fiscal year 1996, fiscal year 1997 and planned fiscal year 1998 FRA investments made in developing grade crossing hazard mitigation technologies. Please include information on each major FRA project in the program.

Answer. The status of the major projects in developing grade crossing mitigation technologies is presented in the table below.

[Dollars in thousands]

Project	Fiscal years—			Status 6/97	Problems, challenges
	Federal funds 1996	Federal funds 1997	Federal funds proposed 1998		
North Carolina Sealed Corridor	$750	$2,000	([1])	State is installing median barriers, 4-quad gates, long gate arms and beginning to close redundant crossings.	Coordination of construction with NCDOT highway section is time consuming. Closing crossings is not possible without an environmental assessment—time consuming and expensive.
New York Locked Gate at Private Crossings.	.....	215	$75	Grant awarded to NYSDOT. Review of barrier systems is complete.	Project just begun and on schedule.
TRB IDEA Program	500	500	500	Four awards have been made so far, with two more recommended, for innovative grade crossing hardware, such as a wide angle lens for viewing the entire crossing with one camera.	Program has proved very successful and is continuing to attract innovative submittals.
ITS Architecture Support	.....	100	100	User Service No. 30 completed. Grade crossing impacts now being incorporated in other user services..	No problems. Challenge will be adjusting other user services to incorporate grade crossing impacts and developing hardware compatible with ITS traffic control systems.

[1] Not yet determined.

GRADE CROSSING HAZARD MITIGATION/INNOVATION TECHNOLOGIES

Question. Please describe the differences in determining highway/railroad crossing safety standards for high-speed and non high-speed rail operations.

Answer. The current guidelines for highway/railroad grade crossings where train speeds are below 80 mph require warning devices—cross bucks, flashing lights, bells and gates—appropriate for the volume of motor vehicles that use the crossing.

Between 80 and 110 mph.—Eliminate redundant crossings; install the most sophisticated traffic control/warning devices compatible with the location (median barriers, special signing, four-quadrant gates); and automated devices should be equipped with constant warning time equipment.

Between 111 and 125 mph.—Protect the rail movement with full width barriers capable of absorbing the impact of a highway vehicle, including vehicle detection capability between the barriers. Notify approaching trains of warning device or barrier failure in sufficient time to stop short of the crossing.

Above 125 mph.—Close or grade separate all crossings.

The difference in the highway/railroad crossing safety standards for high-speed and non high-speed operations is due to the added danger to railroad passengers from the impact of the train with a large truck (concrete mixer, log hauler, gasoline tanker, etc.) or a derailment at high speed following an accident at the highway/railroad grade crossing. At conventional speeds, the cross bucks, flashing lights, bells and gates are considered warning devices because they cannot really protect the motor vehicle driver or the train. Derailments resulting from accidents at crossings are infrequent, and when there is a derailment the cars often remain upright. Injuries to passengers invariably are bumps and bruises. More serious injuries may be suffered by those passengers who are not seated at the time of the accident—those standing or moving through the cars. However, for high-speed operations, although the potential for accidents does not increase, the potential for more severe passenger injuries does increase due to the higher train speeds. To prevent more severe injuries, the additional requirements for crossing protection were developed.

Grade crossing hazard mitigation/innovation technologies

Question. Please discuss the full range of high-speed crossing technologies. Include a list of any current installations, and associated federal funding where appropriate (by fiscal year provided).

Answer. Several technologies for use at high-speed highway-rail crossings are being demonstrated, or will begin shortly:

Vehicle arresting barrier—Illinois

The state of Illinois will demonstrate an innovative arrestor net, the Vehicle Arresting Barrier (VAB), at three locations on the Chicago—St. Louis high-speed rail corridor. The VAB is similar to the nets used on aircraft carriers to stop planes in an emergency and is used today to provide protection at construction sites and draw bridges. In tests, the VAB has successfully stopped small vehicles, pickup trucks, and a fully loaded semitrailer (80,000 lbs) in 100 feet, six inches with minimal damage to the vehicles. The manufacturing contract was awarded to the Entwistle Company at a cost of just under $1.375 million for six units. Installation began in May, 1997 and is scheduled for completion in the Fall. Following a one year demonstration period, technical and human factors evaluations will be conducted.

Federal funding has been provided from the Section 1010 program of ISTEA. In fiscal year 1993 $950,000 was provided for development and testing, in fiscal year 1996 $1.5 million was provided for installation of the six units at three locations, and part of the $575,000 awarded in fiscal year 1997 will provide for video recording systems to monitor operation and motorists actions.

Four-quadrant gate with obstruction detection—Connecticut

Four quadrant gates are in operation on various crossings through the country. However, the State of Connecticut will demonstrate an advanced grade crossing warning system which will use four-quadrant gates with an obstacle detection system and a communication system to notify the locomotive engineer of an obstruction in adequate time for the train to be stopped. The location for this project is at the School Street at-grade crossing in Groton, Connecticut, milepost 131.50, on the Northeast Corridor. It is a two lane road protected now by gates, flashing lights and bells. It provides access to a residential area and three boat yards.

The original concept was based on the Swedish X2000 system technology and that grade crossing warning system is an integral part of the X2000 train control system. However, it proved infeasible for the Northeast Corridor. The state of Connecticut and Amtrak are planning for the installation of additional crossing gates and obstruction detection circuitry this summer and fall. The obstruction detection system

will be connected to the signal system to be installed as the segment between New Haven and Boston is electrified. These modifications will notify the locomotive engineer of an obstruction at the crossing. Once installed in the Spring 1998, the system will be tested for one year to measure its performance and to determine any refinements needed before such a system could be installed at other high-speed rail crossings.

The total project grant is $1 million. The Federal share is $800,000 from Section 1036(c) of ISTEA, and the $200,000 balance is provided by the State. The state has provided an additional $18,600 for civil engineering design work at the site, and will use approximately $100,000 from Federal Highway Administration funds to rebuild the crossing to eliminate a hump that now can cause boat trailers to get hung up on the crossing.

Sealed corridor initiative

The Sealed Corridor Initiative is a project to address the 130 grade crossings in the 92-mile Charlotte to Greensboro segment of North Carolina's proposed high speed rail corridor between Charlotte and Raleigh. Each crossing has been examined for its site geometry, traffic volume and other factors. Some will be closed, and all that remain will receive the appropriate treatment for its location and traffic volume. This Initiative builds upon the demonstrations of innovative warning devices conducted at Sugar Creek Road in Charlotte, NC, the major arterial in the corridor. Each violation of the warning devices was videotaped and the impact of the various improvements tested was clearly demonstrated:

	Violations per week
Baseline/flashing lights and gates	43
Median barriers	10
Four quadrant gates	6
Four quadrant gates and medians	1

Other elements of the initiative include examining articulated gates, long gate arms, and closing redundant crossings. FRA will work with North Carolina DOT to extend this effort throughout the remainder of the corridor and to develop a methodology to be used in developing other high-speed rail corridors around the country.

Federal funding for the Initiative has been provided from the Next Generation High Speed Rail program ($2.75 million total—$750,000 in fiscal year 1996 and $2 million in fiscal year 1997) and Section 1010 of ISTEA ($1.2 million total—$450,000 in fiscal year 1996 and $750,000 in fiscal year 1997). Total project cost is estimated at $5.1 million, with the state providing the balance.

Intelligent Grade Crossing.—FHWA & Long Island Railroad This system is being developed by the General Railway Signal Company (GRS) for the Long Island Railroad with $2 million in fiscal year 1996 FHWA funds and active FRA participation. It will tie the local grade crossing gate controller to both the train control system and the highway traffic signal system to minimize the delays to motorists in the vicinity of stations in urban areas. This project began in July 1996, and the demonstration of the system, at three grade crossings and involve six locomotives, is scheduled to begin in late 1998.

Friendly Mobile Barrier.—Consolidated Launcher Technology, Inc. (CLT) of Chesapeake, VA, received a grant for $400,000 in November, 1993, from the Section 1036(c) Technology Demonstration program, to demonstrate a "friendly mobile barrier" (FMB), which is a crash attenuation device that rises from a vault in the roadway, after the crossing gates go down, preventing motor vehicles from penetrating and blocking the tracks while stopping the vehicle safely. Total project cost was estimated at $500,000. The $100,000 balance was to be provided by CLT and its partners (BF Goodrich, Environmental Solutions Inc., and Kamatics Corporation), Old Dominion University and Virginia's Center for Innovative Technology. CLT and its partners encountered a cost overrun in the FMB's design and manufacture, and eventually provided an additional $109,000 in order to complete the required crash tests.

The potential advantage of the FMB was that it would be installed right next to the track, and there are locations where such a barrier might have unique advantages. The alternative approach, arrestor nets, must be installed 100 to 200 feet from the track or more, depending upon highway speed, which will limit their use.

Vehicle impact testing was conducted four times in March, June and July 1995. The barrier was damaged in each of the first three tests, and after each test the barrier was modified to strengthen it and to improve its performance.

Evaluations of the crash tests were conducted by FRA, FHWA and Virginia DOT. Meetings were held with FRA, FHWA, CSX, the Virginia Department of Transportation (VADOT), members of the CLT consortium and Congressional Staff to discuss

the test results (it had failed the vehicle occupant deceleration criteria) the barrier's stiffness, its complexity and weight (34,000 lbs.), the power requirements to raise the barrier and the practicality of using such a device. Liability and weather concerns, the need for life-cycle testing, and finding a suitable demonstration site were also discussed.

From these discussions, it became apparent that the technical complexities of the FMB just could not be overcome. Development costs were already 20 percent above the original estimate, and the cost to complete the demonstration was estimated at $500,000 to $1 million! The cost of using the barrier system at any crossing was estimated to $800,000 to $1 million for a two lane road (four barriers would be needed, one for each lane). In addition, because of the FMB's storage in a vault in the roadway, there was the potential need to have a human operator deploy the barriers. For all these reasons, the project was terminated.

Low Cost Grade Separation.—The State of Florida received a grant for $252,000 to develop a low cost grade separation. The total cost and time of construction was expected to be approximately 50 percent less than the time and cost of a traditional pile supported, concrete wall and beamed structure. The total project cost was estimated in their original submission at approximately $400,000.

Three designs were to be examined and bid upon by private contractors:

1. A multi-plate SuperSpan system of prefabricated, corrugated (6 inch by 2 inch) steel panels forming an arch;
2. A "classic" design using two vertical walls of reinforced concrete covered by a concrete deck; and
3. A prefabricated, prestressed concrete arch.

All designs would have reinforced concrete "thrust beams" and eight foot high stem walls to protect the arch from train derailments. The "thrust beams" are poured along the upper portion of the completed structure and help support the roadway. They prevent horizontal movement of the soil during backfill, increase the ease of soil compaction, and reduce the amount of backfill needed.

Site selection proved difficult due to local site conditions, such as power lines and irrigation channels that would have to be relocated at additional cost, etc. Despite examining more than 10 locations, none proved convenient for highway operations and the final construction costs varied by site from $1.4 to $1.7 million. Because of this significant cost overrun, the project was terminated by FLDOT.

CHALLENGES IN HIGH-SPEED DEVELOPMENT

Question. Please prepare a table indicating separately the status, problems and challenges faced, and the fiscal year 1996, fiscal year 1997, and planned fiscal year 1998 FRA investments made in developing high-speed rail track and structure technologies. Please include information on each major FRA project in this program.

Answer. The information follows:

MAJOR TRACK AND STRUCTURES PROJECTS

[Dollars in millions]

Project	Fiscal years—			Status 6/97	Problems, challenges
	Federal funds 1996	Federal funds 1997	Federal funds proposed 1998		
Northwest Corridor Upgrade	.....	$5.65	.....	Award Pending	None.
Correcting Weak Subgrade	.....	0.5	$1.25	Award Pending	Final project definition underway.
High-Speed Switches Integrated with ITCS Signal System on the Detroit-Chicago Corr.	.....	0.25	.25	Award Pending	Final project definition underway.
Several small projects	.....	0.1	.05	Award Pending	None.
Total	.....	6.5	1.55		

LIGHTWEIGHT MATERIALS IN HSR TRAINSETS

Question. What progress has been made to adapt new, lightweight materials from aerospace airframe manufacturers to high speed rail trainsets to meet North American crash worthiness standards?

Answer. Although this topic has been prominently featured in Next Generation Program solicitations, to date we have not received meaningful proposals at least in part because demonstrations of these technologies involve relatively large initial investments in fixed tooling and other production equipment. The Federal Transit Administration has sponsored a project to apply advanced materials in the construction of a transit bus, and expenditures in the tens of millions of dollars were required to achieve a prototype.

Although progress has not been made in carbody construction, progress in applying advanced materials is being made in the NGHSR program. The 4,500 pound flywheel rotor being constructed for the Advanced Locomotive Propulsion System is being constructed of graphite fiber composites, which weigh one-sixth as much as steel of the same strength while increasing the energy storage capability of the flywheel at least three times. These characteristics are necessary to make it possible to shoehorn a respectable size energy storage capacity into the railroad carbody. Advanced composite materials are also being prepared for demonstration as brake friction pads for high speed cars, using their superb high-temperature characteristics at light weights. Application of these friction materials could save several thousand pounds of weight per car over the present steel brake disks, pads, and shoes.

NEXT GENERATION HIGH-SPEED RAIL

Question. Please list separately the time lines for completion of each of the high speed rail corridor projects now underway, and the estimated amount of Federal funds that will be needed to assure completion.

Answer. Since there is no current Federal program for supporting high-speed rail construction outside the Northeast Corridor we have shown total capital costs, based primarily on planning documents from the respective States. If these projects were to be funded from the proposed NEXTEA fleexible funding, the Federal share would be 80 percent of the figures shown.

HSR Corridor project	Estimated time of completion	Estimated total funds needed for completion
California—San Diego, Los Angeles, Oakland/Sacramento.	Unknown	Unknown.
Florida—Miami, Orlando, to Tampa	2006 entire corridor	$5.3 billion in 1995 dollars.
Pacific Northwest—Eugene, Portland, Seattle to Vancouver, BC.	20 years	WA $400 million. OR $385 million.
Chicago Hub Corridor Chicago to Detroit, Chicago to St.Louis, Chicago to Milwaukee and Minneapolis.	Late 2001 2003	IL $400 million. MI $500 million. WI $360 million. MN under study.
Empire Corridor—Albany to New York	Late 2001	$100 million.
Southeast Corridor—Washington, Richmond to Newport News and Richmond to Raleigh to Charlotte.	2003–2005	NC $660 million. VA $740 million.
Deep South Corridor	Under study	Unknown.
Philadelphia to Harrisburg, PA	Under study	Under study.

The Northeast Corridor is estimated to be completed in late 1999, although cost estimates are not included here. Amtrak has provided cost estimates to Congress on the various projects—track improvements, signalization, electrification, rolling stock purchase—needed for this corridor.

HSR COST SHARING

Question. How has the FRA incorporated cost-sharing into each of these program areas? Please quantify cost-sharing for each project.

Answer. Cost sharing varies by program, and by project within that program. For example: In the Section 1010 program for grade crossing improvements in high-speed corridors, no cost sharing is required, although almost all states provide state funds to do additional projects.

In the Section 1036(c) Technology Demonstration program, cost sharing varied by recipient:

Grantee	Federal funds	Match
Consolidated Launcher Technology (Friendly Mobile Barrier).	$400,000	$100,000. $109,000 additional provided later.
Connecticut DOT (4-quadrant gate)	800,000	$200,000 plus. $118,600 additional. $100,000 is FHWA funds.
Florida DOT (Low Cost Grade Separation)	252,000	$142,000.
New York DOT (RTL Turbotrain retrofit)	3,000,000	$2,000,000 from Amtrak. $2,000,000 from NYSDOT.
Illinois DOT (Environmental Impact Statement)	2,500,000	$625,000.
North Carolina DOT (Corridor Master Plan)	1,000,000	$200,000.

Planning awards made in fiscal year 1996 and fiscal year 1997 require a 50/50 match.

In addition, although not part of the Section 1036(c) program, two grants were made in fiscal year 1995 to Illinois and North Carolina.

Grantee	Federal funds	Match
Illinois DOT (Track rehabilitation from Granite City to East St. Louis).	$3,000,000	$750,000.
North Carolina DOT (Complete Corridor Master Plan)	1,000,000	None required or provided.
Advanced Train Control (Next Generation High Speed Rail Program):		
Michigan (Incremental Train Control System (ITCS)).	9,100,000	$12,591,000 MIDOT and Amtrak.
Illinois (High Speed Positive Train Control)	7,000,000	$5,000,000.
Pacific Northwest (Positive Train Separation)	750,000	$35,000,000 BNSF & UP.
Non-Electric Locomotives:		
Advanced Locomotive Propulsion System (ALPS)	4,528,000	$4,528,000 GE, Univ. Texas, and Allied Signal.
RTL Turboliner Reconstruction (Empire Corridor)	10,000,000	$10,000,000 NYSDOT.

NEXT GENERATION PLANNING FUNDS

Question. How many states or MPO's have benefited from FRA's current planning assistance? What is the status of these projects? What specific projects have been funded with fiscal year 1997 monies?

Answer. Fourteen state Departments of Transportation received funding from FRA's planning assistance in fiscal year 1997. The table below provides a project description and other data for the fiscal year 1997 funds. We have focussed the grants primarily on the state DOT's but have discussed various elements of the work with various MPO's throughout the country such as the New Orleans MPO (Regional Planning Commission) which is assisting the Southern Rapid Rail Commission.

FISCAL YEAR 1997—NEXT GENERATION HIGH-SPEED RAIL CORRIDOR PLANNING AWARDS

State	Project description	Amount applied for	Grant award	Remarks
California	Conduct additional technical planning along the California corridor	$900,000	$100,000	
Florida	Conduct ridership and market studies for Miami-Orlando-Tampa HSGT corridor.	900,000	[1] 100,000	
Illinois	Complete environmental impact statement (EIS) for Chicago-St. Louis high-speed rail corridor.	125,000	100,000	
Michigan and Indiana	Update right-of-way improvements, ridership and revenue forecasts along the Detroit-Chicago HSGT corridor.	118,695	118,695	
Minnesota/Wisconsin	Phase II of the Minneapolis/St. Paul to Chicago route study	1,000,000	100,000	
Nevada	Evaluate Maglev feasibility in Las Vegas-Southern California corridor	100,000		Funding available from earlier grant agreement.
North Carolina	Conduct Charlotte-Washington DC corridor environmental study	250,000	200,000	
Southern Rapid Rail Commission (LA,MS, AL).	HSGT feasibility study in corridor between Atmore, AL through New Orleans to Lake Charles, LA.	200,000	81,305	Continue ridership demand work. Active interest in incremental development.
Washington	Conduct EIS and Reliability and Safety Improvement Study on Pacific Northwest Corridor.	400,000	200,000	
VNTSC	Analytical & Planning Support		250,000	
Totals for HSR funding		3,993,695	1,250,000	
Funding from R&D:				
Virginia	Complete Southeast corridor rail signal system analysis begun under fiscal year 1996 grant.	100,000	100,000	Complete study begun under fiscal year 1996 grant. R&D funding will be used for this purpose.
Grand total		4,093,695	1,350,000	

[1] Additional funding of $260,000 will be transferred from Section 1036 for EIS work.

MANAGEMENT OF NGHSR PROJECTS

Question. The TRB has recommended that the FRA strengthen its program management capabilities to speed up and better control the individual projects. How will this be accomplished?

Answer. FRA has reassigned the Next Generation Program staff, moving them from the R&D Office to the Office of Passenger and Freight Services in order to reflect better an orientation toward project implementation. Management of the program will be carried out through a combination of project managers and corridor coordinators. The former are responsible for working closely with States with which we have cooperative funding agreements and their contractors and host railroads on individual Next Generation projects to ensure timely accomplishment and technical review. The latter are responsible for a broader series of efforts to help our State partners implement high-speed rail through technical assistance in planning market and cost analysis, advice on available funding, and information on work in other States that is of common interest.

The project managers hold frequent meetings and site visits with State/contractor/railroad personnel and monitor progress. The corridor coordinators communicate with State rail planners, maintain a world wide web page, hold semi-annual meetings with States, and keep track of developments in individual corridors, whether or not a Next Generation project is involved. They keep FRA management informed of the needs of the States in these corridors. Being in the same office, they communicate closely with the project managers and, together with them, provide broad based guidance on the direction of the Next Generation program. The Office of R&D continues to pursue research activities in the high-speed rail field and to act as a resource on related technical issues.

PLANNING TECHNOLOGY FUNDING

Question. Why is planning technology considered a non-recurring expense? Is it FRA's view that further federal coordination in these targeted high-speed rail corridors is no longer needed?

Answer. In fiscal year 1996 and fiscal year 1997 FRA, as permitted under the Appropriations Act, used "planning technology" funds for two activities, both of which were aimed at helping our State partners with the planning and implementation of high-speed rail. The first was a modest planning grant program to States which provided matching funds. The Administration did not request planning technology funds in fiscal year 1998 because of the expected enactment of NEXTEA and the resulting ability of States to use Federal surface transportation funds for high-speed rail projects.

The second activity was for contract assistance for FRA to provide information useful to States planning high-speed rail systems. Further Federal coordination among those states developing high-speed rail is very important. Twenty-three States have different levels of activity regarding high-speed rail and many states have sought FRA's assistance on various matters such as environmental analyses, market analysis, cost estimation, and the ownership costs, operational record and safety record of different types of equipment. Under our NEXTEA proposals the resulting ability of states to use Federal funds for high-speed rail projects will put FRA in the mode of providing the same kind of technical assistance which FTA and FHWA have been providing for decades. FTA and FHWA, however, have had much larger headquarters and field staffs and additional resources. In fiscal year 1998 FRA will provide these services using its own in-house staff.

NGHSR ADMINISTRATIVE EXPENSES

Question. Please break down in detail the expected uses of the administrative expenses dealing with the next generation of high speed rail technology. How much of these funds are used to hire consultants? Why can't FRA employees do the work? Please further justify the requested increase.

Answer. The NGHSR account is requesting $545 thousand for administrative support. Funds support the following

[In thousands of dollars]

PC&B (5 FTE)	372
Travel	41
Communications	2
Printing	1
Contractual Services [1]	114
Supplies	3

Equipment	12
Total	545

[1] Includes training, TASC, PC and equipment maintenance contracts, IT support, etc.

No administrative funds will be used to hire consultants.

As noted on pages 171, 172, and 177 of FRA's Congressional Budget Submission, the fiscal year 1998 request of $545K reflects an increase of $119K over the fiscal year 1997 enacted level. Of this amount, $118K is for non-discretionary increases related to payroll, TASC, and inflation. In fact, $97K represents the transfer of 1 position/FTE from the OA account to the NGHSR account. The balance of $1K is for the FRA-wide technology systems.

RHODE ISLAND RAIL FREIGHT DEVELOPMENT

Question. What is the total time frame and cost estimate, broken out by fiscal year, for the freight rail improvement project in Rhode island?

Answer. The total time frame for the freight rail improvement project is seven years—1995 through 2001. The Federal investment, including appropriations through fiscal year 1997 and budgets through 2001, is as follows:

[In millions of dollars]

Fiscal year	*Amount*
1995	5
1996	1
1997	7
1998	10
1999	10
2000	10
2001	12
Total	55

Question. What is the administration's planned Federal grant schedule by fiscal year for the project?

Answer. The Rhode Island Rail Freight Improvement Project grant was signed by Administrator Molitoris and the Director of RIDOT in March 1995. This document obligated the fiscal year 1995 appropriation of $5.0 million. The Grant has not been amended to include the fiscal year 1996 and 1997 appropriations of $1.0 million and $7.0 million respectively. An amendment to the Grant is scheduled immediately after publication by RIDOT of the Record of Decision which will complete the environmental impact phase of the project.

Question. There is a fifty percent funding match required for the project. Has the State of Rhode Island matched the $13,000,000 provided by the Federal Government over the past three years? Is FRA aware of plans to release state funds in fiscal year 1997?

Answer. Rhode Island has matched nearly $1 million of the $13 million appropriated for the Freight Rail Improvement Project. Significantly more of the appropriation will be matched when the environmental impact process is completed during the summer of 1997. In all likelihood, state funds will be released in fiscal year 1997 to purchase long-lead materials for the 1998 construction season. In November 1996 Rhode Island voters approved a bond referendum which will provide the State match of Federal funds.

Question. Has Rhode Island taken advantage of the State's ability to "flex" their highway congestion mitigation or NHS funds for rail projects?

Answer. The State of Rhode Island did not use the flexibility allowed by the National Highway System Designation Act (NHSDA). Neither Congestion Mitigation Air Quality nor funds from any of the other funding sources for which flexibility was allowed under NHSDA have been used by RIDOT on this project.

Question. Ultimately, who will own and have responsibility for the third track once it is built and in operation?

Answer. Amtrak and the Rhode Island Department of Transportation have begun negotiating ownership and related responsibilities for the third track. Rhode Island has taken the position that they will own all newly constructed rail infrastructure and all assets improved by the Freight Rail Improvement Project, excluding improvements made by Amtrak in accordance with FRA's Record of Decision (5/95) for the electrification project. Amtrak, owner of the underlying rail right-of-way, is studying its options. All parties agree that these issues must be resolved before construction begins.

Question. Please discuss all potential shared track safety concerns, if the final EIS recommends the "partial build" option.

Answer. Publication of the Final Environmental Impact Statement is scheduled for June 1997. The "partial build" option is not limited to a fixed number of additional track miles, but can range anywhere from eleven to eighteen miles of third track over the twenty-two mile Boston Switch to Davisville segment of the NEC. The greater the number of additional track miles recommended the fewer will be the track miles over which operations will be shared by freight and passenger trains. Without knowing the exact locations, and likely operating conditions, where freight and passenger trains will share the right-of-way, it is difficult to address specific safety concerns. Among the safety issues which will be addressed are: allowable speeds, hours of operations, train separation, shifting load detection and appropriate levels of train control and signals. Amtrak made all of these issues known to RIDOT in its response to the draft EIS, and it is expected that all will be addressed in the FEIS.

DIRECT LOAN FINANCING ACCOUNT-ALAMEDA CORRIDOR

Question. Between 1992 and the present, have any direct loans been made to private sector railroads or other entities by the U. S. Government under the Title V Railroad Rehabilitation loan programs (Section 505 or 511), other than the fiscal year 1997 provision of $58,680,000 to leverage $400,000,000 over three years for the Alameda Corridor project?

Answer. Yes. The Fiscal Year 1994 Department of Transportation Appropriations Act included $250,000 to leverage $5,000,000 for a Section 511 loan guarantee. Funding supported a project between Syracuse and Binghamton, operated by the New York, Susquehanna and Western Railway (NYS&W). The final loan guarantee was $4,204,575.

FEDERAL ROLE IN ALAMEDA CORRIDOR PROJECT

Question. Is FRA responsible for oversight of the Alemeda Corridor project during the 3-year lending cycle and repayment to the Treasury? Please describe the federal role in this program.

Answer. The FRA and FHWA will be jointly responsible for the oversight of this project throughout the 3-year lending cycle, and throughout the loan repayment period.

The Fiscal Year 1997 Omnibus Consolidated Appropriations Act (Public Law 104–208) provides $59 million for FRA/DOT to pay the capital charges (subsidy costs) associated with making a direct loan not to exceed $400 million to Alameda Corridor Transportation Authority (ACTA) for the Alameda Corridor Project. It also provides that the loan must be repaid within thirty years from the date of project completion.

This Federal loan offers permanent financing with flexible payment features that should alleviate market concerns and promote efficient use of private capital by positioning the Federal Government as a patient investor in the project with a long term horizon and no liquidity requirements. Those features include:

—structuring the loan to include flexible repayment provisions with deferrable interest and principal, thus matching realized project revenues;

—facilitating the project's access to private capital by enhancing senior debt coverage, lowering interest rates, and reducing reserve requirements; and

—leveraging substantial private financing by limiting Federal participation to 20 percent of total project costs.

At a budgetary cost of only $59 million, the Federal Government is providing a $400 million loan that will help advance a $2 billion project with significant local, regional, and national benefits.

Question. Please update the Committee on the authorization status of the railroad loan guarantee programs. Are the Section 505 and Section 511 loan guarantee programs currently authorized? If not, when did the authorizations expire? To the knowledge of the agency, is there any movement toward reauthorization of either program by the appropriate committees?

Answer. Statutory authority for the Section 505 Program has expired. The Urgent Supplemental Appropriation Act of 1986 extended the authority to make loans under Section 505 until September 30, 1988. No further extension has been provided with one exception. The subsidy appropriation for the Alameda Corridor Project included in the Fiscal Year 1997 Department of Appropriations Act provided a one-time authority for that project. While the authorization for the Section 511 Program has not expired, no subsidy has been appropriated to generate budget authority since fiscal year 1994.

FRA is not aware of any movement toward reauthorization of either program by the appropriate committees.

Question. Please describe the difference between the two loan programs.

Answer. The Section 505 Program provided direct loans to railroads and financially responsible persons for track rehabilitation and acquisition of rail freight lines. A total of $580.2 million was provided to 24 recipients. The period of repayment was 30 years or less and the interest rates ranged from 2.03 percent to 11.9 percent. Under Section 511, loan guarantees were available for financing or refinancing to acquire or rehabilitate and improve facilities or equipment. A total of $253 million was provided to 8 recipients for the purchase and repair of locomotives and freight cars, track rehabilitation, acquisition of rail freight lines, and labor protection payments to furloughed employees of the Chicago, Milwaukee, St. Paul and Pacific Railroad.

All of the loan guarantees were financed through the Federal Financing Bank (FFB). The FFB interest rate is the cost of borrowing to the Government plus one-eighth of one percent. The rates varied from 5.8 percent to 12.54 percent. The loan repayment period generally ranged from 10 to 20 years depending on the economic life of the project. The statutory maximum is 25 years. An investigation fee and annual premium fee are required. The statutory maximums are one-half of one percent for the investigation fee and one percent of the outstanding principal balance for the annual premium fee.

LOCAL RAIL FREIGHT ASSISTANCE PROGRAM AND EMERGENCY RAILROAD REHABILITATION AND REPAIR

Question. Why is there $6,763,000 in outlays associated with the local rail freight assistance program?

Answer. Local rail freight assistance remains available until expended. A total of $10,437,000 was appropriated in fiscal year 1995. It takes several years for states to implement projects, liquidate the funds, audit the costs incurred, and close out the grants.

Question. Please update the Committee on the authorization status of the local rail freight assistance program. When did the LRFA authorization expire? To the knowledge of the agency, is there any movement toward reauthorization of the program by the appropriate committees?

Answer. The local rail freight assistance program was authorized through fiscal year 1995. FRA is not aware of any movement toward reauthorization of the program by the appropriate committees.

Question. Please update the Committee on applications the FRA has received from flood-impacted railroads for the fiscal year 1997 emergency railroad rehabilitation and repair funding.

Answer. While we have not yet received any applications for West Virginia or the Northern Plains States, we anticipate that the full amount of $18.9 million will be requested and obligated.

OPERATION RESPOND

Question. What are the costs, benefits and current status of FRA's involvement in the Operation Respond project? Please specify fiscal year 1995, fiscal year 1996, and fiscal year 1997 funding. How much longer is it anticipated that FRA will help finance this project? What is the total amount requested within the Department for Operation Respond? What is the amount of FRA's share?

Answer. DOT's three-year investment in the Operation Respond program has produced substantial progress, and has successfully generated commensurate investments from rail and motor carriers. Through software and training developed by Operation Respond, fire and law enforcement dispatch centers are able to quickly and accurately determine the contents of a hazardous material rail car or truck trailer which is involved in an accident. Currently there are approximately 104 installations in 17 States.

The FRA-FHWA-RSPA partnership plans to continue its joint participation by assisting in continuing research and development improvements, and in outreach activities. Additional refinements can extend the software's usefulness and adaptability to other emergency or law enforcement organizations, and the Emergency Medical Services (EMS) community. FRA sees benefit in expanding the program to include regional and shortline railroads as well as continuing refinements in the area of passenger rail. Greater participation by more members of the industry will also lead toward voluntary standardization of software displays, reducing training time and error rates for users, and enhancing credibility with the chemical industry.

FRA will continue to cooperate with Operation Respond to gain acceptance by additional surface transportation carriers.

We and our participating private sector partners believe that continued DOT financial support for the Operation RESPOND Institute, Inc. is needed through fiscal year 2000.

FRA's grant agreement for the program in fiscal year 1995 included funds from FRA, FHWA and RSPA: $129,000 from FRA; $350,000 from FHWA; and $120,000 from RSPA. In fiscal year 1996: $75,000 from FRA; $190,000 from FHWA; and $120,000 from RSPA. In fiscal year 1997: $53,000 from FRA; and FHWA directly entered into a Cooperative Agreement with Operation Respond for $1 million earmarked by Congress.

In the fiscal year 1998 budget, the Department has requested $103,000 for Operation Respond; this amount is in FRA's budget. FHWA and RSPA will continue to work with FRA in the continued development of this project. FRA will continue to support outreach efforts in the rail industry and work towards the development of enhanced software features and improvements stemming from continued user feedback.

FRA PERSONNEL REDUCTIONS

Question. Senate Report 104–325 directed that none of the FRA personnel reductions planned for fiscal year 1997 be obtained from the Safety Division of the Office of Chief Counsel. How has this directive been followed, and how will FRA continue this directive in fiscal year 1998?

Answer. Yes, this directive was followed in fiscal year 1997. In fiscal year 1998, the Office of Chief Counsel is requesting an increase of 1 position/FTE for the Safety Division to support the regulatory process.

NEED FOR ADDITIONAL ATTORNEY POSITION

Question. FRA is pursuing fewer enforcement cases now compared to several years ago. Doesn't this free up the time of some of your attorney staff? If so, why do you need one additional FTE for the Office of Chief Counsel?

Answer. The reduction in the civil penalty workload has occurred over a period when the Safety Law Division of the Office of Chief Counsel has seen its workload expand significantly in several other areas. FRA's regulatory workload has shown continued growth in the last several years. New technology, changes in industry practices, and response to statutory mandates have combined to create a reservoir of regulatory tasks that require prompt action. At present, FRA has more than 20 important regulatory projects in various stages of development and all of these require legal support. FRA, of course, has moved toward a more collaborative rulemaking process since 1995, having completed a negotiated rulemaking on roadway worker protection, begun advisory committee efforts on passenger equipment and emergency response, and established the Railroad Safety Advisory Committee to address a wide range of safety issues. This collaborative method, which aims at producing consensus-based rules, is actually more attorney-intensive than the more traditional method. FRA attorneys participate in every regulatory working group and are generally the primary drafters of all rulemaking documents recommended by those groups. Developing these documents through a consensual process often requires more discussion and redrafting than when FRA drafts rules unilaterally. Before the drafting begins, of course, the issues are debated at length in meetings attended by the FRA attorney. While FRA believes the collaborative process will produce rules that are more soundly based in fact, more widely accepted and understood, and less likely to be challenged, an increase in the safety attorneys' workload is one cost FRA must pay for these improvements.

FRA attorneys also have an increasing workload in the area of engineer certification. The attorneys both draft decisions for FRA's Locomotive Engineer Review Board (LEB.) and litigate cases involving challenges to LEB. decisions before FRA's administrative hearing officer. In 1996, FRA received the highest number of hearing requests ever (16), and thus far in 1997 the LEB. is receiving petitions for review at a record pace.

In 1997, FRA has been sued by a commuter railroad challenging FRA's assertion of jurisdiction, all freight railroads challenging recent FRA guidance on equipment inspection issues, and a rail union challenging FRA's decision about the legality of a renovation of an employee sleeping quarters. FRA attorneys play a very active role in litigating these cases.

Even though the number of recommended civil penalty actions has been down in recent years, there is no guarantee that trend will continue. More important, despite the lower number of civil penalty cases, FRA attorneys have been very active in

FRA's use of its other enforcement tools. FRA issued three emergency orders in 1996, and has entered into two safety compliance agreements so far in 1997. Developing and drafting these documents takes a great deal of attorney time. Also, FRA Administrator Molitoris has directed that FRA civil penalty efforts be more fully integrated with its SACP efforts, which requires greater coordination between its attorneys and those directing SACP reviews of railroads. Finally, while FRA has in recent years become very current in transmitting civil penalty cases and closing those cases against major railroads, we still have a large number of cases against small railroads and shippers that need to be settled.

Accordingly, the downturn in the number of violation reports received in recent years does not signal an overall reduction in the workload of FRA's safety attorneys. On the contrary, their workload has continued to increase, and the addition of one attorney will help significantly in improving timeliness in the areas of regulation, engineer certification, and civil penalty enforcement against small railroads and shippers.

VIDEO TELECONFERENCING COSTS

Question. During the last two years, which source of funds from which FRA subaccount was used to pay for installation of video teleconferencing equipment? How much has been spent on purchase and installation? Why can't you use these same funds for actual usage costs?

Answer. In fiscal year 1996, a total of $940 thousand was used for the purchase and installation of the video teleconferencing equipment. The source of funds included carryover funds from OA (which are no longer available) and information technology funds in Safety. The funds in Safety were non-recurred in the fiscal year 1997 budget since this was a one-time equipment cost.

No funds were budgeted in fiscal year 1997 for actual usage. At the time the fiscal year 1997 budget was developed, FRA did not anticipate the completion of the installation until late fiscal year 1997. Thus, fiscal year 1998 was the first year that usage costs were budgeted.

While the equipment is now ready, FRA has virtually banned all usage due to lack of funding. However, this critical communication tool cannot stay idle in fiscal year 1998. Therefore, it is important that funding requested be approved, and approved in all FRA accounts as noted.

OFFICE OF ADMINISTRATION

Question. Why can't the monies requested for technology systems be split funded during fiscal year 1998 and fiscal year 1999. How much is included in the fiscal year 1998 base for computer systems., i.e., to replace and upgrade hardware and software and to enhance automation systems. How much is in the base for Technology systems and the information technology.

Answer. The OA account is requesting $125 thousand for FRA-wide technology systems.

Of the $125 thousand, $48,000 is for the Video Teleconferencing Initiative FRA has completed installation if its video teleconferencing equipment. Funding requested in fiscal year 1998 will support actual usage and system maintenance—costs that will continue during the life of the system. If funding is not provided, then FRA will not be able to use the system. This is the first year funds have been requested for operation of the system, thus no funds are included in the fiscal year 1998 base.

The remaining $77 thousand is for FRA's Imaging System. Most of this funding ($62K) is a one-time cost. A minimum amount of funding will be required for supplies and maintenance of the system. The project cannot be split funded as the base cost to complete project is $77K.

The OA account has $67 thousand in its fiscal year 1998 base for hardware and software replacement and/or upgraded for 154 FT. This is inadequate, considering the number of computers/printers and other equipment that must be replaced due to the age of equipment. Much of the OA computer equipment will be 5 years or older by fiscal year 1998.

The OA is requesting $292 thousand for the replacement/upgrade of 37 computers, 12 notebooks, 35 printers and 1 FAX. Funding will also support software and database upgrades.

Any delay in replacing this equipment will jeopardize the management of FRA programs. FRA cannot function without its computers and automated databases which are experiencing a much higher rate of breakdowns and lost of productive time than in previous years-again due to age and increased use.

COMPLIANCE/ENFORCEMENT-RELATED FUNCTIONS

Question. Several years ago the Office of Chief Counsel received additional appropriations to conduct certain compliance/enforcement-related functions. Please specify the amount of these funds which are now reflected in the base of the fiscal year 1998 proposed budget and discuss the amounts actually used in fiscal year 1996 and fiscal year 1997 versus the amounts actually appropriated.

Answer. In fiscal year 1995, FRA sought $386,000 to fund the costs of administrative litigation related to the FRA safety program (e.g., engineer qualifications, hazardous materials enforcement, disqualification of unfit railroad employees and emergency orders). FRA at that time employed, through a reimbursable agreement, administrative law judges (ALJ's) from the Department's Office of Hearings to preside over the hearings in these cases. FRA's funding request was based on an Office of Hearings estimate that each engineer qualification case would cost approximately $33,000, and FRA's anticipation of having 15 cases involving a review of railroads' decisions to revoke or deny engineers' certificates. To reduce the administrative litigation costs to the agency, in fiscal year 1996 FRA decided to discontinue using DOT ALJ's and instead use an FRA attorney as a hearing officer, in addition to handling non-safety FRA legal matters. The fiscal year 1996 and fiscal year 1997 budgets reflect a reduction of $368,000 as a result of this decision. The fiscal year 1997 Enacted Budget contained no funding for ALJ's and the same is true for the fiscal year 1998 request. FRA's hearing officer is currently handling all of FRA's administrative litigation.

ENFORCEMENT ACTIONS OVER THE LAST THREE YEARS

Question. Please prepare a table describing, for each of the last three years, the number of enforcement actions taken, the amount of civil penalties assessed and those collected or settled, and the number and type of violation reports submitted. What percentage of these actions have come from Federal inspectors and what percentage from state inspectors?

Answer. The tables follow.

FRA CIVIL PENALTY ENFORCEMENT ACTIONS, FISCAL YEARS 1994–1996

Fiscal year	Cases transmitted	Dollars assessed	Cases closed [1]	Dollars collected
1994	2,019	$16,159,250	1,525	$7,959,765
1995	1,447	10,897,600	1,313	5,230,044
1996	827	5,157,500	970	3,588,765

[1] Many cases are closed in years after the year they were transmitted. Accordingly, the cases transmitted and cases closed are largely different groups of cases.

VIOLATION REPORTS SUBMITTED BY TYPE, FISCAL YEAR 1994–1996

Type	Fiscal years—		
	1994	1995	1996
Alcohol and drug use [AD]	97	30	30
Accident reports regulations [AR]	97	84	41
Bridge worker safety standards [BW]	2	5	5
FRA Emergency order [EO]	46	11	.....
Rilroad safety enforcement [EP]	.....	.....	2
Engineer qualifications [EQ]	78	48	18
Freight car safety standards [FCS]	344	276	204
Grade crossing signal safety [GC]	.....	.....	2
Safety glazing standards [GS]	.....	.....	1
Hazardous materials regulations [HMT]	662	419	273
Hours of service laws [HS]	1,714	1,440	148
Hours of service record keeping [HSR]	534	335	76
Locomotive safety standards [LI]	538	280	194
Railroad noise emission compliance [NE]	1	3	.....
Rear end marking devices [REM]	26	19	9

VIOLATION REPORTS SUBMITTED BY TYPE, FISCAL YEAR 1994–1996—Continued

Type	Fiscal years—		
	1994	1995	1996
Railroad operating practices [ROP]	116	53	32
Railroad operating rules [ROR]	10	3	.....
Radio standards and procedures [RSP]	28	13	9
Safety appliance statutes [SA]	466	411	242
Signal inspection regulations [SI]	139	86	74
Track safety standards [TS]	151	82	55
Total	5,049	3,598	1,415
Federal Inspectors (percent)	92	91	91
State Inspectors (percent)	8	9	9

OTHER SERVICES—OA

Question. Why is there a decline in other services on page 17 from $4,573,000 to $1,928,000? What services will be eliminated?

Answer. The fiscal year 1997 estimate of $4.573 million for other services includes $3.148 million in carryover funds which will not be available in fiscal year 1998.

TRAVEL—OFFICE OF CHIEF COUNSEL

Question. What is the estimated current travel budget for the Office of Chief Counsel? How much is proposed for fiscal year 1998?

Answer. The information follows:

Office of chief counsel—travel

[In thousands of dollars]

Fiscal year:	
1997	79
1998	80

POLICY AND IMMEDIATE OFFICE STAFFING

Question. Please list separately the number of FTP and FTE in the Office of Policy and Program Development and in the immediate Office of the Administrator for each of the last three years.

Answer. The information follows:

STAFFING

Office	Fiscal years—									
	1994		1995		1996		1997		1998	
	FTP	FTE	FTP	FTE	FTP	FTE	FTP	FTE	FTP	FTE
Office of Policy and Program Development	34	33	33	32	31	30	28	27	23	22
Immediate Office of the Administrator	12	10	12	10	12	10	12	10	12	10

OFFICE OF CIVIL RIGHTS FUNDING

Question. Please specify the amount appropriated and the amount spent for each of the last three years for civil rights activities. How much is requested for fiscal year 1998?

Answer. The information follows:

FUNDING

[In thousands of dollars]

Civil Rights Office	Appropriation/ request	Actual/ enacted
Fiscal year:		
1998	294	294
1997	268	268
1996	[1] 64	250
1995	244	238

[1] Does not include an additional $186K in carryover authority approved to fund 2 FTE restored to this office.

TECHNICAL ASSISTANCE AND CONTRACTOR SUPPORT

Question. Please list the amount actually spent on technical assistance and contractor support for the Office of the Administrator for each of the last three years and compare these amounts to the appropriated amount for the activity.

Answer: FRA had no "Technical Assistance" budget category in fiscal year 1995. In fiscal year 1996, none of the $20,000 reserve funds were used for Technical Assistance and Policy Support. This $20,000 has been carried forward to fiscal year 1997 and will be obligated along with the $20,000 allocated in fiscal year 1997 to assist the Office of Policy and Program Development to analyze the merger proposal of the Norfolk Southern, CSXT, and Conrail.

OFFICE OF POLICY CONTRACTS

Question. Please indicate the purpose, amount, and recipient of any contracts, including those for technical assistance and policy support, signed during fiscal year 1996 and thus far in fiscal year 1997 by the Office of Policy and Program Development or the immediate Office of the Administrator?

Answer:

[Dollars in thousands]

Purpose	Fiscal year		Recipient
	1996 actual	1997 estimated	
Stracnet Density Data	$10	$10	U. of Wisconsin Curt Richards.
Economic/Financial Data	75	85	Bureau of Transp. Statistics; Association of American Railroads; Operations Technology Services; Volpe Center.
Carload Waybill Sample	209	225	ICC/Surface Transportation Board.
Operation Respond	75	53	Operation Respond Institute.
Intermodal Network GIS	23	100	Ensco; Caliper Corp.
Network Operations Maintenance	44	56	CSG; Hickling Lewis; Freight Services.
Prior Year Deobligation	−82	.....	
Technical Assistance and Policy Support	.....	20	
Total	354	54	

OFFICE OF THE ADMINISTRATOR

Question. Please break down in further detail the expected use of and the immediate need for contract support service funds requested by the Office of Policy and Program Development or the immediate Office of the Administrator. How much is in the base for each of the items listed on page 23?

Answer. The OA account is requesting and increase of $51,000 for general contractual services under the Salaries & Expenses budget activity (not the "Contract Support" budget activity). As noted, increases will support the following:

[In thousands of dollars]

Purpose	Office	Base	Fiscal years—	
			1998 increase	1998 request
Consultant Sprt	Policy		25	25
Administrative, conference, and other outreach spt.	Psngr and Freight		15	15
Development of training materials for automated data bases.	Admin	26	10	36
	Civil Rights	1	1	2
Total		27	51	78

POLICY STUDIES AND CONTRIBUTIONS

Question. What are the most important policy studies and contributions made by the Office of Policy and Program Development in fiscal year 1997, and what is planned for fiscal year 1998? Please specify how this is reflected in the request.

Answer. The Office of Policy and Program Development leads the Federal Railroad Administration in several areas: rail structural analysis (mergers), rail network geographic information systems (GIS), rail needs for national defense, Operation Respond, and railroad data development. In addition the Office of Policy and Program Development has taken a lead role in developing tools to evaluate the cost/benefit of rail projects utilizing innovative financing techniques.

The Office of Policy and Program Development has been the lead Department of Transportation (DOT) group for analyzing rail merger proposals for over 10 years. They analyzed and developed the DOT's written position on the merger of the Union Pacific and the Southern Pacific railroads. During fiscal year 1997 and fiscal year 1998, they will similarly lead the DOT analysis of the proposed acquisition of Conrail by the Norfolk Southern and CSXT railroads. Additionally, they will begin an assessment of the issues involved in competitive access in the rail industry. Much of the data (traffic, financial, and general economic) that will support this as well as other policy analyses is acquired, compiled, and funded as explained below.

The Office of Policy and Program Development created a rail network GIS, representing all 150,000 route miles of track in the United States railroad system. The GIS is extremely detailed, containing ownership, trackage rights, and traffic statistics for each line segment in the country. It is updated annually and has been widely distributed to other federal agencies, states, MPO's, local jurisdictions, and railroads. It has been coupled with a highway GIS from DOT's Federal Highway Administration and a waterway GIS from the United States Coast Guard to create the initial stages of an intermodal network GIS. During fiscal year 1997 and fiscal year 1998 the FRA Rail Network GIS will be updated, enhanced, and distributed to the public. Also, hazardous materials movements (extracted from the Waybill Sample) will be simulated over the Rail Network GIS to be used as an aid by the Office of Safety in deploying its inspection fleet.

The Office of Policy and Program Development, in cooperation with the Military Traffic Management Command (MTMC) of the Defense Department, reevaluates on an annual basis the rail requirements for the defense of the United States based on changing rail traffic density and defense traffic pattern shifts. This effort defines the Strategic Rail Corridor Network (STRACNET), those rail lines identified as necessary to defense.

The Office of Policy and Program Development administers the FRA's portion of the federal grant to Operation Respond. FRA's funding helped to develop a very successful pilot project in Houston, Texas that paved the way for better response to rail hazardous materials spills. Funding in fiscal year 1997 and fiscal year 1998 will expand these efforts to other localities in the United States and also broaden the railroad base to include short line carriers.

The Office of Policy and Program Development jointly with the Surface Transportation Board (STB) funds the creation of the Rail Carload Waybill Sample data base on an annual basis. Funding is 50 percent FRA and 50 percent STB. The Waybill Sample data base is the only comprehensive source of rail traffic data that includes details for both commodity and routing. As such it functions as the official traffic data source for proceedings before the STB, including mergers, acquisitions, and abandonments.

The Office of Policy and Program Development purchases and collects rail economic and financial data to support policy analysis of the rail industry. Economic data is purchased from Data Resources, Inc. (DRI) to track economic trends in the rail industry. Rail financial data is compiled into a financial data base to evaluate individual rail companies and the industry as a whole. These data are used extensively in rail structure analysis such as mergers.

The Office of Policy and Program Development has funded the development of a computerized model (RailDec) to assess the cost/benefit of innovatively financed rail projects. It has been made available to and is widely used by states, Metropolitan Planning Organizations (MPO's), and regional jurisdictions to analyze the worth of such projects in their own areas. During fiscal year 1997 and fiscal year 1998 the model will be modified to better include projects directly related to rail/highway crossings.

Funding for all these projects is included in the request of $682 thousand under the budget activity "Contract Support".

[NOTE.—General contractual services are used to support the day to day operations of the offices.]

INTERMODAL TRANSPORTATION PLANNING

Question. What resulted from the numerous meetings FRA conducted to help integrate intermodal transportation planning? How much did you spend on this activity during fiscal year 1996 and fiscal year 1997? How much is planned for fiscal year 1998?

Answer. Fiscal year 1996: In fiscal year 1995, FRA had worked closely with FHWA and FTA on the Department of Transportation's ongoing series of Enhanced Planning Reviews, focussing on Metropolitan Planning Organizations where freight, particularly rail and intermodal freight, was a major issue. The only such review in fiscal year 1996 in this category took place in the New Orleans Metropolitan Area in November 1995. FRA led the panel on intermodal freight mobility and provided insight from the experiences of other MPO's and on the availability of freight-related data sources. The reviews were used by the Department as a way to assist MPO's in refining their transportation planning processes, and assess the effectiveness of the ISTEA planning regulations. Also during 1996, FRA conducted focus group meetings in Trenton, NJ (July 1996) with state DOT officials and railroads and in Erie, PA (August 1996) with the executive board of AASHTO's Standing Committee on Rail Transportation, to solicit information on what had worked with ISTEA as currently configured and their ideas on needed changes to ISTEA, including any changes to the planning regulations. Additionally, FRA participated in Department-led ISTEA outreach meetings in Philadelphia (August 1996), Providence (Sept. 1996), and St. Louis (Sept. 1996). The results of these and other DOT-initiated meetings were the basis of DOT's January 1997 outreach report entitled "How To Keep America Moving: ISTEA; Transportation for the 21st Century," and helped to shape DOT's NEXTEA legislation. Finally, FRA participated in the Conference on State and Infrastructure Banks in Denver (Nov. 1995) and EPA's ISTEA Workshop in Philadelphia (Nov. 1995). Total cost for these activities was approximately $6300, all for travel expenses.

Fiscal year 1997: The Office continued the process of soliciting views on the impact of ISTEA and the need for changes by leading a focus group on ISTEA with a number of railroads meeting in Nashville, TN (Oct. 1996) and with state DOT officials at AASHTO's semi-annual meetings of its Standing Committee on Rail Transportation in Williamsburg, VA (April 1997). FRA participated in the Western Governors Association meetings on rail planning in Denver (May 1997) to share the experiences of various MPO's under ISTEA, and to discuss potential solutions to increased rail freight density problems. Total cost, again all for travel, was $1,885.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

SAFETY PERFORMANCE

Question. Please prepare a table indicating the amount requested and the amount actually appropriated for the four programs in the Safety Performance Standards Budget for fiscal years 1995, 1996, and 1997.

Answer. Below is a budget comparison table for fiscal years 1995, 1996, and 1997.

[In thousands of dollars]

Programs	1995		1996		1997	
	Request	Appropriated	Request	Appropriated	Request	Appropriated
Vehicle safety	500	500	850	642	589	929
New car assessment	2,460	1,685	2,792	1,707	3,542	2,786
Fuel economy	785	420	2,285	118	1,560	60
Theft and Consum.	.....	100	110	106	50	50
Motor vehicle title information	.....	.....	.....	[1] 890	.....	.....
Total	3,745	2,705	6,037	3,463	5,741	3,825

[1] Funds administered by Traffic Safety Programs (pilot demo).

Question. Please prepare a table for each of the four programs in the Safety Performance Standards Program, showing how all of the funds requested for fiscal year 1998 are intended to be spent, and please include in that table a comparison with the amount provided for each of those activities for fiscal year 1997. On a separate page, please justify the need for the requested increases.

Answer. Below is a comparison tables for Safety Performance Standards Program for fiscal year 1997 and 1998. There were no requested increases. Use of fiscal year 1998 funds are as follows:

[In thousands of dollars]

Vehicle safety and consumer standards	Fiscal years—	
	1997	1998
Quick Reaction Testing	424	424
Consumer Information	90	90
Cost and Leadtime Analysis	75	75
Off-Set Frontal Testing	340	340
Total	929	929

Quick Reaction Testing.—$424 thousand will be used to focus on responding to petitions and continue work trying to reduce on-road, untripped rollover crashes, prevent backup crashes involving small children, simplify and clarify the lighting standard, improve rear signaling lights, determine braking-in-a-curve performance requirements for large single unit trucks, standardize 5th percentile female, 3 year and 6 year-old child dummies, negotiated rulemaking on multi-stage vehicles, and continue work on vehicles adapted for use by people with disabilities and efforts to harmonize our safety standards with those of other countries.

Consumer Information.—$90 thousand will be used to conduct marketing and consumer focus group research, to develop and disseminate consumer information

regarding proper usage of anti-lock brakes, and to develop and disseminate consumer information materials pertaining to vehicle theft prevention and Uniform Tire Quality Grading Standards (UTQGS).

Cost and Leadtime Analysis.—$75 thousand will be used to assess advanced air bag technologies.

Off-Set Frontal Testing.—$340 thousand will be used to test vehicles as part of establishing a harmonized Federal Motor Vehicle Safety Standard for frontal offset crash testing.

[In thousands of dollars]

New car assessment program	Fiscal years—	
	1997	1998
NCAP Testing	2,538	2,538
Consumer Information	247	247
Total	2,786	2,786

NCAP.—$2,538 thousand will be used to conduct a total of 70–75 frontal and side crash tests. A determination has not been made as to the number of tests for each mode. With two crash modes, the agency will provide consumers with a better understanding of the potential safety that a vehicle may provide in high-speed front and side crashes.

Consumer Information.—$247 thousand will be used to update and disseminate the "Buying A Safer Car" brochure, develop and disseminate a new "Buying A Safer Car for Child Passengers" brochure, update and improve the crash test information site on NHTSA's Web Page, and develop video news releases and public service announcements on the results of NCAP crash tests.

[In thousands of dollars]

Fuel economy program	Fiscal years—	
	1997	1998
Fuel Economy Analysis	60	60

Fuel Economy.—Will be used for "plants and lines" database to provide pertinent details on automobile manufacturing plants, such as products, capacities, employment levels, financial data, and planned changes.

[In thousands of dollars]

Theft program	Fiscal years—	
	1997	1998
Theft Analysis	50	50

Theft.—Will be used to continue to issue the consolidated insurance information and provide an in-house analysis of FBI theft and recovery data on stolen motor vehicles from over 26,000 law enforcement jurisdictions in order to calculate the theft rates of motor vehicles.

Question. Please explain in detail how the fiscal year 1997 appropriated funds have been spent to conduct cost/benefit studies related to petitions and ongoing rulemaking activities?

Answer. The Office of Planning and Consumer Programs is charged with conducting manufacturing cost, retail price, incremental weight, and lead time impact analyses of proposed Federal Motor Vehicle Safety Standards. Although Safety Performance Standards often develops its own estimates of the potential benefits of proposed Federal Motor Vehicle Safety Standards, ultimately the estimation of incremental safety benefits is the responsibility of the Associate Administrator for Plans and Policy. Safety Performance Standards does not use its contract program to conduct benefit studies. For fiscal year 1997, expenditures for cost, weight, and lead time impact assessments of new safety proposals totaled approximately $190,000. The vast majority of these funds ($155,000) are supporting cost and lead time analy-

ses of advanced air bag systems. The remaining funds were expended on analyses of steel brackets for reflective tape on heavy duty trucks, and temperature and locking radiator cap technology.

Question. In Senate Report 104–325, the Committee urged NHTSA to proceed with care in processing with the NPRM regarding elimination of the standard for placing triangular warning devices for certain disabled buses and trucks. What is the status of this rulemaking action, when can a final rule be expected?

Answer. On June 16, 1997, the agency terminated its rulemaking action to eliminate the standard for warning triangles. This means the warning triangle standard will remain in effect. A copy of the termination notice is enclosed for your information.

[Federal Register, June 16, 1997 (Volume 62, Number 115), Proposed Rules]

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Part 571

[Docket No. 95–56, Notice 02]

RIN 2127–AF77

Federal Motor Vehicle Safety Standards; Warning Devices

AGENCY: National Highway Traffic Safety Administration, DOT.

ACTION: Termination of rulemaking.

SUMMARY

In this document, NHTSA terminates rulemaking to rescind the Federal Motor Vehicle Safety Standard on triangular warning devices intended to be placed on the roadway behind disabled buses and trucks that have a gross vehicle weight rating (GVWR) greater than 10,000 lbs. Terminating this rulemaking relieves the Federal Highway Administration (FHWA) of the necessity for conducting a rulemaking proceeding to adopt its own requirements on triangular warning devices. Further, terminating this rulemaking will give the Department more effective enforcement authority regarding the performance of those devices. This rulemaking (61 FR 29337, June 10, 1996) was initiated as part of the agency's efforts to implement the President's Regulatory Reinvention Initiative.

FOR FURTHER INFORMATION CONTACT

For technical issues: Mr. Richard Van Iderstine, Office of Vehicle Safety Standards, NPS–21, telephone (202) 366–5280, FAX (202) 366–4329.

For legal issues: Ms. Dorothy Nakama, Office of Chief Counsel, NCC–20, telephone (202) 366–2992, FAX (202) 366–3820.

Both may be reached at NHTSA, 400 Seventh Street, SW, Washington, DC 20590.

SUPPLEMENTARY INFORMATION

President's Regulatory Reinvention Initiative

Pursuant to the March 4, 1995 directive "Regulatory Reinvention Initiative" from the President to the heads of departments and agencies, NHTSA undertook a review of its regulations and directives. During the course of this review, NHTSA identified regulations that it could propose to rescind as unnecessary or to amend to improve their comprehensibility, application, or appropriateness. Among the regulations identified for potential rescission is Federal Motor Vehicle Safety Standard No. 125, Warning devices (49 CFR Sec. 571.125).

Background of Standard No. 125

Federal Motor Vehicle Safety Standard (FMVSS) No. 125, Warning devices, specifies requirements for warning devices that do not have self-contained energy sources (unpowered warning devices) and that are designed to be carried in buses and trucks that have a gross vehicle weight rating (GVWR) greater than 10,000 lbs. The unpowered warning devices are intended to be placed on the roadway behind a disabled vehicle to warn approaching traffic of the vehicle's presence. The Standard does not apply to unpowered warning devices designed to be permanently affixed

to the vehicle. The purpose of the Standard is to reduce deaths and injuries due to rear-end collisions between moving traffic and stopped vehicles.

The standard requires that the unpowered warning devices be triangular, covered with orange fluorescent and red reflex reflective material, and open in the center. These characteristics are intended to assure that the warning device has a standardized shape for quick message recognition, can be readily observed during both daytime and nighttime, and provides limited wind resistance so that it does not blow over when deployed.

NHTSA has never required that any new vehicle be equipped with the Standard No. 125 warning device or any other warning device. However, as explained below, FHWA, which has authority to regulate interstate commercial vehicles-in-use, mandates that operators of those vehicles carry and use unpowered warning devices meeting Standard No. 125, fusees or flares.

Previous Changes to Standard No. 125

Before 1994, Standard No. 125 applied to unpowered warning devices that are designed to be carried in any type of motor vehicle. On May 10, 1993 (58 FR 27314), NHTSA issued a notice of proposed rulemaking (NPRM) to amend Standard No. 125 so that the Standard applied only to warning devices that are designed to be carried in buses and trucks that have a gross vehicle weight rating (GVWR) greater than 10,000 lbs.

NHTSA proposed to narrow the scope of Standard No. 125 in order to provide manufacturers of unpowered warning devices with greater design freedom and to relieve an unnecessary regulatory burden on industry. At the specific request of FHWA, the agency proposed to retain the requirements for warning devices for buses and trucks with a GVWR greater than 10,000 lbs. This aspect of NHTSA's proposal supported FHWA's regulation of commercial motor vehicles under the Federal Motor Carrier Safety Regulations (FMCSR) (49 CFR parts 350–399). Section 393.95 of the FMCSR requires either that three Standard No. 125 warning devices or specified numbers of fusees or flares be carried on all trucks and buses used in interstate commerce.

NHTSA limited the applicability of Standard No. 125, as proposed, in a final rule published on September 29, 1994 (59 FR 49586). In the final rule, NHTSA stated that it was retaining Standard No. 125 in its narrowed form largely to ensure the continued availability of standardized unpowered warning devices which FHWA could specify as a means of complying with its warning device requirements for commercial vehicle operators.

Proposed Rescission of Standard No. 125

After reviewing Standard No. 125 in light of the President's Regulatory Review Initiative, NHTSA tentatively determined that retaining Standard No. 125 is not necessary to ensure the continued availability of unpowered warning devices. Accordingly, the agency developed a rescission proposal which reflected written and oral comments from FHWA staff. It published the NPRM on June 10, 1996 (61 FR 29337).

In the NPRM, NHTSA suggested that if Standard No. 125 were rescinded, FHWA would have two options. First, instead of specifying warning devices meeting NHTSA's Standard No. 125, FHWA could specify devices meeting criteria adopted by FHWA and placed in its own regulations. More specifically, FHWA could adopt the current manufacturing standards for the warning devices, i.e., those in Standard No. 125, as an appendix to the Federal Motor Carrier Safety Regulations. Section 393.95 would be revised to reference the newly created appendix as opposed to Section 571.125.

Second, FHWA could work with an industry voluntary standards setting organization such as the Society of Automotive Engineers (SAE) to develop an industry standard on unpowered warning devices containing requirements similar to those in Standard No. 125. Once those requirements were developed, FHWA could incorporate them by reference in Section 393.95.

Public Comments on Proposed Rescission

NHTSA received mixed comments in response to its proposal to rescind Standard No. 125. Two commenters, Chrysler and Ford, supported NHTSA's proposal to rescind the Standard. Chrysler stated its agreement with NHTSA that Standard No. 125 is unnecessary "since devices meeting these requirements are already stipulated by the FHWA for commercial carriers." Ford suggested that Standard No. 125's pro-

visions could be transferred to FHWA's Federal Motor Carrier Safety Regulations (FMCSR).

Other commenters, including 3M Company, Advocates for Highway and Auto Safety (Advocates), Dr. Merrill J. Allen, American Highway Users Alliance (AHUA), American Trucking Associations (ATA), Automotive Parts and Accessories Association (APAA), Center for Auto Safety (CAS), Cortina Tool and Molding and James King Company (in one submission) (Cortina/King), National Private Truck Council (NPTC), Sate-Lite Manufacturing Company, Transportation Safety Equipment Institute (TSEI), Truck Manufacturers Association (TMA) and several members of the U.S. House of Representatives opposed the proposed rescission of Standard No. 125. The commenters offered the following reasons for their opposition:

1. Standard No. 125 Has Value

The commenters opposed to rescinding Standard No. 125 generally stated that the Standard has value, and expressed various reasons for their belief. Sate-Lite, a triangular warning device manufacturer, stated that it did not consider the Standard's performance requirements unnecessary or a burden. 3M, which operates a fleet of over 5200 vehicles, stated that: "Each of the criteria in the standard represent items of value to the users of those devices." 3M stated that deviations from these criteria would reduce and possibly eliminate this value.

Other commenters stated that Standard No. 125 is needed simply because it ensures uniformity in the triangular warning devices. Erosion of uniformity would impair the ability of those devices designed to meet the current standard to communicate hazards effectively. 3M and APAA stated that with the recent increases in the nation's speed limits, there is a greater need for motorists to have advance, distinctive warning of a disabled vehicle ahead, and the triangular warning device meets that need. Cortina/King commented that Standard No. 125 devices are the only safe warning devices for deployment in conjunction with a stopped vehicle carrying flammable materials.

TSEI commented that NHTSA appears ready to adopt an "anything goes" approach that would confuse motorists and violate the agency's longstanding policy of maintaining consistency in visual signals to motorists. TSEI contrasted the present rulemaking with NHTSA's past interpretations of Standard No. 108, Lamps, reflective devices, and associated equipment. Those interpretations emphasized the safety importance of avoiding even momentary confusion of motorists as to the meaning of the supplemental lighting signals.

2. State Regulation and International Harmonization Issues

Related to the lack of uniformity issue, Advocates, ATA, and TSEI expressed concern that the States would regulate in the absence of Standard No. 125. Advocates, AHUA, and TSEI also suggested that rescinding Standard No. 125 would conflict with NHTSA's recently announced efforts (see 61 FR 30657, June 17, 1996) to harmonize the FMVSSs with international standards.

3. NHTSA Administration and Enforcement of Triangular Warning Devices is Preferred

Many commenters expressed the view that NHTSA has more effective statutory authority to administer and enforce a unpowered triangular warning device standard than FHWA. Some commenters raised the possibility that there could be a period after NHTSA rescinds the Standard and before FHWA enacts it, when there would be no triangular warning device regulation at all. Some commenters incorrectly speculated that there had not been any consultation between NHTSA and FHWA during NHTSA's development of its proposal.

4. Rescinding the Standard Would Be "Arbitrary and Capricious"

Some commenters stated that in its proposed rescission of Standard No. 125, NHTSA did not show that there is no safety need for the Standard, and in absence of showing no safety need, NHTSA has no legal authority to rescind the standard.

Agency Decision

In response to the President's Regulatory Reinvention Initiative, NHTSA carefully examined Standard No. 125. Although NHTSA has a safety standard for warning triangles, FHWA is the part of the Department that has the greatest program responsibilities for warning triangles. It is FHWA that requires vehicle operators to carry warning triangles or other warning devices in vehicles and it is FHWA that requires vehicle operators to use warning triangles or other warning devices to alert other motorists of the presence of a disabled vehicle. In issuing its proposal, NHTSA believed it would make the government program for warning triangles more effec-

tive and more efficient if the FHWA were also responsible for establishing the performance requirements for these warning devices.

After reviewing the public comments on this proposal and after further consultation with FHWA, NHTSA believes that the current division of program responsibilities and regulatory requirements has served the public well. In fact, the current division of responsibilities assures the public the benefits of the joint expertise of NHTSA and FHWA working together on issues that arise in connection with these warning devices. In addition, the proposal would have forced FHWA to expend resources to promulgate a rule that would be identical to the rule NHTSA rescinded. After reconsidering all these factors, NHTSA has concluded that its proposal to rescind the warning triangle standard should be terminated. This notice announces that termination.

Potential rulemaking actions may arise from one or more pending petitions. Because it will retain Standard No. 125, NHTSA will proceed with its consideration of pending petitions for rulemaking to amend Standard No. 125 from the TSEI and Gault Industries.

AUTHORITY

49 U.S.C. 322, 30111, 30115, 30117, and 30166; delegations of authority at 49 CFR 1.50 and 501.8.

Issued on: June 10, 1997.

L. ROBERT SHELTON,
Associate Administrator for Safety Performance Standards.

[FR Doc. 97–15746 Filed 6–13–97; 8:45 am]

Question. Please list the purpose, amount and recipients of your contracts over $50,000 issued during fiscal year 1997 and fiscal year 1996.

Answer. Below is a list of contracts over $50,000 issued during fiscal year 1997 and fiscal year 1996.

Description	*Amount*
Fiscal year 1996:	
Study rear back up mirrors to identify which ones improve the rear view for drivers of commercial vans and certain delivery trucks—Scientex Inc.	$60,364
Identify baseline child restraint designs and any changes required to conform to the ISOFIX configuration—Ludtke & Associates	70,626
Focus group to examine potential countermeasures to the problems associated with air bags and children—Global Exchange, Inc	91,984
21 frontal barrier crash tests for MY 96 NCAP—MGA	256,734
6 frontal barrier crash tests for MY 96 NCAP—MGA	139,482
5 frontal barrier crash tests for MY 96 NCAP—TRC	109,675
9 frontal barrier crash tests for MY 96 NCAP—Calspan	147,295
Fiscal year 1997:	
Study the feasibility of possible upgrade to FMVSS No. 218, Motorcycle Helmets—USC, Head Protection Research Laboratory	50,000
Conduct research on consumer knowledge of vehicle safety and focus group sessions to determine consumer perceptions and needs about vehicle safety—Global Exchange, Inc	75,000
9 frontal barrier crash tests for MY 97 NCAP—Karco Engineering	198,893
8 frontal barrier crash tests for MY 98 NCAP—Calspan	144,840
11 side impact tests for MY 97 NCAP—MGA	188,340
16 side impact tests for MY 97 NCAP—MGA	262,288
6 side impact tests for MY 98 NCAP—MGA 160,4568 offset frontal tests—Karco	113,052
Quality assurance for NCAP data—Conrad Technologies	85,000

Question. How has NHTSA reduced the average time taken to process a rulemaking action?

Answer. The time to process rulemaking has always been of concern to NHTSA. A team comprised of members from the various offices within NHTSA was established to reviewed the complete rulemaking process. As part of this assignment, the team interviewed each office involved in the rulemaking process to obtain what information was necessary to reach a rulemaking decision and how this information could best be collected. After analyzing all of the data, the team recommended several administrative changes. These changes were accepted and adopted. One of the

major changes was to establish a team for each significant rulemaking. This approach will promote efficiency and quality by encouraging staff from different offices within the agency to work collaboratively. A team can be established for non-significant rulemaking if an office deems one is necessary. Another major change was to allow certain Preambles to be written in the Safety Performance Standards office and cleared through the agency instead of having the Chief Counsel's Office responsible for writing all Preambles. This can save approximately two to three months of processing time. Even though the administrative changes recommended by the Team are currently being implemented, the rulemaking process will continue to be reviewed to see if these changes are in fact improving the quality of the rulemaking and reducing the average time to process a rulemaking action.

Question. How have you improved your cost/benefit analyses to help consumers?

Answer. The agency is continuously trying to improve its economic assessments and regulatory evaluations. The agency has developed data bases on motor vehicle crashes that are second to none in the world. The agency has been recognized by the Office of Management and Budget as the premier example of how regulatory analyses should be conducted in the Federal Government. A cost/benefit analysis for consumers is the central focus of these analyses. We carefully examine safety benefits (the number of lives saved, injuries reduced and property damage reduced), consumer costs, and economic costs. The economic assessments and regulatory evaluations include analyses required by Executive Order 12866, the Regulatory Flexibility Act of 1990, and the Unfunded Mandates Reform Act of 1995.

Question. What is the number and nature of the key rulemaking activities that are now before NHTSA?

Answer. Of the current 108 pending rulemaking activities, approximately 30 are considered key rulemakings. The majority of these activities address the issues of air bag aggressiveness particularly as they relate to the safety of children. A significant number also relate to the establishment of new and varying sizes of dummies to be used for compliance testing of new air bags. Other major activities include labeling requirements to improve consumer information, warning labels for child restraint systems used in motor vehicles with air bags, uniform child restraint attachment systems, new technologies for interior impact protection, exemptions for businesses that modify vehicles to accommodate persons with disabilities from the "make inoperative" prohibitions, and the establishment of a regulatory negotiation for certification of multi-stage vehicles.

Question. Please prepare for the record a list of all final rulemakings that have been issued since you submitted a similar list last year.

Answer. Below is a list of all final rulemakings that were issued from June 1996 through May 1997.

Description	*Std./Pt.*
1996:	
Revises the whip resistance test conditions to permit the use of a supplemental support in attaching certain brake hose assemblies for the purpose of compliance testing	106
Requires that the rear of truck tractors be equipped with retro-reflective material similar to that required on the rear of the trailers they tow to increase nighttime conspicuity. Adopts new photometric requirements for motorcycle headlamps	108
Technical amendment to four standards (109, 117, 119, 120) and the regulation on the identification and record keeping to delete obsolete dates, update statutory citations, correct typographical errors, and update the designations of the offices to which requests and reports are submitted (part of the President's regulatory reinvention initiatives)	109/574
Transfers most of the requirements to the safety standard on lamps, reflective devices, and associated equipment (FMVSS No. 108) and the remaining requirements of the standard are rescinded (part of the President's regulatory reinvention initiatives)	112
Combines the vehicle identification number (VIN) requirements in a single regulation, previously, the VIN requirements were specified in two separate regulations, FMVSS No. 115 and Pt. 565 (part of the President's regulatory reinvention initiatives)	115/565

Description	*Std./Pt.*
Amends the reservoir requirements for trucks, buses and trailers equipped with air brakes amends the location, labeling, color, activation protocol, and photometric intensity of antilock brake system (ABS) malfunction indicator lamps on the exterior of trailers and trailer converter dollies. Amends the air pressure at which a bus's air compressor must automatically activate	121
Rescinds FMVSS No. 126 and combines its provisions with Pt. 575.103 to make the requirements easier to understand and apply (part of the President's regulatory reinvention initiative)	126/575
Permits the installation of a new item of motor vehicle glazing, Item 4A—rigid plastic for use in side windows in motor vehicles to provide greater flexibility for manufacturers to develop and use more aerodynamic, lighter weight glazing designs, resulting in lower fuel consumption	205
Grants request for a phase-in of the compliance date of the new requirements and establishes the usual reporting and record keeping requirements necessary for enforcement of a phase-in and clarifies the definition of "trunk lid" with respect to vehicles in which the seatbacks of rear seats fold down to provide additional cargo space	206
Requires vehicles with air bags to bear three new warning labels, two of the labels replace existing labels on the sun visor, the third is a temporary label on the dash	208
Addresses the use of child harnesses and backless child restraints in aircrafts. Corrects and clarifies provisions made in the July 1995 final rule and permits manufacturers to produce belt-positing seats with a mass of up to 4.4 kg (rather than limit the mass to 4 kg) and permits them to use the word "mass" in labeling child seats	213
Amends certain labeling requirements, specifically the inspection interval and deletes references to certain pamphlets	304
Publishes the final data on thefts of model year (MY) 1994 passenger motor vehicles that occurred in calendar year (CY) 1994	541
Updates the list of passenger motor vehicle insurers that are required to file reports of motor vehicle theft loss experiences	544
Amends the specifications for the hybrid III test dummy for use in FMVSS No. 208 compliance tests	572
1997:	
As a result of a negotiated rulemaking, this standard adopts an option to existing headlamp aiming specifications which is intended to improve the objectivity and accuracy of the motor vehicle headlamp aim. Modifies the final rule requiring that the rear of truck tractors be equipped with retroreflective material similar to that required on the rear of the trailers they tow to increase nighttime conspicuity	108
Includes another phase-in option to allow manufacturers to carry forward credits for vehicles certified to the new requirements prior to the beginning of the phase-in period	201
Extends until September 1, 2000, the time period during which vehicle manufacturers are permitted to offer manual cutoff switches for the passenger-side air bag for vehicles without rear seats or with rear seats that are too small to accommodate rear facing infant seats. Temporarily amend the standard to ensure that vehicle manufacturers can quickly depower all air bags so that they inflate less aggressively	208
Makes further amendment to previous amendment so that certain exclusions from requirements in two other standards are available for vehicle certification to the unbelted barrier test will also be certified to the alternative sled test	208
Clarifies and allows additional wording in the required text of the warning labels on rear-facing child seats on an interim basis	213
Established average fuel economy standard for light trucks manufactured in model year (MY) 1999	533
Adopts modifications to the Hybrid III test dummy used in compliance testing for neck measurements under FMVSS No. 208	572

VEHICLE SAFETY AND CONSUMER STANDARDS PROGRAM

Question. In fiscal year 1997, an additional $340,000 was added to this program to establish a federal motor vehicle safety standard for frontal offset crash testing. What is the status of this standard? How long will it take before it is completed?

Answer. Congress provided $340,000 in fiscal year 1997 funding to "be used toward establishing a federal motor vehicle safety standard for frontal offset crash testing." Further, Congress wanted these activities to reflect ongoing efforts to enhance international harmonization of safety standards. In response to this directive, the agency is studying the recently (November 1996) adopted European Union (EU) directive as a potential offset testing crashworthiness standard. With the $340,000 provided in fiscal year 1997, the agency is conducting eight offset crash tests to evaluate this EU offset test with both 50th percent male and 5th percentile female dummies (see test matrix). The agency is coordinating this activity with the safety community and the vehicle manufacturers through NHTSA's Motor Vehicle Safety Research Advisory Committee (MVSRAC) and has had an initial meeting with EU representatives. It is not expected that the EU directive could be adopted as a replacement for Federal Motor Vehicle Safety Standard (FMVSS) No. 208, "Occupant Crash Protection," but is being considered as an option of harmonization to the standard as a supplemental regulation. A status report will be delivered to Congress on this offset testing activity in July 1997.

In fiscal year 1998, the agency has requested an additional $340,000 for this effort. fiscal year 1998 crash test plans will address the repeatability and reproducibility of the EU test procedure, the performance of additional dummy sizes in frontal crashes, and the feasibility of the test procedure for lighter or heavier vehicles. After completion of these testing activities, adequate information should be available to conduct the requisite benefit and cost analysis to evaluate the feasibility of promulgating a supplemental offset test requirement to FMVSS 208.

TEST MATRIX

Frontal test	Dodge Neon	Toyota Camry	Ford Taurus
Full [2] 48 kph with 50th percent male dummy, unrestrained [2]	([1])	([1])	([1])
Full [2] 56 kph with 50th percent male dummy, restrained [3]	([1])	([1])	([1])
Full [2] 48 kph with 5th percent female dummy, restrained	.....	.....	.....
40 percent offset [2] 60 kph with 50th percent male dummy, restrained [4]	([1])	.....	.....
40 percent offset [2] 64 kph with 50th percent male dummy, restrained [5]	([1])	([1])	([1])
40 percent offset [2] 60 kmph with 5th percent female dummy, restrained	.....	.....	.....

[1] Data already exists for this test condition and make model combination.
[2] NHTSA FMVSS No. 208 crash test results.
[3] NHTSA NCAP crash test results.
[4] Transport Canada test results.
[5] IIHS EU test results.

NEW CAR ASSESSMENT PROGRAM

Question. Why did the budget for this program increase 63 percent from 96 to 97?

Answer. The principle reason for this increase was the new initiative to provide side impact safety information to the US consumer. Twenty-six vehicles have been tested in fiscal year 1997 with the resulting data providing relative side impact crash performance information to consumers on 46 percent of the model year 1997 passenger cars. Other minor increases were due to inflation in the costs of vehicles and testing.

Question. How much front and side impact safety information is available on the Internet?

Answer. For model year 1997, the agency's Web Site has frontal safety information on 152 vehicles accounting for about 86 percent of new vehicles sold in the USA. The Web Site has side impact safety information on forty-one cars for model year 1997 accounting for about 46 percent of new cars sold in the USA.

During fiscal year 1997, the agency worked diligently to make the NHTSA Web Site easy to use and to make the information clear. The quality & clarity of Web Site has been greatly improved during this period. The numbers of consumers visiting NCAP (on the Web Site) grew from an average of about 900 visitors a week in June 1996 to an average of thirty-four hundred visitors a week in May 1997.

For model years 1995 and 1996, the agency has the safety ratings for frontal impact on the Web Site. Because of staff limitations, we do not yet have the pre-1995

NCAP information on the Web Site. At this time, the agency is bringing in a direct support contractor to place the previous year's NCAP information on the Web Site.

The agency's Web Site provides direct links for consumers to crash test information at other sites. We provide links to front impact safety information at sites in Japan, Australia, and the Insurance Institute for Highway Safety.

Question. Please discuss the cooperative efforts NHTSA has established with foreign NCAPS. How much do these cost? What do NHTSA and consumers gain from these?

Answer. The success of United States NCAP prompted international efforts. As early as 1990, representatives from Japan and Australia met with the agency to establish NCAP consumer information programs in their countries. Later, meetings were held with European NCAP representatives. The first Australian NCAP results were published in 1993. These test data showed that vehicles sold in the Australian market had a lower level of safety performance than those sold in the U.S. market. Japan released their first data on full frontal crash ratings in March of 1996. The Euro NCAP released their first NCAP results in February 1997.

At the Fifteenth International Conference on the Enhanced Safety of Vehicles in May 1996, a special session was conducted specifically to address the international crashworthiness rating systems and to assure that harmonization be considered by the different countries in the development and execution of these programs. Representatives from all major countries attended this session and discussed their activities and the potential for improved harmonization.

These cooperative efforts lead to international consistency and harmonization in many of the aspects of the programs. This is very beneficial for both consumers and vehicle manufacturers. The Japan and Australian NCAP's use identical full frontal test procedures. The offset frontal test procedures used in Australia and Europe are the same as those used by the Insurance Institute for Highway Safety. Many of the approaches for presenting information to consumers are similar. The sharing of information and the international cooperation significantly enhance the knowledge of each individual country in understanding, evaluating, and developing the best methods for conducting consumer programs. The agency gains from these cooperative efforts because it leads to establishing universal procedures such that data generated in one country may be directly comparable to United States NCAP data. The consumer in the other country gains because a safety rating process, developed in the United States, is now available in his/her country.

As with any harmonization effort, a major cost is travel. Because the agency's travel budget has been extremely limited, the travel has been from the foreign countries to the United States. Consequently, these cooperative efforts with foreign NCAP programs have had little direct cost to NHTSA.

Question. Please provide an update on how the funds appropriated for fiscal year 1997 were used to expand NCAP. How many tests have been conducted, and what were the results?

Answer. The fiscal year 1997 NCAP funds were used to continue frontal NCAP testing, to maintain promotional and consumer activities, and to expand NCAP into side impact testing. The following tables provide the costs, number of vehicles tested, and test results.

Detailed breakdown of fiscal year 1997 NCAP costs

Project description	*Budget amount*
Frontal Impact—NCAP fiscal year 1997:	
Vehicle Purchase (42)	$698,000
Vehicle Testing (42)	914,000
Dummy Calibration & Refurbishing	76,000
Administrative Costs	[1] 17,000
Total	1,705,000
Side Impact NCAP fiscal year 1997:	
Vehicle Purchase (26)	409,000
Vehicle Testing (26)	385,000
Dummy Calibrations & Refurbishing	38,000
Administrative Cost	[1] 8,000
Total	840,000
NCAP Promotional: Promotional Material (Brochures, Radio & Print Spots and Internet Dissemination)	150,000

Detailed breakdown of fiscal year 1997 NCAP costs—Continued

Project description	*Budget amount*
Program: Reproduce and Disseminate Consumer Material	97,000
Total	247,000
Total fiscal year 1997 NCAP Costs	2,792,000

[1] Administrative costs include computer support, hot copy, printing, and distribution costs.

1997 FRONTAL IMPACT NCAP VEHICLES

Manufacturers	Model	Body style	Star ratings	
			Driver	Passenger
Chrysler	Caravan	MPV	4	5
	Cherokee	MPV	3	3
	Dakota Excab	PU	4	4
	Neon	2DR	([1])	([1])
	Ram Excab	PU	4	3
	Sebring	Conv	4	4
	Wrangler	MPV	4	5
Ford	Club Wagon	VAN	3	4
	Escort	4DR	3	4
	Escort 98	2DR	([2])	([2])
	Expedition	MPV	4	5
	F–150	PU	4	5
	Ranger	PU	4	4
	Windstar	VAN	5	5
GM	Blazer	MPV	3	1
	C/K	PU	5	4
	C/K-Excab	PU	5	4
	Cavalier	2DR	4	4
	Cavalier	4DR	4	3
	Deville	4DR	4	4
	Grand Prix	4DR	4	4
	Grand AM	2DR	4	5
	Grand AM	4DR	5	4
	Lesabre	4DR	4	4
	Malibu	4DR	4	4
	S–10 Excab	PU	3	2
	Tahoe	MPV	4	4
	Venture	VAN	4	4
Honda	Accord	2DR	4	4
Hyundai	Accent	4DR	3	4
KIA	Sephia	4DR	4	4
	Sportage	MPV	3	3
Mitsubishi	Galant	4DR	4	4
	Montero	MPV	3	3
Nissan	200SX	2DR	5	4
	Pathfinder	MPV	3	3
Toyota	Camry	4DR	4	4
	Paseo	2DR	4	4
	RAV4	MPV	3	3
	Tacoma Excab	PU	1	3
	Tercel	2DR	4	4
Volvo	960	4DR	4	4

[1] Data being reviewed.
[2] To be tested.

1997 SIDE IMPACT NCAP PASSENGER CARS

Manufacturers	Model	Body style	Star ratings	
			Driver	Passenger
Chrysler	Stratus	4DR	3	2
	Intrepid	4DR	4	3
Ford	Escort	4DR	3	3
	Thunder-Bird	2DR	3	1
	Crown Victoria	4DR	4	4
	Taurus	4DR	3	3
	Contour	4DR	3	4
GM	Deville	4DR	4	4
	Malibu	4DR	1	3
	Cavalier	2DR	1	2
	Camaro	2DR	3	4
	Lumina	4DR	4	3
	Grand AM	4DR	1	3
	Saturn SL	4DR	3	3
Honda	Accord	4DR	2	3
	Civic	4DR	3	3
Hyundai	Sonata	4DR	1	2
Kia	Sephia	4DR	2	1
Mazda	626	4DR	2	3
Mitsubishi	Galant	4DR	3	2
Nissan	Maxima	4DR	4	3
Subaru	Legacy	4DR	(1)	(1)
Toyota	Corolla	4DR	3	3
	Camry	4DR	3	3
	Tercel	2DR	3	4
Volvo	850	4DR	4	(2)

[1] Data being reviewed.
[2] No data available.

Question. How will NHTSA utilize the fiscal year 1998 requested funding to provide improved information regarding full frontal and side crashes to consumers?

Answer. The attached tables contain the projected breakdown of the fiscal year 1998 NCAP costs.

Project description	*Budget amount*
Impact Testing NCAP fiscal year 1998 Budget Plans:	
Vehicle Purchase (70)	$1,093,000
Vehicle Testing (70)	1,161,000
Dummy Calibration and Refurbishing	70,000
Quality Assurance of NCAP Data	110,000
Video Production	25,000
Administrative Costs	[1] 80,000
Total	2,539,000
NCAP Promotional Program:	
Promotional Material (Brochures, Radio and Print Spots and Internet Dissemination)	150,000
Reproduce and Disseminate Consumer Material	97,000
Total	247,000
NHTSA Staff (4)	278,000
Total fiscal year 1998 NCAP Costs	3,064,000

[1] Administrative costs include computer support, hot copy, printing, and distribution costs.

Question. Please provide a detailed discussion on how this information will be distributed to consumers, and what will be contained in that information.

Answer. NCAP data are made available through regular press releases as the tests are completed. These press releases are distributed to all the major news services, consumer groups, magazines, and many other associations. Over 1,000 different organizations with readership in the tens of millions receive these press releases. The data will be separate Star ratings for frontal impact and for side impact.

At the time of the press release, the frontal and side impact NCAP Star ratings will be placed on the agency's Web Site. The NCAP portion of the Web Site was running about 3,400 visitors a week in May 1997.

In addition to the Star ratings, the test result numbers recorded by the dummies will be placed on the Web Site for those who wish greater detail.

In 1995, a joint effort with the American Automobile Association and the Federal Trade Commission led to the development and distribution of 230,000 copies of a brochure Buying a Safer Car which contains NCAP results. It is reasonable to project that a half million copies of the 1997 Buying a Safer Car will be distributed. The 1997 brochure included side impact crash test results for the first time. Other evidence of the success of this brochure is that, for the first year, NHTSA has been asked by numerous manufacturers to include additional vehicles.

Consumer Reports, a popular publication of Consumers Union (CU), annually uses the NCAP data in a special issue on automobiles. In discussions with CU editors, it was verified that this annual automotive issue is consistently the most popular issue published by CU. The sales of their annual issue exceed over five million copies.

The Car Book, originally published by the Department of Transportation in 1980, is now published each year by Jack Gillis of the Consumer Federation of America. This publication also uses the crash test data from NCAP tests as the principal source of safety information. Sales of *The Car Book* average approximately 75,000 per year.

The United Services Automotive Association (USAA) Foundation, the nation's sixth largest insurer of motor vehicles, publishes a very comprehensive booklet, "The Car Guide", which provides its members with information regarding passenger safety, damage ability, theft risk, and insurance experience of various vehicles. The safety information is based on the NCAP test results. "The Car Guide" is distributed annually to USAA's approximately two million members.

The exposure to the public of the NCAP data through the different media also results in many individual inquiries to NHTSA.

During fiscal year 1997, NHTSA will conduct focus groups to test whether the public would find a combined frontal and side impact NCAP rating useful. The focus groups will also examine the usefulness of the present star rating system currently used for NHTSA is comprehensible to the public. This activity will be one step towards a summary rating of a vehicle's crashworthiness.

Question. How does depowering of air bags affect funding needs for NCAP? Does depowering suggest a need for additional tests?

Answer. The agency's fiscal year 1998 NCAP funding request did not anticipate the depowering of air bags. Normally vehicles, previously tested in NCAP, which are not changed in the new model year (MY), are carried forward to provide consumers with comparative safety information on a large percentage of the new vehicles. For MY 1997, this practice provided consumers with comparative frontal crash safety information on more than 85 percent of the fleet. From information that the agency has already gathered from the manufacturers, it is known that a large percentage of MY 1998 vehicles will have depowered air bags. The effect of depowered air bags on NCAP results is not known. Therefore, any previously tested vehicle without depowered air bags cannot be carried forward to represent a MY 1998 vehicle with depowered air bags. To provide information to consumers on any make/model vehicle with depowered air bags, NCAP frontal performance will need to be assessed. NCAP gave frontal safety ratings on 85 percent of the MY 1997 vehicles sold in the United States.

A significant increase in funds will be needed to test this percentage of the fleet for MY 1998. It is anticipated that at the presently requested funding level, frontal NCAP data will be available on approximately 50 percent of the MY 1998 new vehicles. To test 80 to 85 percent of the new depowered vehicles will require additional resources to conduct an additional 20 tests. In addition to the normal consumer information, this increased number of NCAP tests of vehicles with depowered air bags will provide the agency and the safety community with a comprehensive view of the effects of depowering on the level of safety provided in high severity crashes.

Question. Please outline the activities NHTSA conducted to promote NCAP during fiscal year 1996 and fiscal year 1997, and planned for fiscal year 1998? How successful have these been? What funding sources have been used?

Answer. In fiscal year 1996 and 1997, the agency initiated several actions to increase the public's awareness of the New Car Assessment Program (NCAP). A video news release (VNR) releasing the first set of side impact test results was developed and the story aired on the three major network morning shows. Upon the release of the 1997 NCAP results, a series of prepackaged news stories were developed and distributed to a number of newspaper editors and news and wire services. To increase the focus on providing consumers more information about NCAP, a contract was awarded to develop a 60-second PSA to provide audience participants with relative crashworthiness information on passenger vehicles to assist them in their car buying decisions. The PSA will be shown prior to motion picture feature presentations in selected theaters around the nation.

The agency announced the release of a new edition of the popular Buying a Safer Car brochure. For the first time, the brochure also includes ratings for side-impact tests and now provides consumers with relative safety information on the two most common injury causing crash events—frontal and side impacts.

The agency worked diligently to make the NHTSA Web Site easy to use and to make the information clear; thereby increasing the public's access to crash test information by placing the NCAP results on NHTSA's Web Site.

In fiscal year 1998, the NCAP program will continue to provide consumers with relative safety information on a high proportion of new vehicles. NCAP promotional activities will continue the development and distribution of brochures, video news releases, public service announcements, and NCAP exhibits and expand these activities to provide consumers with additional and improved safety information to help them make motor vehicle purchase decisions.

The NCAP promotional activities, which are funded out of the NCAP budget ($247,000 in 1997), have been successful. Release of the NCAP VNR was made available via satellite to all TV markets and reached millions of households. Annual distribution of the Buying A Safer Car brochure exceeds 400,000 copies. During the first month of 1997 alone, more than 8,000 users made over 50,000 queries to the NCAP database on the NHTSA home page. While these activities have been successful, much more needs to be done as a recent NHTSA customer survey found that 40 percent of the respondents had never seen or heard the crash test ratings.

Question. How many passenger car side impact tests have been conducted so far during fiscal year 1997, and how many are planned for fiscal year 1998? How is the cost for conducting these tests reflected in your fiscal year 1998 budget request?

Answer. The agency crash tested 26 cars in side impact in 1997 NCAP. For 1998, the agency plans to conduct a total of 70–75 frontal and side crash tests. A determination will be made as to the number of tests for each mode after all information from manufacturers on air bag depowering is received. The agency would prefer to test at least another 26 cars in the 1998 side impact NCAP. However, once the manufacturers have made public their plans for depowering their frontal air bags in model year 1998, the agency may find that it is necessary to shift some tests from side impact to frontal NCAP to maintain a reasonable amount of consumer information on comparative frontal crashworthiness.

Question. What is the status of NHTSA's efforts to promote international harmonization? How much do you plan on spending in this area during fiscal year 1998? During fiscal year 1997?

Answer. The agency is committed to continuing to carry out the provisions of the New TransAtlantic Agenda and Action Plan signed by President Clinton, in December of 1995, in Madrid. These provisions include promises to achieve global regulatory uniformity and to encourage a collaborative approach in testing and certification procedures by promoting greater compatibility of standards and health and safety-related measures. The agency has led the efforts in the drafting of a multinational proposal by the Steering Group of the Working Party on the Construction of Vehicles (WP.29), to establish an agreement for the development of globally harmonized motor vehicle regulations. Negotiations regarding the agreement are ongoing and NHTSA representatives expect to complete the text of the Agreement during the June Session of WP.29.

The agency has also completed the development of a generic process for the assessment of functional equivalence of USA and other countries' motor vehicle safety regulations. NHTSA will soon begin the process in a final rule that amends Part 552 of the CFR by adding a flowchart of the process as an appendix. The agency has recently used this Functional Equivalence process in devising a plan to harmonize the Unites States and European Union (EU) side impact regulations.

Congress provided $340,000 in fiscal year 1997 funding to "be used toward establishing a federal motor vehicle safety standard for frontal offset crash testing." Further, Congress wanted these activities to reflect ongoing efforts to enhance international harmonization of safety standards. In response to this directive, the agency

is studying the recently (November 1996) adopted EU directive as a potential offset testing crashworthiness standard. With the $340,000 provided in fiscal year 1997, the agency is conducting eight offset crash tests to evaluate this EU offset test with both 50th percentile male and 5th percentile female dummies. The agency is coordinating this activity with the safety community and the vehicle manufacturers through the Motor Vehicle Safety Research Advisory Committee (MVSRAC) and has had an initial meeting with EU representatives. It is not expected that the EU directive could be adopted as a replacement for Federal Motor Vehicle Safety Standard (FMVSS) No. 208, "Occupant Crash Protection," but is being considering as an option of harmonization to the standard as a supplemental regulation. A status report will be delivered to Congress on this offset testing activity in July 1997.

In fiscal year 1998, the agency has requested an additional $340,000 for this effort. fiscal year 1998 crash test plans will address the repeatability and reproducibility of the EU test procedure, the performance of additional dummy sizes in frontal crashes, and the feasibility of the test procedure for lighter or heavier vehicles.

In the fiscal year 1997 Congressional Conference Report 104–785 accompanying H.R. 3675, which provided funding for side impact testing in the New Car Assessment Program, the conferees noted "that there are substantial differences between the U.S. side impact standard and the new European standard. These differences are inconsistent with the need for the international harmonization of motor vehicle safety standards." The House and Senate committees on Appropriations requested the agency develop a plan for achieving harmonization of the side impact standard and submit a report on this plan to Congress. The agency has developed a plan and is proceeding with testing and analysis activities. NHTSA will determine the potential for international side impact harmonization by: (1) Analyzing past research and performing new tests to determine the relative safety benefits offered by each regulation; (2) Coordinating with industry and other interested groups to establish consensus on the activities, eliminate duplication of work, and reduce cost; (3) Determining if functional equivalence exists or can be established between the two requirements; (4) Coordinating with EU to assess harmonization options and approaches. Presently, funding for this effort has been provided from the Research and Development budget. A full report on this project will be sent to Congress in July.

In addition, the agency is in the process of trying to have the new U.S. headlamp beam pattern adopted as a worldwide standard. NHTSA published a final rule implementing the consensus position from its regulatory negotiation on optical/visual headlamp aim in March 1997. Participants in the negotiation included manufacturers, dealers, repair shops, State highway officials, and consumer groups. This new rule will improve the aim of headlamps in service and give a better beam pattern to the American public, while reducing costs for manufacturers and simplifying aiming procedures for dealers and repair shops. The rule also represents a breakthrough for international harmonization, because European manufacturers and the Japanese Center for International Standardization participated in the negotiations and believe that this new NHTSA standard can become a worldwide standard. NHTSA will officially submit this rule on behalf of the United States to the UN group in Geneva, Switzerland in October 1997 in an effort to get the U.S. standard for headlamp beam pattern adopted as a worldwide standard.

Question. Please discuss how NHTSA responded to the conclusions and recommendations of the National Academy of Sciences' study on consumer information regarding automotive safety that were released March 26, 1996. How are these responses reflected in the fiscal year 1998 budget request?

Answer. On May 20, 1997, NHTSA published a notice in the Federal Register summarizing the recommendations of the NAS study, and asking for comment on the agency's response to those recommendations and on programs NHTSA has begun or is considering to address those recommendations (62 FR 27648).

NHTSA generally agrees with the recommendations of the NAS study, and has a number of activities planned to address those recommendations, including: improvements to existing programs; development of proper use materials; research to determine what consumers understand about vehicle safety, how safety factors into vehicle purchase decisions, and how such information should be presented; exploration of a summary crashworthiness rating for new vehicles; and dissemination of information on vehicle crash avoidance features such as braking and lighting.

While the notice requesting comments was recently issued, NHTSA included initiatives in the fiscal year 1998 budget request that we anticipated initiating in fiscal year 1998 in response to the NAS recommendations. These initiatives include the development of proper use materials on equipment such as anti-lock brakes, consumer research activities, and assessing the feasibility of providing consumer information on head lighting and braking performance. While the fiscal year 1998 budget request is sufficient to begin addressing some of the NAS recommendations

at a very minimum level, it is likely that future funding requirements will be much greater.

FUEL ECONOMY PROGRAM

Question. What is the Administration's policy on changing the CAFE standards for passenger cars? For light trucks and vans? What is the status of NHTSA's rulemaking activity with respect to changing CAFE standards for light trucks and vans?

Answer. The statute fixes the passenger car CAFE standard at 27.5 mpg unless the Administration sees a need to change it under the statutory considerations. The last change was for model year 1989 when the standard was lowered to 26.5 mpg before returning to 27.5 mpg for model year 1990 and thereafter. NHTSA has no plans to propose amending the passenger car CAFE standard. On the other hand, the statute does not provide a basic standard for light trucks, but directs the Department to establish a standard for each model year. The agency issued a fuel economy standard for light trucks for model year (MY) 1999 of 20.7 mpg as required by the DOT Appropriations Act for Fiscal Year 1997. The standard for MY 2000 must be issued by March 31, 1998. To meet that date, the agency will issue a notice of proposed rulemaking before the end of this calendar year.

Question. Please provide a detailed explanation of the efforts underway to maintain the plants and lines database. What data have been collected, and what are these data telling you?

Answer. The Volpe Transportation Systems Center is refining the database structure to improve the access and utility of the information. Data are extracted from public media sources on individual auto manufacturers and major suppliers. The data include product planning information; plant locations, capacities, and employment; the relationship of assembly plant products to engine and transmission plant products; and basic financial information on the domestic auto manufacturers. The information in the database is used in agency rulemaking analyses by providing insights into manufacturers' technological and economic capabilities.

THEFT PREVENTION

Question. Please explain the request to repeal the requirements for collection and analysis of insurance information relating to the effectiveness of the parts-marking standards.

Answer. 49 U.S.C. 33112, Insurance reports and information, requires insurers to report annually on vehicle thefts and recoveries and provides that NHTSA "shall compile and publish information" obtained from insurers in a form that will be helpful to the public, the law enforcement community, and Congress. NHTSA receives information from certain insurance companies and rental/leasing companies regarding theft activities, comprehensive rates and payments for stolen motor vehicles each year. Contractors compile and evaluate this information for the agency. The agency requested that Section 33112 be repealed because the reporting requirement represents a paperwork burden for motor vehicle insurers and rental/leasing companies, while the reports provide untimely information (the data is three years old when submitted to NHTSA) that has not proven useful in assessing the program. Both the Department of Justice and the Department of Transportation are currently assessing the effectiveness of the parts-marking standards. Neither Department has found the data submitted under the requirements of 49 U.S.C. 33112 to be of value to their respective evaluation efforts. This is why NHTSA's regulatory reform efforts identified insurer reporting requirements as something that could be eliminated. Such a change can only be made by Congress, since the existing law must be amended. The Department's NEXTEA proposal includes a provision that would eliminate this requirement.

Question. If this requirement is repealed, would that eliminate the need for the $50,000 request for this purpose?

Answer. Approximately half the original contract cost would still be necessary. In addition to supporting contractor analysis of the information submitted by insurance companies and rental/leasing companies, the funds also support computer time sharing costs to perform in-house analysis of FBI theft and recovery data on stolen motor vehicles from over 26,000 law enforcement jurisdictions in order to calculate annual theft rates and issue rules requiring the designation of likely high-theft vehicles.

SAFETY ASSURANCE

Question. Please prepare a table indicating the amount requested and the amount actually appropriated for the four programs in the Safety Assurance Program for fiscal years 1995, 1996 and 1997.

Answer. The information follows.

Program	Fiscal years—					
	1995		1996		1997	
	Request	Appropriation	Request	Appropriation	Request	Appropriation
Vehicle Safety Compliance	$5,400,000	$5,231,000	$5,353,000	$4,775,000	$6,033,000	$5,837,000
Auto Safety Hotline	557,000	557,000	1,667,000	657,000	1,787,000	1,483,000
Defects Investigation	2,481,000	2,481,000	2,460,000	2,419,000	2,481,000	2,478,000
Odometer Fraud			100,000	60,000	100,000	60,000
Total	8,438,000	8,269,000	9,580,000	7,911,000	10,401,000	9,858,000

Question. Please prepare a table for each of the four programs in the Safety Assurance Program, showing how all of the funds requested for fiscal year 1998 are intended to be spent, and please include in that table a comparison with the amount provided for each of those activities for fiscal year 1997. On a separate page, please justify the need for the requested increases.

Answer. The information follows.

VEHICLE SAFETY COMPLIANCE

Activity	Fiscal years—	
	1997	1998
Vehicle Compliance Testing	$3,670,000	$3,575,000
Equipment Compliance Testing	1,800,000	1,770,000
Uniform Tire Quality Grading (Facility in San Angelo, Texas)	367,000	367,000
Total	5,837,000	5,712,000

DEFECTS INVESTIGATION

Activity	Fiscal years—	
	1997	1998
Defect Identification and Evaluation	$1,428,000	$1,428,000
Testing and Surveys	700,000	700,000
Recall Monitoring and Performance	350,000	350,000
Total	2,478,000	2,478,000

AUTO SAFETY HOTLINE

Activity	Fiscal years—	
	1997	1998
Call handling Support	$348,000	$125,000
Contract Personnel	575,000	650,000
Defect Reporting	160,000	228,000
Phone	300,000	330,000
Printing	100,000	125,000
Total	1,483,000	1,458,000

ODOMETER FRAUD INVESTIGATION

Activity	Fiscal years—	
	1997	1998
Cooperative Agreements for 3 States to conduct in-State program	$60,000	.....
Cooperative Agreements for 4 States to provide law enforcement agent	.....	$210,000
Total	60,000	210,000

JUSTIFICATION FOR INCREASES

Auto Safety Hotline.—Savings accrued from one-time hardware upgrades purchased in fiscal year 1997 will be used in fiscal year 1998 to increase contractor personnel support, defect reporting, and increases in phone and printing costs. The agency anticipates that four additional representatives will need to be hired in fiscal year 1998 in order to decrease the hangup rate to an acceptable rate.

In addition, the agency would like to continue to develop and expand the Hotline outreach program which was begun in fiscal year 1997. The Office of Defects Investigation (ODI) relies heavily on consumer reports of problems with motor vehicles or items of motor vehicle equipment.

Odometer Fraud Program.—In fiscal year 1996 and fiscal year 1997, NHTSA entered into contracts or cooperative agreements to three states to provide "seed money" for enhancement of state odometer enforcement programs. Those states, working independently, conducted investigations and assisted defrauded consumers in recovering damages within their states. Each of the states received $20,000 for this level of effort. In fiscal year 1998, the agency plans to enter into cooperative agreements with four states and change the nature of the cooperative agreements. Under agreement, each of the four states will provide an investigator to the agency's odometer enforcement program. This will not only to stimulate the enforcement programs in those states, but will also supplement NHTSA's investigative staff. While working with NHTSA's enforcement staff, the state investigators will receive the training necessary to enhance the state's enforcement program plus increase the number of investigations the agency can conduct, particularly in areas that are known "hotbeds" of odometer fraud, thereby reducing NHTSA's backlog of investigative leads. The requested funds will pay living expenses for the investigators, approximately $52,000 each, for one year while they are assigned to NHTSA. Although this type of cooperative agreement is more costly than the prior system, the agency believes the program, states, and the public will benefit in the short term (as more odometer fraud investigations are commenced and completed) and in the long term (by training state employees who will continue to use their newly-developed skills to combat odometer fraud in the future).

AUTO SAFETY HOTLINE

Question. Why did the budget for the Auto Safety Hotline more than double from fiscal year 1996 to fiscal year 1997?

Answer. The Auto Safety Hotline budget increased from $657,000 in fiscal year 1996 to $1,483,000 in fiscal year 1997. Approximately $300,000 of this increase was necessary to pay the phone bill, which was previously paid out of agency operating expenses. The Operating Expenses budget was reduced accordingly. The remaining increase has allowed the agency to upgrade the electronic and computer hardware equipment utilized by the Hotline and to hire additional contract representatives, with a small portion being used for activities which will increase the number of potential defects reported to the Hotline in support of defect investigations.

Question. What is the number of calls to the hotline each year for the last three years?

Answer. Total calls received by the Hotline for the last three calendar years are as follows:

Years	*Calls*
1994	533,801
1995	809,496
1996	778,819

Question. Could improved or more use of the Internet save money for NHTSA?

Answer. The Internet is a useful tool for individuals to get information about various motor vehicle safety issues and to report problems with their vehicles or motor

vehicle equipment, such as child safety seats. The agency is continuously examining ways to improve and expand use of the Internet, including hotlinks with other websites. Additionally, the outreach program that the Auto Safety Hotline has undertaken to increase defects reports to the agency is promoting both the Hotline and the Internet as methods of filing. Both the Hotline and the Internet are complementary methods for consumers to gain valuable safety information and to report potential defects and both must be used to get the maximum amount of exposure to NHTSA and the services it offers. However, at the present time the agency does not believe that increases in the use of the Internet will save money for NHTSA. The number of consumers with access to the Internet is still limited. Approximately 36 percent of the households in the United States have a personal computer, with a smaller number having access to the Internet. Additionally, nationwide call center surveys indicate that 70 percent of the people who call hotlines indicate a preference to speak directly to a person who can answer their questions.

Question. Please explain why NHTSA maintains that fiscal year 1998 funding for the Hotline should not revert to the fiscal year 1996 level.

Answer. Approximately $300,000 of the increase to the Auto Safety Hotline was necessary to pay the telephone bill, which previously had been paid for out of agency operating expenses. The Operating Expenses budget was reduced accordingly. Reverting back to the fiscal year 1996 funding level would drastically reduce the services provided by the Hotline. The cost of the contract representatives hired during fiscal year 1997 with the increased funding is a recurring expense, and the agency anticipates that four additional representatives will be needed in order to decrease the hangup rate to an acceptable rate. Finally, the agency would like to continue to develop and expand the Hotline outreach program, which was begun in fiscal year 1997. The Office of Defects Investigation (ODI) relies heavily on consumer reports of problems with motor vehicles or items of motor vehicle equipment. Hotline complaints are the agency's primary source of information regarding vehicle problems. However, most consumers do not contact the Hotline. Therefore, it is important that funds are available to educate the public about the benefits of reporting potential defects to the Hotline or through the Internet. A 1995 consumer survey by NHTSA has shown that the public perceives a need for a federal Hotline from which they can receive and to which they can report safety information. However, that same survey shows that less than 20 percent of the public knows of the Auto Safety Hotline, and of those who know, only five percent know that it is operated by NHTSA. By increasing the outreach efforts, the motoring public will receive the safety information they need and be able to report important information for use in the agency's investigations.

Question. What activities would cease if the fiscal year 1996 level of funding was provided?

Answer. With funding at $657,000, the fiscal year 1996 level, the operations of the Auto Safety Hotline would have to be drastically reduced. The telephone expenses are based on a monthly flat rate, plus a fee-per-minute charge. It is anticipated that with fewer representatives to answer the phone calls, more callers would leave their names and phone numbers for call-backs or their names and addresses for information to be mailed to them. Thus, the reduced amount of time spent on each call would reduce the phone bill proportionately. The agency estimates that the bill would be reduced to $176,000. Printing costs would remain the same at about $125,000. The cost to transcribe telephone messages left on the automatic answering system would increase due to the increased number of messages left on the automatic phone answering system. The agency estimates that the cost to transcribe these calls would increase to $110,000. That would leave $246,000 to be spent on contract representatives to answer the phones. Approximately five representatives could be hired for this amount. Currently, the Auto Safety Hotline has 16 contract representatives that answer the telephones. To reduce this number to five would seriously diminish the Hotline's ability to provide quality service to the motoring public.

ODOMETER FRAUD PROGRAM

Question. Please explain the $150,000 increase requested under the odometer fraud program for fiscal year 1998. How will the additional funding be spent, and what will be done in this program that was not done during fiscal year 1997?

Answer. In fiscal year 1996 and fiscal year 1997, NHTSA entered into contracts or cooperative agreements to three States to provide "seed money" for enhancement of state odometer enforcement programs. Those States, working independently, conducted investigations and assisted defrauded consumers in recovering damages within their States. Each of the States received $20,000 for this level of effort. In

fiscal year 1998, the agency plans to enter into cooperative agreements with four States and change the nature of the cooperative agreements. Under agreement, each of the four States will provide an investigator to the agency's odometer enforcement program. This will not only to stimulate the enforcement programs in those States, but will also supplement NHTSA's investigative staff. While working with NHTSA's enforcement staff, the state investigators will receive the training necessary to enhance the state's enforcement program plus increase the number of investigations the agency can conduct, particularly in areas that are known "hotbeds" of odometer fraud, thereby reducing NHTSA's backlog of investigative leads. The requested funds will pay living expenses for the investigators, approximately $52,000 each, for one year while they are assigned to NHTSA. Although this type of cooperative agreement is more costly than the prior system, the agency believes the program, States, and the public will benefit in the short term (as more odometer fraud investigations are commenced and completed) and in the long term (by training State employees who will continue to use their newly-developed skills to combat odometer fraud in the future).

Question. Do the States have more resources than NHTSA to investigate these types of violations? Did the States request NHTSA to increase their participation in the odometer fraud program?

Answer. The amount of resources each State has available to investigate odometer fraud varies from State to State. Generally, other than the funds provided by NHTSA to the States, the States have not dedicated resources to full-time odometer fraud enforcement. Several States have more investigators than NHTSA that conduct odometer fraud investigations; however, those investigators are involved in numerous other types of enforcement activities. Although NHTSA has received no specific requests from the States to increase participation in the odometer fraud program, the States continually look to NHTSA for assistance in carrying out their enforcement programs. Each year, more States submit applications for cooperative agreements than are available.

Question. Which States does NHTSA have cooperative agreements with in fiscal year 1997, and which four States will NHTSA enter into an agreement with if the fiscal year 1998 requested level is provided?

Answer. In fiscal year 1997, NHTSA entered into cooperative agreements ($20,000 each) with the New Jersey State Police, Georgia Governor's Office of Consumer Affairs, and the Colorado Department of Motor Vehicles. Because Congress has not acted on the fiscal year 1998 DOT Appropriations bill, NHTSA has not selected any States. When funding is available for fiscal year 1998, the agency will solicit applications from the States for cooperative agreements. The States will be selected based on the information contained in the applications.

HIGHWAY SAFETY SAFE COMMUNITIES INJURY CONTROL PROGRAM

Question. Please prepare a table indicating the amount requested and the amount actually appropriated for the Safe Communities Injury Control program for fiscal years 1995, 1996, and 1997.

Answer. See table below.

[In thousands of dollars]

Program	Fiscal years—					
	1995		1996		1997	
	Request	Appropriation	Request	Appropriation	Request	Appropriation
Safe Communities Injury Control	.....	.....	5,600	675	1,800	900

Question. Please prepare a table for the Safe Communities Injury Control Program, showing how all of the funds requested for fiscal year 1998 are intended to be spent, and please include in that table a comparison with the amount provided for each of these activities for fiscal year 1997. On a separate page, please justify the need for the requested increases.

Answer. The table follows.

	Fiscal years—	
	1997	1998
Demonstration and Evaluation Cooperative Agreement	$800,000	$400,000

	Fiscal years—	
	1997	1998
Materials Development, Printing and Distribution	100,000	100,000
Safe Communities Quality Improvement Strategies or Alternative Demonstration Project	.....	400,000
Total	900,000	900,000
Safe Communities Newsletter	[1] 131,000	[1] 150,000
Cooperative Agreement with American Association of Health Plans to promote Safe Communities	[1] 275,000	[1] 275,000

[1] Funded with additional Section 403 program funds

There was no increase requested for the Safe Communities Injury Control Program in fiscal year 1998.

Question. Who were the grants made to in fiscal year 1997? Where are they located?

Answer. A Federal Register Notice was published on February 12, 1997, announcing the program. The application period expired on May 1, 1997. A technical evaluation panel was convened and is still in the process of evaluating the proposals. Awards to two sites will be made in August 1997.

Question. What overlap is there with the injury control programs funded under the alcohol program?

Answer. There is no overlap with the injury control program funded under the alcohol program. The Safe Communities program is intended to support the expansion of partners from the health and medical communities as part of NHTSA's efforts to involve health and medical groups in motor vehicle injury control programs. Funds from the alcohol program will be used to increase training and technical assistance for health and medical partners so they can develop impaired driving messages and programs, and implement the strategies in Partners in Progress: An Impaired Driving Guide for Action, with their members and constituents.

Question. What evidence do you have of injury prevention resulting from this program?

Answer. It is too early to judge the results from the program. Three year cooperative agreements were awarded to two sites in fiscal year 1996.

These agreements will end in fiscal year 1999, at which time results from the efforts are expected. Two additional three year cooperative agreements will be awarded in August 1997, with results expected in fiscal year 2000. An interim report will be developed and is expected to be available two years into the program cycle. In addition, a large-scale evaluation effort is planned for fiscal year 1999.

Question. When will NHTSA funding for this initiative end?

Answer. NHTSA expected to request funding through fiscal year 1999 to expand the current demonstration and evaluation program, to explore and evaluate alternative implementation strategies such as a quality improvement methodology, and to conduct a large-scale evaluation of the Safe Communities program.

ALCOHOL, DRUG AND STATE PROGRAMS

Question. Please prepare a table indicating the amount requested and the amount actually appropriated for each of the four subprograms in the Alcohol, Drug and State program for fiscal years 1995, 1996, and 1997.

Answer. See table below.

[In thousands of dollars]

Program	Fiscal years—					
	1995		1996		1997	
	Request	Appropriation	Request	Appropriation	Request	Appropriation
Alcohol	6,767	6,604	9,057	8,398	9,015	8,800
DEC	1,530	1,499	957	907	600	599
Ped/Bike	594	248	474	250	474	473
Motorcycle	345	338	327	327	338	337

Question. Please prepare a table for each of the four subprograms of the Alcohol, Drug and State program showing how all of the funds requested for fiscal year 1998 are intended to be spent, and please include in that table a comparison with the amount provided for each of those activities in fiscal year 1997. On a separate page, please justify the need for the requested increases.

Answer. The information follows.

Activity	Fiscal years—	
	1997	1998
Alcohol Program:		
Education and Prevention	$4,077,000	$3,075,00
Enforcement and Sanction	1,450,000	1,725,00
Prosecution/Adjudication	1,000,000	1,150,00
Youth	1,217,000	1,181,00
Innovative Grants (Partners in Progress)	1,056,000	544,000
Total	8,800,000	7,675,000
Drug Evaluation and Classification	599,000	476,000
Pedestrian and Bicycles:		
Pedestrian Program	224,000	285,000
Bicycle Program	130,000	200,000
School Bus Safety	120,000	170,000
Total	474,000	655,000
Motorcycle Program	337,000	337,000

The increases in the Alcohol Program are in the areas of: (1) enforcement and sanctions and (2) prosecution and adjudication. The agency will target enforcement programs at the high risk groups, including youth and repeat offenders. NHTSA will continue training for prosecutors and judges and outreach to other larger organizations, such as the American Bar Association, to provide information on impaired driving cases.

The increases in the Pedestrian and Bicycle program reflect new initiatives with Cops on Bikes, the National Association of City and County Health Officials, and other health, medical and business partners. NHTSA will also initiate documentation of case studies of successful pedestrian and bicycle program implementation to provide to communities interested in initiating such programs and develop approaches to reduce the incidence of illegally passing stopped school buses. The Pedestrian and Bicycle funding request also reflects resources needed to advance programs and activities initiated in response to recommendations from the National Transportation Safety Board: completion and distribution of an in-service training module on key school bus safety issues and development of a school bus hazard routing system.

Question. What specific areas of the alcohol program have been enhanced with the additional fiscal year 1997 funds?

Answer. The $400,000 increase from fiscal year 1996 to fiscal year 1997 has focused on the innovative grant program to support the strategies identified in the Partners in Progress: Impaired Driving Guide for Action. The guide identifies broad strategies in seven areas: public education; individual responsibility; health care community; businesses and employers; legislation; enforcement/adjudication; and technology. Many grass-roots organizations have creative and innovative ideas on how to implement these strategies, but lack resources. These grants will fund several promising ideas, see if they work, and document their successes.

Question. What are the highest priorities of NHTSA within the alcohol and drug program?

Answer. The highest priorities of NHTSA with the alcohol and drug program are to continue progress towards the national goal to reduce alcohol-related fatalities to 11,000 by the year 2005. NHTSA's key initiatives in these areas include implementing the strategies identified in the Partners in Progress: An Impaired Driving Guide for Action to reach this ambitious national goal. NHTSA will continue to support

effective laws—administrative license revocation, zero tolerance for under age 21, graduated licensing systems, .08 BAC, vehicle sanctions and new 410 incentive grant criteria.

The agency will continue its special emphasis on youth—to stop drinking and driving before it starts—using strategies including identifying efficient methods of processing offenders, testing effective alcohol beverage control programs, and identifying more effective prevention programs. There will be an increased emphasis on cooperative activities with partners such as NETS, TEAM, with the 3D Prevention Month Coalition, and with health care and advocacy partners.

NHTSA will also build collaborative partnerships with other Federal agencies, such as youth enforcement activities with the Department of Justice; a zero tolerance educational campaign with the Department of Education; and research activities with the National Institute on Alcohol Abuse and Alcoholism and Center for Substance Abuse Prevention.

Question. In Senate Report 104–325, the Committee encouraged NHTSA to maintain a focused youth-oriented initiative under the 403 program, and recommended $1,772,000 for public education and enforcement under this program. Please specify in detail how these funds have been spent, what the continued activities are, and what the new components of this program are.

Answer. NHTSA continues to maintain a focused youth-oriented initiative across the entire 403 program. On-going alcohol programs include a National Zero Tolerance Education Initiative in which NHTSA is forming partnerships with other Federal Agencies (e.g., with DOEd and with HHS' Secretary's Initiative on Youth Substance Abuse Prevention) and with the private sector to develop a national awareness campaign. Resources have been provided to the "youth enforcement training traffic workshops" to enhance zero tolerance enforcement. A youth traffic safety state assessment program is being developed to assist states in assessing, among other issues, their youth enforcement and adjudication activities.

New initiatives will include a combination of zero-tolerance law enforcement, education and public awareness efforts. Resources will be provided to enforcement organizations to enhance local activities. Resources will also be provided to prevention groups, national organizations and other efforts to form partnerships with a variety of state and local enforcement agencies, local police departments, educators, etc. NHTSA has also provided resources for the development of new interactive technology to reach youth, and the agency is assisting Students Against Driving Drunk (SADD) to demonstrate, train, and implement this technology at the local level.

DRUG EVALUATION AND CLASSIFICATION

Question. Please provide an update on any studies that NHTSA has underway or planned, that will help the criminal justice system deal with drug-impaired drivers.

Answer. This fall NHTSA, with the International Association of Chiefs of Police, will convene a panel of experts on the Drug Evaluation and Classification (DEC) Program to discuss the results of recent research activities and determine future efforts. Specific research activities include the following:

Joint NHTSA/NIDA laboratory research to validate and improve DEC procedures is nearing completion. Research is also underway to identify the strengths and weaknesses of the DEC program in different enforcement contexts, and to determine the relative importance of the various types of information available to DEC officers in those different contexts.

Also underway is research to determine the accuracy of relatively inexpensive drug screening kits that could be used by both DEC and non-DEC officers. A field test of these devices will be initiated this year and a follow-up field application study will be conducted to determine the usefulness of the devices in actual law enforcement settings.

Question. What would be the effect of further reducing the Federal role in DEC? What data exist that show the specific benefits that have resulted from NHTSA's research in this area over the last several years?

Answer. NHTSA's role in DEC has gradually reduced since fiscal year 1994, when the last funding was committed to provide DEC training instructors to jurisdictions and states without this advanced impaired driving program. The agency has continued limited technical support and training materials through the International Association of Chiefs of Police to the thirty-two states that are currently participating in the DEC program.

In fiscal year 1998, the agency will reduce funding that supports legal research and DEC training to judges and prosecutors through the National Traffic Law Center (NTLC).

As indicated in the 1996 Report to Congress on the Drug Evaluation and Classification Program, the program was found to be an effective method for detecting, apprehending and removing drug impaired drivers from our highways.

Recent research is focusing on new technology that may allow officers in post-arrest situations to use testing devices to confirm the presence of drugs. A field test of the devices is expected to start by the end of fiscal year 1997.

Question. How much of the DEC training provided to enforcement officers is being paid for by NHTSA? Please specify the funds used, and how these monies were spent during fiscal year 1996 and fiscal year 1997. If training is still paid for by NHTSA, how is this reflected in the fiscal year 1998 request?

Answer. The last year that the agency used Section 403 dollars to fund DEC instructor services to train law enforcement officers was fiscal year 1994.

Question. If funding for DEC was eliminated, would IACP and others continue to improve this program?

Answer. IACP is a non-profit, international law enforcement membership organization that depends on grants and membership fees to support its program technical assistance role. It is important for the IACP to continue its national leadership role in the DEC program to ensure that standards are strictly followed and accepted by the courts as valid. If the program is modified or improved, it must be done on a national level. This will ensure that the protocol is conducted in a systematic and standardized manner across the country in order to maintain the program's validity and integrity. Without federal support, IACP could not accomplish this task.

Some states have institutionalized the DEC program in selected communities while others are still struggling. Further expansion to additional communities and states would be difficult without the assistance of the IACP and NHTSA.

Question. Please outline specific advances and benefits that have resulted from NHTSA's research on DEC during the last two years? What specific changes in the DEC protocol have resulted from this research?

Answer. Several research studies conducted over the past two years will soon be completed and recommendations from them presented to the DEC Technical Advisory Panel. Joint NHTSA/NIDA laboratory research to validate and improve the DEC procedures used by police officers to examine a suspect for drug impairment has already shown that the DEC procedures are valid. The report will make recommendations to improve and streamline them. A study is underway that could improve the standardized DEC officer interview procedures. A third study is identifying the strengths and weaknesses of the DEC program in different enforcement contexts and determining the relative importance of the various types of information available to DEC officers in those different contexts. Finally, a study is analyzing blood specimens from drivers injured in crashes and assessing the causal role of drugs in those crashes.

In addition, the agency recently completed a research study to determine the accuracy of relatively inexpensive drug screening kits that could be used by both DEC and non-DEC officers and will be initiating a field test of these devices this year. A follow-up field application study will be conducted to determine the usefulness of the devices in actual law enforcement settings.

PEDESTRIAN AND BICYCLES

Question. What would be the effect of restricting funding to current levels? Why is the requested increase needed at this time?

Answer. Restricting funding to the current levels would severely hinder the agency's ability to continue strengthening programs to decrease pedestrian, bicycle, and school bus related injuries and fatalities. An estimated 131 million Americans regularly bicycle or walk for exercise, sport, and recreation and an estimated 20 million children are transported by school bus each school day.

Pedestrian and bicycle fatalities make up about 16 percent of traffic fatalities annually. For each fatality, there are about twenty-four serious injuries. Economic costs to society due to pedestrian fatalities and injuries total more than $13 billion.

The fiscal year 1998 request reflects the Secretary's focus on pedestrian, bicycle, and school bus safety programs. FHWA and NHTSA jointly promote walking and biking as alternative forms of transportation and important forms of exercise. NHTSA also emphasizes the safety aspects of the increased walking and biking to reduce injuries and fatalities.

NHTSA will continue initiatives such as the Partnership for a Walkable America; development of a pedestrian program targeted to Hispanic children and bicycle programs targeting at-risk urban youth. New initiatives will be developed with Cops on Bikes, the National Association of City and County Health Officials, and other health, medical and business partners. The funding request also reflects needed re-

sources initiated in response to a series of prominent school bus crashes and safety issues, including clothing drawstrings snagging on school bus handrails that require immediate attention and corrective action.

Requested funding will complete development of an in-service training module on key school bus safety issues, initiate development of a school bus hazard routing system, and develop approaches to reduce the incidence of illegally passing stopped school buses.

Question. How does this program relate to FHWA's Bicycle and Pedestrian activity and program?

Answer. Several years ago, NHTSA and FHWA recognized the importance of a cooperative pedestrian and bicycle safety program. Both agencies agree that enforcement, education and engineering approaches work best together, as part of a total system. As a result, the two agencies have been pursuing a joint multi-year bicycle and pedestrian program plan.

Each agency has taken primary responsibility for specific activities within the joint program. FHWA has the responsibility for pedestrian and bicycle pathways, including facility design, construction, signal timing and related roadway issues. NHTSA deals with the behavioral aspects of the programs, such as educating youth on how to cross the street safely, proper selection and use of bicycle helmets, and bicycle rules of the road. Activities listed in the fiscal year 1998 NHTSA budget request reflect those joint activities NHTSA is responsible for. These activities are coordinated with and complement the FHWA programs.

Question. How much of this account is spent on safety involving school buses?

Answer. School bus safety receives approximately $170,000. The funds are used to address the serious problem of motorists illegally passing school buses stopped to load and unload students. The funding is used to develop and distribute a one day in-service school bus driver training program (covering the issues of highway-rail grade crossings, route hazards, handrail snagging, etc.), and develop and distribute a school bus routing and hazards marking system for school district use.

YOUTH, DRUGS AND DRIVING INITIATIVE

Question. Please further justify the request for $2 million for the Youth, Drugs and Driving initiative. How will these new funds augment the current efforts to deal with the challenges of the younger driver?

Answer. While still well below peak levels attained in the late 1970's, and after a decade of declining use during the 1980's, drug use by youth has risen steadily in the 1990's. Marijuana use has shown the sharpest increase. For example, the 1996 Monitoring the Future Study found that 18 percent of 8th graders had used marijuana in the past year, compared to 6 percent in 1991. Among 12th graders, marijuana use in the past increased from 24 percent in 1991 to 36 percent in 1996.

In response to this startling increase in drug use by American youth, President Clinton has urged stronger measures to reduce the incidence of drug use by teens and to reduce driving under the influence of drugs. A report entitled Presidential Initiative on Drugs, Driving and Youth recommended concerted efforts to improve the DUID (Driving Under the Influence of Drugs) system. This means stronger laws and more consistency in enforcement, prosecution, adjudication, prevention, education, drug testing, and treatment. A similar approach has reduced the incidence of driving under the influence of alcohol, especially for youth, and could do the same for other drugs.

A key part of a four-part strategy to assist states in implementing a systematic and comprehensive state DUID system is a new federally-funded demonstration program, to be conducted by 2–4 states over a two-year period. This program will provide necessary resources to these states to develop and test essential core elements of pre-driver licensure drug testing. Because the driver's license is an effective motivator for youth, this pre-driver licensure drug testing program has great potential for impact. In 1995 there were 21.95 million young people aged 15–20 in the U.S. Of these, 11.92 million were licensed drivers. Pre-licensure drug testing would send an important message to America's youth that drugs and driving don't mix. Instituted as part of a systematic strategy to deter drug use and drugged driving it should result in reduced drug use and drug-related driving by youth. If combined with some form of unscheduled testing, after crashes or driving violations, its effects should be even greater.

To learn the views of youth regarding drug testing, informal nationwide focus groups and discussions with almost 6,000 teenagers were conducted. Almost two-thirds favored requiring a drug test before a young person could receive a drivers license. About half felt that greater enforcement of drugged driving laws combined with pre-licensure testing would change drug use behavior.

Question. What is the likelihood that any state could afford pre-license drug screening or would require applicants to pay for youthful drivers? What do States do now in this area?

Answer. Using Department of Transportation (DOT) and Department of Health and Human Services (DHHS) approved procedures for collecting, testing, and reporting, it is estimated that pre-licensure screening tests would cost $35 to $45 per test. These procedures require standardized collection steps (currently in use in over 10,000 sites across the U.S.); analysis at DHHS-certified laboratories (currently 71 laboratories in place); and review of positive results by qualified physicians. Less stringent testing procedures would likely reduce the per test cost. While states possibly could assume the cost of pre-license testing, it is more likely they would require the applicant to bear the expense, as a requirement for obtaining a license. Under this scenario, license applicants would be required to present a certified test result obtained within a specified time period (probably 30 or 60 days), indicating no recent drug use.

No state currently conducts pre-licensure drug tests. However, testing license applicants in other areas is a routine part of the process of granting licenses. For example, all states test for knowledge of the rules of the road and for visual acuity. Some states also require certain categories of drivers to obtain medical certificates prior to licensure (e.g., epileptics). In addition, drug testing programs are already conducted in other contexts, such as for high school athletes and employers.

Question. Where is it legal to conduct pre-licensure drug testing on youth? How would this testing be useful in deterring drug use?

Answer. States have generally delegated to their licensing agencies authority to establish necessary rules and regulations to ensure that only safe drivers are licensed. Testing licensed applicants is a routine part of the process. For example, all states test for knowledge of the rules of the road and for visual acuity. A licensing test procedure could be considered unconstitutional or otherwise contrary to law if it were deemed to be discriminatory or not adequately supported by public safety or other important government interests. NHTSA and the Department of Justice believe that reducing drug-impaired driving would be considered a legitimate exercise of governmental authority and could adequately support a reasonably designed drug-testing program.

Pre-driver licensure drug testing is likely to be effective in deterring drug use among new license applicants because, for most young applicants, the ability to drive a motor vehicle is an important step into adulthood. Most would not want to lose their opportunity to obtain a driver's license by failing a drug test. Pre-licensure testing (like zero tolerance of alcohol) would send an important message to America's youth that drugs and driving don't mix and that there are immediate and tangible consequences of using drugs. Instituted as part of a systematic strategy to deter drug use and drug-related driving, such measures will reduce the incidence of drug-related driving, at least among some youth. If combined with some form of unscheduled testing, after crashes or driving violations, its effects should be even greater and will promote public safety.

Question. Won't the youth applicant know that he or she will be tested prior to receiving an operator's license?

Answer. In order to deter drug use, it is vitally important that applicants know that they will be tested prior to receiving an operator's license. There are few, if any, better motivators for youth than the driver's license. Many youth will refrain from drug use rather than risk not being able to obtain a license when eligible. NHTSA hopes that the pre-license drug testing programs will be instituted as part of a systematic strategy to deter drug use and drugged driving. Combined with some form of unscheduled testing, e.g., after crashes or driving violations, the deterrent effects will be even greater.

Question. What are the expected total costs of this demonstration? What are NHTSA's costs projected to be for each of the next four years?

Answer. The total cost of this demonstration program is expected to be $16 million. NHTSA is requesting $2 million in fiscal years 1998, and will request $2 million in fiscal year 1999 and 2000. The Office of National Drug Control Policy (ONDCP) is providing $2 million in fiscal year 1997, and will request $4 million in fiscal years 1999 and 2000.

Question. Other than the demonstration project, what specific portions of the fiscal year 1997 and the proposed fiscal year 1998 budget address the issue of youth driving and impairment by controlled substances? Please indicate specific activities and associated funding amounts.

Answer. In fiscal year 1997, $599 thousand was appropriated to support education and technical assistance activities for law enforcement, prosecution, adjudication, and the general public. In fiscal year 1998, the budget request includes $476 thou-

sand to continue such education and technical assistance. These funds are used for programs such as the Drug Evaluation and Classification (DEC) program that supports law enforcement officers trained to detect persons impaired by drugs, and for providing up-to-date information and training on drugged driving to judges and prosecutors. Both of these activities increase the risk of detection, arrest, and punishment for drug use and drugged driving by youth. Finally, a research study to determine the incidence of drugs in non-fatal serious injury crashes will be completed in fiscal year 1997 and will provide up-to-date information on drug use by young, injured crash involved drivers.

Question. If monies for the demonstration program were denied, what else could NHTSA do to address this issue? What activities does NHTSA have planned for fiscal year 1998? What is the associated funding level?

Answer. NHTSA will continue its efforts to strengthen and improve the enforcement, prosecution, adjudication, prevention, education and treatment of young drugged drivers. However, it is unlikely that other efforts will have as strong an impact on youth as the proposed pre-license drug testing program. One reason this pre-driver licensure drug testing program is likely to be effective is that the driver's license is a strong motivator for youth. Pre-license testing would send an important message to America's youth that drugs and driving don't mix. Instituted as part of a systematic strategy to deter drug use and drugged driving, it should by itself, reduce drug use and drugged driving by some youth. If combined with some form of unscheduled testing after crashes or driving violations, its effects should be even greater and will promote public safety.

NHTSA has requested $476 thousand in the fiscal year 1998 budget to support current education and technical assistance activities for law enforcement, prosecution, and adjudication of drugged drivers including youth. These funds are used for a variety of programs, including the Department's Drug Evaluation and Classification (DEC) program, that supports law enforcement officers trained to detect persons impaired by drugs, and for providing up-to-date information and training on drugged driving to judges and prosecutors. Both of these activities increase the risk of detection, arrest, and punishment for drug use and drugged driving by youth.

Question. Are there any data specific to youth (15 to 20) that indicates a strong relationship between drugs and youth driving problems? Please cite specific publications and their findings.

Answer. The evidence is clear that drug use among American youth is increasing. The 1996 Monitoring the Future Study, a self-reported survey of 49,000 students in the 8th, 10th and 12th grades revealed that, since 1991, the use of illicit drugs nearly doubled for 8th graders (i.e., it increased from 11 percent to 21 percent). This report also indicated that, since 1992, illicit drug use increased by nearly 50 percent for 12th graders (i.e., from 27 percent to 39 percent use). Marijuana use showed the sharpest increase.

Other studies have reported similar findings. Studies of drivers involved in crashes indicate that many have used drugs. NHTSA currently estimates that drugs are used by approximately 10–22 percent of crash involved drivers, often in combination with alcohol. NHTSA's most recent study of fatally injured drivers found evidence of drug use in 17.8 percent of these drivers (evidence of alcohol use was found among 51.5 percent). Drug use rates among younger drivers tend to be higher than for any other age group.

An ongoing NHTSA study of non-fatally injured drivers has found that 12 percent of all drivers tested positive for drugs other than alcohol, while 23.3 percent of drivers under 21 years of age tested positive. The National Parents Resource Institute for Drug Education (PRIDE) 9th Annual Survey of Students (an annual self-administered questionnaire) recently found that, among 12th grade students, marijuana is more likely to be used in a car than alcoholic beverages. Twenty percent reported that they smoked marijuana in a car, compared with 16.3 percent who reported drinking beer in a car, and 9.5 percent who reported drinking wine coolers in a car.

The available evidence clearly points to the fact that youth are increasing their use of drugs and often drive in conjunction with drug use. While the precise nature and extent of the youth drugged driving problem can not be specified with any single estimate at this time, there is ample evidence the problem is growing and presents a serious threat to public safety.

Question. Since last year, please specify how many States have adopted graduated licensing provisions, open container laws, and those that have lowered alcohol thresholds limits for convictions of impaired driving laws for youth.

Answer. Georgia, North Carolina, and New Hampshire have enacted Graduated Driver licensing legislation this term. In Illinois, a Graduated Driver Licensing bill has passed the legislature and is currently awaiting the Governor's signature. Hawaii has enacted some provisions of a Graduated Driver Licensing system.

Colorado, Georgia, Hawaii, North Carolina, and North Dakota have enacted lower alcohol threshold limits for impaired driving convictions among youth. In Vermont, a bill lowering the alcohol threshold for youth is awaiting the Governor's signature. Montana passed legislation revising its sanctions for violation of its lower threshold law.

The agency is unaware of any state which has passed or modified an open container law this legislative session.

Question. What have been some of the challenges facing States when implementing or adopting such laws? How does your 1998 budget request address these challenges? Please indicate funding amounts.

Answer. Graduated licensing requires states to pass legislation changing the manner in which young persons can obtain a driver's license. Additional issues arise over the states capabilities to administer a graduated licensing system. Because it is a more complex system, it can require additional administrative expenses for the licensing authority.

Another challenge concerns the specific provisions, or components, of a graduated system. For example, a night time curfew is a recommended part of the system. Some legislators are concerned that this will cause problems for those young people engaged in school, religious, work or family activities that cause the young person to be out late at night.

There has been little, if any, resistance to the passage of lower alcohol threshold limits for young drivers. As of June 23, 1997, forty-one states (and the District of Columbia) have set their BAC threshold at .02 BAC for youthful DWI offenders under age 21. All states are expected to enact zero tolerance laws by October 1, 1998, so that they will not be subject to having funds withheld.

The requested fiscal year 1998 funding would provide incremental support for a graduated driver licensing system evaluations in Michigan ($100,000). An additional evaluation (currently funded) will also be conducted in North Carolina. These evaluations include an assessment of administrative procedures by the states. Information, as it becomes available, will be shared with other states interested in graduated licensing.

Question. What is NHTSA doing to improve the enforcement of drunk driving laws affecting youth? How does NHTSA's fiscal year 1997 budget and the fiscal year 1998 budget request address this issue?

Answer. To improve the enforcement of drunk driving laws affecting youth, NHTSA has undertaken activities in four major areas: provision of technical assistance materials, conducting training, implementing demonstration projects and promoting innovative strategies.

Manuals and video tapes have been developed to assist enforcement, Alcohol Beverage Control agencies, and other organizations to implement new strategies and programs. Training has been, and will continue to be, provided to improve youth enforcement techniques and adjudication strategies (e.g., use of "teen courts"). Ten community demonstration programs have been initiated to encourage comprehensive enforcement activity. Innovative concepts, such as youth offender "visitation" to trauma units and "holdover" facilities to temporarily detain youthful alcohol offenders are being tested. All of these activities, in addition to programs specifically focused on "zero tolerance" enforcement, are being funded in the fiscal year 1997 and fiscal year 1998 budget.

Question. Please specify the nature and total amount of all youth-oriented activities for fiscal year 1996; fiscal year 1997, and planned for fiscal year 1998, separately.

Answer. NHTSA has initiated a wide variety of youth projects, some of which are multi-year efforts. Attached is a table listing on-going or planned projects. Many of these projects have had previous years funding or will use multi-year funding.

See list of projects below.

NHTSA YOUTH PROJECTS

[In thousands of dollars]

Project	Fiscal years—		
	1996	1997	1998
BACCHUS Awareness Program	30	.....	.....
Graduated Licensing	50	.....	.....
RID Underage Drinking Workshops	45	.....	.....
Messages for School Children	100	.....	.....

NHTSA YOUTH PROJECTS—Continued

[In thousands of dollars]

Project	Fiscal years—		
	1996	1997	1998
Evaluate Magnetic Stripe for ID	60	.....	.....
DC Model Underage Drinking Program	191	200	.....
Scholastic Magazine Messages	75	.....	.....
State Youth Assessment	25	.....	.....
Alcohol Beverage Control Project	75	.....	.....
SADD ''Strides for Safety''	67	.....	.....
FHA Awareness Campaign	30	.....	.....
National Organization Support	215	.....	.....
Parents as Role Models	50	.....	.....
''Teen Courts''	110	100	.....
Evaluate MI Graduated Licensing	.....	100	.....
ATS Juvenile Visitation Program	45	.....	.....
National Zero Tolerance Campaign	.....	200	200
BACCHUS/SADD Zero Tolerance	.....	96	.....
Peer Helpers Zero Tolerance	.....	93	.....
Enforcement of zero tolerance laws	.....	140	200
Evaluation of Zero Tolerance Laws	.....	150	.....
MADD Training of Student Activists	50	118	30
Strides for Safety—NSC	.....	81	.....
Juvenile ''Holdover'' Project	.....	100	100
NOYS meeting support	45	150	.....
National Organization Project Support	.....	200	.....
NOYS Youth Summit	69	.....	.....
Cross Age Peer Mentoring Program	25	.....	.....
Nat'l Science Teachers Curr	.....	50	.....
Youth Sanctions Guide	75	.....	.....
Outdoor Billboard Campaign	50	.....	.....
Youth Urban Diversity project	50	50	.....
Evaluation of youth projects	25	25	.....
Guidelines for age-appropriate ed materials	.....	150	.....
Strategies to increase safety belt use by youth	40	50	.....
Decisionmaking skills of young drivers	256	.....	.....
Community Compliance With ABC Laws	150	.....	.....
SADD National Conference	50	.....	.....
''Traffic Safety Box''	50	50	.....
Drinking and Impaired Driving-College	100	100	.....
Matching Strategies to Youth Characteristics	28	.....	.....
Determine Reasons for Reduced Youth DWI	100	50	.....
Bicycle Programs	80	100	.....
Pedestrian/Diversity Programs	.....	200	.....

Question. How many States are now receiving grant funds to carry out graduated licensing systems? What have been the results? Are any new States considering them? How does the fiscal year 1998 budget request and the fiscal year 1997 budget address this matter? Please indicate funding amounts.

Answer. In fiscal year 1995 the Agency awarded grants to five states to demonstrate and evaluate components of a graduated licensing system: Alaska ($77,000), Florida ($225,000), North Carolina ($397,000), Tennessee ($317,700), and Vermont ($183,000). All of these states needed to pass legislation when the grants were awarded. Florida and North Carolina have since passed graduated licensing legislation. Evaluation data are not yet available. A number of states introduced related legislation this calender year. For example, Vermont legislation to create a new system did not get out of Committee; California legislation to improve their current system is still being considered; Maryland also introduced legislation to improve their current system but the legislature requested additional information.

The fiscal year 1997 budget included funds ($100,000) to evaluate Michigan's graduated system. These funds being provided to the University of Michigan which is conducting an evaluation of the program. Incremental funds ($100,000) are being requested in fiscal year 1998 for this effort.

The fiscal year 1998 request also includes a proposed incentive grant program designed to encourage states to implement laws and programs to combat alcohol-impaired driving. One of the qualifying criteria for a basic grant is the enactment of a graduated driver licensing law with nighttime driving restrictions and 0.02 BAC for persons under age 21.

Question. Please prepare a table indicating the amount requested and the amount actually appropriated for each of the five subprograms of the National Occupant Protection Program in fiscal years 1995, 1996, and 1997.

Answer. See table below.

Program	Fiscal years—					
	1995		1996		1997	
	Request	Appropriation	Request	Appropriation	Request	Appropriation
PI & E	$2,213	$2,450	$2,414	$2,314	$2,364	$2,360
Belt Law	1,704	1,676	1,904	1,886	1,674	1,670
Target Pop	1,321	1,296	1,635	1,253	1,637	1,498
Eval and Tech	451	444	447	439	538	537
Patterns			1,600	952	745	744

Question. Please prepare a table for each of the five subprograms in the National Occupant Protection Program, showing how all of the funds requested for fiscal year 1998 are intended to be spent, and please include in that table a comparison with the amount provided for each of those activities for fiscal year 1997. On a separate page, please justify the need for the requested increases.

Answer. The information follows.

[In thousands of dollars]

National Occupant Protection Program	Fiscal years—	
	1997	1998
Public Information & Education	2,360	2,263
Belt Law Compliance	1,671	1,594
Target Population Education	1,498	1,540
Evaluation and Technology Sharing	537	498
Patterns for Life	744	715
Total	6,810	6,610

Justification

Overall, the fiscal year 1998 request represents a decrease of $200,000. Target Population Education includes an increase of $42,000 which will be used to bring air bag information to Hispanic populations to reduce the risk of air-bag related injuries to children channels will be supported and utilized to ons.

PUBLIC INFORMATION AND EDUCATION

Question. How do the activities conducted under this program which relate to child safety seats and air bag use differ from the agency's activities in these areas in other NHTSA programs?

Answer. The public information and education activities funded under this program are all related to educating the public on safety belts, child safety seats, and air bags. They include developing, producing, marketing and distributing educational materials used by national, state and community programs and a public service campaign conducted through the Advertising Council. Child safety seat and air bag activities in other NHTSA programs including research, training programs, demonstration programs, and outreach.

Question. Please describe all agency activities related to child safety seat use and from which program they are funded.

Answer. The following child safety seat use activities are funded under Occupant Protection Public Information and Education: Developing, producing, marketing,

and distributing brochures, posters, videos, manuals, certain pieces in the Campaign Safe & Sober Quarterly Planners, and video news releases for Child Passenger Safety Week. The 1997 Safety Belt Education Campaign public service announcements produced with the Advertising Council sent the message that children belong in the back seat of air bag cars. The "Protecting Your Newborn" video and child passenger safety training programs are funded under the Patterns for Life Program. This video is being distributed by Ford Motor Company to over 100,000 medical and health professionals to educate parents of new babies on how to transport their children safely, especially in cars equipped with passenger side air bags. The Patterns for Life Program is also funding the development of "Your Child, Your Car, Your Choices," the interactive CD-ROM program that shows which seating positions in a specific vehicle are safe for installing a specific child safety seat. Cooperative agreements and grants with national organizations that partner with NHTSA to deliver the child safety seat messages and materials to the public are funded under the Occupant Protection Target Populations Program. State demonstration programs that focus on enforcing the State's child passenger safety law are funded under the Occupant Protection Belt Law Compliance program. Research on behavioral questions that affect proper use of child safety seat questions are funded under the Traffic Safety Programs Research Program.

Although the Agency does not contribute money to the Air Bag Safety Campaign, it is a major partner and participates in the Campaign's decisions and activities. This $14 million Campaign supports the Agency's messages that children should sit in the back seat and be properly retrained. The Campaign also helps enact and enforce child passenger safety laws. Thus, the Campaign leverages NHTSA's dollars to achieve a greater impact on the problem of unrestrained children than would otherwise be possible.

Question. Please describe all agency activities related to air bags and specify which program they are funded from.

Answer. Developing, producing, marketing, and distributing educational materials to educate the public on the benefits and risks of air bags are currently being funded as part of the National Occupant Protection Public Information and Education Program. All of NHTSA's outreach programs funded under the National Occupant Protection Target Populations now include air bag issues. Campaign Safe & Sober Quarterly Planners include air bag information and are funded out of the Alcohol, Occupant Protection, and Enforcement Programs. NHTSA's participation in the Air Bag Safety Campaign (ABSC) leverages the agency's dollars to achieve a greater impact than would be possible otherwise. While the agency does not contribute money to the ABSC, it is a major partner and the principal designer of the Campaign's strategy for addressing the problem of air bag related injuries: educate the public on how to eliminate or reduce the risks associated with air bags, enact stronger belt and child seat laws, and enforce the laws.

BELT LAW COMPLIANCE

Question. Please explain how the efforts and activities to be conducted using the requested $2 million on page HS–46 for an Air Bag Safety program are different than efforts and activities outlined on page HS–34 for an Occupant Protection program. Why can't these activities be combined? Please break down the expected uses of these funds.

Answer. The $2 million initiative focuses specifically on the interaction of the airbag with occupants. The program will educate the public about air bag safety issues and the associated need to increase the national safety belt use rate. These funds will be used to (1) enhance public education on airbag, safety belts and child safety seats, (2) enhance the enforcement of existing laws for safety belts and child safety seats, and (3) evaluate the enforcement efforts implemented to reduce airbag induced deaths and injuries.

Combining these efforts with the overall Occupant Protection program would deemphasize the important message and specific program elements that NHTSA is trying to accomplish. Many people transporting children in cars do not understand the importance of proper restraint use, the need for using age-appropriate restraint devices, and how air bags work both for themselves and with children. There have been over 1.5 million air bag deployments, saving over 2,000 lives. In 1996 alone, over 700 lives were saved by air bags.

This initiative will accelerate the public's understanding that: (1) the rear seat is the safest place for children of any age to ride, (2) that all occupants, children and adults, must be buckled no matter where they sit, and (3) rear-facing child seats must never be placed in front of an air bag.

TARGET POPULATIONS

Question. How do the activities in this program overlap with activities being conducted elsewhere within NHTSA?

Answer. Target Populations is a budget line item under Occupant Protection. Therefore, the activities in target populations focus on increasing use and correct use of seat belts and child safety seats by networking with national organizations capable of delivering programs and messages to target populations whose restraint use is below average. The program is designed to generate a critical mass of activity and information at the state and local level to assist the State in meeting its safety belt and child passenger safety goals. This is the only program in NHTSA that conducts activities of this nature. Thus, there is no overlap.

Question. The budget for this program was increased by $245,000 from fiscal year 1996 to fiscal year 1997. What was this increase used for?

Answer. The increased monies were used to fund a competitive grant program for national organizations to develop and implement programs designed to educate constituents and communities on the risk of air bag-related injuries to children. Funds for up to five organizations were made available. We are in the process of reviewing the grant applications. Grant awards should be made in August 1997.

Question. Please justify the $42,000 requested increase in this program.

Answer. The resources will be used to bring air bag information to Hispanic populations to reduce the risk of air-bag related injuries to children. Hispanic media and information channels will be supported and utilized to deliver messages, materials and information to Hispanic populations.

Question. Please list the 21 states which will participate in this program?

Answer. To date, the following 19 states have been identified to participate in the program in fiscal year 1998: Colorado, Connecticut, Florida, Georgia, Indiana, Iowa, Michigan, Minnesota, Mississippi, New Jersey, New Mexico, North Carolina, Oregon, South Carolina, Texas, Utah, Virginia, Washington, Wisconsin.

EVALUATION OF STATE PROGRAMS

Question. Why does the federal government need to subsidize evaluation of state programs?

Answer. Future progress in reducing highway safety crashes requires effective programs that successfully target high risk groups, situations, and behaviors. It is critical that scarce resources be used on programs with demonstrated benefits. While the states and local communities have developed and implemented many programs that appear promising in reducing crashes, in many cases their effectiveness has not been determined or documented. Most States and communities do not have sufficient capabilities or resources to conduct scientifically sound studies of their countermeasure programs—they turn to NHTSA for guidance in evaluating their programs.

EVALUATION AND TECHNOLOGY SHARING

Question. How much money is being proposed to be spent in fiscal year 1998 on disseminating information and educational materials for influencing the public's knowledge and attitudes toward air bags?

Answer. The agency has requested $2,000,000 in fiscal year 1998, to address the problem of air bag related injuries. Of that amount, $650,000 is proposed for developing, producing and disseminating information and educational materials. The balance of the request will be used to enhance the enforcement of existing laws for safety belts and child safety seats, and to evaluate the enforcement efforts implemented to reduce air bag induced deaths and injuries.

Question. How has NHTSA worked with the states of Alabama and Alaska in this area?

Answer. NHTSA is working closely with Alaska and Alabama to provide them with up to date information and assistance in the area of air bag safety. In Alaska, NHTSA Regional staff have provided information and technical assistance to several groups, including the Alaska Highway Safety Planning Agency, Emergency Medical Services, Alaska State Troopers, and the Anchorage Safe Communities program. Technical assistance was also provided for three Air Bag Safety Campaign press events, held in November 1996, February and over the recent Memorial Day holiday. Information and technical assistance was made available to federal agencies and military bases throughout Alaska, through the Alaska Federal Safety & Health Council.

In Alabama, Regional personnel worked with the Alabama Governor's Safety Coordinating Committee and Alabama representatives of Highway Safety Advocates

and the National Safety Council. NHTSA provided an air bag safety information booth at a three day conference of the Alabama Association of Educators. NHTSA also initiated talks with the State Department of Education and the U.S. Department of Education to urge them to write letters to educators and parent-teacher groups, emphasizing the importance of air bag safety.

In addition to the above activities, NHTSA has responded to numerous requests in each state, providing technical assistance and information on air bag and occupant protection issues.

Question. Please summarize the agency's efforts to address the adverse effects of air bag deployment, specifically as related to serious injuries and fatalities.

Answer. On May 23, 1995, the agency published a final rule to permit vehicle manufacturers to offer manual cutoff switches for the passenger air bag for new vehicles without rear seats or with rear seats that are too small to accommodate rear-facing child restraints, until as late as September 1, 1998. On January 6, 1997, the agency extended the expiration date of this cutoff switch rule until September 1, 2000. The agency is optimistic that advanced, automatic, air bag technologies will be available after this date, to replace manual systems.

On November 22, 1996, the agency published a final rule amending both Standard No. 208, Occupant Crash Protection and Standard 213, Child Restraint Systems, to require improved labeling on new vehicles and child restraints to better ensure that drivers and other occupants are aware of the danger posed by passenger air bags to children. The labeling emphasizes the placement of rear-facing child restraints in the rear seats of vehicles with operational passenger air bags. These requirements are in place now.

On March 19, 1997, the agency issued a final rule to permit manufacturers to depower air bags by 25–30 percent, and adopted different test protocols that make this conversion quick to implement for the vehicle manufacturers.

On January 6, 1997, the agency published a proposed rule to allow auto dealers and repair businesses to deactivate air bags, after receiving written authorization from vehicle owners. Final decisions on this proposal will be made soon.

The agency has developed a comprehensive and high priority Advanced Air Bag Technology program plan to expedite achieving the goal of introducing advanced air bag systems. Advanced air bag systems are expected to remove many of the disbenefits apparent in current air bag designs, while providing optimum protection for belted occupants as well as occupants who do not wear belts. This program plan for Advanced Air Bag Technology specifies the necessary tasks that must be undertaken to achieve the objective of installing advanced air bag systems in future vehicles.

The plan specifically includes tasks to ensure that future crash testing is responsive to the needs of children and small statured adults. The agency has granted petitions for rulemaking to include the 5th percentile female dummy as part of the new crash test protocols. The agency expects to complete the technical evaluation of the 5th percentile Hybrid III female dummy, the 3-year-old and the 6-year-old Hybrid III dummies by December 1997. Thus, by the end of this year, the agency will be in a position to include any or all of these test dummies in test protocols dealing with out of position occupants and/or combinations with pre-crash braking or other considerations.

NHTSA along with an independent effort by NASA, will carefully assess the emerging new air bag technologies. The agency has conducted testing in a program to assess the injury causing potential of air bag systems when occupants are out of position relative to the air bag deployment. These baseline air bag systems have been compared to depowered (reduced inflator output) and new air bag designs provided by auto manufacturers and air bag suppliers to determine the effectiveness of the air bags in preventing injuries to out of position occupants, in addition to providing adequate protection to normally seated occupants.

The agency intends to test any additional advanced technologies that are close to production and determine if these technologies can provide benefit to the out of position child and provide protection in high speed crashes where depowered air bags may lose some of their restraint capacity. As part of the Advanced Air Bag Technology program plan, the agency will develop and conduct performance testing of advanced air bag inflator technologies. These performance tests will focus on the capabilities of advanced inflators to tailor air bag output based on the crash severity, belt-use status, and/or other occupant and vehicle parameters. A series of static and dynamic sled and crash tests to evaluate the state of this technology has been planned for the near future.

Based on the results of this test program and other research information, the agency plans to issue an NPRM on advanced air bags, including test procedures, by the end of calendar year 1997.

In addition, NHTSA has been pro-active in educating the public, promoting state and local legislation, and encouraging active enforcement of occupant protection laws to address the adverse effects of air bag deployment. Efforts include hosting a national "Call to Action" conference, producing an Air Bag alert folio which was distributed to over 500,000 organizations, and assisting in the establishment of the Air Bag Safety Campaign (ABSC), which is alerting the public to the dangers of air bag deployments to unrestrained and improperly restrained children. NHTSA is an active member of the coalition and supports its efforts.

The agency has also prepared informational air bag facts sheets, published informative articles in various media and research publications, and developed and distributed 40,000 quarterly Safe & Sober Planners containing air bag safety information. These planners went to state highway safety offices as well as national safety, health, medical, and enforcement organizations.

The agency is providing funding demonstrations in 21 states to conduct highly visible occupant protection law enforcement programs and to provide education on air bags and adult and child occupant protection laws. NHTSA has also developed a brochure emphasizing the correct positioning of child car seats in air bag-equipped vehicles.

AIR BAG SAFETY PROGRAM

Question. Please provide in detail the amount spent on this area during fiscal year 1996, fiscal year 1997, and planned for fiscal year 1998, being certain to identify purposes and objectives of these expenditures.

Answer. In fiscal year 1996 and fiscal year 1997 the Air Bag Safety Program did not formally exist as a budget line item in the Highway Safety Program, and there were no specific program expenditures. However, in fiscal year 1997, Highway Safety Programs allocated approximately $3 million for air bag efforts. This included specific projects dedicated to the air bag issue such as the Ad Council public information campaign and outreach efforts directed at various target populations. Nearly every other aspect of the Occupant Protection Program, including Technology Sharing, Belt Law Compliance, and Patterns for Life programs supported the Air Bag Safety Program. Most of the material development and delivery for outreach programs, for example, include air bag information.

Additionally, a portion of the agency's Section 403 Special Traffic Enforcement grant program (fiscal years 1995–1997 budget $4.6 million) is used to improve both child passenger safety and air bag safety. In addition, all states have directed a portion of their Section 402 funding at the state and community levels on strategies to address this issue.

In fiscal year 1998, $2,000,000 will support three major initiatives: (1) continuation of high visibility, statewide enforcement and education campaigns in 21 states to increase seat belt and child safety seat use and reduce air bag injuries ($1,050,000); (2) monitoring of public awareness of various belt law enforcement and education efforts and measuring the associated changes in occupant restraint use ($300,000); and (3) development and distribution of public information materials on the correct use of seat belts and child safety seats in air bag-equipped vehicles. This effort will include the distribution of 30,000 "Protecting Your Newborn" videos, posters and brochures with the new attention-getting air bag warning labels. It will also include other targeted materials, including a Spanish language brochure ($650,000).

In addition, in the Research and Analysis program, air bag safety was also addressed through ongoing programs in the safety systems, biomechanics, and real-world crash investigation and analysis programs. Because these programs provide information and support a wide range of safety issues in addition to the air bag safety issues, it is not possible to provide a specific dollar amount. In fiscal year 1997, specific budget devoted to air bag research is approximately $1.311 million. In addition, the agency has proposed to reprogram $2.8 million to support fiscal year 1997 high priority air bag projects. Work in fiscal year 1997 continued on laboratory testing and real-world crash analyses aimed at identifying technical approaches to address inflation caused injuries. Research efforts were geared to assessing near-term mitigation concepts primarily related to depowering air bag systems. The proposed reprogrammed funding will be used to support high priority biomechanics, air bag research, and real-world crash investigation of air bag-equipped vehicles. Projects will include the validation of child and adult dummies to be utilized in air bag research, joint research with Transport Canada, and the collection of additional detailed crash investigations within the agency's Special Crash Investigation program.

In fiscal year 1998, $6.331 million in additional funding has been requested for air bag research, which is directed toward collecting additional real-world crashes

involving air bag-equipped vehicles and to expanding the biomechanics and vehicle and air bag research and testing programs. The following provides brief descriptions:

Special Crash Investigation (SCI) Program ($1.031 million). SCI data are critical to understanding real-world air bag performance. The SCI is a quick reaction crash investigation activity in which an investigator is sent to the crash site when the agency learns of unusual or special interest crashes. Virtually all funds are being directed toward air bag investigations.

Biomechanics Program ($3.15 million). Design of less aggressive air bags requires a better understanding of injury mechanisms and tolerances of the human body to air bag loading. This is especially true for children and small females. This research will allow the generation of sufficient biomechanical data and provide necessary physical and analytical tools to address this issue.

Safety Systems Program ($1.85 million). Research will continue to focus on the development, performance, and monitoring of advanced air bag systems to find solutions to the air bag problems identified in the field experience, including those injuries resulting from aggressive air bag deployments. For the advanced air bag systems under development, research will identify the better performing systems, evaluate their best features, and determine the need for performance requirements.

The Consumer Product Safety Commission's (CPSC) National Electronic Injury Surveillance System (NEISS) collects information from a sample of hospital emergency rooms across the country. NHTSA has worked with NEISS data, collecting specific types of motor vehicle injury mechanisms. This effort will provide additional information on air bag-related injuries. ($.3 million).

Question. What is the agency doing to monitor the adverse effects of air bags? How is this reflected in the fiscal year 1998 budget request?

Answer. The agency has a number of programs directed at monitoring real-world crashes and identifying adverse effects of air bags. The following describe programs that are included in the fiscal year 1998 budget request:

The Special Crash Investigation (SCI) program data are critical to understanding real-world air bag performance. The SCI is a quick reaction crash investigation activity in which an investigator is sent to the crash site when the agency learns of unusual or special interest crashes. Virtually all funds are being directed toward air bag investigations. ($1.031 million)

The National Automotive Sampling System (NASS) is a database containing a random sample of crashes representative of all police-reported towaway crashes occurring in the United States. The focus of the NASS investigations is on the last four model year vehicles. As a result of the Agency's air bag regulation, this means virtually every investigation will contain at least one air bag equipped vehicle. ($9.7 million)

The Fatal Analysis Reporting System (FARS) is a census of all fatal crashes in the United States. FARS is an essential resource that permits the agency and the traffic and highway safety community to quantify and describe the national traffic safety environment. As with NASS, studies utilizing this file will continue to analyze specific air bag issues and evaluate the effectiveness of air bags in fatal crashes. Currently, the FARS files contain approximately 45 percent of crashes involving air bag equipped vehicles. (i.e., $2.3 million of $5.2 million)

The Crash Injury Research and Engineering Network (CIREN) database is being implemented to improve the prevention, treatment, and rehabilitation of motor vehicle crash injuries through an integrated national network of physicians and engineers. Detailed crash investigations will be conducted and results entered into a uniform format, single database to allow for studies of air bag-related and other types of crashes. Current "CIREN" case inclusion criteria direct approximately 40 percent of the total effort toward investigation of air bag related cases, (i.e., $480 thousand of $1.2 million)

The Consumer Product Safety Commission's (CPSC) National Electronic Injury Surveillance System (NEISS) collects information from a sample of hospital emergency rooms across the country. NHTSA has worked with NEISS data, collecting specific types of motor vehicle injury mechanisms. This effort will provide additional information on air bag-related injuries. ($.3 million)

Question. What are the near-term actions to be taken by the agency that may reduce or eliminate these problems? How is this reflected in the fiscal year 1998 budget request?

Answer. The agency has developed a comprehensive, high priority Advanced Air Bag Technology program plan to expedite achieving the goal of introducing advanced air bag systems. Our comprehensive plan contains both near- and long-term efforts.

Advanced air bag systems are expected to remove many of the disbenefits apparent in current air bag designs while providing optimum protection for belted occupants as well as occupants who do not wear belts. This program plan for Advanced Air Bag Technology specifies the necessary tasks that must be undertaken to achieve the objective of installing advanced air bag systems in future vehicles.

The plan specifically includes tasks to ensure that future crash testing is responsive to the needs of children and small statured adults. The agency has granted petitions for rulemaking to include the 5th-percentile female dummy as part of the new crash test protocols. The agency expects to complete the technical evaluation of the 5th-percentile Hybrid III female dummy, the 3-year-old and the 6-year-old Hybrid III dummies by December 1997. Thus, by the end of this year, the agency will be in a position to include any or all of these test dummies in test protocols dealing with out-of-position occupants and/or combinations with precrash braking or other considerations.

In addition, the agency along with an independent effort by the National Aeronautics and Space Administration, will carefully assess the emerging new air bag technologies. The agency has conducted testing in a program to assess the injury causing potential of air bag systems when occupants are out of position relative to the air bag deployment. These baseline air bag systems have been compared to depowered (reduced inflator output) and new air bag designs provided by auto manufacturers and air bag suppliers to determine the effectiveness of air bags in preventing injuries to out of position occupants, in addition to providing adequate protection to normally seated occupants.

The agency intends to test the additional advanced technologies that are closest to production and determine if these technologies can provide benefit to the out-of-position child and provide protection in high speed crashes where depowered air bags may lose some of their restraint capacity. As part of the Advanced Air Bag Technology program plan, the agency will develop and conduct performance testing of advanced air bag inflator technologies. These performance tests will focus on the capabilities of advanced inflators to tailor air bag output based on the crash severity, belt-use status, and/or other occupant and vehicle parameters. A series of static and dynamic sled and crash tests to evaluate the state of this technology has been planned for the near future. Based on the results of this test program and other research information, the agency plans to issue a Notice of Proposed Rulemaking on advanced air bags, including test procedures, by the end of calendar year 1997.

This work is reflected in the fiscal year 1998 budget request for $6.331 million of additional funding.

Other near term actions that will help eliminate these problems are (1) increasing the use of occupant protection restraints by all occupants; and (2) educating the driving public about the proper use and placement of occupants in air bag equipped vehicles.

Conducting high visibility enforcement programs and enacting primary enforcement legislative provisions in states and communities nationwide, provides much potential for significantly increasing occupant protection use rates.

Question. What are the longer term actions by the agency that may reduce or eliminate these problems? How is this reflected in the fiscal year 1998 budget request?

Answer. The agency has developed a comprehensive and high priority Advanced Air Bag Technology program plan to expedite achieving the goal of introducing advanced air bag systems. Our comprehensive plan contains both near- and long-term efforts. Advanced air bag systems are expected to remove many of the disbenefits apparent in current air bag designs while providing optimum protection for belted occupants as well as occupants who do not wear belts. This program plan for Advanced Air Bag Technology specifies the necessary tasks that must be undertaken to achieve the objective of installing advanced air bag systems in future vehicles.

The plan specifically includes tasks to ensure that future crash testing is responsive to the needs of children and small statured adults. The agency has granted petitions for rulemaking to include the 5th-percentile-female dummy as part of the new crash test protocols. The agency expects to complete the technical evaluation of the 5th-percentile Hybrid III female dummy, the 3-year-old and the 6-year-old Hybrid III dummies by December 1997. Thus, by the end of this year, the agency will be in a position to include any or all of these test dummies in test protocols dealing with out-of-position occupants and/or combinations with precrash braking or other considerations.

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Based on the results of this test program and other research information, the agency plans to issue a Notice of Proposed Rulemaking on advanced air bags, including test procedures, by the end of calendar year 1997. Work will continue after this on safety performance and air bag safety monitoring. This work described above is reflected in the fiscal year 1998 budget request for $6.331 million of additional funding.

Beginning in fiscal year 1998 Highway Safety Programs will conduct information and education programs to support this rulemaking, as well as support the overall occupant protection program. These efforts will include widespread distribution of posters and brochures, including Hispanic versions, with air bag warning labels and the production and distribution of newborn and other child passenger videos. Additional educational materials will be developed and distributed which focus on securing children under age 13 in the back seat.

NHTSA will continue to provide funding, combined with matching funds from the states, to reinforce high visibility enforcement and education efforts. Other long term actions planned include support of the Air Bag Safety Campaign's (ABSC) enforcement and public education grants program.

This partnership of NHTSA, the private sector, and the state highway safety offices will encourage the adoption of primary legislation and maintain the enforcement of occupant restraint laws. Over time, these efforts will result in major increases in seat belt use rates, as they have in other nations and in some high use states. Increasing the seat belt use rate will, in turn, significantly reduce the problems associated with air bag deployments.

Question. Please prepare a table indicating the amount requested and the amount actually appropriated for the two programs in the Enforcement and Emergency Services Program for fiscal years 1995, 1996, and 1997.

Answer. The information follows.

See table below:

[In thousands of dollars]

Program	Fiscal years—					
	1995		1996		1997	
	Request	Appropriation	Request	Appropriation	Request	Appropriation
PTS	1,209	1,187	1,606	1,286	1,209	1,207
EMS	769	655	1,122	1,122	1,180	1,178

ENFORCEMENT AND EMERGENCY SERVICES PROGRAM

Question. Please prepare a table for both of the programs in the Enforcement and Emergency Services Program, showing how all the funds requested for fiscal year 1998 are intended to be spent, and please include in that table a comparison with the amount provided for each of these activities for fiscal year 1997. On a separate page, please justify the need for the requested increases.

Answer. The information follows.

Activity	Fiscal years—	
	1997	1998
Police Traffic Services:		
Traffic Law Enforcement Projects	$328,000	$797,000
Technology Transfer	240,000	300,000
Public Information and Education	210,000	290,000
Training and Technical Assistance	170,000	168,280
National Organizations	259,000	294,720
Total	1,207,000	1,850,000
Emergency Medical Services:		
Leadership	290,691	295,000
Injury Prevention/Control, PIER	307,061	369,000
National Standard Curricula	81,919	391,00
EMS System Component Support	198,757	421,000
EMS Information, Technologies and Dissemination	299,572	74,000
Total	1,178,000	1,550,000

Additional funding for Police Traffic Services is needed to develop effective programs and strategies, using state of the art technology to combat the aggressive driver and speeding problem. Funds will be used to develop model specifications and training for automated enforcement devices and for the implementation of a large scale countermeasure program to combat aggressive driving behaviors.

Additional funding for the Emergency Medical Services program is needed to support revision and updating of the National Standard Curricula, additional technical assistance to State EMS programs and completion of the Bystander Care program.

POLICE TRAFFIC SERVICES

Question. How much money is planned to be spent in fiscal year 1998 on efforts to demonstrate the link between traffic enforcement and the detection of criminal activity.

Answer. NHTSA plans to spend $204,000 on efforts to demonstrate the link between traffic enforcement and its positive impact on the reduction of criminal activity.

Question. How much was spent on this in fiscal year 1997?

Answer. In fiscal year 1997 $160,000 was spent on efforts to demonstrate the link between traffic enforcement and its positive impact on criminal activity.

Question. What is the compelling reason why such a large increase in PTS activity is justified in fiscal year 1998?

Answer. The problem of the aggressive driver has emerged as one of the most serious traffic safety problems in our nation. The Police Traffic Services (PTS) budget has increased to address this problem. PTS will develop a comprehensive program to combat aggressive driver behaviors and its consequences by increasing awareness of the problem using a public information and education campaign. The agency will build coalitions to combat aggressive driving and unsafe driving behaviors and develop a technology-based model enforcement program.

NHTSA will also develop model legislation to assist states and communities in dealing with the problem as well as provide technical assistance and technology transfer to states and communities interested in setting up programs to combat the aggressive driver.

EMERGENCY MEDICAL SERVICES

Question. Please discuss what NHTSA is doing to further the use of cellular 911 numbers. How is this reflected in your fiscal year 1998 budget request? What could be done to expedite the use of a uniform system anywhere in the nation?

Answer. NHTSA is working with the Federal Communications Commission (FCC), the Cellular Telephone Industry Association (CTIA) and the major professional organizations representing public safety answering points to facilitate implementation of the FCC rule that requires cellular providers to implement automatic caller location technology by the year 2001. The lack of automatic caller location capability is currently the major obstacle to effective use of cellular 911. In May 1997, NHTSA and

these organizations cosponsored a "call to action" meeting to solicit support for implementation of the FCC rule from national safety and health organizations.

NHTSA plans to continue working with these partners to facilitate implementation of the FCC rule, which provides the best mechanism for nationwide implementation of a uniform cellular 911 system. This is reflected in the fiscal year 1998 budget request as technical assistance for state emergency communication needs.

Question. Please further justify the request for an additional $372,000 over last year's request. Is this request needed simply to follow through on the recently completed EMS Agenda? Exactly how will these additional monies be used.

Answer. The additional funds will support implementation of the EMS Agenda for the Future, which continues to be a major component of both program development and outreach activities in the EMS area. Among the funded activities will be a national conference focusing on implementation of the visions in the EMS Agenda, revision of the Blueprint for EMS Education and Practice, and implementation of the model EMS quality improvement program.

Question. Please provide dollar amounts of resources NHTSA received from other Federal agencies in fiscal year 1996 and 1997. Are there any Federal agencies planning on providing funds in fiscal year 1998?

Answer. The Department of Health and Human Services, Emergency Medical Services for Children Program (EMSC) of the Health Resources and Services Administration, contributed $387,000 during fiscal year 1996 and is planning to contribute $325,000 in fiscal year 1997 toward EMS projects being administered by NHTSA. No specific plans for funding by other agencies in fiscal year 1998 have been made known to the agency.

Question. What evaluations, if any, have been conducted on the effectiveness and value of the NHTSA EMS program? What were the results?

Answer. A formal evaluation was conducted on the NHTSA State Technical Assessment program in 1995. This evaluation included NHTSA technical assessments that had been completed in 40 states between 1988 and 1994. This evaluation found that significant accomplishments were made in state EMS systems following delivery of the technical assessment efforts. These accomplishments included: enactment of comprehensive enabling legislation in 8 states; development of trauma system legislation in 11 states; development of statewide EMS plans in 9 states; establishment of EMS Advisory Councils in 9 states; support for consistent medical direction in 10 states; and initiation of statewide EMS data collection in 5 states.

An evaluation of NHTSA involvement in EMS education was conducted as part of the December, 1996 National Conference on EMS Training. At this conference, NHTSA solicited input from about 30 national EMS organizations concerning future agency involvement in EMS education. The resulting consensus statement recommended that the agency continue its support for the development and maintenance of the National Standard Curricula for Emergency Medical Providers. The consensus statement also recommends that NHTSA support the update and revision of the Blueprint for EMS Education and Practice.

STATE MOTOR VEHICLE SERVICES PROGRAM RECORDS AND LICENSING

Question. Please prepare a table indicating the amount requested and the amount actually appropriated for fiscal years 1995, 1996, and 1997.

Answer. The information follows.

[In thousands of dollars]

Program	Fiscal years—					
	1995		1996		1997	
	Request	Appropriation	Request	Appropriation	Request	Appropriation
R&L	1,330	1,319	1,284	1,284	1,330	1,329

Question. Please prepare a table showing how all of the funds requested for fiscal year 1998 are intended to be spent, and please include in that table a comparison with the amount provided for each of those activities for fiscal year 1997. On a separate page, please justify the need for the requested increases.

Answer. See table below.

[In thousands of dollars]

Activities	Fiscal years—	
	1997	1998
Technology Clearinghouse	80,000	80,000
Traffic Safety Manager Quantitative Analysis Training	60,000	60,000
Traffic Safety Manager Training in Use of Analytical Software	.....	44,000
Intermediate Data Analysis Training	58,000	50,000
Minimum Crash Data Set	60,000	60,000
Traffic Records Forum	60,000	60,000
Population Data Base	60,000	55,000
Traffic Records Technology Grants	.....	302,00
AAMVA MYPLAN	100,00	50,000
NCUTLO Marketing Plan	50,000	50,000
SCS Transfer—Technical Assistance to States (data linkage/program evaluation)	800,000	768,000
Total	1,328,000	1,579,000

Traffic safety manager training

Traffic Safety Managers lack the necessary skills to use analytical software for analysis of traffic records licensing data. Training in analytical software use will increase their capability to effectively use traffic records data for decision-making purposes.

Traffic records technology grants

A number of states have completed assessments of their traffic records systems and are now ready to initiate recommended system improvements. Technology grants would enable three to four of these states to test existing and emerging technologies that can be used to collect, store, manage, retrieve and analyze traffic records data more efficiently and effectively. The experience of these states in the use and application of new technologies will provide valuable information to other states considering similar applications.

Question. How much money was spent in fiscal year 1997 on activities related to the Technology Clearinghouse? How much is proposed for this activity in fiscal year 1998?

Answer. The amount of money spent in fiscal year 1997 for activities related to the Technology Clearinghouse was $80,000. The amount of money proposed for this activity in fiscal year 1998 is $80,000.

Question. How much money does FHWA spend on this program?

Answer. FHWA will spend $195,000 on this program from fiscal year 1996 through fiscal year 1998.

Question. What is the scope and nature on the older driver program mentioned on page HS–59?

Answer. This program refers to efforts to have the AAMVA working group of Public Affairs and Consumer Education educate the public about older driver issues. It provides an information kit to states and Canadian provinces dealing with correct communication about older driver issues for both the general public and older drivers themselves.

HIGHWAY SAFETY RESEARCH PROGRAM

Question. Please prepare a table indicating the amount requested and the amount actually appropriated for the nine subprograms in the Highway Safety Research Program for fiscal years 1995, 1996, and 1997.

Answer. See table below.

[In thousands of dollars]

Program	Fiscal years—					
	1995		1996		1997	
	Request	Appropriation	Request	Appropriation	Request	Appropriation
Alcohol and Drugs	2,006	1,960	1,802	1,772	1,606	1,603

[In thousands of dollars]

Program	Fiscal years—					
	1995		1996		1997	
	Request	Appropriation	Request	Appropriation	Request	Appropriation
Occupant Protection	670	655	645	635	575	574
Older Driver	444	500	390	490	444	543
Ped and Bicyl	355	252	302	302	302	301
Speed and Unsafe	620	366	615	615	556	655
Driver Education			350	255	350	349
Driver Fatigue				1,000	0	980
Evaluation					1,000	100
EMS						

FISCAL YEAR 1997 AND 1998 RESEARCH BUDGETS COMPARED

Question. Please prepare a table for each of the nine subprograms in the Highway Safety Research Program, showing how all of the funds requested for fiscal year 1998 are intended to be spent, and please include in that table a comparison with the amount provided for each of those activities for fiscal year 1997. On a separate page, please justify the need for the requested increases.

Answer. See tables below and additional information on the need for the requested increases.

ALCOHOL & DRUG RESEARCH

Activity	Fiscal years—	
	1997	1998
Identify Target Groups and Situations	$400,000	$550,000
Develop Enforcement Improvements	350,000	450,000
Develop Traffic Law System Improvements	205,000	200,000
Develop Programs To Change Driver Attitudes	150,000	150,000
Evaluate Injury Control Programs	108,000	100,000
Develop Programs to Reduce Repeat Offenders	125,000	100,000
Improved Methods for Police Enforcement of Drugged Driving	275,000	100,000
Total	1,603,000	1,600,000

No increase in funding is requested for fiscal year 1998.

OCCUPANT PROTECTION

Activity	Fiscal years—	
	1997	1998
Strategies for Increasing Belt Use By Teenagers	$50,000	$100,000
Field Test Strategies to Increase Enforcement	50,000	100,000
Target Group Identification	200,000	224,000
Strategies for Specific Target Groups	224,000	250,000
Develop and Test Methods to Increase Proper Use of Child Safety Seats	50,000	100,000
Total	574,000	774,000

OLDER DRIVER RESEARCH

Activity	Fiscal years—	
	1997	1998
Develop Model Screening and Assessment Procedures	$100,000	$100,000
Guidelines for Family and Friends	100,000	100,000
Improved Intersection Negotiation	25,000	100,000
Develop Driving Decision Guidelines	275,000	150,000
Validate Statistical Models of Functional Limitations	43,000	100,000
Total	543,000	550,000

SPEED AND AGGRESSIVE DRIVING

Activity	Fiscal years—	
	1997	1998
Determine the Magnitude of the Speeding Problem	$400,000	$350,000
Guidelines for Setting and Enforcing Speed Limits	100,000	50,000
Develop And Test Counter-measures for Selected Targets	56,000	99,000
Fleet Study of Crash Risk	.....	200,000
Total	556,000	699,000

PEDESTRIAN AND BICYCLIST RESEARCH

Activity	Fiscal years—	
	1997	1998
Develop and Test Programs for Target Groups	$200,000	$125,000
Develop Crash Type Software	101,000	25,000
Large City Demonstration Program	.....	225,000
Total	301,000	375,000

DRIVER FATIGUE

Activity	Fiscal years—	
	1997	1998
Analyze role of fatigue, sleep in highway crashes	200,000	.....
Develop and Test Educational Programs	780,000	.....
Total	980,000	.....

DRIVER EDUCATION

Activity	Fiscal years—	
	1997	1998
Improve Decision Making of Novice Drivers	$100,000	$50,000
Develop Two-Phase Driver Education Program	25,000	300,000
Pilot Test Materials to Support Parent Participation	150,000	.....
Use of Simulation in Novice Driver Education	50,000	50,000

DRIVER EDUCATION—Continued

Activity	Fiscal years—	
	1997	1998
Total	349,000	400,000

EMERGENCY MEDICAL SERVICES

Activity	Fiscal years—	
	1997	1998
EMS Outcomes Evaluation	([1])	$125,000
Rural Preventable Mortality Follow-on	([1])	100,000
Total	([1])	225,000

[1] Not funded out of research.

SAFETY PROGRAM EVALUATION

Activity	Fiscal years—	
	1997	1998
Ignition Interlock Program Evaluation	$100,000	.....
Evaluate Air Bag Safety Campaign	.....	$500,000
Total	100,000	500,000

Justification for Increases

Additional funding for Occupant Protection Research is needed to support the President's Belt Use Plan and will be used to develop and test ways of reaching low use target groups and identifying more effective ways to upgrade, enforce, and publicize occupant protection laws. It will also be used for developing methods for increasing proper use of child safety seats.

Additional funding for Speed and Aggressive Driving Research is needed to initiate a study of the increased crash risk associated with specific types of speeding. A fleet of vehicles will be equipped with low cost data recorders that will measure when, and under what circumstances, the vehicles are driven above the posted limit. This project will provide critical information on the situations and circumstances in which speeding elevates crash risk and will allow the development of targeted enforcement focused on the situations where speeding is most likely to cause crashes.

Additional funding for Pedestrian and Bicycle Research will be used to initiate a large city demonstration program to determine the combined effectiveness of pedestrian safety countermeasures directed at all ages of pedestrians (young to old). This demonstration program should provide convincing evidence to other cities of the cost effectiveness of reducing their pedestrian crash problem.

Additional funding for Driver Education Research will focus on the development of a two-phase driver education program designed to complement graduated licensing programs currently being implemented by the states. The two-phase driver education program will provide the young novice driver with opportunity to acquire more supervised driving experience, with gradually increasing responsibility.

New funding for Emergency Medical Services Research is needed to reduce rural preventable mortality and to evaluate pre-hospital care to ensure that it is delivered efficiently and effectively. Funding for Emergency Medical Services Research has been moved to the research office to take advantage of the greater research and evaluation expertise and experience so that only research of the highest quality is produced.

Additional funding for Program Evaluation is will evaluate major activities resulting from the agency's efforts to increase safety belt and child safety seat use, the Air Bag Safety Campaign (ABSC), and the Partners in Progress program. Special

emphasis will be placed on evaluating the impact of the legislative and enforcement efforts.

Question. In Senate Report 104–325, the Committee encouraged NHTSA to work with several private sector organizations to ensure a smooth transition away from dependence on Federal funding for highway traffic safety programs. Please provide detailed information on how this has been accomplished.

Answer. The National Traffic Law Center (NTLC), a component of the American Prosecutors Research Institute, was started with funds from NHTSA. After several years of funding, NHTSA is currently phasing out its direct support of the Law Center. The NTLC is currently seeking private sector funds to continue their service to the prosecutorial community.

A number of programs that were nurtured during their infancy with NHTSA funds, such as the Network of Employers in Traffic Safety (NETS), have been taken over by coalitions of public and private sector groups that have raised sufficient funds to sustain their programs independent of the government. NHTSA still participates in these activities, but as a coalition member rather than its sole source of funding. NHTSA has helped create several valuable organizations and programs, including those cited above. These organizations can, however, compete for NHTSA funding to provide specific products and needs. In some cases, they may be the best source for specific products or services.

OCCUPANT PROTECTION RESEARCH

Question. How does this program differ with the National Occupant Protection Program?

Answer. This program provides research and evaluation support for the National Occupant Protection Program. The research program provides basic and applied research in such areas as risk taking, general deterrence, behavior modification, obstacles to enforcement, effect of public information, etc. It also provides evaluation support for the National Program by documenting program implementation activities in states and localities. In addition, the research program monitors public attitudes, knowledge, and reported behaviors related to seat belts and child safety seats.

Information from the Research Program is applied by the National Occupant Protection Program in its development of program plans and strategies to increase occupant restraint usage nationwide. Large scale examples have included the development of the Operation Buckle Down Program and Campaign Safe and Sober. These programs operationalized the results of findings from both the occupant protection and the impaired driver research efforts.

OLDER DRIVER RESEARCH

Question. Last year, in Senate Report 104–325 the Committee indicated that NHTSA should continue its work on demonstration activities for technologies and practices intended to improve driver performance of older drivers at risk of losing their licenses. How is it reflected in the fiscal year 1998 budget request and in the fiscal year 1997 spending plan for TSP? Please be certain to break out activities and specific funding levels for each activity.

Answer. In fiscal year 1997, the agency has included a project ($298 thousand) to complete the development of a model system to screen and assess older drivers and to develop a plan for demonstrating the acceptability and effectiveness of the model system. To improve our understanding of what the general public, older people and their care givers know and think should be done about licensing and mobility of older people we will conduct a nationally representative survey ($321 thousand). The latter is needed to see what support there is for different activities surrounding the licensing issues of seniors, such as paying for alternative transportation, need and payment for more extensive assessment, and issuance of limited or graded licenses.

The fiscal year 1998 budget includes a project ($200 thousand to initiate a demonstration of this model system. This field test will determine whether evaluating functionally impaired individuals can be effective in enabling these individuals to drive safely within their capabilities. It is expected to continue into fiscal year 2001. Further analyses of the relationships between medical conditions, functional disabilities and crash risk will be done to further refine which groups of older drivers pose an unacceptable risk ($100 thousand). Work to reduce the potential for losing mobility research on training functionally disabled drivers to overcome their weakness will continue ($100 thousand).

Question. What have been the continuing efforts of NHTSA to improve the safe mobility of older drivers? What are the results achieved during the last year?

Answer. NHTSA staff have been at the forefront of activities to improve the safe mobility of older drivers. The agency's research program has had a major role in developing the Secretarial initiative on "Improving Transportation for a Maturing Society;" it has affected the restructuring of research needs of the Transportation Research Board's (TRB) Committee on the Safe Mobility of Older Persons; and it has conducted several research activities dealing with safe mobility of older persons.

Studies completed in the last year include: "Improving Transportation for a Maturing Society" (Secretarial initiative to appraise the current status and future needs for transportation in our maturing society); "Safety Wheel Program" (developed guidelines for individuals and social service agencies to assist older drivers); "Development of Statistical Relationships Between Vehicle Crash Rates, Moving Violations and Age-related Physical and Mental Limitations" (analyzed selected data bases and developed a model establishing the relationships needed to identify older driver groups that are at an unacceptable risk); "Family and Friends Concerned About an Older Driver" (identified what role families and friends have in dealing with older, functionally disabled drivers and provides guidance to these individuals); "Mobility Consequences of the Reduction or Cessation of Driving by Older Persons (determined how people reduced or stopped driving and what the consequences were of these changes); and "A Combined Study: Improving the Safe Mobility of Older Persons and Measures for Increasing the Mobility of Aging Commonwealth Citizens." (identified what needs to be done to keep older persons safe as drivers and to provide mobility to the aging population).

Question. What is NHTSA doing to demonstrate new approaches in the licensing of older drivers in fiscal year 1997? During fiscal year 1998? What is the status of research being conducted and is it behind schedule? How have these demonstrations of improved screening been effective?

Answer. During fiscal year 1997, NHTSA is completing a series of studies that will develop a model screening and evaluation system for older drivers. The model system brings together all the earlier studies conducted to identify at-risk older drivers and assess their driving performance. NHTSA is also developing the field test plan to evaluate the model system. These activities are currently on schedule.

During fiscal year 1998 a field test of the model system will begin in one or more states. This effort will be designed to determine if a graded license system is effective in providing safe mobility for older, functionally limited people. Until such field tests are complete, NHTSA will not know whether such activities are effective or feasible.

Question. Please discuss how you used the GM settlement monies to supplement appropriated older driver research monies? How much did you allocate for this purpose?

Answer. The GM settlement monies on older driver research are being used to fund a new program to assist and encourage self regulation activities of older drivers. One of the studies will determine whether the risk associated with older drivers is primarily to themselves to others. Where appropriate, it will deal with ways to reduce premature driving cessation which can best be handled by the private sector versus driver licensing groups. GM is funding the program for $5 million over a five-year period of time.

DRIVER EDUCATION

Question. What activities would cease if this program was held to the 1997 level?

Answer. The agency requested level funding for driver education for fiscal year 1998 ($400,000). These funds would continue to support the development of a risk management training module and parent participation materials for novice drivers, and provide incremental funding for Michigan's graduated licensing system evaluation.

Without these funds it will be difficult to support driver education as an element of a graduated licensing system.

EMERGENCY MEDICAL SERVICES RESEARCH

Question. Why is this program being funded as a separate research item, instead of out of the program budget?

Answer. EMS research is being funded from the Office of Research and Traffic Records. Directing the EMS research program from this office enhances the program by utilizing staff with specialized research skills and background. The research office and the program office work closely on these projects, sharing progress reports, interpretations and insights, and developing joint plans for follow-on activities.

Question. Did the program budget take a $225,000 cut to reflect this transfer?

Answer. The EMS program did not take a cut. The research was covered within the Office of Research and Traffic Records budget, allowing the EMS budget to be directed to other program activities, including revision of the EMS Blueprint for Education and Practice, development of additional technical assistance programs for emergency communications issues, and conducting a national conference for the EMS Agenda for the Future.

SAFETY PROGRAM EVALUATION

Question. Why can't this program be conducted as part of your new initiative under air bags or under other Section 403 activities?

Answer. The safety program evaluation effort has been created in response to an increase in major legislative and program events currently being implemented either by the states or by the agency.

This effort focuses on events or programs which have the potential for nationwide or statewide impact. Examples include special traffic enforcement program (STEP) demonstrations, public information and enforcement efforts implemented in the states as part of the Air Bag Safety Campaign, the passage of primary laws and the repeal of motorcycle helmet laws in various states, implementation of a multitude of efforts within the President's Initiative to Increase Safety Belt Usage and within the Partners for Progress Program, the graduated licensing movement, etc.

Some program areas have provided funds to help evaluate initiatives within their domain. However, most programs do not have sufficient resources to fund all of the desired implementation efforts, much less program implementation and evaluations. This is particularly true in the occupant protection area where the President's Plan requires a significant increase in program and outreach activity. It is also true of smaller program areas, such as in motorcycle safety, where resources are constrained but where major changes are occurring (e.g. repeal of motorcycle helmet laws).

The unpredictability of many major events provides additional need for resources dedicated to program evaluation. The passage of primary laws and repeal of motorcycle helmet laws are examples of such events, but there are many more. They include zero tolerance for youth, upgrade of child passenger safety laws, graduated licensing, statewide roadside sobriety checkpoints, child passenger safety "correct use" clinics, statewide implementation of increased sanctions for repeat offenders, etc.

In order to measure impact, an evaluation effort must be implemented very quickly following the occurrence of an events. This immediacy adds to the need for funds available specifically for evaluation purposes.

DRIVER FATIGUE AND INATTENTION

Question. Senate Report 104–325 directed NHTSA to prepare a report on driver fatigue and inattention, describing the collaborative efforts and funding activities between NHTSA and the National Center on Sleep Disorders Research. Please provide the status and findings of this report, and whether it is on schedule.

Answer. The report is being prepared. It was delayed briefly by the initial need for major collaborative efforts between the two agencies. In August 1996, NHTSA and the National Center on Sleep Disorders Research (NCSDR) signed an interagency agreement.

One of the first actions initiated by this cooperative agreement provided funds for NCSDR to convene a panel of experts to establish guidelines, boundaries, and oversight for NHTSA's program development projects. The NCSDR recruited a chairperson and ten members from highly regarded professionals in sleep research and highway safety.

Panel meetings included NCSDR and NHTSA staff, as well as a project contractors' staff. The Panel has now reviewed information in four areas: mechanisms of human sleep and sleepiness, characteristics of drowsy driving crashes, population groups at highest risk, and effective drowsy driving countermeasures. The Panel recently made targeting recommendations to the NHTSA contractor and is completing its written report.

NCSDR and NHTSA are negotiating a new interagency agreement, funded at about $200,000. These funds would support the NCSDR's effort to create and disseminate drowsy-driving information to school age drivers in cooperation with private-sector partners.

The forthcoming report will list panel members, the panel's recommendations to NHTSA, and details of NCSDR's fiscal year 1997 program.

Question. Please present an updated chart showing which projects have been funded, their purposes, amounts and participants. Please present a similar updated

chart showing a schedule of anticipated projects. When were these contracts signed? What are the challenges that remain in developing this program?

Answer. All the components of the development program are currently in place and the evaluation and implementation components are in the final phases of award, as summarized in the tables below. The primary challenge will be to keep the projects on schedule in order to meet the Summer 1998 deadline.

FUNDED PROJECTS

Project	Purpose	Amount and date	Participants
Analyze role of fatigue, sleep disorders, & inattention (FSDI) in highway crashes.	Describe characteristics of FSDI crashes Identify subgroups most at risk.	$130,000 8/14/96	National Center on Sleep Disorders Research.
Investigate instances of fatigue-related events in motor-vehicle operation.	Observe drivers during fatigue-related inattention incidents Establish characteristics of inattention.	100,000 9/23/96	NHTSA Vehicle Research and Test Center.
Develop and test educational countermeasures for fatigue-related highway crashes.	Specify target populations Determine message themes (content). Establish motivational approaches. Establish dissemination strategies.	175,000 6/26/96	Harvard Univ. School of Public Health.
Develop strategy and lay foundation for education and information campaign.	Determine campaign objectives & target audience Determine content, strategy, & media mix. Prepare and test draft materials. Refine materials.	325,000 9/20/96	Global Exchange, Inc.

ANTICIPATED PROJECTS

Project	Purpose	Expedted amount	Participants
Evaluate information and education campaign to combat fatigue-related highway crashes.	Determine appropriate outcome measures & evaluation design Choose evaluation sites Collect pre- and post-campaign data. Evaluate campaign. Recommend revisions.	$500,000	Systems Assessment and Research, Inc.
Promulgate the educational program to implementation sites	Identify communities, organizations and associations that serve appropriate target group constituencies. Create interest in program implementation. Award competitive grants to support implementation activities. Provide program materials to implementors.	[1] 370,000 [2] 200,000	To be arranged.
Conduct supplementary implementation activities	Adapt campaign themes for use in ongoing educational programs for target audiences. Produce and disseminate supplementary materials through appropriate channels to reach target audience.	200,000	National Center on Sleep Disorders Research

[1] Materials production & program management costs.
[2] Grants to implementing organizations.

Question. What new findings have resulted from research to determine the role of sleep disorders or fatigue as a causal factor in traffic crashes?

Answer. The objective of NHTSA's research efforts has been to develop an education program to reduce driving while fatigued. At the present time, there is no known way to measure the presence of fatigue among drivers. Thus experts differ in their assessments of the role of fatigue in crashes. NHTSA and NCSDR have agreed not to dwell on the differing estimates of the magnitude of the problem.

Rather, the two agencies have agreed to conduct research to identify the most likely targets of fatigue-related driving, develop messages appropriate for such targets, and develop and demonstrate educational programs incorporating such messages.

Members of the NCSDR panel concur with the view that more extensive knowledge about the role of fatigue in crashes will require some yet undiscovered method for reliably assessing the level of fatigue of crash-involved drivers.

Question. What progress has been made in the development and implementation of public education programs?

Answer. The contractors responsible for the development of the education program have actively participated with NCSDR's expert panel, developed preliminary definitions of target groups, and have recently received the panel's recommendations for refinement of these groups.

Selection and interview protocols for discussions with members of potential target groups are under development. Focus groups are planned for late summer or early fall. Although there was some delay due to the initial collaboration effort, the contractors remain optimistic that they will meet the original goal for completing program development by summer, 1998.

The basic strategy for implementing the educational program has been established and a contract is about to be awarded for marketing the demonstration effort and for supporting program implementation in the communities and organizations selected for the demonstration effort.

Question. What is planned for fiscal year 1998, and how is this reflected in the budget request?

Answer. The fiscal year 1996 and 1997 appropriations fully support the development and implementation of the educational program and the evaluation of its effectiveness. NHTSA's fiscal year 1998 budget request does not contain any funds for drowsy-driver education. The agency will establish plans for funding future efforts in this area after reviewing results of the evaluation of the program currently under development. The results and recommendations of the evaluation are expected by summer of 1999.

RESEARCH AND ANALYSIS CRASHWORTHINESS RESEARCH PROGRAM

Question. Please prepare a table indicating the amount requested and the amount actually appropriated for the two programs in the Crashworthiness Research Budget for fiscal years 1995, 1996, and 1997.

Answer. The table summarizing the fiscal year 1995–1997 budget requests and the amounts enacted is shown below for the Safety Systems and Biomechanics programs of the agency's Crashworthiness Research Program.

[In thousands of dollars]

Research area	Action	Fiscal years—		
		1995	1996	1997
Safety Systems	Request	6,050	6,000	6,500
	Enacted	7,050	5,910	6,488
Biomechanics	Request	4,500	7,450	7,450
	Enacted	5,600	5,890	7,437

Question. Please prepare a table for both of the programs in the Crashworthiness Research Program, showing how all of the funds requested for fiscal year 1998 are intended to be spent, and please include in that table a comparison with the amount provided for each of those activities for fiscal year 1997. On a separate page, please justify the need for the requested increases.

Answer. The following table provides a comparison of the Safety Systems program expenditures, by activities, for the fiscal year 1997 program to the proposed funding level for the fiscal year 1998 program.

SAFETY SYSTEMS

[In thousands of dollars]

Activity	Fiscal years—	
	1997	1998
Upgrade Frontal Crash Protection	1,888	1,365
Upgrade Rollover Crash Protection	1,000	1,100
Vehicle Aggressiveness and Compatibility	1,000	1,300
Upgrade Side Crash Protection	1,500	1,338
Upgrade Seat and Restraint Systems	700	1,385
Electric/Alternatively Fueled Vehicles	400	.....
Advanced Air Bag Research	.....	1,850
Totals	6,488	8,338

The additional funds requested for the Advanced Air Bag Research ($1.85 million) are for continuing research that will focus on the development, performance, and monitoring of advanced air bag systems that build upon the short-term technological solutions to air bag problems identified in the field experience, including those of injuries resulting from aggressive air bag deployments (especially to children). For the advanced air bag systems under development, research will be conducted to identify the better performing systems, evaluate their best features, and determine the need for performance requirements regarding these systems. The research will identify the necessary performance characteristics of an advanced air bag system so that it will reduce or prevent air bag induced injuries. Based on these characteristics, a comprehensive set of tests will be defined to ensure the advanced air bag system will not cause injury. Further, these tests will ensure the air bag system provides effective restraint for normally seated occupants over the range of occupant sizes, while mitigating inflation injuries to out-of-position occupants. Finally, laboratory test procedures will be defined. The following table provides a comparison of the Biomechanics program expenditures, by activities, for the fiscal year 1997 program to the proposed funding level for the fiscal year 1998 program.

BIOMECHANICS

[In thousands of dollars]

Activity	Fiscal years—	
	1997	1998
Highway Traffic Injury Studies	.....	1,200
Impact Injury Research	.....	2,200
Human Injury Simulation and Analysis	.....	1,937
Crash Test Dummy Component Development	.....	2,100
Biomechanics of Air Bag Injuries	.....	3,150
Total	.....	10,587

The additional funds requested for Biomechanics of Air Bag Injuries ($3.15 million) will be directed toward efforts that will: (1) upgrade the capabilities and specificity of various sized, currently available test dummy systems to allow their near-term use as regulatory instruments in out-of-position testing, (2) continue efforts to develop and provide the best current injury criteria for evaluating safety system performance and initiate new research efforts to improve or address gaps in injury mechanism knowledge for critical body regions such as the head, neck, and chest, and (3) initiate necessary modifications and improvements to the various sized dummies that will increase their capabilities to accurately evaluate inflation related injury risks.

SAFETY SYSTEMS

Question. Please break down in extensive detail on a project-by-project basis the amount of funding requested for Safety Systems in the fiscal year 1998 request, and

compare these expenditures, by activities, to the fiscal year 1996 and the fiscal year 1997 program. Please demonstrate the continuity or completion of research in your answer.

Answer. The following table provides a breakdown of the funding for the projects during fiscal year 1996 and fiscal year 1997 along with the funding request for fiscal year 1998:

SAFETY SYSTEMS

[In thousands of dollars]

Activity	Fiscal years—		
	1996	1997	1998
Upgrade Frontal Crash Protection	1,810	1,888	1,365
Upgrade Rollover Crash Protection	1,000	1,000	1,100
Vehicle Aggressiveness and Compatibility	500	1,000	1,300
Upgrade Side Crash Protection	1,500	1,500	1,338
Upgrade Seat and Restraint Systems	700	700	1,385
Electric/Alternatively Fueled Vehicles	400	400	.....
Advanced Air Bag Research	.....	.....	1,850
Totals	5,910	6,488	8,338

As can be seen in the table, funding adjustments have been made in each of the continued activities for fiscal year 1998. These adjustments reflect the particular requirements for fiscal year 1998. In each of the activities, continuity has been preserved. Due to the scope of the research required to address the problem of the fatalities and injuries that current aggressive air bag designs are causing in relatively low speed crashes to a small, but growing, number of children, and occasionally to adult occupants, the funding for the supporting efforts has been requested in the newly added activity, Advanced Air Bag Research. Again, the research planned for fiscal year 1998 builds upon the results achieved during fiscal year 1997.

Question. What new research has been performed with the additional funds allocated last year?

Answer. The additional allocated funds last year were used in the Vehicle Aggressivity and Compatibility Program. However, the emphasis within this program was redirected to focus on providing an immediate, but interim, solution to the problem of the fatalities and injuries that current aggressive air bag designs are causing in relatively low speed crashes to a small, but growing, number of children, and occasionally to adult occupants. This effort led to the Final Rule announced on March 19, 1997, that allows manufacturers to provide depowered air bag systems that will inflate less aggressively.

Question. Please provide an updated discussion on the progress made in implementing the strategic plan for heavy truck research.

Answer. In June 1995, NHTSA developed a strategic plan outlining the future direction of the Heavy Truck Safety Research Program. The proposed implementation plan for the research was based on the assumption that sufficient funding would be available for the research projects. A brief discussion of ongoing research projects is given below:

The trucking industry has identified driver fatigue as their number one safety issue. In cooperation with the FHWA's Office of Motor Carriers, the trucking industry, and various other research entities, a major program is underway to address this issue. NHTSA's portion of that program is focused on developing and facilitating deployment of high-technology in-vehicle systems that will be capable of detecting the onset of drowsiness and providing warning to the driver. Prototype systems have been developed, and a long-term on-road test of these systems in actual service is just beginning. That research is expected to determine how effective, reliable, and durable such devices are, and it will identify areas where additional development is needed.

A major stumbling block to the deployment of high-technology safety systems on heavy combination vehicles is a means for providing reliable electrical powering and communication between truck tractors and the trailers they pull. The agency has two cooperative research agreements under which prototype high-technology tractor-trailer units have been built, each using somewhat different approaches to address the same problem. Two of these combinations are now in actual revenue service, one

in the Eastern United States, and one on the West Coast. This field test will continue for 18 months.

Research is also underway to develop on-board sensors to detect incipient rollover, and for wheel-by-wheel brake performance monitoring. These sensors hold promise for possible future interaction with infrastructure-based systems and electronic braking to reduce the incidence of heavy truck rollovers, particularly on expressway exit ramps.

In addition to research directed at future high-technology safety improvements, the agency has ongoing research projects to support the promulgation and enforcement of its Federal motor vehicle safety standards. The agency is conducting research on truck brake performance testing, truck tire performance, and truck cab integrity in support of the agency's regulatory efforts.

Question. Many of the activities being conducted in this area could also be conducted by the private sector. Please define the public purposes being served, the scope and the nature of any cost sharing, and the amounts received from the private sector.

Please describe how NHTSA's research does not overlap that conducted by the private sector.

Answer. The agency is concerned with the approximately 40,000 fatalities and the millions of injuries that occur each year on the nation's highways. The focus of the industry has been on two issues. The first is committing substantial resources for ensuring that manufacturers' fleets meet the requirements of the Federal motor vehicle safety standards. Their immediate concern is to provide depowered air bag systems as quickly as possible to address the problem of the fatalities and injuries that current aggressive air bag designs are causing in relatively low speed crashes. Second, the industry has focused its energy on reducing the costs of the current safety systems in order to remain competitive, both domestically and abroad. Conversely, NHTSA's efforts are directed at expanding the performance envelope of the vehicle safety systems. The agency develops test procedures and demonstrates advanced safety systems, including advanced air bag and occupant restraint designs, thus advancing the safety technology and crash performance of these systems. As part of this activity, the agency has entered into cooperative agreements with the industry to utilize the advanced technology that the industry is developing and to encourage activity in areas in which the industry is not involved. To date, the agency has been successful in not overlapping the research being conducted by the private sector.

BIOMECHANICS

Question. In Senate Report 104–325, NHTSA was urged to redouble its efforts to obtain cost-sharing commitments with other organizations which benefit from the center. What progress has been made in that area?

Answer. In spite of the fact that the National Transportation Biomechanics Research Center (NTBRC) allocated significant time and resources to address urgent air bag issues, it still made significant progress in its efforts to obtain cooperation commitments from other organizations. NTBRC engaged several organizations in an effort to increase interagency and interorganization cooperation in biomechanics research. The following list gives some of the principal cooperative efforts between NTBRC and outside organizations:

U.S. Army's Walter Reed Institute of Research.—Collaboration to study head impact biomechanics.

Occupant Safety Restraint Panel, Honda R&D, Volvo, Transport Research Laboratory of the United Kingdom, Japan Automotive Research Institute/Japan Automobile Manufacturers Association, Insurance Institute for Highway Safety.—NTBRC cooperation on advanced dummy test and evaluation efforts. Further cooperative advanced dummy test and evaluation efforts are planned this year with Japan Automotive Research Institute/Japan Automobile Manufacturers Association, Volvo, Autoliv (Sweden), ADRIA Consortium (TNO, University of Madrid, Transport Research Laboratory of the United Kingdom), Occupant Safety Restraint Panel, Federal Office of Road Safety (Australia), Autoliv (Australia), New Car Assessment Program of Australia.

Transport Canada.—Cooperative efforts on small female dummies.

American Automobile Manufacturers Association, Association of International Automotive Manufacturers, and American Occupant Restraint Council.—Cooperation on advanced air bag technology assessment methodologies.

U.S. Air Force Armstrong Laboratory.—Collaboration on development of system for sharing biomechanics data.

Society of Automotive Engineers and the International Standards Organization.—Cooperation on 5th-percentile female, 3- and 6-year-old child Hybrid III dummies for air bag assessment.

Department of Justice, National Institute of Justice, U.S. Army.—Collaboration for the development of impulsive thoracic injury criteria.

Johns Hopkins University Applied Physics Laboratory.—Collaboration on the development of advanced instrumentation for the detection of fast chest deflections.

U.S. Navy.—Collaboration on impact injury research, sharing of the biomechanics data, and in development of small stature dummies.

NASA Jet Propulsion Laboratory.—Cooperation regarding biomechanics related to smart air bag technologies.

CRASH AVOIDANCE RESEARCH PROGRAM

Question. Please prepare a table indicating the amount requested and the amount actually appropriated for the two subprograms of the Crash Avoidance Research Program for fiscal years 1995, 1996, and 1997.

Answer. The information follows.

[In thousands of dollars]

	Amount requested	Amount appropriated
Driver/Vehicle Performance:		
Fiscal year:		
1995	.....	.....
1996	.....	.....
1997	4,000	1,000
Heavy Vehicles:		
Fiscal year:		
1995	597	597
1996	597	517
1997	597	595

Question. Please prepare a table for each of the two subprograms in the Crash Avoidance Research Program, showing how all of the funds requested for fiscal year 1998 are intended to be spent, and please include in that table a comparison with the amount provided for each of those activities for fiscal year 1997. On a separate page, please justify the need for the requested increases.

Answer. The information follows.

[In thousands of dollars]

	Fiscal years—	
	1998 requested	1997 appropriated
Driver/Vehicle Performance:		
ABS Driver/Vehicle Performance	800	700
Light Vehicle Rollover Propensity	200	250
Non-planar Mirror Driver Performance	.....	50
Total	1,000	1,000
Heavy Vehicles:		
Brake Test Instrumentation & Procedures	495	374
Crashworthiness Test Procedures	100	200
Update Tire Performance Database	.....	21
Total	595	595

Justification of the need for increased funding: The fiscal year 1998 request represents the same funding levels for each of the subprograms; namely, the driver/vehicle performance and heavy vehicles research. Thus, no overall increase is re-

quested. Within each of the subprograms, there will be some shift of emphasis. The research programs within both of these subprograms are primarily for the purpose of supporting the agency's efforts to develop motor vehicle safety standards and consumer information, and as such are typically ongoing, multi-year efforts. However, different aspects of a particular problem may be studied in different years, as the needs of the Safety Performance Standards of the agency dictate.

DRIVER/VEHICLE PERFORMANCE

Question. This program was initiated in 1997; when will it be completed? Do you anticipate that it will be a permanent program?

Answer. It is not really correct to say that this program was initiated in 1997. Throughout the history of the agency, there has always been a program of research in the area of driver/vehicle performance. With the advent of the Intelligent Transportation Systems (ITS) program, all of the agency's crash avoidance research was directed toward development of countermeasures for collision prevention, using intelligent technologies. The budget for this NHTSA research has been part of the ITS budget for the past several years. However, there is an ongoing need for crash avoidance research to support NHTSA's regulatory responsibilities, such as braking, lighting, visibility, controls and displays. By reinstating driver/vehicle performance as a separate, non-ITS line item in fiscal year 1997 in the NHTSA budget, the agency has been able to initiate research on two critical current safety issues—light vehicle ABS and rollover propensity. Work on these two areas will continue in fiscal year 1998, and the ABS research is expected to be completed in fiscal year 1999. However, there is a backlog of other safety issues relating to lighting, mirrors, etc., that need to be studied. This program is expected to continue as long as the agency continues its activities in promulgating motor vehicle safety standards, in providing consumer information, and its enforcement efforts. There will always be new technologies and products that are introduced by manufacturers which will present new challenges in vehicle safety performance. Without ongoing research to understand how new technologies affect driver and safety performance, products that are intended to make driving easier and vehicles safer could actually have adverse effects on highway safety. It is therefore important that NHTSA continue its research activities in conventional collision avoidance technologies.

Question. How is NHTSA merging the AVCS program with the AHS initiative? What cost savings can be realized and how is this reflected in the fiscal year 1998 request?

Answer. The relationship between all vehicle-related ITS programs within DOT is currently being reviewed. This review includes the NHTSA collision avoidance and post-crash activities, as well as the work of the National Automated Highway System Consortium. The review has not yet been completed and no recommendations have yet been made that would result in changes in funding for either program.

HEAVY VEHICLES

Question. Heavy Vehicles—How does this research overlap with motor carrier research in federal highways, and with the MCSAP?

Answer. The NHTSA Heavy Vehicle research program complements, but does not overlap, the research being done by the FHWA's Office of Motor Carrier (OMC). NHTSA's research is directed toward the development of test equipment and procedure to evaluate the safety performance of new vehicles, in areas such as braking performance, stability, visibility, crashworthiness, etc. The program of the OMC concentrate on operational issues such as maintenance, inspection, driver fitness for duty, etc. NHTSA and FHWA/OMC work very closely together, and often coordinate their activities when the needs of both agencies can be met by cooperative on-road test programs that will serve both purposes.

NATIONAL CENTER FOR STATISTICS AND ANALYSIS (NCSA)

Question. Please prepare a table indicating the amount requested and the amount actually appropriated for the six programs in the NCSA Budget for fiscal years 1995, 1996, and 1997.

Answer. See table below.

[In thousands of dollars]

	Fiscal years—					
	1995		1996		1997	
	Request	Appropriated	Request	Appropriated	Request	Appropriated
FARS	4,338	4,251	5,000	4,585	5,251	5,242
NASS	8,359	9,086	9,500	9,200	9,675	9,658
Data Analysis	1,824	1,479	2,000	1,414	2,100	1,635
State Data Program	1,436	1,397	2,000	1,550	3,850	3,041
Restraint Usage Data	.....	.....	.....	.....	300	300
Special Crash Investigations	315	310	315	315	331	331

Question. Please prepare a table for each of the six programs in the NCSA Program, showing how all of the funds requested for fiscal year 1998 are intended to be spent, and please include in that table a comparison with the amount provided for each of those activities for fiscal year 1997. On a separate page, please justify the need for the requested increases.

Answer. See table below.

FATALITY ANALYSIS REPORTING SYSTEM

[In thousands of dollars]

Description	Fiscal year	
	1997	1998
52 Cooperative Agreements with States, DC, and Puerto Rico	4,102	4,102
Quality Control	25	25
Analyst Training	225	225
Data Processing	890	890
Total	5,242	5,242

NATIONAL AUTOMOTIVE SAMPLING SYSTEM

[In thousands of dollars]

Description	Fiscal year	
	1997	1998
Field Data Collection and QC: 24 Teams and 2 Quality Control Units	6,254	6,318
Contract Closeouts: Payments of Post Contract Audits	60	100
CDS Data Revision: Changes and modifications for new and revised data collection	.....	50
Field Training: NASS researchers and other Federal, State and Local government employees	330	330
Maintenance and enhancements to the crash reconstruction program	75	50
Field Systems Oversight and Support	303	328
NASS CDS ADP, File Storage and Distribution	1,391	1,270
NASS GES ADP	660	675
Converting from Paper to Electronic Data Collection	585	537
Total	9,658	9,658

DATA ANALYSIS PROGRAM

[In thousands of dollars]

Products and activities	Fiscal years—	
	1997 budget	1998 request
Analytic Support	500	500
Database Augmentation	125	125
Sampling Support and Quality Control	660	660
Customer Service Support	350	350
Clinical Study of Injuries Associated with Air Bag Deployment	.....	289
(Exposure Data Collection—Pilot Test)	.....	(1,000)
Total	1,635	1,924

DATA ANALYSIS

Justification for increase

The proposed increase for the Data Analysis program is to support the clinical study of injuries associated with air bag deployment as part of the Agency's efforts to obtain detailed information on the critical aspects of these injuries. This funding will support an interagency agreement with the Consumer Product Safety Commission (CPSC) to obtain data on a sample of cases of injuries treated in hospital emergency rooms through CPSC's National Electronic Injury Surveillance System (NEISS).

STATE DATA PROGRAM

[In thousands of dollars]

Products and activities	Fiscal year—	
	1997 budget	1998 request
Data Acquisition and Processing	658	700
State Data Enhancement and Technical/Analytical Assistance	150	250
Research New Data Linking Strategies and Evaluate Linked Medical Outcome and Crash Databases	.....	75
Promote Linked Medical Outcome and Crash Data among State and Local Agencies	310	206
Assist State and Local Agencies in Data Linkage	323	310
Data Linkage Grant Program for New States	1,600	1,500
Total	3,041	3,041

OCCUPANT PROTECTION PROGRAM

[In thousands of dollars]

Products and activities	Fiscal year—	
	1997 budget	1998 request
Survey and Sample Design Revisions and Other Survey Preparations	.....	70
Conduct a National Occupant Protection Use Survey	100	200
Tabulate, Analyze, and Publish Survey Results	200	30
Total	300	300

SPECIAL CRASH INVESTIGATIONS

[In thousands of dollars]

Description	Fiscal years—	
	1997	1998
Investigations of Special Crashes of Interest to NHTSA	264	964
Quality Control and Data Management	58	58
File Storage and Distribution	9	9
Total	331	1,031

SPECIAL CRASH INVESTIGATIONS

Justification for increase

This increase in data collection is an essential part of the Department's Air Bag Assessment Program. The Special Crash Investigations (SCI) program provides detailed information about crashes of special interest that are not included in the NASS CDS program. The NASS CDS is a probability sample of all motor vehicle crashes, thus it cannot provide information on all air bag crashes involving serious or fatal injuries. The SCI is a quick reaction crash investigation activity in which an investigator is sent to the crash site when we learn of serious air bag crashes. It is a small program currently operating at about $0.3 million per year. Additional funds were requested in fiscal year 1998 to increase the number of field investigators in this program. This increase in investigators will result in more than 175 real-world crash investigations per year, including "depowered" air bag equipped vehicles and all passenger side air bag related child injury cases that NHTSA discovers. The cost of the increased operations is $1.03 million per year.

DATA ANALYSIS PROGRAM

Question. Please further explain the need for an additional $300,000 in fiscal year 1998. Why can't the study on air bag deployment injuries be conducted within the base program or at the injury trauma centers within the base amount?

Answer. The additional $300,000 requested in the fiscal year 1998 funding for the Data Analysis Program will provide for collection of a sample of cases on injuries related to air bag deployment in the Consumer Product Safety Commission's (CPSC) National Electronic Injury Surveillance System (NEISS). NEISS, a three (3)-level system consisting of surveillance of emergency room injuries; follow-back telephone interviews with injured persons or witnesses; and comprehensive investigations with injured persons and/or witnesses, obtains data from a sample of 91 of the 6,127 hospitals nationwide with at least six beds that provide emergency care on a continuing 24-hour basis. The agency used NEISS in the past as a cost-effective way to obtain data on injuries associated with motor vehicle hazards that are non-crash related (e.g., injuries associated with the inadvertent closing/malfunctioning power windows; battery explosions) as a basis for developing national estimates of the injuries associated with these hazards.

Question. What are the implications of holding Data Analysis to the fiscal year 1997 level?

Answer. Holding the fiscal year 1998 Data Analysis budget to the fiscal year 1997 level will impact two critical areas; in providing support to the agency's air bag research initiative and in the ability to meet the agency's analytical needs in general. Collection of data on a larger sample of injuries associated with air bag deployment via the Consumer Product Safety Commission's (CPSC) National Electronic Injury Surveillance System (NEISS) will not be possible at the fiscal year 1997 funding level, thus limiting the amount of valuable data available to the agency on this critical issue. Data analysis activities provide a great deal of leverage on highway safety activities for a very modest investment. Analysis is used in NHTSA to help support state efforts to pass tougher alcohol, safety belt use, and traffic enforcement laws. Analysis also supports wide ranging rulemaking and enforcement activities in the agency. During fiscal year 1997, analytical support is being provided to study the impact of a wide range of safety issues, e.g., increased speed limits, effects of specific alcohol legislation, injuries associated with specific motor vehicle hazards, etc.

OCCUPANT PROTECTION USE SURVEY

Question. Why did the program receive no money in 1996 if a survey was conducted that year?

Answer. Data collection for the 1996 National Occupant Protection Use Survey was conducted during the months of October, November and part of December, 1996. fiscal year 1997 funds were available for this period.

PARTNERSHIP FOR A NEW GENERATION OF VEHICLES (PNGV)

Question. How have NHTSA's efforts been coordinated with those of DOE and DOC?

Answer. The agency has provided frequent input to DOC regarding its activities and budget requests for NHTSA's PNGV program support. Furthermore, the agency has given a formal briefing in Detroit to DOC, DOE, and USCAR regarding the specific details of the efforts both underway as well as planned.

Question. Please rank the various PNGV activities in order of importance. Please identify activities which absolutely must be funded during fiscal year 1998, and the ones that were funded in fiscal year 1997.

Answer. For fiscal year 1997, funds were requested for crashworthiness and other safety related research ($3.5 million), infrastructure analysis ($1.2 million), and peer review of the PNGV program ($0.3 million). Funds were approved only for the crashworthiness and other safety related research ($2.496 million). The fiscal year 1998 budget request ($2.496) is to provide for the continuation of the crashworthiness and other safety related research that was approved for the previous fiscal year. This must be funded in order for the agency to achieve its goal to ensure that the PNGV developed vehicles will meet existing and anticipated safety standards and that the overall crash and other safety attributes are not compromised by their light weight and the use of new advanced materials used in the production of the vehicles. This is important as the latest projections indicate that the PNGV developed vehicles may be "down weighted" by approximately 40 percent in order to achieve the fuel economy goals of the program. NHTSA recently released a summary report backed by six technical studies describing how a vehicle's size affects the safety of its occupants and the safety of those sharing the road. One of the six studies found that the fatal crash rate for passenger cars increased by 1.1 percent for each 100-pound decrease in passenger car weight. The injury crash rate for these vehicles increased by 1.6 percent for each such reduction. These findings suggest that a future 100-pound reduction in passenger car weight, unless offset by safety improvements, could result in an estimated 302 additional fatalities and 1,823 moderate-to-critical injuries per year.

Question. What funds has the NHTSA spent, or plan to spend on non-safety aspects of PNGV? How much has been spent on economic analysis, market-penetration studies, industry impact, and regulatory impact evaluations?

Answer. NHTSA has not spent any money during fiscal year 1997 nor has planned to spend any money during fiscal year 1998 on the non-safety aspects of PNGV. For fiscal year 1998, NHTSA plans to continue the crashworthiness and other safety related research begun in fiscal year 1997.

Question. Please prepare a table indicating the amount requested and the amount actually appropriated for the three subcomponent of the General Administration budget for fiscal years 1995, 1996, and 1997.

Answer. The information follows.

GENERAL ADMINISTRATION FUNDING

[In thousands of dollars]

Program	Fiscal years—					
	1995		1996		1997	
	Request	Enacted	Request	Enacted	Request	Enacted
Program evaluation	489	475	489	480	475	474
Strategic planning	200	100	200	.....	325	75
Economic analysis	100	100	75	75	175	75
Total	789	675	764	555	975	624

Question. Please prepare a table for each of the three subcomponents in the General Administration budget showing how all of the funds requested for fiscal year 1998 are intended to be spent, and please include in that table a comparison with the amount provided for each of those activities for fiscal year 1997. On a separate page, please justify the need for the requested increases.

Answer. The fiscal year 1998 funding request for each of the three subcomponents of General Administration are the same as the fiscal year 1997 enacted level. Within the Program Evaluation subcomponent there are differences in funding amounts for each activity between 1997 and 1998 because projects for a particular evaluation may be different in scope.

PROGRAM EVALUATION

Program evaluation project	Fiscal years—	
	1998 planned funding	1997 funding
Heavy Truck Conspicuity (Standard 108) Evaluation	$75,000	$150,000
Support National Occupant Protection Use Survey (Standard 208)	50,000	50,000
Improved Air Bag Technology (Standard 208)	100,000	.....
Cost Study of Latest Airbag Technology (Standard 208)	50,000	30,000
Child Safety Seat Registration Survey (Standard 208)	79,000	34,000
Cost Studies of other safety standards (fiscal year 1998—Standards 214 cars, 201, 202, 203, 204 light trucks. Fiscal year 1997—214 cars, 208 cars and light trucks.)	120,000	80,000
Domestic content Labeling (49 CFR Part 583)	.....	130,000
Total	474,000	474,000

STRATEGIC AND PROGRAM PLANNING

Strategic and program planning project	Fiscal years—	
	1998 planned funding	1997 funding
Environmental scan and future plausible events	.....	$60,000
Develop revised SEP	$50,000	.....
Council for Continuous Improvement membership fee	15,000	15,000
Continuous improvement materials, equipment and conference fees	10,000	.....
Total	75,000	75,000

ECONOMIC ANALYSIS

Economic analysis project	Fiscal years—	
	1998 planned funding	1997 funding
Development of pediatric derivative of Functional Capacity Index continued in fiscal year 1997 and published in fiscal year 1998, literature survey published in fiscal year 1997, application of Functional Capacity Index continued	$75,000	$75,000

STRATEGIC PLANNING PROGRAM

Question. Please state the reasons for hiring an outside contractor for $75,000 to improve the agency's strategic planning.

Answer. During fiscal year 1997 the agency used contractor support to complete an environmental scan that identifies the changes in external factors and future

plausible events most likely to affect highway safety to the year 2010. Included in the scan were general demographic, lifestyle, and transportation issues.

Fiscal year 1998 funding will be used for the development of a revised Strategic Execution Plan (SEP) in response to the Departmental Strategic Plan, which will be completed in September, 1997. Contractor facilitation and publication support will be used for the development of the revised SEP. Fiscal year 1998 funding will also be used to move forward the process improvements currently underway in the agency. This includes membership in the Council for Continuous Improvement, which provides access to a multitude of continuous improvement information, documents, and techniques, and access to bench marking information. Continuous improvement funding is also used for materials for in-house support and training of process improvement teams and staff. If this support were provided directly to agency staff by outside contractors, the cost to the government would be at least 10 fold.

Question. For fiscal year 1996, fiscal year 1997 and planned for fiscal year 1998, please provide a table similar to that found in last year's Senate hearing record, showing the amount of funds spent or allocated for non-mandatory awards and bonuses, PCS and overtime pay.

Answer. The information follows.

FUNDING FOR OVERTIME, BONUSES, AND AWARDS

[In thousands of dollars]

	Fiscal years—		
	1996 enacted	1997 enacted	1998 request
Safety Performance:			
PCS	.....	.....	.....
Overtime	.....	1	2
Bonuses/Awards	80	61	68
Subtotal	80	62	70
Safety Assurance:			
PCS	.....	.....	.....
Overtime	24	25	26
Bonuses/Awards	84	86	95
Subtotal	108	111	121
Highway Safety Program:			
PCS [1]	88	88	88
Overtime	5	6	6
Bonuses/Awards	182	172	190
Subtotal	275	266	284
Research and Analysis:			
PCS	.....	.....	.....
Overtime	.....	.....	.....
Bonuses/Awards	94	110	121
Subtotal	94	110	121
Office of the Administrator:			
PCS	.....	.....	.....
Overtime	4	4	5
Bonuses/Awards	58	56	62
Subtotal	62	60	67

FUNDING FOR OVERTIME, BONUSES, AND AWARDS—Continued

[In thousands of dollars]

	Fiscal years—		
	1996 enacted	1997 enacted	1998 request
General Administration:			
PCS	.....	.....	.....
Overtime	33	34	36
Bonuses/Awards	113	104	115
Subtotal	146	138	151
Grand Total:			
PCS	88	88	88
Overtime	66	70	75
Bonuses/Awards	611	589	650
Total	765	747	813

[1] All PCS funds are allocated to the Highway Safety Program as the predominant use is the transfer of field personnel to headquarters.

Question. Please prepare an updated table similar to last year's Senate hearing record indicating the amount of funds for computer support. Also provide a separate chart for communication systems for each of the last three fiscal years and proposed for fiscal year 1998.

Answer. The following tables show the funding for computer support and communication systems for the last three fiscal years and proposed for fiscal year 1998.

COMPUTER SUPPORT

[In thousands of dollars]

	Fiscal years—				
	1974	1995	1996	1997	1998 (proposed)
Computer Support	2,042	2,552	2,711	2,711	3,000

Question. Please provide updated tables similar to those in last year's Senate hearing record on operating expenses, personnel compensation, and benefits combined with operating expenses for each major NHTSA program. Please compare the fiscal year 1997 appropriation with the fiscal year 1998 request.

Answer. The information follows.

SALARIES AND EXPENSES

[In thousands of dollars]

	Fiscal years—		Change
	1997 appropriation	1998 request	
Use of Funds:			
Personnel Compensation:			
Permanent positions	38,567	38,979	412
Other than permanent positions	1,226	1,227	1
Other	676	695	19
Total, Salaries	40,469	40,901	432

SALARIES AND EXPENSES—Continued

[In thousands of dollars]

	Fiscal years—		Change
	1997 appropriation	1998 request	
Personnel Benefits	7,463	7,503	40
Total, Salaries and Benefits	47,932	48,404	472
Travel	1,082	1,082	.....
Total, Salaries and Expenses	49,014	49,486	472
Allocation to Programs:			
Safety Performance:			
Salaries and Benefits	6,862	6,938	76
Travel	60	60	.....
Subtotal	6,922	6,998	76
Safety Assurance:			
Salaries and Benefits	7,440	7,523	83
Travel	95	95	.....
Subtotal	7,535	7,618	83
Highway Safety Programs:			
Salaries and Benefits	14,634	14,735	101
Travel	616	616	.....
Subtotal	15,250	15,351	101
Research and Analysis:			
Salaries and Benefits	9,534	9,641	107
Travel	140	140	.....
Subtotal	9,674	9,781	107
Office of the Administrator/Staff Offices:			
Salaries and Benefits	2,961	2,994	33
Travel	129	129	.....
Subtotal	3,090	3,123	33
General Administration:			
Salaries and Benefits	6,501	6,573	72
Travel	42	42	.....
Subtotal	6,543	6,615	72
NHTSA:			
Salaries and Benefits	47,932	48,404	472
Travel	1,082	1,082	.....
Total	49,014	49,486	472
Use of Funds:			
Headquarters operating expenses:			
Personnel-related costs	325	305	(20)

SALARIES AND EXPENSES—Continued

[In thousands of dollars]

	Fiscal years—		Change
	1997 appropriation	1998 request	
Administrative services	2,790	2,791	1
Rent	.....	4,593	4,593
WCF/TASC	2,894	3,451	557
Computer support	2,711	2,426	(285)
Subtotal, headquarters	8,720	13,566	4,846
Field operating expenses	482	482	.....
Total, operating expenses	9,202	14,048	4,846
Allocation to Programs:			
Safety Performance: Headquarters expenses	1,479	2,301	822
Safety Assurance: Headquarters expenses	1,573	2,447	874
Highway Safety Programs:			
Headquarters expenses	2,085	3,184	1,099
Field expenses (Regions)	375	375	.....
Subtotal	2,460	3,559	1,099
Research and Analysis: Headquarters expenses	1,651	2,568	917
Office of the Administrator/Staff Offices: Headquarters expenses	638	993	355
General Administration: Headquarters expenses	1,401	2,180	779
NHTSA:			
Headquarters expenses	8,827	13,673	4,846
Field expenses	375	375	.....
Total	9,202	14,048	4,846

Question. Please provide a listing of Schedule C employees currently on board, by Title, Salary, Office and Location.

Answer. There are two Schedule C employees on board as of June 1997: Special Assistant to the Deputy Administrator, $78,466, Office of the Deputy Administrator, Washington, DC; Chief, Consumer Information Division, $83,528, Office of Public and Consumer Affairs, Washington, DC.

Question. Please prepare a table, similar to last year's Senate hearing record regarding positions and funding for the Office of the Administrator and staff offices.

Answer. The information follows:

OFFICE OF THE ADMINISTRATOR AND STAFF OFFICES FULL TIME POSITIONS [1] AND FUNDING, FISCAL YEARS 1996–1998

[Dollars in thousands]

	Fiscal years—					
	1996 [2]		1997 [2]		1998	
	Position	Funding	Position	Funding	Position	Funding
Office of the Administrator	4	$353	4	$358	4	$396
Deputy Administrator	2	176	2	179	2	198
Executive Director	2	176	2	179	2	198
Intergovernmental Affairs	1	88	1	89	1	99
International Harmonization	2	176	2	239	3	357

OFFICE OF THE ADMINISTRATOR AND STAFF OFFICES FULL TIME POSITIONS [1] AND FUNDING, FISCAL YEARS 1996–1998—Continued

[Dollars in thousands]

	Fiscal years—					
	1996 [2]		1997 [2]		1998	
	Position	Funding	Position	Funding	Position	Funding
Executive Secretariat	6	529	6	537	5	495
Civil Rights	4	353	4	358	3	297
Public and Consumer Affairs	12	1,059	12	1,074	13	1,286
Chief Counsel	30	2,647	30	2,684	30	2,968
Less: Mission Support	(22)	(1,941)	(22)	(1,968)	(22)	(2,176)
Total	41	3,618	41	3,728	41	4,116

[1] Positions are rounded for display purposes.
[2] Enacted levels.

Question. Please display the amount and nature of reprogramming that occurred during fiscal year 1996, or fiscal year 1997 in any of the NHTSA accounts. Also in a separate table, please show any unobligated funds or carryover for these years.

Answer. In fiscal year 1996, there were no reprogramming actions that required advance notification of the Congressional Appropriations Committees, including shifts of funds that affected activities considered to be Congressional earmarks or identified as areas of "key Congressional interest" in the Quarterly Reports of Reprogramming Actions. No transfers of funds occurred between accounts other than minor shifts of funds among object classes within an account. These shifts have resulted from account-wide reductions which were allocated to the individual program offices and from necessary fine-tuning which typically takes place when the agency implements its budget.

In fiscal year 1997, NHTSA requested Congressional approval to reallocate $2.86 million of fiscal year 1996 carryover funds for additional airbag safety research. Of this amount $1.660 million will be shifted from Research and Development carryover, representing contract program savings from fiscal year 1996 and prior years in the areas of Motor Vehicle Research and the National Center for Statistics and Analysis. An additional $1.2 million will be reallocated from fiscal year 1996 salaries and benefits carryover. These carryover funds are a one-time savings resulting from a reduced Full-Time Equivalent usage rate in fiscal year 1996. The $2.860 million will be distributed among the National Transportation Biomechanics Research Center ($1.350 million), Safety Systems and Air Bag Research ($.8 million), and Special Crash Investigations ($.710 million). The following table represents the fiscal year 1995 and fiscal year 1996 carryover into fiscal year 1996 and fiscal year 1997:

FISCAL YEAR 1995 AND FISCAL YEAR 1996 CARRYOVER

[In thousands of dollars]

	Fiscal years—	
	1995 into 1996 actuals	1996 into 1997 actuals
Contract Program:		
Safety Performance	60	84
Safety Assurance	166	404
Highway Safety	175	549
Research and Development	8,724	8,378
General Administration	792	261
Salaries and Benefits	1,595	1,287

FISCAL YEAR 1995 AND FISCAL YEAR 1996 CARRYOVER—Continued

[In thousands of dollars]

	Fiscal years—	
	1995 into 1996 actuals	1996 into 1997 actuals
Miscellaneous operating expenses	1,111	610
Recoveries and Other Deobligations	1,005	1,863
Total	13,628	13436

NATIONAL DRIVER REGISTER

Question. Please provide an updated status report of NHTSA's review of state driver licensing systems. How have the states progressed in this area?

Answer. The study of the current driver licensing information systems, the Commercial Driver License Information System (CDLIS), the National Driver Register's Problem Driver Pointer System (PDPS), and Driver License Reciprocity is scheduled for completion in August 1997. The American Association of Motor Vehicle Administrators, Federal Highway Administration, and NHTSA have been partners in this cooperative effort.

The states appear willing to take the next step that is suggested by the report (i.e., combining the best features of the three systems into an integrated driver licensing system) but most are concerned about the significant cost and technological problems associated with such an endeavor.

Question. How have the results of this review provided guidance on managing the National Driver Register?

Answer. The review has brought to the surface a number of issues that must to be resolved to improve the service provided by the National Driver Register (NDR). These issues include: dual reporting of actions (by the state where the offense occurred and the state where the individual is licensed, when they are different); nonhighway safety related suspensions being reported; the use of clearance letters with an electronic system; and how to handle actions that are on the system and more than seven years old.

To develop consensus on these and other issues the agency plans to publish a Notice of Proposed Rulemaking. The Notice will be used to update the list of violation exchange codes that are required to be reported to the NDR. Additionally, the Proposed Rulemaking will discuss the agency's views on these issues and will request the opinions of interested parties. Based on this input the agency will determine how best to address the issues.

Question. How have the data that are received by the NDR been improved? How are further improvements reflected in the fiscal year 1998 budget request?

Answer. NDR data are now more accurate and current than previously. The states maintain the conviction, suspension, and revocation data and the NDR only contains an indicator (pointer) that points to the state holding the information. Because the NDR no longer duplicates what the state has on its file, the NDR is no longer in the position of trying to "catch up" with the data on the states' files.

The fiscal year 1998 budget request will cover operating costs for the NDR. Software and hardware upgrades will come out of these funds. No significant upgrades are planned.

Question. Please provide an update on the PDPS. What has NHTSA done to encourage all States to use this system? How many states are actively using this system?

Answer. NHTSA has provided grants to the states to assist in their conversion to the PDPS. In addition, the agency funds a help desk to assist them in the conversion process by testing their programs before they go on-line. The agency also funds user workshops that allow states to discuss problems of mutual interest and suggest possible solutions.

To date, 49 states have converted to the PDPS. Oregon and the District of Columbia are scheduled to convert in the fall of 1997.

Most importantly, all states are connected electronically and participate in the National Driver Register (NDR). The best indicator of the success of the program is a comparison of operational statistics from 1993, the last full year under the old system, and 1996. In 1993, the NDR processed 25.3 million inquiries, 8.5 million

of which were interactive (immediate) inquiries. In 1996, the NDR processed 31.9 million inquiries, 26.7 million of which were interactive inquiries.

Question. How many states are not able to use PDPS? How is NHTSA assisting these States and how is it reflected in the fiscal year 1998 and fiscal year 1997 budgets?

Answer. All states are able to electronically exchange information. Budget and system problems have prevented the District of Columbia and Oregon from converting to the PDPS. In the meantime, they are still able to send and receive information electronically from the NDR. The agency has maintained a help desk staffed by system professionals to assist states in the conversion process. Help desk assistance includes answering questions, testing state systems prior to implementing the system changes, participation in a users workshop to share experiences, and site visits. Funding for the help desk is included in the fiscal year 1998 and fiscal year 1997 budgets.

AIR BAG SAFETY

Question. Will attempts by NHTSA to "fix" airbags divert NHTSA resources to solving problems at the expense of studying and encouraging new technologies that could be a more effective replacement for airbags?

Answer. The agency actions to provide an immediate, but interim, solution to the problem of the fatalities and injuries that current aggressive air bag designs are causing in relatively low speed crashes to a small, but growing, number of children, and occasionally to adult occupants required redirecting funds from existing research programs. However, this has not been at the expense of studying and encouraging new technologies. Furthermore, the new technologies that are emerging have largely been based on improving current air bag systems by having the improved system automatically adapt its deployment characteristics according to the crash environment, to the size and/or weight of the occupant, and/or to the proximity of the occupant to the air bag module. Inflatable technologies remain among the most practical and effective ways to mitigate crash injuries and fatalities while not encroaching on critical occupant space in the vehicle.

Question. Would a focus by NHTSA on "fixing" air bags be inconsistent with NHTSA's approach of identifying a problem, establishing a desired result and the means of testing performance? Is NHTSA committed to a performance-based criteria as a regulatory philosophy? Does NHTSA believe that performance-based criteria create a level playing field that allows competition and encourages technology and innovation?

Answer. The National Highway Traffic Safety Administration is dedicated to the goal of encouraging and facilitating the advent of advanced air bags through performance-based safety standards. As part of this process, the agency has identified specific problems with current-design air bags. The desired outcome is quite apparent: no adverse affects of air bags. Therefore, the remaining agency effort is and will be to establish a performance-based test program and regulation which will ensure systems that will mitigate the negative effects of current-design air bags. Only through measuring occupant restraint system performance, including the air bag, can vehicle and equipment manufacturers have design incentives and flexibility. Even with performance-based tests, safety regulations have to be updated as technology advances. For example, several occupant-presence-sensing systems being developed rely on measuring human-like characteristics, such as body heat, which is not currently part of the design characteristics of the current crash test dummies. Therefore, the agency is dedicated not only to performance-based safety standards, but intends to update these requirements to remove regulatory barriers to technological advances as needed. As in any regulatory action by the agency, the best available scientific approaches will be utilized to identify the problem and to establish requirements to reach the desired outcome.

In working on the Advanced Air Bag program with the automobile manufacturers' associations, air bag suppliers, the insurance institutions, and academia, through the Advanced Air Bag Technology Working Group of the Motor Vehicle Safety Research Advisory Committee, the agency intends to maintain a partnership with the companies responsible for developing advanced systems. This partnership will help the agency clearly define the current and future safety needs and develop a performance-based test protocol, which will assure a level playing field that allows competition and encourages technology and innovation.

Question. Is it the position of NHTSA that "smart" airbags are the best means for preventing airbag deaths? If so, how was this conclusion reached?

Answer. During the time leading up to the announcement of the Final Rule amending Federal Motor Vehicle Safety Standard No. 208 to ensure that vehicle

manufacturers can quickly depower all air bags so that they inflate less aggressively, the agency met frequently with vehicle and restraint system manufacturers to discuss the technologies available in both the near term and the long term that would provide a solution to the problem of fatalities and injuries. While the consensus was that depowered air bags could provide an immediate solution toward addressing part of this safety problem, it became apparent during these discussions that "smart" or advanced air bag technology would be required to address eliminating the problem altogether. Hence, the agency has established its research program for Advanced Air Bag Technology so as to continue to work toward eliminating this safety problem.

Question. If NHTSA defines "smart air bags" through a regulation, would NHTSA be setting the basis for regulations that require one specific approach and thereby exclude all other "smart solutions?"

Answer. The purpose for the comprehensive review and comment process for the implementation of a safety standard is to minimize or eliminate regulatory barriers in order to permit innovation in the future. In the area of advanced air bag rulemaking, as in all other regulatory actions, the agency's goal is to develop and select performance-based requirements and test procedures that will not exclude any innovative safety technology.

Question. Certain industry leaders have stated that smart airbag technology may be up to five years away from commercial availability because of their technological complexity. Is NHTSA exploring short-term available solutions, aside from a public awareness campaign, which would not require new technology, such as variable sizes of air bags, variable deployment speeds for airbags, variable reaction time for airbags depending on the vehicle speed? Are any of these approaches currently available?

Answer. An outcome of the February 11–12, 1997, NHTSA workshop, "Smart Air Bag Public Meeting," was a proposal by the American Automobile Manufacturers Association (AAMA) to work with NHTSA to establish a process for defining the issues to be addressed by advanced technology restraint systems. In reviewing the AAMA proposal, the agency agreed that industry cooperation would be essential for meeting the objectives of the agency's research program, particularly since the industry would be the source for the advanced technologies to be evaluated. Hence, the agency has established the Advanced Air Bag Technology Working Group under the Motor Vehicle Safety Research Advisory Committee's Crashworthiness Subcommittee. Members for this working group have been solicited to represent the domestic and foreign automobile manufacturers, the restraint system suppliers, the insurance industry, academia, and the medical community. This Working Group will serve as an active participant by undertaking efforts that lead to the completion of the research tasks.

As part of this undertaking, a comprehensive crash investigation program to evaluate the effectiveness of air bags is underway. To help the agency with its ongoing Special Crash Investigations, the automobile industry has committed to identifying the vehicles equipped with depowered air bag systems as the vehicles enter the fleet. NHTSA is working with the industry to establish the effectiveness of these systems. Additionally, a Memorandum of Understanding (MOU) has been signed with the National Aeronautics and Space Administration for a joint research program to contribute to the agency's effort for understanding and defining critical parameters affecting air bag performance, assessing air bag technology state-of-the-art and its future potential, and identifying new concepts for air bags. Also, under an MOU with Transport Canada, joint research will be conducted to establish cooperation in the test procedure development for advanced air bags and development of improvements for anthropomorphic dummies and associated injury criteria.

This overall program should provide for long-term and short-term evaluation of variations in air bag designs, advanced air bag technologies, and various methods to suppress air bag deployment.

Research and Special Programs Administration

Questions Submitted by Senator Richard C. Shelby

office of pipeline safety

Question. Please prepare a table indicating the amount appropriated and the amount actually obligated for the different major categories and sub-components of the pipeline safety budget for each of the last three years, as well as the fiscal year 1998 request levels.

Answer. The following information is provided:

Program	Appropriated	Obligated
FISCAL YEAR 1995		
Information and analysis	$1,752	$1,751
Risk assessment and technical studies	2,250	2,245
Compliance	4,875	4,866
Training and information dissemination	925	925
Emergency notification	100	100
OPA:		
Derived from OSLTF	2,267	2,257
Derived from pipeline safety user fees	252	252
R&D:		
Information systems	665	665
Risk assessment	318	330
Compliance	150	150
Mapping	1,200	[1] 650
Non-destructive testing	1,742	1,742
Grants	12,000	11,900
FISCAL YEAR 1996		
Information and analysis	1,200	1,194
Risk assessment and technical studies	1,750	1,747
Compliance	300	300
Training and information dissemination	850	850
Emergency notification	100	100
Damage prevention (Natl Pub Ed)	500	500
Environmental indexing	500	500
OPA: Derived from OSLTF	2,520	2,520
R&D:		
Information systems	400	400
Risk assessment	300	300
Mapping	1,200	58
Non-destructive testing	100	100
Grants	12,000	[2] 12,354
FISCAL YEAR 1997 [1]		
Information and analysis	1,200	1,143
Risk assessment and technical studies	1,800	1,494
Compliance	300	106
Training and information dissemination	860	860
Emergency notification	100	100
Damage prevention (Nat Pub Ed)	200	.....
OPA: Derived from OSLTF	2,336	445

Program	Appropriated	Obligated
R&D:		
Information systems	400	400
Risk assessment	300	25
Mapping	400	.....
Non-destructive testing	400	17
Grants	13,200	[1] 13,000

[1] Obligations thru 6/13/97.
[2] Includes carryover.

Program	Fiscal year 1998 request
Information and analysis	$1,200
Risk assess and tech studies	1,200
Compliance	300
Training and information dissemination	821
Emergency notification	100
Damage prevention (Natl Pub Ed)	200
OPA:	
Copy derived from OSLTF	2,127
Derived from pipeline safety user fees	200
R&D:	
Information systems	400
Risk assessment	300
Mapping	400
Non-destructive testing	239
Grants	13,500

Question. Please explain any deviation or reallocation of funds (of more than 10 percent) between the fiscal year 1997 appropriation and estimated obligations.

Answer. We have not reallocated contract or R&D funding from what was enacted. We do not reallocate personnel compensation and benefits or administrative expenses more than five percent.

Question. What are the current unobligated balances in the Office of Pipeline Safety? What is anticipated to be unobligated at the end of fiscal year 1997? Will unobligated "one-year" funds be returned to the pipeline safety fund?

Answer. As of May 20, the unobligated balance for Operation expenses was $4,325,000; Contract program activities (1 year funds) was $758,000; R&D program activities (3 year funds) was $1,057,000 and Grants was $12,200,000. We plan to obligate all Contract Program funding by close of fiscal year 1997. We estimate that our 3-year funding for R&D will have an unobligated balance of approximately $1,800,000 at the end of fiscal year 1997. At this time, we are estimating a lapse of approximately $100,000 (less than 1 percent) of 1 year Operating Expenses. We plan to transfer 5 percent of our PC&B to equipment. Those funds will be used to purchase enhanced computer equipment for OPS inspectors that will allow them to access information currently being developed in the Integrated Operator Compliance System (IOCS). IOCS is the first step in our transition from mainframe-based data technology to client-server type computers. The IOCS will maintain a sizable data base and requires more processing power to assess each operator's risk data and better link OPS Headquarters and Regions. In addition, it consolidates several existing data sets and will better support inspector's work in their integrity management-based inspections.

By law, unobligated "one-year" funds for a given fiscal year are returned to the Pipeline Safety Fund 5 years after the close of the fiscal year in which they were appropriated.

GOVERNMENT PERFORMANCE AND RESULTS ACT (GPRA)

Question. Please summarize the steps OPS has taken to implement the Government Performance and Results Act.

Answer. We have taken steps to prepare for requirements of the GPRA and have developed performance measures and a strategic plan. One of our first steps was

to establish our Risk Assessment Prioritization program, (RAP). All pipeline stakeholders were surveyed to establish a set of pipeline safety issues and to determine if there were cost effective solutions to those issues. This program guides our allocation of resources and we plan to update the survey next year.

We have revised our mission statement, identified two performance goals supporting that mission, and have organized our fiscal year 1998 budget around them. Within the risk management initiative, we produced a guidance document on how to develop and use performance measures and we are beginning to test that guidance this summer in our consulting with candidate operators. We have data analysis improvement initiatives and are carefully validating data entry from accident reports and other sources. Our mapping project will also help us relate accident history with data on consequences in populated and environmentally sensitive areas.

We have worked in the Departmental effort to create a strategic plan and are adapting departmental measures that will be appropriate to pipeline safety. We also are working with state agencies on a consistent set of performance measures. We are cooperating with industry trade associations to survey their members to evaluate our customer service.

Question. Which performance-based regulations have been issued during the last year?

Answer. The following are the regulatory accomplishments for the year ending June 1997. All final rules are performance-based.

Final Rules/Direct Final Rules:

—05/24/96.—Periodic Updates to the Pipeline Safety Regulations.
—06/03/96.—Pipeline Safety Program Procedures, Reporting Requirements, Gas Pipeline Safety Standards, and Liquefied Natural Gas Facilities Standards.
—06/06/96.—Regulatory Review: Gas Pipeline Safety Standards.
—06/20/96.—Excess Flow Valves—Performance Standards.
—02/25/97.—Liquefied Natural Gas Regulations, Miscellaneous Amendments.
—06/09/97.—Low-Stress Hazardous Liquid Pipelines Serving Plants and Terminals.

AUTHORIZATION ISSUES

Question. Please prepare a table summarizing each of the new responsibilities specified in the Accountable Pipeline Safety and Partnership Act of 1996 and indicate how and when you will complete these items. Be certain to summarize the specific components of your budget request that are necessary to implement each of these specific tasks?

Answer. The following table is provided:

Public Law 104–304	Requirement(s)	OPS response(s)	Components of budget
Section 3(b)	Changes requirement to define ''regulated gathering line'' from ''the Secretary shall'' to ''the Secretary shall, if appropriate''.	Now preparing SNPRM in Docket No. PS–122, ''Gas Gathering Line Definition'' for Federal Register publication in July 1997.	Risk Assessment & Technical Studies (fiscal year 1998).
Section 4(a)	Emphasizes requirement to ensure that individuals performing O&M on pipelines be qualified. Main change here is in § 60102 (a)(1)(C) and § 60102 (a)(2); requirement to ''test and certify'' becomes ''qualified''.	The Secretary has convened a Negotiated Rulemaking (RegNeg) committee on qualification of pipeline personnel performing operations & maintenance and emergency response functions. It is expected that the committee will reach a consensus on a proposed rule on operator qualification. A proposed rule could be published in early 1998.	PC&B (fiscal year 1998).
Section 4(b)	Adds new language to clarify requirements for consideration of risk assessment, environment, cost/benefit analysis, and recommendations of advisory committees.	OPS' cost/benefit analyses already comply with this requirement. Further work is being performed to address environmental costs.	PC&B (fiscal year 1997 and fiscal year 1998).
Section 4(b)	Requires consideration of costs and benefits; exploration of regulatory and nonregulatory options; explanation of selection; identification of information on which risk assessment is based.	Most of the specific items required for consideration under ''risk assessment'' are already required by E.O. 12866 (October 4, 1993), Regulatory Planning and Review. All new cost/benefit studies will be in compliance with this requirement.	PC&B (All future fiscal years).
Section 4(b)	Requires submission of any risk assessment supporting cost/benefit analysis to the pipeline safety advisory committee(s). Risk assessment information must be available to the public.	All risk assessments supporting cost/benefit analyses are being submitted to the pipeline safety advisory committees and are being docketed for public comment.	PC&B (All future fiscal years).
Section 4(b)	Requires advisory committees to function as ''peer review panels'' for risk assessment information; must submit this information to advisory committees; advisory committee reviewing risk assessment information has 90 days to submit a report on risk assessment evaluation and recommendations on associated rulemaking.	OPS is providing risk assessment and cost/benefit analysis information on proposed rules to the pipeline safety advisory committee(s) for review in their role as ''peer review panels''.	PC&B (All future fiscal years).

Section 4(b)	Requires Secretary to respond to advisory committee(s) regarding their peer review report and their advice on the proposed rule.	OPS will respond to each peer review report on the risk assessment and the features of the rulemaking before issuing any final rule.	PC&B (All future fiscal years).
Section 4(b)	Provides an exception to risk assessment requirement for rules that are the product of a negotiated rulemaking or a rule, such as a Direct Final Rule adopting updated industry standards, that receives no adverse comments; for a recommendation by a ¾ths vote of the advisory committee(s); or for rules that the Secretary determines do not require a public procedure.	Will implement exceptions as appropriate	PC&B (None).
Section 4(b)	Report on risk assessment and rulemaking program by March 31, 2000; include suggestions for making risk assessment a useful means of assessing benefits and costs of regulatory and nonregulatory options.	Will prepare report to Congress on risk assessment, regulatory, and nonregulatory approaches by March 31, 2000.	PC&B (fiscal year 1998; fiscal year 1999; fiscal year 2000).
Section 4(e)	Requires new and replacement natural gas transmission and hazardous liquid pipelines to accommodate "smart pigs"; allows extension of such standards to require accommodation in existing pipelines.	The final rule in Docket No. PS–126 directed that all new lines be built to accommodate "smart pigs"; a final rule in response to the petitions for reconsideration from AGA and INGAA is being prepared.	PC&B (fiscal year 1998).
Section 4(e)	Allows Secretary to determine if periodic inspections using "smart pigs" are necessary.	OPS is cooperating with industry groups on advanced "smart pig" research to determine if a requirement for periodic inspections using "smart pigs" can be justified; a rulemaking may be forthcoming in late 1998.	R&D (fiscal year 1998).
Section 4(f)	Directs the Secretary, as necessary, to update industry standards that are incorporated by reference in the pipeline safety regulations.	An annual process to update industry standards that are incorporated by reference in the pipeline safety regulations was established in 1996; the 1997 update is being drafted in Docket RSPA–97–2251 for Fall 1997 publication.	Operations (fiscal year 1998).

Public Law 104–304	Requirement(s)	OPS response(s)	Components of budget
Section 4(g)	Requires interstate gas pipelines to provide all ''municipalit(ies)'' (defined as any political subdivision of a state per § 60101(a)(15)) through which it passes with a map showing the location of the pipeline facilit(ies); requires by June 1, 1998, to survey and assess the public education programs under section 60116 and the public safety programs under section 60102(c) and determine their effectiveness and applicability as components of a model program; not later than one year after the survey (<6/1/99) must initiate a rulemaking to determine effective public education program and, if appropriate, must amend regulations; if regulations not needed, send report to congress with reasons.	OPS is working with industry, professional associations, and the public to evaluate existing public education programs to determine which are most effective in reaching excavators, operators, the public, and local communities. A survey is now underway. OPS' Damage Prevention Quality Action Team (DAMQAT) will design nationwide campaign using appropriations and industry resources. After the survey is completed, a rulemaking may be instituted to promulgate new regulations to promote public awareness of excavation damage and one call systems.	National Public Education Campaign (fiscal year 1998).
Section 4(h)	By June 1, 1998, prepare a report on remote control valves on an interstate gas pipeline; include determination on whether remote valves are technically and economically feasible to reduce risks after a rupture. By June 1, 1999 (one year after this report), if remote valves are determined to be useful, the Secretary shall prescribe regulations for their use on interstate natural gas pipelines.	A public workshop on the application of remote control valves in interstate natural gas pipelines will be held in early 1998. By June 1, 1998, OPS will complete an assessment of the appropriateness of the expanded use of remote control valves in interstate natural gas pipelines. If this assessment indicates that the use of remote control valves is technically and economically feasible, OPS will propose regulations specifying the conditions under which interstate natural gas pipelines must use such valves.	Operations (fiscal year 1998).

Section 5(a)	Authority to establish risk management demonstration projects. Authority to exempt owner or operator of demonstration facilities from regulations that would otherwise apply. New regulations do not apply to the demonstration facilities during period of demonstration.	OPS' Notice of Request for Letters of Intent (3/27/97) requested eligible operators to express their interest in participating in the risk management demonstration program. OPS has issued a Risk Management Program Framework, a Program Standard, a Communications Plan, and a Training Curricula to assist operators in preparing their risk management demonstrations.	Risk Assessment & Technical Studies (fiscal year 1998).
Section 5(b)	Risk management demonstrations must exhibit ''equivalent or greater overall level of safety''; President's October 12, 1996, memo requires only ''superior levels of safety'' and only participants with a ''clear and established'' safety and environmental record.	OPS is complying with these requirements in preparing for its risk management demonstration programs.	Risk Assessment & Technical Studies (fiscal year 1998).
Section 5(b)	Secretary may revoke or amend any exemption granted in a RM plan for noncompliance with terms or failure to achieve greater safety. RM demonstrations must provide for public comment in the approval process. Must take into consideration the ''past safety and regulatory performance'' of all applicants.	OPS will comply with these requirements in the individual risk management demonstrations.	Risk Assessment & Technical Studies (fiscal year 1998).
Section 5(b)	Any exemption may be revoked for substantial noncompliance with an approved risk management plan.	This will be an explicit requirement for the approval of any risk management demonstration program.	Risk Assessment & Technical Studies (fiscal year 1998).
Section 5(d)	Secretary may consult with states with certifications and may make an agreement with a state to carry out a risk management program on intrastate pipelines.	OPS is closely coordinating with the state pipeline safety representatives in implementing risk management demonstration programs.	Risk Management Grants (fiscal year 1998).
Section 5(e)	Report on risk management demonstration projects by March 31, 2000.	A report will be prepared before March 31, 2000 ...	Risk Assessment & Technical Studies (fiscal year 1998).
Section 6	Eliminates requirement for two-year mandatory inspection cycle; also eliminates ''navigable waters (as defined by the Secretary)'' and replaces it with a ''substantial likelihood of commercial navigation'' standard.	OPS' inspection program is in compliance with this requirement.	PC&B (fiscal year 1998).

Public Law 104–304	Requirement(s)	OPS response(s)	Components of budget
Section 7	Eliminates ''shall include'' language in favor of ''shall consider'' under AREAS TO BE INCLUDED AS UNUSUALLY SENSITIVE; adds drinking water resources as a consideration; deletes earthquakes and other ground movement.	Considering definition of areas unusually sensitive to environmental damage through public process in Docket No. PS–140, Areas Unusually Sensitive to Environmental Damage.	Environmental Indexing; OPA (fiscal year 1998).
Section 8	Requires that excess flow valve (EFV) rules consider not just installation, but also maintenance and replacement costs; provides authority to adopt industry standards for EFV performance.	A final rule on EFV performance standards was adopted in Docket No. PS–118 (61 FR 31449; June 20, 1996); industry standards will likely be adopted as they are developed. Comments have been received in response to an NPRM in Docket No. PS–118A (EFV Customer Notification) (61 FR 33476; June 27, 1996); although this proposed rule considers only installation costs, the final rule will consider EFV installation, maintenance, and replacement costs.	PC&B (fiscal year 1998).
Section 9	Drops requirement to take action to promote the adoption of measures to improve the safety of customer-owned service lines.	OPS has already taken action in Docket No. PS–135 to require notification of customers owning their own service lines.	PC&B (fiscal year 1998).
Section 10	Advisory committees are the peer review committees for risk assessment and cost/benefit analyses.	OPS will submit risk assessments and cost/benefit analyses to the advisory committee(s) as required.	Risk Assessment & Technical Studies (fiscal year 1998).
Section 10	Requires the membership of each advisory committee to be one-third industry, one-third public, and one-third government; requires at least one of the public and one of the industry members to have risk assessment and/or cost/benefit analysis background.	Committee appointments will be designed to maintain the broadest possible representation consistent with the required composition.	Risk Assessment & Technical Studies (fiscal year 1998).
Section 10	Advisory committees can meet up to four times a year.	OPS will maintain twice a year meetings and to keep advisory committees informed between meetings through newsletters, mailings, and informal working groups. Additional meetings of the advisory committees will be held as necessary.	Operations (fiscal year 1998).

Section 12	Establishes ''cooperative agreement authority''	OPS requested, and will make use of this authority to expand cooperation with industry, the states, and others in the advancement of pipeline safety.	R&P (fiscal year 1998).
Section 15	Requires that OPS issue an annual report biennially, beginning August 15, 1997.	OPS will publish the first biennial report (1995–1996) by August 1997.	Operating Expenses (fiscal year 1998).
Section 16	Requires OPS to make available Transportation Research Board (TRB) Special Report 219 to appropriate official(s) in each state; requires an evaluation of the recommendations in the report, especially to what extent they are being implemented, ways to improve implementation, and other initiatives to further awareness of local planning and zoning entities regarding population encroachment on pipeline rights-of-way.	TRB Special Report 219 is being made available to appropriate officials in all states. A public workshop on population encroachment will be held in early 1998. Feedback from the states will assist in OPS' evaluation of population encroachment issues. A report on OPS' evaluation of population encroachment issues will be completed in late 1998.	Risk Assessment & Technical Studies (fiscal year 1998).
Section 17	Report to Congress by October 12, 1997, on user fee assessment measures, bases, and appropriateness; consider wide range of assessment factors and comments from public.	A draft report was presented to the pipeline safety advisory committees in May 1997. Advisory committee comments and comments by the general public will be carefully considered in preparing a final report for submission to Congress by October 12, 1997.	Operating Expenses (fiscal year 1998).
Section 19	Establishes specific authority to engage in promotional activities relating to the underground damage prevention.	OPS is working with industry to evaluate existing public education programs to determine which are most effective in reaching excavators, operators, the public, and local communities. A survey is now underway. OPS' Excavation Damage Prevention Quality Action Team (DAMQAT) will design nationwide campaign using appropriations and industry resources.	National Public Education Campaign (fiscal year 1998).

Question. What is the status of the proposed new national one-call program authorizing legislation?

Answer. The one-call program authorizing legislation is part of the Department's safety bill. Congressman Dingell, by request, introduced the Administration's NEXTEA safety titles as H.R. 1720. The one-call proposal is in Title XI, Underground Damage Prevention.

USER FEES

Question. Please prepare a comparative historical table displaying the per mile user fee assessed to gas transmission and liquid pipeline operators, and the total collected in user fees from each industry in fiscal years 1994 through 1997 and anticipated for fiscal year 1998.

Answer. Below is a table which shows the per mile rate and the total collections for fiscal years 1994 through 1996. We are in the process of collecting for fiscal year 1997 now, so the amount shown is what we assessed from gas and liquid operators. We estimated the fiscal year 1998 figures based on the amount of $32,171,020. This includes the President's Budget Request for the Pipeline Safety Program of $32,988,000, less OPA funding of $2,328,000 from the Oil Spill Liability Trust Fund, plus an offset to the Research and Special Programs Appropriation for labor costs to support the Pipeline Safety Program. Other variables include the offset from previous year collections, the allowance by law to collect 105 percent of the appropriation, and pipeline mileage, are subject to change prior to the December 1997 assessment date.

	Gas transmission		Liquid	
	Per mile rate	Total collected	Per mile rate	Total collected
Fiscal year:				
1994	$44.49	$13,000,000	$32.33	$5,008,000
1995	95.57	27,830,000	47.03	7,215,000
1996	77.49	22,475,000	49.67	7,683,000
1997	67.46	[1] 19,914,000	61.27	[1] 9,508,000
1998	72.91	[2] 21,362,000	67.90	[2] 10,527,000

[1] Fiscal year 1997 based on assessment.
[2] Fiscal year 1998 anticipated assessment.

Question. Please describe the billing cycle for industry user fees. What changes in this procedure are being considered? What has been industry's reaction to these proposals.

Answer. We assess user fees during the first quarter of our fiscal year (October-December time frame). In fiscal year 1997, the user fee assessments were issued on December 10. This date was selected in response to discussions with our customers and their fiscal concerns. Since Treasury regulations require payments within 30 days, and since the industry's fiscal year is not concurrent with the Federal fiscal year, issuing the assessments in mid-December gave our customers the flexibility industry wanted to either pay at the end and/or beginning of its fiscal year. We have had a favorable response from industry and have no immediate plans to change the billing cycle.

Question. How did you allocate the user fee between gas transmission lines and product lines for fiscal year 1997? Does this accurately reflect the true allocation of your efforts and resources? How is this allocation determined every year?

Answer. In fiscal year 1997, gas operators paid 55 percent of program costs and 88 percent of grants. Liquid operators paid 45 percent of program costs and 13 percent grants. Although we feel additional focus has been given to liquid program activities, these percentages closely reflect the allocation of our efforts and resources.

The allocation is determined through analysis of our planned expenditures for the year. This includes Personnel Compensation & Benefits (PC&B) for inspectors, administrative expenses, information systems, compliance, training, risk assessment, research and development. Consideration is also given to apportionments in previous years and comments filed in user fee dockets.

PIPELINE SAFETY FUND

Question. What is the current balance in the pipeline safety reserve fund? Please provide a historical table displaying the annual unappropriated balance in the fund from the end of fiscal year 1987 through 1996, with an estimated level for 1997.

Answer. The following table is provided.

Pipeline safety fund

[Year end unappropriated balances]

Fiscal year:	
1986	$7,848,270
1987	17,060,016
1988	17,672,184
1989	17,179,509
1990	17,982,653
1991	17,469,218
1992	17,694,592
1993	16,971,943
1994	18,684,690
1995	18,485,209
1996	20,291,839
1997 [1]	19,291,839

[1] Estimated.

Question. Are the funds in the Pipeline Safety Fund reserve invested in an interest-bearing account? If not, has there been an analysis of the potential for such investment? Would legislation be required to invest these funds? (If so, please provide sample legislation.) To your knowledge, are there currently any plans to enact such legislation.

Answer. The money in the Pipeline Safety Fund is not invested in an interest-bearing account. Legislation would have to be enacted to allow RSPA to invest the funds. We are not aware of the introduction of any such legislation.

Question. What is the minimum dollar amount that should be retained in the pipeline safety fund balance in order to maintain the integrity of the pipeline safety program? What is the justification for this amount?

Answer. We believe a fund balance of not less than $11 million would be sufficient to maintain the integrity of the pipeline safety program, based on an internal review of our options.

OPS OIL POLLUTION

Question. Please cost allocate and describe all OPS costs associated with Oil pollution Act (OPA) requirements in fiscal year 1997, and anticipated in fiscal year 1998. How does this compare in each fiscal year with the amount derived from the Oil Spill Liability Trust Fund? In each fiscal year, what was the OSLTF level requested by RSPA prior to the OMB passback?

Answer. Allocations for fiscal year 1997 and fiscal year 1998 are provided on the following table:

OPA	Fiscal years—	
	1997 enacted	1998 request
PC&B	$147,000	$156,000
Administrative expenses	45,000	45,000
Contracts	2,336,000	[1] 2,327,000

[1] $200,000 to be derived from user fees.

The following table provides request levels before and after the OMB Passback for fiscal year 1997 and fiscal year 1998:

	Request prior to OMB	Request after passback
Fiscal year:		
1997	$2,528,000	$2,528,000

	Request prior to OMB	Request after passback
1998	2,528,000	[1] 2,328,000

[1] 200,000 to be derived from user fees.

Positions and FTE	$500,000
7 FTE address environmental policy, regulatory development, spill response plan review & exercise, pipeline inspection & spill response technical monitoring; special task force/studies of oil pipeline company risk management programs & operations	
Data analysis	500,000
Over half the incident reporting, data collection, analysis & trending labor.	
Identifying accident cause & consequence, evaluating & acting on environmental impacts, particularly related to protecting drinking water sources.	
Compliance & spill response monitoring	150,000
Technical field engineering support for monitoring major spills & remediation.	
Dedicated personnel for integrating public & private sector OPA response activities, communications coordination & decision support for protective actions.	
National pipeline mapping systems operations & maintenance	400,000
Collecting & digitizing more accurate liquid pipeline location information as it becomes available.	
To be used in conjunction with data on population, drinking water intakes, terrain. Needed to set priorities for prevention & response actions.	
Environmental Index	250,000
Work with state agencies to identify & categorize information on unusably sensitive environmental areas. Establish central repository in each state to be focal point for exchange of data.	
State grants for hazardous liquid programs	1,500,000
Fund 13 states oversight of intrastate pipelines operations & maintenance, construction, repairs.	
Total	3,300,000

Question. Do you consider the environmental indexing effort complete? What was accomplished with funding provided in fiscal year 1996? How much is being obligated in fiscal year 1997 for this activity, and for what purpose? What will be done during fiscal year 1998 and how much will this cost? When will this activity be completed?

Answer. The environmental indexing effort is well under way but not complete. RSPA has been working with other Federal agencies, the environmental community, and the liquid pipeline industry to identify the resources, and their supporting areas, that are unusually sensitive to environmental damage from a hazardous liquid release, including drinking water, ecological, and cultural resources, which might include archeological sites. RSPA is also working with these groups and state government agencies to identify the location and attribute information that is available on these resources.

RSPA has used the funding provided in 1996 to determine the location and relevant information of some of the nation's unusually sensitive resources. In June of 1996, RSPA held a public meeting to discuss drinking water resources that could be considered unusually sensitive, and to determine what available data could be used to identify and locate these resources. Participants at that meeting included the Environmental Protection Agency, the American Water Works Association, the liquid pipeline industry, and the public. Major issues were discussed and resolved, and RSPA is attempting to locate the unusually sensitive resources identified in the meeting.

Almost all drinking water resource data is created and maintained by state government agencies. Because the data is not created and maintained by a single government agency, the data varies in format, completeness, and accuracy. Extra work is therefore required to collect the data and to put it in a common format. RSPA is requesting relevant data from each of the states that have information, and is merging the location information into an electronic database that will include the

location of the unusually sensitive drinking water resources. This database will be part of the environmental index and a layer in our national pipeline mapping system. To date, RSPA has collected partial information from nearly all the states.

RSPA is also collecting information on possible unusually sensitive ecological and cultural resources. RSPA has met with the federal agencies responsible for these resources and has begun to collect the data they believe will be needed to identify and locate the unusually sensitive ecological and cultural resources. Like the drinking water resource data, ecological resource data is primarily maintained within the states. RSPA believes that most of the data that will be needed to identify unusually sensitive cultural resources has been collected by the Department of Interior and entered into an electronic database. This will minimize the burden of collecting the data and putting it into the environmental index. A public workshop on unusually sensitive ecological resources will be held in July of 1997 and a public workshop on unusually sensitive cultural resources will be held this fall.

RSPA will use the remainder of the money allotted to this project to finalize a catalog of data available to help identify and locate unusually sensitive areas and, to the extent possible, collect the data and create an electronic data layer on the unusually sensitive areas. RSPA expects to have collected representative data from most states and will continue to update and maintain in the future with funding requested under OPA.

Question. Please provide the committee with the results of last year's review of the pipeline operators' emergency response plans. Include the number of plans reviewed, the number accepted, and the number of plans that required corrective measures. How do you ensure that your suggestions are incorporated into the plans?

Answer. More than 1,252 facility response plans have been submitted to RSPA/OPS, and over 850 of which were designated by operators as posing a risk of "significant and substantial harm" to the environment. All operators with "significant and substantial" plans received approval letters from RSPA/OPS by the February 1995 statutory deadline, following a rigorous plan review process. In the two years since February 1995, RSPA/OPS has continued to review revised and newly submitted plans.

October 1, 1997–September 31, 1996:	
Number of new sig & sub plan reviews	62
Number of new sig & sub plans requiring revisions after initial review	62
Number of new sig & sub plan approved	17
Number of plan revisions reviewed	78
Number of plan revisions accepted	78
October 1, 1996–May 31, 1997:	
Number of new sig & sub plan reviews	52
Number of new sig & sub plans requiring revisions after initial review	52
Number of new sig & sub plans approved	18
Number of plan revisions reviewed	136
Number of plan revisions accepted	136

RSPA/OPS receives several plan revisions or newly submitted plans each week. Most of the plan revisions are minor (e.g., changing telephone number listings) and do not necessitate a full review. Of those plans which required review, two thirds of them required significant refinement before RSPA/OPS was able to approve them. RSPA/OPS works closely with the operators, over the phone and fax, to provide advice and technical assistance to them as they revise their response plans. Because of our commitment to assisting operators in compliance with our requirements, RSPA/OPS has been able to approve all of the "significant and substantial" plans we have received.

RSPA/OPS uses several methods to ensure that our suggestions are incorporated into operators' facility response plans. Before approving a revised response plan, RSPA/OPS checks the newly revised sections to ensure that the operator has adequately addressed our plan review comments. Also, RSPA/OPS has had its technical support contractor take a sample of response plans and verify the data (names, phone numbers, response contracts, etc.) contained in them. In the sample group, only a very small percentage of the plans contained outdated or inaccurate information. Another way RSPA/OPS ensures that operators incorporate our suggestions for improvement is through our exercise program, in which we observe the operators' ability to implement their response plan.

Question. Please discuss the amount of funds obligated on spill response exercises during each of the last three years. How much do you expect to spend during fiscal year 1998?

Answer. In fiscal year 1995, OPS focused on response plans and made some initial preparation for exercises. In fiscal year 1996, RSPA/OPS obligated $530,000 to conduct both tabletop and area exercises. In fiscal year 1997, the figure was $548,000. Our projected exercise program budget for fiscal year 1998 is $612,000. This includes the costs of developing, conducting, and evaluating 20 tabletop exercises and two area exercises annually, and for disseminating the lessons learned also. (This does not include travel costs for RSPA/OPS staff to participate in exercises.)

Question. In view of the substantial experience acquired from past exercises, why are you convinced that continued testing at this sustained level is necessary? Why are 20 or so tabletop exercises each year still necessary?

Answer. RSPA/OPS is committed to continually improving the pipeline industry's ability to respond rapidly and effectively to oil spills. Our exercise program, combined with a rigorous plan review process, is vitally important to accomplish this.

There are several examples of cases in which our oil spill response exercises have been very effective in improving the overall level of emergency response capability of oil pipeline operators. Three weeks before a major gasoline spill in Gramercy, Louisiana in late May 1996, Marathon Pipeline Company conducted a large-scale spill response exercise. Marathon's performance in the actual spill response was greatly improved because of their holding an exercise beforehand. A few months before their major diesel fuel spill in Simpsonville, South Carolina in June 1996, Colonial Pipeline Company participated in a RSPA/OPS tabletop exercise which tested their ability to respond to a worst case discharge, and prepared them for an actual spill several months later. Similarly, the successful response to the catastrophic pipeline spill in the San Jacinto River in October 1994 was directly attributed to the responders' participation in a spill response exercise seven months before the actual spill. The designation of a facility in Baytown, Texas to serve as a unified command post in the San Jacinto spill was a result of successfully using the facility for an exercise seven months before.

Exercises are a vital component of our OPA 90 program, and provide one of the best ways to measure pipeline operators' capabilities to respond to oil spills. RSPA/OPS believes that the twenty tabletop exercises per year is the minimum number which still allows us to verify that oil pipeline operators are capable of implementing their facility response plans.

RSPA/OPS has received universally positive comments from pipeline operators who have participated in our exercises. Operators indicate that the exercises bring attention to weaknesses in their response plans that need to be addressed, such as increasing their spill management teams' awareness of the incident command system, fine tuning their notification procedures to ensure timely notification, and working on ways to improve their, coordination with Federal, state and local responders. Some operators have discovered the need to combine their training efforts with local and state response personnel. RSPA/OPS magnifies the benefits of its exercises by sharing the lessons learned in a quarterly newsletter that we distribute to pipeline operators and exercise participants so other operators and emergency responders can benefit from them.

OPERATING EXPENSES

Question. RSPA is proposing about a $1.1 million net increase in the total pipeline safety budget. Please prepare a table showing the growth of this program during the last five years (both in funding levels and personnel).

Answer. The requested table follows:

[Dollars in thousands]

Program activity	Fiscal years—				
	1993 enacted	1994 enacted	1995 enacted	1996 enacted	1997 enacted
Appropriation	$15,050	$19,376	$37,340	$31,448	$31,886
Personnel:					
FTP	72	72	105	105	105
FTE	72	72	90	105	105

Question. Please further justify the request for an additional $383,000 for travel and transportation as indicated on page 129?

Answer. Our request provides for increased travel in the field including compliance/inspection and state liaison activities, as well as continued risk management and other OPS public outreach programs. The field component covers travel for training and full deployment of our increased inspection force. As we implement a more risk-based compliance process we will be emphasizing multi-region inspections focusing on facilities. In fiscal year 1998, up to 10 risk management demonstration projects will be in progress throughout the country. Under the Presidents directive which accompanied the Accountable Pipeline Safety and Partnership Act of 1996, and the directions of the National Performance Review, OPS will be getting out of Washington to involve the public in risk management and other pipeline safety initiatives.

Question. For fiscal year 1995, 1996, 1997 and budgeted for fiscal year 1998, please prepare separate expense charts for resources obligated on overtime, bonuses, travel, permanent change of station, and communications.

Answer. The following table is provided:

OBLIGATIONS BY CATEGORY

	Fiscal years—			
	1995 actual	1996 actual	1997 estimated	1998 estimated
Overtime	$7,318	$4,191	$4,200	$4,200
Bonuses [1]	20,350	36,400	42,000	42,000
Travel [2]	770,000	820,000	1,139,000	1,242,000
Permanent change of station	21,010	25,210	50,000	100,000
Communications	430	452	470	470

[1] RSPA budgets do not include funding for bonuses. If available, funding from unoccupied positions is used within a modest internal administrative limit.

[2] Fiscal year 1997 includes $300,000 of operating expenses carryover funding from fiscal year 1996.

Question. How many staff does OPS have in the Anchorage Joint Pipeline Office? What are their responsibilities?

Answer. OPS has three inspectors in Alaska. One person is assigned full time to monitoring the Alyeska Pipeline and represents OPS in the Joint Pipeline Office. The second person is tasked with monitoring all other pipelines in Alaska. The third person, a junior inspector, assists the other two inspectors as needed.

Question. Please discuss the Alyeska memorandum of agreement regarding valves and corrosion.

Answer. The corrosion program was initiated in November of 1992 based on a "Memorandum of Agreement for a Task Force on Oversight of the Trans-Alaska Pipeline System (TAPS)," executed by the State of Alaska, U.S. Department of the Interior, and U.S. Department of Transportation on November 21, 1990. A November, 1992, Task Force report outlined the corrosion prevention program for TAPS and the parameters necessary to determine the adequacy of cathodic protection on the pipeline.

Alyeska agreed to attempt to determine better ways to monitor cathodic protection (corrosion prevention) levels because traditional monitoring methods are not always effective for a variety of Alyeska specific conditions including the impact of the Northern Lights phenomenon and under film corrosion caused by disbonded coating. One method Alyeska is trying is a corrosion coupon program where pieces of steel are installed at one (1) mile intervals on the pipeline and periodically checked for corrosion levels. To date Alyeska has installed 400 coupons and will test all 400 in the summer of 1997.

Attempts are being made to correlate internal inspection tool (pig) runs and ongoing corrosion prevention activity. In 1996, the NKK (a Japan-based company) pig was run twice from pump station 1 to pump station 4 to see if correlation was possible. Initial indications are promising and OPS anticipates data evaluation will be completed by September of 1997.

OPS is overseeing all facets of the corrosion program and anticipates closure to this issue in January of 1998.

On January of 1997, the Alyeska Pipeline Service Company (APSC) and the Joint Pipeline Office (JPO) entered into a Memorandum of Agreement in the matter of the assessment of valves on the Trans-Alaska Pipeline System (TAPS).

Alyeska agreed to identify which valves are most critical to the overall system safety, determine how to test them to ensure their integrity and prioritize which valves should be tested first. In addition, Alyeska will propose precautionary measures for valves of unknown condition. Alyeska is also developing performance criteria to evaluate in-service valves(s) and means of determining their overall risk factors. APSC will evaluate the results of the risk assessment within 30 days of its completion.

APSC will initiate repair procedures promptly if the parties determine that a condition exists at any given valve(s) that presents an unacceptable risk. A final valve testing plan will be based upon the results of the risk assessment and initial testing, and submitted by June 30, 1997 to JPO for review.

APSC will perform valve tests by December 31, 1997 on all valves designated with the highest testing priority in the final plan. The agreement does not modify the requirement that APSC comply with 49 CFR Part 195 and does not preclude DOT from taking action to address any violation or hazardous condition that may arise with respect to the valves covered in the agreement.

INFORMATION SYSTEMS

Question. Please prepare a table showing the amount of funding used to improve your information systems during each of the last three years.

Answer. The following table is provided.

Pipeline safety information systems expenditures

Budget item	*Funding*
1995:	
Hardware/software for increased staff	$325,000
Drug/Alcohol System and Risk Based Planning computer model	100,000
Contractor support for Hazardous Materials Information System	270,000
Transportation Safety Institute Training Initiative	180,000
Vax Maintenance	115,000
Baseline Data Study	510,000
Software, hardware, and training support to State pipeline safety programs	250,000
Total 1995 Information Systems and Analysis	1,750,000
1996:	
Upgrade regions to Wide Area network	160,000
Equipment costs: Desktop and notebook computers to meet expanding staff needs	110,000
Contractor support for Hazardous Materials Information System	340,000
VAX maintenance costs	150,000
Site license costs for software	40,000
Data Baseline Project: Establish performance measures, support risk based planning, G.P.R.A, identify outside sources of data	400,000
Total 1996 Information Systems and Analysis	1,200,000
1997:	
Hardware/Software for increased staff	110,000
Contractor support for Hazardous Materials Information System	500,000
VAX maintenance costs	140,000
Site license costs for software	45,000
Data Baseline Project: Establish performance measures, support risk based planning, G.P.R.A, identify outside sources of data	330,000
Software, hardware, and training support to State pipeline safety programs	75,000
Total 1997 Information Systems and Analysis	1,200,000

Question. What specific improvements have been made in your information systems and analytical capabilities since last year? Break down how you obligated the relevant fiscal year 1996 and fiscal year 1997 fund and what specific benefits to your overall program were realized. How do you expect the relevant fiscal year 1998 requested funds will further improve these capabilities?

Answer: OPS has been addressing improvements to our analytical capabilities as well as improvements to the information systems hardware and software which sup-

port them. We have studied our data bases and worked with national standards organizations to revise instructions to our accident report forms to improve consistency and thoroughness in data collection. We instituted new procedures to audit accident reports to ensure completeness and accuracy. We have begun contacting operators when inadequate outside force damage information has been provided. To improve our ability to access externally caused corrosion, we have begun work with the hazardous liquid industry to access information that could help normalize data and evaluate the miles of pipelines that are coated or cathodically protected. We have requested supplemental reports from operators who indicated selected "other" as a cause of an accident. We are providing for electronic reporting through our work with contractors. We are evaluating Federal Energy Regulatory Commission data from their Form 6 for information on liquid operators mileage and throughput. We are adding county data to inspection unit definitions to provide linkage between inspection and incident data. We are building a national pipeline mapping system to locate pipelines with reasonable accuracy in relation to population, water, environment, jurisdiction borders, transportation and topography.

A breakdown of expenditures includes $370,000 for maintaining computer hardware on personal computers in a wide area network and on a mainframe which links OPS, States and the Volpe National Transportation Systems; $350,000 for entering reported information in the database and disseminating data to the public; and $480,000 for analyzing incident, pipeline inventory and operator data.

Fiscal year 1998 funding will further improve these capabilities through actual deployment and further development of our Integrated Operator Compliance System. Preliminary design and testing of this system occurred in 1997. This system is being designed for data entry and access on-site during inspections on notebook computers. Existing systems will be converted to improved software which will allow linkages among all operator data bases, including the National pipeline mapping system, incident, inspection and annual report data. This will enable us to improve our data usefulness and accuracy. Improved computer modeling will help integrate all available data pertaining to operators, providing for a variety of analytical needs. We will also improve data availability through electronic media and OPS's worldwide web page. The web page will provide a useful feedback mechanism allowing public comment on all our activities, rulemakings, and access to pipeline statistics.

Additionally, we will work toward a standard for data operators to maintain on site. A comprehensive understanding of operations and maintenance history, valve locations, inspection findings, pipe manufacture and installation would focus our inspection attention on the most important integrity management issues. We are working with industry on innovative ways of accessing this kind of information without burdensome collection processes.

RISK ASSESSMENT AND PERFORMANCE

Question. OPS is proposing a one-third decrease in funding for risk assessment and related technical studies ($1.8 million in fiscal year 1997; $1.2 million requested for fiscal year 1998). Please summarize the reasons that OPS is able to make this adjustment. How will this proposed decrease affect your ability to implement relevant provisions of the Accountable Pipeline Safety and Partnership Act?

Answer. OPS, working through joint government/industry quality teams, has completed the planning for the Risk Management Demonstration Program. OPS created a new oversight approach to use to evaluate pipelines with more flexibly but with some uniformity and fairness across the country. We received public input through numerous public meetings, conferences and via Internet. OPS created (1) a Program Framework to instruct pipeline operators on how to participate in the program and to identify the steps we will use to approve and monitor their proposals; (2) a Program Standard to describe the necessary elements in a company's risk management program; (3) Performance Measures Guidance to provide a way of knowing if we are accomplishing what we set out to do; (4) a Communications Plan to help get meaningful community involvement; and (5) a Training Curriculum to continue to prepare us for our new roles during the Program. Additionally, we evaluated other federal, State and industry uses of risk management. We also created protocols to standardize our actions in implementing new procedures for each of the demonstration projects that may be staffed with different OPS personnel from around the country.

With this planning completed, in fiscal year 1998 we will continue to require contractor support to assist with the new feasibility study by a quality team focusing on application of risk management at the distribution. This study will take several years to complete. We will require consultative and monitoring support during the project implementation. We require assistance with an extensive communications

and outreach effort for each of the projects. We will continue to provide training to ourselves, States and operators in the Program. The fiscal year 1998 requirements are estimated to cost considerably less than the support required for the conceptual and planning phase of the Program. Since the Program is entirely new and without precedent, it is hard to gauge precise requirements. OPS believes, however, with the experience and training gained in fiscal year 1997, that we can implement the program using more in-house staff and less contractor support.

COMPLIANCE AND STATE PROGRAMS

Question. In your budget justification on page 132, OPS states that by working cooperatively with industry, "we have maintained complete compliance." What does this mean?

Answer. Under the Oil Pollution Act of 1990, all onshore oil pipelines must have approved facility response plans in order to continue to transport and store oil. RSPA/OPS has "maintained complete compliance" in that there has never been a case of a pipeline operator having to shut down its facility because of non-compliance with our facility response planning requirements. The rigorous process that is used to review operators' response plans often reveals deficiencies in the plans which must be corrected before RSPA/OPS can approve the plan. RSPA/OPS provides operators with guidance and technical assistance to improve the plans and bring them into compliance.

While working to bring the plan to acceptable status, the operator is allowed to continue to operate the facility by providing written documentation that they have obtained sufficient resources to respond to a worst-case discharge.

Question. Please provide fiscal year 1996 and fiscal year 1997 program goals for the risk-based Pipeline Inspection Priority Program (PIPP) and specify which regions were unable to meet these goals, and please explain why?

Answer. In the last quarter of 1996 and 1997, OPS began implementing changes to provide greater public safety and protection of the environment by enhancing its current risk-based inspection program. This is done by concentrating the deployment of our inspection resources to the areas of greatest safety and environmental risk. To do this, we are performing more system-wide engineering-based integrity evaluations and shifting away from "checklist" standard inspections. Additionally, we are performing more inter-regional inspections that provide a comprehensive review of operator procedures and allow more time for performing independent field verifications and evaluating possible problem areas. This change is reflected in a slight decrease in the number of planned standard inspections in CY 1997. Furthermore, because the integrity evaluations are more resource intensive than standard inspections, we expect the overall number of inspections to decrease and the overall number of days per inspection to increase.

Those regions that were unable to meet the inspection goals are as follows:

Eastern Region: The Eastern Region was unable to meet its 1996 PIPP standard inspection goals due to special assignments including the Colonial Task Force investigation and projects to streamline compliance activity.

Western Region: The Western Region was unable to meet its 1996 standard inspection goals due to long-term illness of one employee and redirection of resources to pipeline construction inspection.

Question. Please provide a table by region identifying the number of inspections called for under the PIPP and the actual number of inspections conducted.

Answer. Inspection goals are planned by calendar year. The number of actual inspections for CY 1997 will not be available until CY 1998.

Region	CY 1996		CY 1997 number of planned inspections
	Number of planned inspections	Number of actual inspections	
Eastern	103	74	81
Southern	120	121	100
Central	113	114	99
Southwest	161	163	158
Western	120	94	100
Total	617	566	538

Question. How does the PIPP relate to your current risk-based objectives?

Answer. PIPP is an important inspection prioritization tool which helps OPS identify high-risk pipeline units based on a variety of risk factors. OPS will continue to perform standard inspections on PIPP identified high risk units, but will slightly reduce the number of lower risk standard inspections in favor of system-wide integrity-based inspections.

Question. OPS has stated in the budget justification that it will report changes resulting from Federal assessment of operations, without formal compliance action. What does this mean? Under what conditions will you bring enforcement actions?

Answer. Rather than simply notifying operators of noncompliance, we have been trying to encourage them to address problems system-wide. During an interview following each inspection, the operator is advised of the areas that need improvement. When given this chance, operators often voluntarily undertake actions that address problems on a system-wide basis. Following an accident, pipeline operators often work with OPS to identify problems with their pipeline system and commit to significant and costly rehabilitation projects without the necessity of initiating compliance action. Of course, if the noncompliance is serious or an operator has a history of noncompliance in this area, or will not cooperate, OPS does not hesitate to initiate enforcement action.

Question. Please bring us up to date on the enforcement activities of OPS. For each of the last three fiscal years, please provide data on all enforcement actions taken by OPS, including the number of enforcement cases opened, closed, and the amount of civil penalty assessments collected. Please compare these data with the number of reportable events, number of deaths and injuries, and any other measures of pipeline safety for both hazardous liquids and gases.

Answer. The following table is provided:

ENFORCEMENT

Measures	CY		
	1994	1995	1996
Cases opened [1]	165	132	190
Cases closed [1]	130	107	167
Civil penalty assessment	$607,000	$339,666	$97,975
Reportable events:			
Incidents reported	465	350	374
Deaths	22	19	20
Injuries	[2] 120	64	85
Property damage (in millions)	$154	$54	$64

[1] Includes Warning Letters.

[2] During the 1994 Texas flooding, several pipelines failed and ignited. The accident reports received from impacted pipeline operators stated that 1,851 claims were received. It is unknown how many of these claims have been validated.

Question. What non-regulatory approaches to improve "pipeline integrity" are you exploring?

Answer. OPS is focusing on the best ways of accomplishing improvements to pipeline integrity, rather than simply devoting additional resources to enforcement of regulations and exacting penalties. Two new priorities are of special significance in accomplishing program improvements—integrating risk management concepts into our compliance program, and increasing our attention to investigation and study of major pipelines. Industry and State pipeline programs has responded very favorably to these approaches by demonstrating willingness to undertake more activities to address pipeline integrity in a partnership environment and by cooperating fully in major investigations. Together, we are developing new performance measures to validate our belief that it is at least as important to monitor improvements to the integrity of pipelines as to track compliance.

Question. How many companies were inspected during fiscal year 1996 that did not have enforcement actions taken against them? How many were provided technical education on how to come into compliance with the regulations, when enforcement action could have been taken?

Answer. OPS issued enforcement actions to approximately one-half of all operators inspected during CY 1996. During every inspection, pipeline operators are advised of methods to improve compliance with the Federal pipeline safety requirements and industry practices. The issues discussed involve minor problems not warranting enforcement action, such as a single missing pipeline marker, or industry best practice policies. We issue warnings with respect to noncompliance. However,

no record is currently maintained of the various items discussed because they are not considered enforcement actions. However, OPS is developing performance measures to track these items.

OPS will undertake enforcement action against any operator found to be in violation of the pipeline safety regulations. However, if minor improvements can be made to an operator's procedures, record keeping or operations, OPS may provide the operator the opportunity to correct the circumstances before taking enforcement action.

Question. How many of these companies provided with technical education were reinspected? Did you find these companies still out of compliance? If so, how many enforcement actions were taken against these companies?

Answer. While no record is currently maintained of the various items discussed we see value in the information and are developing performance measures to track these items. In the future these situations will be noted at reinspection to determine if there has been proper handling of suggested items and, if not, enforcement action will be taken where appropriate as part of that enforcement process.

Question. Please prepare an updated table indicating the number of pipeline safety inspectors on board and the number of pipeline safety inspector positions authorized for each of the last three fiscal years. Please explain whether the number of authorized positions has or has not increased relative to Congressional directives. If not, why not?

Answer. The total number of filled inspector positions varies during the year due to personnel turnover and hiring of new inspectors. OPS is in the process of hiring additional inspectors in the Eastern and Central Regions.

NUMBER OF INSPECTORS ONBOARD

Region	Fiscal years—					
	1997 [1]		1996 [1]		1995	
	Authorized	Onboard	Authorized	Onboard	Authorized	Onboard
Eastern	7	5	9	7	9	6
Southern	8	8	8	8	8	8
Central	12	11	11	9	7	5
Southwest	11	11	11	9	8	8
Western	13	13	12	8	9	6
Total	51	48	51	49	41	33

[1] These numbers do not include headquarters inspector positions that supply technical support.

Question. How many accident investigations were conducted during each of the last three fiscal years? Please include information on the number of follow-up accident investigations and the results.

Answer. The following table is provided:

ACCIDENT INVESTIGATIONS [1]

	1994	1995	1996
Number of investigations	39	21	64
Follow-up investigations	33	60	58
Accident reports generated	11	6	[2] 2

[1] There may be several follow-up investigations/inspections from each accident investigation. These are not included in the number of accident investigations.
[2] Additional reports are forthcoming.

TRAINING AND INFORMATION DISSEMINATION

Question. Please list the companies with technical education and training in fiscal years 1996 and thus far 1997?

Answer. The training program has been active in an effort to provide technical material/education and training to industry, i.e., the American Gas Association (AGA), the Midwest Gas Association (MGA), the Southern Gas Association (SGA), Pacific Gas Association (PGA), American Petroleum Institute (API), Interstate Natu-

ral Gas Association of America (INGAA), etc., concerning the federal minimum safety requirements. The Pipeline Employee Performance Group (PEPG) has been established by OPS, industry, and our State partners to exchange information on pipeline safety training. The training division at Transportation Safety Institute (TSI) is developing a database to track industry training needs and employee-specific information, and should be active by fiscal year 1998.

Question. Please discuss the changing emphasis of the training program from "recognizing threats to [pipeline structural] integrity" to the new focus on "preparing regulators to consider various alternatives * * * as the most effective course of action".

Answer. Training courses at Transportation Safety Institute (TSI) are being structured around risk management and prioritizing the evaluation of operator facilities. The highly technical block of instruction, presently taught by TSI, will be continued with a risk management approach. Courses are becoming more involved in the operation, maintenance, and emergency response areas. The courses emphasize a rational, and thorough basis for determining safe operating practices and safe operating systems. Risk management courses, such as Risk Management Fundamentals, and more specific training modules are being developed to aid Federal and State pipeline safety inspectors. All courses are designed to reflect industry standards and current technology in an effort to better prepare inspectors to advise and evaluate small gas and liquid systems. Performance-based training, through the use of computer-based training, (CBT), is also being implemented in an effort to keep all inspectors competent in their areas of expertise. The training section also utilizes internet technology to facilitate current practices to all pipeline employees. Hands-on programs are being developed where performance in a given application is paramount in the proper operation, maintenance, and emergency response areas. Long-range planning will examine the possibility of using video conferencing, CBT, internet and other cost-effective measures that would facilitate, training needs. Updates of job task analyses, lesson plans, class design documents, etc., are also under scrutiny for utilizing new technology and accuracy.

RESEARCH AND DEVELOPMENT

Question. What technical advances have resulted from research sponsored during the last three fiscal years by the OPS?

Answer. Technical advances that have resulted from research sponsored by OPS during the last three fiscal years include a study on Supervisory Control and Data Acquisition (SCADA) methods which is used to monitor pipeline operations. The SCADA study determines the feasibility and costs of requiring pipeline operators to install a leak detection system, which would allow for the detection of impediments or needed system improvements.

Future technical studies that should result in technical advances include an investigation into criteria for establishing leak-before-rupture criteria for pipelines. This will establish pipeline design and operations conditions to limit catastrophic failures. In addition, technical advances should result from two ongoing studies on mechanical damage. One study examines analytical and experimental research into fatigue behavior of pipelines that have mechanical damage, such as dents and gouges. This will help operators decide when to repair pipelines by establishing damage acceptance or rejection criteria. The other study is being conducted in collaboration with the Gas Research Institute on detection of pipeline mechanical damage by in-line inspection equipment, or "smart pigs." The study, which was started in 1996, will facilitate the design of smart pigs that can be used for in-line inspection of pipelines to detect cracks, dents, gouges, and stress corrosion cracking. All of these conditions are potentially detrimental to the safe operation of pipelines. The research will specify sensor technologies and data evaluation methods to reliably distinguish between various types of mechanical damage.

Question. Please list all of the reports that you issued as a result of your R&D program during the last few years and the NTIS number for each report?

Answer. Following is a list of the R&D reports issued by OPS in recent years. None of the reports are presently in the NTIS system. However, the reports issued in 1966 and after will be placed in the NTIS system:

—An Examination of the Feasibility of Regulating Excavators, October 1990
—Emergency Flow Restricting Devices Study, March 1991
—Instrumented Internal Inspection Devices, November 1992
—Improving the Safety of Marine Pipelines, 1994
—Remote Control Spill Reduction Technology: A Survey & Analysis of Applications for Liquid Pipeline Systems, September 1995
—Natural Disaster Study Prototype (Task 1), September 1995

—Comparison of U.S. with Foreign Pipeline Land Use and Siting Standards and Maintenance, Rehabilitation and Retrofitting Policies and Practices, April 1996
—Natural Disaster Study, National Pipeline Risk Index Technical Report (Task 2), July 1996
—Natural Disaster Study, National Pipeline Consequences Index Technical Report (Task 3), July 1996
—Natural Disaster Study, High Hazard, High Consequence Pipelines Technical Report (Task 4), July 1996
—Pipeline Accident Effects for Natural Gas Transmission Pipelines, August 1996
—Pipeline Accident Effects for Hazardous Liquid Pipelines, August 1996
—Pipeline Accident Consequences for Natural Gas and Hazardous Liquids Pipelines and Pipeline Accident Consequences Analysis Using GIS for Natural Gas and Hazardous Liquids Pipelines, August 1996

Question. Please update the Committee on the status of your mapping initiative. When will the project be completed. How much was appropriated and obligated on this effort in fiscal years 1995, 1996, 1997 and planned for 1998.

Answer. The Joint Government-Industry Mapping Quality Action Team completed its work last June with the publication of the team's report. The team researched existing pipeline locational data and mapping initiatives that companies, states, private industry, pipeline companies and one-call systems have developed. The team created criteria for evaluating data sources and concluded that no available data source met the specified criteria for data quality, usability, maintenance, and implementation. The team recommended the building of a national system for efficient data exchange, creation of pipeline data standards, collection of data from sources willing to meet the standard, acceptance of the data in paper and electronic format, and extensive communication to promote the standards and the program. A second team was formed to complete the implementation of the recommendations. This team recently presented, at a public meeting, draft standards and a concept for a decentralized repository system in which states would be encouraged to play the major data collection and maintenance role. They also presented criteria for the selection of the repositories that would link to a national repository.

The team has begun pilot testing the standards at the Department of Energy/Argonne National Laboratory and at the Texas Railroad Commission. This summer, numerous companies will be solicited to participate in pilot testing of the standards. At the same time, OPS will prepare cooperative agreements with state agencies that plan to be repositories for the collection of data. We will begin funding these agreements this summer so that operations can accelerate in fiscal year 1998. Evaluations and revisions to the standards will follow the pilot testing and will be completed in Spring of fiscal year 1998. This project is expected to achieve comprehensive collection of transmission and hazardous liquid pipeline data within three to five years.

Maintenance of data will be an ongoing cost. It is difficult to estimate the cost at this time because the mapping system will be built through partnerships that leverage voluntary participation by states and industry. The costs of the system at the state level is expected to be shared with other users of the information outside the pipeline industry, including various state and local agencies such as departments of natural resources, public works, environmental protection, tax collection, etc.

Expenditures to date have totaled $678,000. The following table shows the amounts appropriated and obligated in fiscal years 1995, 1996, 1997, and planned for 1998.

	Appropriated	Obligated
Fiscal year:		
1995	$1,200,000	$650,000
1996	1,200,000	58,000
1997 [1]	400,000	.....
1998 (request)	400,000	.....

[1] As of June 13, 1997.

We expect to utilize a majority of the funding in cooperative agreements that we will begin executing by the end of fiscal year 1997.

Question. Generally, what is the reaction of hazardous liquid and natural gas transmission companies to the national pipeline mapping initiative? Are there concerns about the potential for industrial sabotage, or inappropriate information sharing?

Answer. The pipeline companies are supportive of the approach OPS and the team have taken because it allows for flexibility in format and scheduling collection of the data. Voluntary participation allows industry to meet the needs of the government in a manner consistent with their own ongoing business needs. OPS is optimistic about company participation as the cost of more accurate data collection using Global Positioning Systems (GPS) is rapidly decreasing. GPS data collection can be accomplished along with other field activities like corrosion monitoring. While questions about security have been raised, the information we are collecting is already available on an individualized basis from various sources. Nevertheless, we continue to work with states, industry, and national security agencies to address this important issue.

Question. Please provide an update of research and development initiatives that support your risk-based priority program, specifically addressing cost-effective smart in-line inspection tools, leak detection systems, line location technology, state and regional cost-effective training, and higher quality incident data base.

Answer. An in-line inspection or "smart pig" research initiative is being conducted in collaboration with the Gas Research Institute to improve the ability of smart pigs to detect pipeline mechanical damage. The study, which was started in 1996, will facilitate the design of smart pigs that can be used for in-line inspection of pipelines to detect cracks, dents, gouges, and stress corrosion cracking. All these conditions are potentially detrimental to the safe operation of pipelines. The consortium conducting the study is investigating the sources of magnetic flux leakage from these conditions, are determining the magnetic effects of stress and deformation from these conditions, and have determined multi-levels of magnetic signals are necessary to characterize these conditions and are presently evaluating methods to achieve this on a single pig, both in pig sensor design and the computer analysis of data stored during a pig run.

A leak detection research initiative was conducted by the Volpe National Transportation Systems Center (Volpe). On September 29, 1996, Volpe released a report entitled "Remote Control Spill Reduction Technology: A Survey and Analysis of Applications for Liquid Pipeline Systems." The study examined the pipeline industry's use of application of Supervisory Control and Data Acquisition (SCADA) systems and leak detection systems. The report evaluated several leak detection performance measures, including response time, false alarms, sensitivity, and leak location accuracy. Volpe is enhancing the findings of this report by developing and analyzing several leak detection system scenarios on actual pipelines in cooperation with the American Petroleum Institute.

Although OPS has not sponsored any research on line location technology, various industry groups and universities have ongoing programs in this area.

OPS is working with two joint Federal/industry teams, one for liquid pipeline data issues and one for natural gas pipeline data issues. The teams are working to identify data shortcomings and efficient solutions to data needs.

Through TSI, a computer-based training initiative will incorporate functions of risk management to reduce travel and administrative costs. Lessons learned associated with CBT and Internet will be incorporated to provide easier access to training materials.

A group of educational and technical trainers was formed at TSI in fiscal year 1997 to exchange ideas and provide recommendations to the pipeline industry on employee performance issues such as what constitutes the "best practices." The group plans to develop "recommended guidelines" for evaluating the technical skills of pipeline employees and provide opportunities for information or data exchange. The group will promote consistency in training throughout the industry by providing state-of-the-art techniques. This in turn will provide cost savings through unified development of technical training.

Question. What progress has been made on the memorandum of understanding (MOU) with the Gas Research Institute on non-destructive evaluation technology? What are the accomplishments to date of this partnership? How does your request for a decrease in funding for this activity relate to the MOU?

Answer. The first study under the MOU to be conducted in collaboration with the Gas Research Institute regards non-destructive testing by in-line inspection tools or "smart pigs." This study commenced in June 1996. The study will improve the analytical ability to detect pipe wall cracks, dents, gouges, and stress corrosion cracking, mechanical damage which may lead to pipe failure if not detected. The research will determine sensor technologies to utilize, and then to adapt the sensor to a test vehicle so that non-damaging metallurgical inclusions in pipe and the more serious mechanical damage can be distinguished. The request for a decrease in funding does not relate to the MOU but will affect the timetable for completion of testing with

the test vehicle in the 4700 foot flow loop used to simulate actual pipeline operations.

STATE GRANT PROGRAM

Question. What are the eligibility criteria for states to receive pipeline safety grants? What states are not currently eligible to participate?

Answer. Performance factors used by OPS to allocate grant funds to a State agency are:

—Field Evaluation of State Pipeline Program (50 points)
—Extent of Intrastate Safety Jurisdiction (12 points)
—Inspector Qualifications (8 points)
—Number of Inspection Person-Days (9 points)
—State Adoption of Maximum Civil Penalty Requirement (2 points)
—State Adoption of Applicable Federal Regulations (8 points)
—One-Call System Minimum Requirements (8 points)
—State Attendance at National Association of Pipeline Safety Representatives Regional Meeting (3 points)
—Penalty Points for untimely submittal of documentation to OPS (up to 4 points to be deducted)

Many performance factors used by OPS were derived from a long-standing use of such standards in our Federal/State partnership. OPS, in conjunction with the National Association of Pipeline Safety Representatives, formed committees to maintain this close working relationship. These committees allow States to participate in OPS activities and decision-making that affects the programs. These committees' efforts previously provided criteria used by OPS to qualify inspectors and the performance factors used by OPS to evaluate the States.

Four states do not participate in the State Gas Pipeline Safety Program. These states are Alaska, Hawaii, Idaho, and Maine.

Question. For fiscal years 1996 and 1997, please list the states that participated in your hazardous liquids and hazardous gas state grants programs. For each participating state, display the amount requested by the state, the amount of federal grant funds received, and the percentage of federal contribution total costs represented by that grant.

Answer. The information for fiscal year 1996 follows. The information for fiscal year 1997 should be available after July 1, 1997.

1996 NATURAL GAS PIPELINE SAFETY GRANT ALLOCATION

State	Request	State points	Allocation	Percent funded
Alabama	$373,897	100	$323,007	43
Arizona	381,100	100	329,229	43
Arkansas	165,478	100	142,955	43
California	1,143,469	100	987,834	43
Colorado	171,358	100	148,035	43
Connecticut	150,000	95	123,105	41
Delaware	19,069	95	15,650	41
Florida	53,000	100	45,786	43
Georgia	202,827	95	166,460	41
Illinois	248,937	100	215,055	43
Indiana	147,439	100	127,371	43
Iowa	142,050	100	122,716	43
Kansas	329,034	95	270,037	41
Kentucky	218,045	100	188,367	43
Louisiana	343,920	95	282,254	41
Maryland	151,792	100	131,132	43
Massachusetts	291,550	95	239,274	41
Michigan	213,385	95	175,125	41
Minnesota	511,770	100	442,114	43
Mississippi	123,950	100	107,079	43
Missouri	237,875	90	184,948	39
Montana	29,602	95	24,294	41
Nebraska	78,528	95	64,448	41

1996 NATURAL GAS PIPELINE SAFETY GRANT ALLOCATION—Continued

State	Request	State points	Allocation	Percent funded
Nevada	123,401	100	106,605	43
New Hampshire	82,362	95	67,594	41
New Jersey	333,838	100	288,400	43
New Mexico	161,678	80	111,738	35
New York	1,271,347	100	1,098,307	43
North Carolina	177,342	100	153,204	43
North Dakota	38,471	100	33,235	43
Ohio	419,500	100	362,403	43
Oklahoma	208,320	100	179,966	43
Oregon	124,750	100	107,771	43
Pennsylvania	276,936	95	227,281	41
Puerto Rico	31,777	85	23,334	37
Rhode Island	61,382	95	50,376	41
South Dakota	46,975	90	36,523	39
Tennessee	217,425	95	178,440	41
Texas	1,021,077	95	837,995	41
Utah	135,150	95	110,917	41
Vermont	44,973	100	38,852	43
Virginia	250,000	100	215,973	43
Washington, DC	60,694	95	49,811	41
Washington	121,500	100	104,963	43
West Virginia	140,000	95	114,898	41
Wisconsin	172,100	85	126,374	37
Wyoming	123,850	90	96,294	39
Total	11,372,923	.....	9,577,530	42

Note.—The ''request'' represents 50 percent of the States estimated budget. The percent of fund is the percentage of the budget represented by the allocation.

1996 HAZARDOUS LIQUID PIPELINE SAFETY GRANT ALLOCATION

State	Request	State points	Allocation	Percent funded
Alabama	$22,600	100	$19,524	43
Arizona	40,025	100	34,577	43
California	991,856	100	856,857	43
Louisiana	83,615	100	72,234	43
Minnesota	125,200	100	108,159	43
Mississippi	4,888	100	4,222	43
New Mexico	9,250	90	7,192	39
New York	42,060	100	36,335	43
Oklahoma	151,585	95	124,406	41
Texas	180,189	95	147,880	41
Virginia	42,482	90	33,030	39
Washington	53,090	90	41,277	39
West Virginia	37,500	95	30,776	41
Total	1,784,339	.....	1,516,470	42

Question. RSPA and the states have agreed to attempt to provide 50 percent of the states' pipeline safety program funding from the federal government. As aggregate, what percent of the states' pipeline safety program funds were appropriated through the OPS state grant program in fiscal years 1996 and 1997? Is the total national program level increasing due to more active pipeline safety programs at the state levels? Please discuss.

Answer. The percent of the states' pipeline safety grant funding in fiscal year 1996 was 42 percent compared to an estimated 44 percent in 1997. The states for some time have been assigned additional tasks and jurisdiction without an increase in grant funds. Some additional efforts undertaken by the states are drug and alcohol inspections and a larger percentage of intrastate jurisdiction such as master meter and offshore (state waters) inspections.

Question. Part of the original justification for the increase in the pipeline grant program was that with increased funds the states would be encouraged to expand their enforcement responsibilities. Please provide quantitative data on a state-by-state basis indicating whether this has happened.

Answer. OPS has encouraged states to expand their enforcement jurisdiction in the past few years by adding seven new gas and liquid programs and eleven new areas of Municipal, liquefied petroleum gas or master meter operator jurisdiction in their states. This information will be provided within 30 days of reviewing the 1997 state certification documents.

Question. Please provide an assessment of your monitoring of the state grant program. How has OPS improved various state programs?

Answer. Over the last four years, OPS has taken steps to improve our oversight of the state pipeline safety programs including the full time designation of an inspector in each region office to monitor and evaluate activities.

These inspectors, the state liaison representatives, have worked together to improve the monitoring and evaluation process so that areas of needed improvement can be more readily identified and corrected. When OPS identifies a potential weakness in a state pipeline program, we work with the program manager to correct the circumstances and provide technical support.

The following is a summary of the field evaluation scores and other performance factors that are used in our certification of the state pipeline programs. The total maximum score is the score used for allocating grant funds.

1996 GRANT ALLOCATION—STATE POINTS (GAS)

[From certification/agreement attachments]

Gas State	Jurisdiction (12)	Inspector qualification (8)	Number of inspection person days (9)	State adoption of maximum civil penalty regulations (2)	State adoption of applicable Federal regulations (8)	One-call notification requirements (8)	Attendance at Federal/State Mtg. (3)	Penalty points (−)	Total maximum (50)
Alabama	12	8	9	2	8	8	3		50
Arizona	12	8	9	2	8	8	3		50
Arkansas	12	8	9	2	8	8	3		50
California	9	8	9	2	8	8	3		47
Colorado	12	8	9	2	5	8	3		47
Connecticut	12	4	9	2	8	8	3		46
Delaware	6	8	9	N/A	N/A	8	3		44
Florida LPG	12	8	9		8	6	3		46
Georgia	10	8	9		8	8	3		46
Illinois	12	8	9	2	8	7	3		49
Indiana	12	8	9	2	8	8	3		50
Iowa	12	8	9	2	8	8	3		50
Kansas	12	8	9	2	5	8	3		47
Kentucky	12	8	9	2	8	8	3		50
Louisiana	12	8	9	2	8	7	3		49
Maryland	12	4	9	2	8	8	3		46
Massachusetts	9	8	9	1	8	6	3		44
Michigan	12	8	5	2	8	8	3	−4	42
Minnesota	12	8	9	2	8	8	3		50
Mississippi	12	8	9	2	8	6	3		48
Missouri	10	8	9		8	8	3		46
Montana	12	8	5	2	3	7	3		40
Nebraska	12	8	5	2	8	8	3		46
Nevada	12	8	9	2	8	8	3		50
New Hampshire	10	8	5	2	8	8	3		44
New Jersey	12	8	9	2	8	8	3		50
New Mexico	12	8	3	2	8	0	3		36

1996 GRANT ALLOCATION—STATE POINTS (GAS)—Continued

[From certification/agreement attachments]

Gas State	Jurisdiction (12)	Inspector qualification (8)	Number of inspection person days (9)	State adoption of maximum civil penalty regulations (2)	State adoption of applicable Federal regulations (8)	One-call notification requirements (8)	Attendance at Federal/State Mtg. (3)	Penalty points (−)	Total maximum (50)
New York	12	8	9	2	8	8	3		50
North Carolina	12	8	9	2	8	7	3		49
North Dakota	12	8	9	2	8	7	3		49
Ohio	12	8	9	2	8	6	3		48
Oklahoma	12	8	9	2	8	6	3		48
Oregon	12	8	9	2	8	7	3		49
Pennsylvania	5	8	9	2	8	6	3		41
Puerto Rico	12	8	3	2	8		3	−2	34
Rhode Island	12	4	9	2	8	8	3		46
South Dakota	12	4	3	2	8	7	3		39
Tennessee	12	8	5	2	8	6	3		44
Texas	12	8	9	2	8		3		42
Utah	12	4	9	2	8	6	3		44
Vermont	12	8	9	2	8	8	3		50
Virginia	10	8	9	2	8	8	3		48
Washington, DC	12	4	9	2	8	8	3	−2	44
Washington	12	8	9	2	8	7	3		49
West Virginia	12	8	9	1	8		3		41
Wisconsin	8	8		2	5	8	3		34
Wyoming	12	8	5	2	8	4	3		42

Note.—No rating—Did not participate in the program in 1995.

Question. For each participating state, indicate the number of times during each of the last three years that OPS conducted an audit, a joint inspection, a training activity.

Answer. The following chart illustrates the number of times OPS has conducted an audit, a joint inspection, and seminar or training activity in each state participating in an OPS pipeline safety program.

The number of joint inspections include the number of joint accident response investigations in which OPS has participated. The relatively high number of joint inspections for New Jersey, New York, and Texas in 1994 was due to the accident in Edison, New Jersey; preparation for New York to become an interstate agent; and the floods in Houston, Texas. The high number of joint inspections for Puerto Rico in 1996 was due to the incident in San Juan.

OPS has given state inspectors training required for certifying a pipeline safety program. The numbers of students trained are 315, 279 and 355 for 1994, 1995 and 1996 respectively.

State total	Number of audits			Number of joint inspections			Training/ seminars		
	1994	1995	1996	1994	1995	1996	1994	1995	1996
Alabama	2	2	2	2	2	2	3	1	1
Arizona	2	2	2	2	3	3	.....	2	1
Arkansas	1	1	1	1	1	1	1	1	1
California	2	2	2	2	2	2	2	5	6
Colorado	1	1	1	1	1	1	1	3	1
Connecticut	1	1	1	1	2	2	.....	.....	.....
Delaware	1	1	1	1	1	1	.....	.....	.....
Washington, DC	1	1	1	1	1	1	.....	.....	.....
Florida	2	2	2	2	2	2	2	1	2
Georgia	1	1	1	2	1	1	1	1	.....
Illinois	1	1	1	1	1	1	1	.....	1
Indiana	1	1	1	1	1	1	.....	.....	.....
Iowa	1	1	1	1	1	1	.....	1	.....
Kansas	1	1	1	2	1	2	3	1	1
Kentucky	1	1	1	1	2	1	.....	1	1
Louisiana	2	2	2	2	2	2	1	2	5
Maryland	1	1	1	1	1	1	.....	.....	1
Massachusetts	1	1	1	1	1	1	.....	1	.....
Michigan	1	1	1	1	3	1	1	.....	.....
Minnesota	2	2	2	3	5	2	2	2	.....
Mississippi	2	2	2	2	2	2	.....	1	.....
Missouri	1	1	1	1	1	1	1	.....	1
Montana	1	1	1	1	1	1	1	.....	1
Nebraska	1	1	1	1	2	1	.....	2	.....
Nevada	1	1	1	1	1	1	.....	.....	1
New Hampshire	1	1	1	1	1	1	.....	.....	1
New Jersey	1	1	1	7	1	1	1	.....	.....
New Mexico	1	1	1	1	1	2	.....	3	1
New York	2	2	2	5	7	3	5	.....	.....
North Carolina	1	1	1	1	1	1	2	1	.....
North Dakota	1	1	1	1	1	1	1	.....	1
Ohio	1	1	1	2	1	1	.....	3	2
Oklahoma	2	2	2	2	2	2	3	3	1
Oregon	1	1	1	1	1	1	2	.....	.....
Pennsylvania	1	1	1	1	2	1	.....	2	.....
Puerto Rico	1	1	1	1	1	[2] 49	.....	.....	.....
Rhode Island	1	1	1	1	1	1	.....	.....	.....
South Carolina	1	1	1	1	1	1	.....	3	.....
South Dakota	.....	1	1	.....	1	1	1	2	.....
Tennessee	1	1	1	1	1	1	.....	1	.....
Texas	2	2	2	[1] 44	2	3	.....	1	5
Utah	1	1	1	1	1	1	2	.....	2

State total	Number of audits			Number of joint inspections			Training/ seminars		
	1994	1995	1996	1994	1995	1996	1994	1995	1996
Vermont	1	1	1	1	1	1	.....	.....	.....
Virginia	1	1	2	1	3	3	.....	1	.....
Washington	1	1	2	1	1	2	1	2	.....
West Virginia	2	2	2	2	2	2	1	.....	2
Wisconsin	1	1	1	1	1	1	.....	1	.....
Wyoming	1	1	1	1	1	1	3	.....	1

[1] This substantial increase was due to a major flood in October 1994.
[2] This increase was due to the major incident in San Juan in 1996.

RISK MANAGEMENT GRANTS

Question. Eight risk management demonstration projects were authorized in the Accountable Pipeline Safety and Partnership Act. Who are the participants in these demonstration projects? Is funding for these demos provided through the risk assessment/technical studies contract program, or through the risk management grants program? How much funding was associated with these demonstration projects in fiscal year 1997, and how much is requested for fiscal year 1998?

Answer. To clarify the question, the APS&P act does not limit the number of risk management demonstration projects, but the Presidential Directive limits the number to 10, to ensure appropriate monitoring and oversight.

To date, we have received five Letters of Intent from companies wishing to conduct demonstration projects. They are Northwest Pipeline, Tennessee Gas, and Shell Pipeline. We believe the following states may be affected: Alabama, Arkansas, Colorado, Connecticut, Florida, Kentucky, Louisiana, Maryland, Massachusetts, Mississippi, Montana, Texas, New Hampshire, New Jersey, New Mexico, New York, Oregon, Pennsylvania, Rhode Island, Tennessee, Utah, Virginia, Washington, West Virginia, and Wyoming.

Funding will be provided through both the Risk Assessment/Technical Studies contract and the risk management grants program.

Funding associated with demonstrations projects in fiscal year 1997 was $1.8 million and $1.2 million is requested for fiscal year 1998 for the Risk Assessment/Technical Studies contract. This funds the development of the Demonstration Program "building blocks" (the Program Framework, the Program Standard, Performance Measures Guidance, a Communications Plan, and Training), delivery of training, evaluation, approval, and auditing of demonstration projects, development of a database to support project reviews, communication with stakeholders through internet, electronic town meetings, public meetings and other mechanisms, status reports on the existing demonstration program, and a quality team investigating the feasibility of risk management for local distribution companies.

Additionally, $200,000 of funding in fiscal year 1997 and $500,000 requested in fiscal year 1998 is for State Risk Management Grants. The grants fund travel for states participating in risk management training and the consultative reviews of candidate demonstration projects.

Question. How will the OPS ensure that equal or greater levels of safety are achieved by companies that are participating in the demonstration projects? How will the safety performance of these companies be evaluated?

Answer. Although the statute requires "equal or greater" safety, the Demonstration Program developed by OPS and its stakeholders is consistent with a Presidential Directive that each project achieve "superior levels of public safety and environmental protection when compared with regulatory requirements that otherwise would apply."

OPS has designed several mechanisms into the review and approval of demonstration projects that will ensure their superior performance. For example, each project must have built-in and predefined accountability mechanisms—called performance measures—that ensure the expected results are achieved. The performance measures will be part of a company's project proposal, will be specific to each project, and will be used by OPS to monitor companies' safety. Companies must define and achieve safety goals, rather than simply comply with regulations.

During the review of demonstration projects, OPS will see if companies are employing the new process described in the Program Standard and Program Framework. These new processes result in a comprehensive, systematic, and integrated approach to assessing and addressing pipeline risks. The processes also ensure that

the most broad based input possible—from throughout the company, from State and Federal government agencies, and from affected communities—can be factored into the provisions of a demonstration project.

Finally, the risk reduction activities companies implement—some of which may conflict with a regulation—must also lead to superior safety. OPS will follow its review protocols in determining if a demonstration project proposal can lead to superior safety.

ONE CALL

Question. What percentage of natural gas and liquid pipeline releases and accidents can be attributed to 3rd party damage?

Answer. For 1996, 17 percent of all incidents involving hazardous liquid lines was attributable to third party damage. For natural gas, 39 percent of transmission line incidents and 40 percent of distribution line incidents were caused by third party damage. Third party damage was the cause for 28 percent of all pipeline incidents.

Question. OPS is requesting to use $1 million of funds from the reserves of the Pipeline Safety Fund to pay for grants to States for setting up and improving the efficiency of one-call systems. How did you determine that this was an appropriate amount?

Answer. OPS based the $1 million on States' requests for one-call funds.

Question. Did you try to get OMB or OST to allow you to draw down more of the balance in the pipeline safety fund for this purpose? How much did you originally ask OST as well as OMB for?

Answer. RSPA requested $1 million for one-call systems.

Question. What would an additional $500,000 for the state grant one-call program obtain?

Answer. In 1997, with restricted grant application amounts (no state more than $50,000) we were able to only fund at an average level of 61 percent of the request. All applying states requested funding of $1,643,200.

Question. Please update past data on the status of one-call systems, their completeness, effectiveness, legislative status, and enforcement capabilities of the States. How many, and which, States have utilized one-call grant funds to establish one-call programs? Have any States established one-call programs without the use of federal grant funds?

Answer. Within the past three years, thirteen States have passed or improved one-call legislation: Alabama, Kentucky, Montana, North Dakota, Nebraska, New Jersey, New Mexico, New York, South Dakota, Utah, Virginia, West Virginia, and Wyoming. Texas has made strong attempts to pass legislation for many years but failed. This year, their attempt is promising. Their bill has passed the State House and Senate, which has never been done before, and is awaiting the Governor's signature.

Since the incident in San Juan, Puerto Rico, last year, we have been working closely with Puerto Rico (PR) to seek legislative authority to create a one-call center. The governor of PR has recently issued a provision for a one-call damage prevention system to be operated by the PR Public Service Commission, with legislation expected to be enacted later this year. These significant increases in one-call activities have been evident in these past few years, and OPS played a major role in supporting States to pass or improve on one-call legislation.

There is also a growing number of states with a strong one-call enforcement mechanism (Arizona, Connecticut, Massachusetts, Minnesota, New Hampshire, New Jersey, Virginia) that includes:

—A specific agency with jurisdiction over excavators and facility operators.

—Authority to issue immediate citations and the power to collect penalties.

—Administrative encouragement and staff assigned to enforce the law.

Fewer than 20 States do not require all underground facility operators to belong to one-call organizations. We expect several state legislatures to enact or modify one-call legislation for this purpose.

About half of the States have emergency service available on a 24-hour basis. In States without 24-hour emergency service, excavators have to notify operators of impending excavation after business hours.

OPS also utilizes one-call grant funds to support States to establish one-call programs. This year, 37 States have requested one-call grants to further their efforts with one-call activities. These are: Alabama, Arizona, California, Colorado, Connecticut, Delaware, Georgia, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, South Caro-

lina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wyoming, Puerto Rico and the District of Columbia.

The one call grant funds that have been available the past three years have been used mostly for enhancement of one call systems. During that period there have been three states that have adopted one call programs with the assistance of grants funds and one other is pending.

Question. How will you be using your new authorities provided in the Accountable Pipeline Safety and Partnership Act to improve one-call systems?

Answer. 49 U.S.C. 60114 directs the Secretary to prescribe regulations providing for establishing and operating one-call notification systems. These regulations would set certain minimum requirements, including the following: one-call systems would have to provide state-wide coverage; all excavators would be required to call prior to digging; all underground facility operators would have to belong to one call systems; qualifications for operation of a one-call system; and enforcement procedures.

We will use our cooperative agreement authority to partner with the state pipeline agencies, other state mapping agencies and one call centers to upgrade the one call locating systems to the more accurate, geographically-based National Pipeline Mapping System.

Question. Please update the Committee on the status of RSPA's one-call damage prevention team, and highlight any recommendations that have been made.

Answer. The Damage Prevention Quality Action Team was formed to conduct a national campaign on excavation damage prevention. This issue affects all underground utilities, not just pipelines. The composition of the team reflects the breadth of this problem. The team includes representatives from the Office of Pipeline Safety, the hazardous liquid and natural gas industries, telecommunications, one-call systems, insurance, excavators, the National Association of State Pipeline Safety Representatives, and the National Association of Regulatory Utility Commissioners.

The Team recommended that, prior to undertaking a campaign, it would be necessary to: (1) discern the level of awareness among the public and critical groups, excavators, facility operators, state and local highway and public works departments; and (2) determine the most effective means of communicating the damage prevention message. The Team commissioned a survey to gather this data. The survey is almost complete and the Team will meet in July to proceed to design the campaign and educational programs based on the findings.

Question. In terms of improving the enforcement process related to one call, what else could be done by the one-call damage prevention team? What about judicial outreach or prosecutorial training? What is OPS doing in these areas.

Answer. The Damage Prevention Quality Team is not addressing enforcement issues. The team was formed to address the issue of damage prevention education. OPS believes it is important to address public education and the promotion of best one-call program practices before improving the enforcement process. In our work with programs at the state level, we strive to get better legislation with sanctions. In our experience, the weakness in enforcing one-call legislation would best be addressed through administrative enforcement remedies. Historically, prosecutors and courts have shown little interest in devoting their resources to excavation damage.

Question. Please specify all activities relevant to the one-call challenge or damage prevention/public education, and indicate how much you are spending for each activity during fiscal years 1996 and 1997, and proposed for fiscal year 1998.

Answer. The Department has transmitted a safety bill to Congress which was introduced in the House on May 22, 1997. This bill specifies minimum requirements for one-call systems, grants for establishment or support of one-call systems and enforcement provisions. A staff member from the Office of Pipeline Safety has been working with the Facilities Solution Team, a group chartered by the Federal Communications Commission, to further address third party damage. Last year, the Research and Special Program Administration's Office of Pipeline Safety established a Damage Prevention Quality Action Team, to undertake the congressional mandate for a damage prevention campaign. OPS staff has recently made presentations at annual meetings for the one-call and excavator industries to promote the Team's work and damage prevention efforts.

Our budget is $500,000 for fiscal year 1996 and $200,000 for fiscal year 1997. About one fifth of the fiscal year 1996 funds are being obligated on surveys to collect data on current levels of awareness of damage prevention efforts and the most effective methods of educating select groups about damage prevention on a national level. The majority of these funds will contribute to the design and implementation of the national public education campaign.

Our proposed budget for fiscal year 1998 is $200,000, which will support plans for a comprehensive assessment of the effectiveness of the national education campaign and for expanded damage prevention efforts, such as working with other Fed-

eral agencies to leverage municipal government and utility participation in one-call and other damage prevention activities.

Question. If the damage prevention/public education activity received an additional $200,00 in fiscal year 1998 (for a total of $400,000), what specific additional outreach activities could be accomplished?

Answer. The funds would be used to produce and broadcast public service announcements (PSA's) on third party damage. While the broadcast and cable industry may be willing to underwrite the expense of running some of these announcements, indications are that PSA's run during peak times have much greater impact. Funds would probably be used to underwrite advertising in print media and production of materials for school programs.

Question. What specific commitments for cost sharing have you gotten from the private sector to help pay the one-call damage prevention outreach effort? Please quantify cash and in-kind contributions.

Answer. In terms of participation on the Damage Prevention Team, the private sector participants, both pipeline and other industries, have absorbed the costs of salaries and travel, as well as providing meeting space, staff support and essential supplies for Team meetings. It would be very difficult to quantify these outlays. According to one estimate, the cost of underwriting participation in each meeting is $2,500. This is based upon an estimate of two days of meetings, one day of preparation and one day of travel at annual salary of $90,000 for a pipeline engineer, plus airfare and hotel. OPS does not receive any direct cash contributions.

For example, the American Petroleum Institute has an annual budget of $300,000 for damage prevention public education that it undertakes directly. API and other trade associations and companies expect to pool their resources in support of the campaign developed by the Team.

REGULATORY ACTIVITIES

Question. Please specify the nature of any National Transportation Safety Board pipeline safety recommendations that remain open or have been closed because of an unsatisfactory response. What is OPS doing about each of them?

Answer. OPS currently has 29 NTSB recommendations classified as open. Open NTSB recommendations and OPS' actions are outlined by category below. In addition, OPS is having discussions with NTSB regarding closing several of recommendations listed below.

Inspection/testing requirements

P–87–4.—Require periodic testing and inspections to identify corrosion and other time-dependent damages.

Current technical and economic data do not support the establishment of an arbitrary period to retest or conduct instrumented pig surveys. OPS is taking a risk-based approach to the testing and inspection needed to identify corrosion-caused and other time-dependent damages.

P–87–5.—Establish criteria to determine appropriate intervals for inspections and tests.

OPS believes the development of such criteria is beyond the current state-of-the-art because criteria to determine what intervals are appropriate for inspections and tests would have to account for all flaw-growth mechanisms and growth rates. Many flaw-growth mechanisms, such as stress corrosion cracking, depend on environmental and metallurgical conditions about which operators have little knowledge. In an upcoming NPRM, OPS intends to propose that operators judge what inspections and testing are needed based on operational and geographical factors that indicate the level of risk a pipeline poses.

P–87–23.—Establish criteria for determining safe service intervals between hydrostatic retests.

OPS believes that hydrostatic retests should be performed on a case-by-case, based on leak history and other relevant operational factors. This approach is in keeping with Sections 108 and 207 of the Pipeline Safety Reauthoriziation Act of 1988, which directed OPS to determine the frequency and type of mandatory pipeline tests on a case-by-case basis. OPS is evaluating this recommendation based on a risk-based approach to regulation.

Hydrogen sulfide pipelines

P–88–1.—Establish maximum allowable concentration of H_2S in gas pipelines.

P–88–2.—Require reporting of all incidents where concentration of H_2S is in excess of maximum allowable concentrations.

P–88–3.—Require installation of equipment to detect excess concentrations of H_2S.

In March 1996, OPS withdrew an NPRM that proposed changes in the Pipeline Safety regulations to address the hazard of excessive levels of hydrogen sulfide in natural gas transmission pipelines. A review of information and comment from many sources, including advice from the Technical Pipeline Safety Standards Committee (TPSSC), indicated that a regulation to address hydrogen sulfide in transmission lines is not warranted. Instead, OPS believes that regulatory attention to hydrogen sulfide issues should be limited to gathering lines.

Recommendations from the Edison, NJ incident

P–95–4.—Expedite the completion of the study on methods to reduce public safety risks in the siting and proximity of pipelines.

OPS recently completed a two-year contract with the New Jersey Institute of Technology (NJIT) to study the probability and consequences of pipeline failures on gas and hazardous liquid pipeline facilities located in high risk areas. Because OPS has no authority regarding the siting of pipelines, the NJIT analysis was limited to identifying methods to reduce public safety risks in relation to the proximity of pipelines to public facilities and high population density areas. OPS is currently reviewing the NJIT report.

P–91–1.—Establish standards for detecting leaks.

OPS sponsored a study by the Volpe National Transportation Systems Center (VNTSC) on the potential of leak-detection systems to reduce the risks from hazardous liquid pipeline leaks. The report, entitled "Remote Control Spill Reduction Technology: A Survey and Analysis of Applications for Liquid Pipeline Systems," was issued by VNTSC in September 1995. OPS intends to publish an NPRM to establish standards for leak detection on hazardous liquid pipelines.

P–95–2.—Develop toughness standards for new pipe installed in gas and hazardous liquid pipelines.

OPS will increase the incorporation by reference of industry standards in the pipeline safety regulations and will increase OPS' participation on national consensus standard committees. Specifically, OPS is working with the pipeline industry on the API 5L standards committee to establish pipe toughness requirements and expects to adopt the latest standard accepted by the API committee.

In addition, OPS funded the Texas Transportation Institute, College Station, Texas for research into the fatigue and fracture behavior of dented pipelines, and research into the application of leak-before-rupture concept to determine the conditions that a small crack causing product leak may grow to critical size resulting in unstable crack propagation and a large spill.

P–95–1.—Expedite requirements for installing automatic or remote-operated mainline valves on high pressure pipelines.

OPS developed an action plan to address the recommendations that were conducted by a Joint Inspection Task Force comprised of OPS and the New Jersey Public Utilities Board, as outlined in the New Jersey Comprehensive Inspection Report. OPS is acting on the report recommendation that a new technical study be initiated to establish criteria for the installation of automatic or remote valves on gas transmission pipelines. OPS is proposing to work with the Interstate Natural Gas Association of America (INGAA) on this issue.

In addition, OPS has been monitoring the valving study of INGAA's Valve Task Group, and has reviewed a final report sponsored by the Gas Research Institute (GRI) entitled "Remote and Automatic Main Line Valve Technology Assessment." The results from this study, although focussed on gas transmission pipelines, will provide information for the development of an NPRM that will specify those circumstances under which operators of hazardous liquid pipelines are required to use remote-operated mainline valves. OPS has also requested the Gas Piping Technology Committee, which produces the Guide for Gas Transmission and Distribution Piping Systems, to develop guidance for the placement of automatic and remote-controlled valves.

Relationship w/MMS and other Federal agencies

P–90–29.—Require inspection, burial, and protection of submerged pipelines.

OPS has contracted with Texas A&M University to conduct a study of underwater inspection of offshore pipelines. This study will determine if pipeline depth and condition constitute a hazard to navigation. In addition, the study will recommend methods and intervals for periodic inspections of any offshore pipelines. The results of the study will be used to issue regulations to identify what constitutes a hazard to navigation with respect to underwater abandoned pipeline facilities as required by the Pipeline Safety Act of 1992.

P–90–31.—Evaluate need for emergency planning and coordination between offshore pipeline operators and producers.

OPS issued an Advisory Bulletin (ADB–94–04) on April 5, 1994, regarding the need for emergency planning and coordination between pipeline operators and offshore producers. OPS is increasing its efforts with the Coast Guard, the Environmental Protection Agency, the Minerals Management Service (MMS) and others to clarify jurisdiction and authorities. In addition, OPS has signed a Memorandum of Understanding to clarify agency responsibilities for offshore pipeline safety and inspection.

Leak detection/one-call—public education & performance standards

P–90–21.—Assess industry programs for educating public on dangers of gas leaks.

OPS, industry, states, and local government representatives recently formed a Damage Prevention Quality Action Team to identify the audiences most in need of education about excavation damage prevention and gas leaks, and to find the most effective ways to reach each audience. The team is evaluating damage prevention and public education materials used by industry and the states. In addition, OPS is advocating enactment or strengthening of Federal and state one-call legislation.

Guidance in the pipeline safety regulations

P–84–26.—Require level of safety for HVL pipelines comparable to natural gas pipelines.

OPS issued a Final Rule (Docket PS–113; 59 FR 6579, February 11, 1994) on "Operation & Maintenance Procedures for Pipelines," which requires greater consistency of operation & maintenance procedures for natural gas and hazardous liquid pipelines. The rule also requires that operators update their Operations and Maintenance manuals each calendar year. Currently, OPS and NTSB are discussing similar measures that may be needed for other areas such as establishing criteria for the performance of systems used to monitor the operation of pipelines.

P–87–2.—Require operators to annually qualify employees.

OPS established a Negotiated Rulemaking Committee to develop a proposed rule on the qualification of personnel to perform certain safety-related functions for pipelines subject to 49 CFR Parts 192 and 195. The committee will make its recommendations after a negotiation process and is composed of persons who represent the interests affected by the rule. It will also recommend a proposed final rule after reviewing comments.

P–87–3.—Require operators to examine exposed pipelines for external corrosion.

Although pipeline companies already examine exposed pipelines for external corrosion, OPS will adopt consistent requirements for both natural gas and hazardous liquid pipelines.

P–87–26.—Obtain data on ERW pipe to determine hazard to public safety.

As a consequence of the unique safety problems with longitudinal seams on certain Electronic Resistance Welded (ERW) pipe manufactured before 1970, OPS published a Final Rule (Docket PS–121; 59 FR 29370; June 7, 1994) on Pressure Testing Older Hazardous Liquid and Carbon Dioxide Pipelines. The final rule provides that operators may not transport a hazardous liquid in a steel interstate pipeline constructed before January 8, 1971, a steel interstate offshore gathering line constructed before August 1, 1977, or a steel intrastate pipeline constructed before October 21, 1985, unless the pipeline has been pressure tested hydrostatically according to current standards or operates at 80 percent or less of a qualified prior test or operating pressure. In addition, OPS is developing a proposed rule on risk-based alternatives to pressure testing that may result in further decrease of the risks posed by pre-1970 ERW pipe.

P–87–34.—Require operators to maintain maps and records.

OPS co-sponsors a joint Government/Industry Pipeline Mapping Quality Action Team (MAQAT) which has analyzed various mapping alternatives and determined a cost-effective strategy for creating an accurate depiction of natural gas and hazardous liquid transmission pipelines and LNG facilities in the United States. The team's report, which OPS is reviewing, included:

—Investigating the pipeline mapping issues in detail and identifying the challenges of creating a National Pipeline Mapping System (NPMS);
—Determining the status of mapping today and understanding current mapping practices and specific mapping products;
—Evaluating various mapping alternatives and their cost effectiveness;
—Identifying the U.S. Geological Survey's 1:100,000 scale map series as the appropriate base map for the NPMS;
—Developing a strategic plan for a NPMS; and
—Agreeing on evaluation criteria; in particular, agreeing that pipeline coverage and integration with other data is more important than positional accuracy.

P–89–6.—Establish requirements to maintain proper functioning of check valves.

P–90–24.—Define various terms used for valves.

Through its risk-based efforts, OPS is supporting installation of check valves or remote-operated valves on liquid pipelines in all high risk areas to provide for rapid isolation of failed pipeline segments. In addition, OPS is completing a check valve study that addresses the issues outlined in the two recommendations. OPS will take follow-up action when the report is finalized.

P–90–15.—Identify regulations not containing explicit objectives/criteria.

P–90–16.—Develop guidance for operator compliance with regulations not containing explicit objectives/criteria.

OPS is presently undergoing extensive regulatory reform efforts resulting from the President's "Regulatory Reinvention Initiative" (RRI) that focus on reducing the burden of government regulations and requires that agencies review all regulations and eliminate or revise those that are outdated or in need of reform. OPS has reviewed the pipeline safety regulations and has published four regulatory actions that will lessen unnecessary burdens on the pipeline industry by revising or updating areas including gas pipeline and liquefied natural gas safety standards, administrative practices, and industry standards incorporated by reference. In keeping with RRI, these regulatory revisions are performance based; they provide much latitude for pipeline operators to address risks. The risk-based requirements contemplated for the future regulatory regime will develop risk-based guidance to assist operators in complying with regulations not containing explicit design requirements.

P–90–19.—Extend regulations to cover buried lines from outlet of meter to customer building.

OPS published a Final Rule, (60 FR 41821; August 14, 1996) on "Customer-Owned Service Lines," which addressed this recommendation consistent with a Congressional directive. In addition, OPS is completing a Congressionally directed study of these lines to determine if further action is warranted.

P–90–20.—Require, by time certain, that unprotected gas piping be protected against corrosion or be replaced.

OPS believes that a realistic cast iron pipe and ductile iron pipe replacement program should be conducted on a risk-based basis, recognizing the various pipeline characteristics and risks to public safety, and that replacement should be based on need rather than on an arbitrary date.

P–93–9.—Develop safety requirements for underground highly volatile liquids and natural gas storage facilities.

After completion of an ongoing study by the Interstate Oil and Gas Compact Commission (IOGCC) on standards for underground storage, OPS may recommend that the states take individual action based on local geologic and hydrologic conditions.

P–96–2.—Require gas-distribution operators to notify all customers when excess flow valves are available.

OPS published a Notice of Proposed Rulemaking (61 FR 33476; June 27, 1996), titled "Excess Flow Valves (EFV)-Customer Notification." The proposed rule would require operators of natural gas distribution systems to notify all customers in writing of the availability of EFV's that meet DOT-prescribed performance standards, the safety benefits of the valves, and the costs of installation. If a customer requests installation and pays the costs of installation, the operator would be required to install an EFV.

Enhancing pipeline accident databases

P–96–1.—Develop and implement a comprehensive plan for collecting and using gas and hazardous liquid pipeline accident data.

OPS recognizes the need for a comprehensive plan for identifying and obtaining adequate gas and hazardous liquid data to support our pipeline risk management demonstration program development. OPS is analyzing its current database capabilities and will develop within one year, a comprehensive plan for the improvement of its collection and use of gas and hazardous liquid pipeline accident data. In addition, within two years, OPS will implement the comprehensive database improvement plan.

The following initiatives outline OPS' current efforts that address Recommendation P–96–1 requirements for improved pipeline accident databases:

Developing new databases to support OPS operations

—Cooperation with industry groups such as the Interstate Natural Gas Association of America (INGAA) and the Gas Research Institute (GRI) is the cornerstone of OPS' plans to identify and obtain needed data. OPS is currently working with INGAA, GRI, AND API to identify needed data. Two data issues workgroups have been formed, one for liquid pipeline data issues and one for natural gas data issues. The adequacy of existing data is being reviewed. New

needed data will be sought in efficient ways, with emphasis on voluntary participation by operators and industry cooperation. OPS also supports development of an electronic reporting system to collect this data directly from operators. GRI/INGAA will retain certain data that will be shared with OPS. This electronic reporting system, the Incident Reporting and Trending System (IRATS), is an INGAA/GRI initiative based on voluntary participation, and is still in the formative stage.

—OPS is cooperating with INGAA to determine how two other proposed electronic data systems, the Work History and Trending System (WHATS) and the Integrated Spatial Analysis Techniques System (ISATS), might provide needed data. WHATS will capture comprehensive information about each segment of an operator's pipeline, including inspection history, manufacturing information, valve locations, pipeline installation dates, compressor information, and repair history. ISATS will contain geographical information, including latitude and longitude data required for spatial analysis tasks such as assessing the risks posed by pipelines to populated and environmentally sensitive areas. ISATS will help standardize how the industry captures and uses locational data and promote national standards for geo-spatial data definitions and use.

Improving OPS' current databases

—OPS has been aggressively seeking supplemental reports for incident and accident data by reviewing data collected, identifying trends, and identifying areas in which more data is needed.

—OPS is currently normalizing all databases and auditing historical data systems and reports. Specifications for re-engineering existing data systems have been developed. System and data security features and rigorous edit features are being added. FERC data is being considered that may be useful for normalizing liquid pipeline data.

Substantial threats to pipelines

P–96–21.—Require operators of liquid pipelines to address, in their Oil Pollution Act of 1990 spill response plans, identifying and responding to events that can pose a substantial threat of a worst-case product leak.

On January 24, 1997, OPS issued an alert notice to remind operators to examine their facility response plans to ensure that the plans adequately address the actions that the operator would take to prevent or minimize substantial threats to hazardous liquid pipelines.

Question. Please bring us up to date on your regulatory response to the Edison, New Jersey release.

Answer. The 1994 gas transmission line incident in Edison, New Jersey resulted in three recommendations from the National Transportation Safety Board (NTSB). OPS has responded to each of the recommendations as follows:

P–95–4.—Expedite the completion of the study on methods to reduce public safety risks in the siting and proximity of pipelines.

OPS recently completed a two-year contract with the New Jersey Institute of Technology (NJIT) to study the probability and consequences of pipeline failures on gas and hazardous liquid pipeline facilities located in high risk areas. Because OPS has no authority regarding the siting of pipelines, the NJIT analysis was limited to identifying methods to reduce public safety risks in relation to the proximity of pipelines to public facilities and high population density areas. OPS is currently reviewing the NJIT report.

P–91–1.—Establish standards for detecting leaks.

OPS sponsored a study by the Volpe National Transportation Systems Center (VNTSC) on the potential of leak-detection systems to reduce the risks from hazardous liquid pipeline leaks. The report, entitled "Remote Control Spill Reduction Technology: A Survey and Analysis of Applications for Liquid Pipeline Systems," was issued by VNTSC in September 1995. OPS intends to publish an NPRM to establish standards for leak detection on hazardous liquid pipelines.

P–95–2.—Develop toughness standards for new pipe installed in gas and hazardous liquid pipelines.

OPS will increase the incorporation by reference of industry standards in the pipeline safety regulations and will increase OPS' participation on national consensus standard committees. Specifically, OPS is working with the pipeline industry on the API 5L standards committee to establish pipe toughness requirements and expects to adopt the latest standard accepted by the API committee.

In addition, OPS funded the Texas Transportation Institute, College Station, Texas for research into the fatigue and fracture behavior of dented pipelines, and research into the application of leak-before-rupture concept to determine the condi-

tions that a small crack causing product leak may grow to critical size resulting in unstable crack propagation and a large spill.

P–95–1.—Expedite requirements for installing automatic or remote-operated mainline valves on high pressure pipelines.

OPS developed an action plan to address the recommendations that were conducted by a Joint Inspection Task Force comprised of OPS and the New Jersey Public Utilities Board, as outlined in the New Jersey Comprehensive Inspection Report. OPS is acting on the report recommendation that a new technical study be initiated to establish criteria for the installation of automatic or remote valves on gas transmission pipelines. OPS is working with the Interstate Natural Gas Association of America (INGAA) on this issue.

In addition, OPS has been monitoring the valving study of the Valve Task Group, Interstate Natural Gas Association of America (INGAA) and has reviewed a final report sponsored by the Gas Research Institute (GRI) entitled "Remote and Automatic Main Line Valve Technology Assessment." The results from this study, although focussed on gas transmission pipelines, will provide information for the development of an NPRM that will specify those circumstances under which operators of hazardous liquid pipelines are required to use remote-operated mainline valves. OPS has also requested the Gas Piping Technology Committee, which produces the Guide for Gas Transmission and Distribution Piping Systems, to develop guidance for the placement of automatic and remote-controlled valves.

Question. Please prepare a table listing all current rulemakings, indicating the date the rulemaking was started, its current status, topic, expected completion date, and statutorily set deadline, if any.

Answer. The following chart describes all outstanding pipeline safety rulemakings. See notes at bottom of the chart for identification of priority rulemakings, rulemakings in response to the Pipeline Safety Act of 1992, and rulemakings in response to the Regulatory Reinvention Initiative (RRI).

Docket No.	Title	Current phase	Scheduled completion
PS–94 [1 6]	Qualification of Pipeline Personnel	Negotiated rulemaking underway; NPRM will be issued	02/98
PS–101A [6]	Mandatory Participation in Qualified One-Call Systems by Pipeline Operators	Final Rule being prepared	06/97
PS–102	Control of Drug Use and Alcohol Misuse in Natural Gas, Liquefied Natural Gas, and Hazardous Liquid Pipeline Operations.	Direct Final Rule being prepared	06/97
PS–107	Determining the Extent of Corrosion on Exposed Gas Pipelines	Final Rule being prepared	09/97
PS–117	Hazardous Liquid Pipelines Operated at 20 percent or Less of Specified Minimum Yield Strength.	Direct Final Rule	06/97
PS–118 [1 6]	Excess Flow Valve (EFV) Performance Standards	Response to Petition for Reconsideration	01/17/97
PS–118A [1 6]	Excess Flow Valve (EFV) Customer Notification	Final Rule being prepared	09/97
PS–121	Pressure Testing of Older Hazardous Liquid Pipelines	Response to Petition for Reconsideration	06/97
PS–122	Gas Gathering Line Definition	Supplemental NPRM being prepared	08/97 [2]
PS–124 [5 6]	Further Regulatory Review; Gas Pipeline Safety Standards	NPRM being prepared	07/97
PS–126	Passage of Instrumented Internal Inspection Devices	Response to Petitions for Reconsideration	08/97
PS–128	Drug and Alcohol Testing: Substance Abuse Professional Evaluation for Drug Use	NPRM being prepared	07/97
PS–130	Response Plans for Onshore Oil Pipelines	Interim Final Rule published 1/93; all plans filed; Final Rule being prepared	10/97
PS–133 [1]	Emergency Flow Restricting Devices (EFRD's)	NPRM on leak detection being prepared; further action will follow	07/97 [4]
PS–140 [1]	Areas Unusually Sensitive to Environmental Damage (USA's)	Next in series of Public Workshops 05/97; NPRM to follow	11/97 [2]
PS–141 [1]	Increased Inspection Requirements	Industry/public input being sought; NPRM to follow	06/98 [3]
PS–144	Risk-based Alternative to Pressure Testing Rule	NPRM being prepared	07/97
PS–151	Liquefied Natural Gas Regulations; Miscellaneous Amendments	Direct Final Rule	02/25/97
PS–153	Pipeline Safety: Metrication	Public Comments requested; NPRM may follow	09/97
RSPA–97—2094 [1]	Underwater Abandoned Pipeline Facilities	NPRM being prepared	11/97
RSPA–97—2095	Pipeline Safety: Adoption of Industry Standards for Breakout Tanks	Direct Final Rule being prepared	08/97
RSPA–97—2096	Pipeline Safety: Regulations Implementing Memorandum of Understanding with the Dept. of Interior.	NPRM being prepared	09/97
No Docket No [5]	Periodic Updates to Pipeline Safety Regulations (1997)	Direct Final Rule being prepared	07/97
Do [1]	Regulated Gas and Hazardous Liquid Gathering Lines	NPRM will be considered after gas gathering line is defined under PS–122	n.a.
Do	Maps and Records of Pipeline Location and Characteristics; Notification of State Agencies; Pipe Inventory.	Mapping Quality Action Team underway; draft data standards being prepared	07/97
Do [1]	Permanent Underwater Inspections	Study being conducted; NPRM may follow	12/97

[1] Requirement of Pipeline Safety Act of 1992.
[2] Statutory deadline 10/94.
[3] Statutory deadline 10/95.
[4] Statutory deadline 10/96.
[5] Response to Regulatory Reinvention Initiative (RRI).
[6] 'Priority' Rulemakings.

Question. Please prepare a table listing all rulemakings that your are considering to initiate and expected date of ANPRM or NPRM.

Answer. The table provided in response to the preceding question includes rulemaking activities that are set to be completed or initiated through 1998. In addition, a rulemaking to revise the pipeline corrosion regulations in 49 CFR Parts 192 (gas) and 195 (hazardous liquids) is being considered. A public meeting is planned to be held in Chicago in September 1997 to explore how industry consensus standards on corrosion protection can be incorporated by reference into the pipeline safety regulations.

Question. Has OPS followed through on each of the major recommendations or key findings resulting from your pipeline safety summit?

Answer. RSPA's response to each of the key findings resulting from the National Pipeline Safety Summit in Newark, NJ on June 20, 1994 are as follows:

—*Finding 1.*—The need for partnerships between pipeline operators, regulators and the public (i.e. local officials, potential impacted residents).

Solutions/Directions: RSPA has begun a number of initiatives in its pipeline safety regulatory program to foster cooperation, collaboration and partnerships with the pipeline industry and the public. The Pipeline Infrastructure Study conducted by the New Jersey Institute of Technology (NJIT) includes two teams of experts, one from industry and the other representing environmental and public interest groups, which meet with the NJIT staff to provide data for the study. As part of the President's Regulatory Reinvention Initiative, OPS has conducted grassroots partnership meetings in Houston, Dallas and Denver to obtain local public participation in regulatory reform and improved customer service for RSPA's pipeline safety program. RSPA is planning a series of public workshops before proposing new requirements on the placement of emergency valves, leak detection systems, increased inspection by smart pigs and the definition for environmentally sensitive areas to assure that all the relevant issues are addressed. RSPA is committed to moving toward risk-based principles in its rulemaking process and to that end provides leadership on a gas pipeline risk assessment quality team and a hazardous liquid pipeline risk assessment quality team formed to develop guidelines in formulating risk management programs which would be used as alternatives to the present prescriptive federal regulations. Additionally, we are using the quality team approach to develop solutions to our national pipeline mapping requirements. Membership of these quality teams are from industry, other federal agencies, state agencies, and the public.

—*Finding 2.*—Minimizing of Third Party Damage with An Enhanced One-Call System.

Solutions/Directions: RSPA issued a regulation on March 20, 1995 (60 FR 14646) extending the existing excavation damage prevention requirements for gas pipelines in urban areas to gas pipelines in rural areas, and established excavation damage prevention requirements for hazardous liquid and carbon dioxide pipelines. On the same day, RSPA issued a notice of proposed rulemaking (60 FR 14714) proposing to require that operators of onshore gas, hazardous liquid and carbon dioxide pipelines participate in qualified one-call systems as part of the required excavation damage prevention programs. In addition, RSPA supports one-call legislation at the Federal and state levels, especially Title XI (Underground Damage Prevention) in the proposed NEXTEA legislation.

—*Finding 3.*—Improved monitoring techniques to reduce potential pipe failures.

Solutions/Directions: RSPA, in collaboration with Advanced Research Projects Agency (ARPA), Department of Defense, has contracted with the consortium of OCA Applied Optics and Los Alamos Science Inc. to develop a diagnostic tool using laser technology which can be strapped on an aircraft to identify gas and hazardous liquid leaks from pipelines. In addition, RSPA plans to enter into a study in cooperation with the Gas Research Institute to advance the state-of-the-art of smart pig technology to assess pipe walls for mechanical damage and to assess the existence of stress corrosion cracking which could lead to failure.

—*Finding 4.*—Need for a centralized comprehensive database related to accidents and incidents in the pipeline industry.

Solutions/Directions: The study with NJIT is taking a fresh look at the accident, incident and annual data which RSPA has been collecting for over 25 years to determine how it can be used in risk assessment, to identify gaps in the data and what additional data is necessary. In addition, RSPA is developing, through a GIS system, the ability to depict the geographic location of pipelines in relation to areas of high-density population, environmental sensitivity, water intakes and other areas of importance. This data is needed to assess pipeline systems in determining appropriate responses to identified risks, including

the decisions of land use officials, and emergency and environmental planners and responders.

—*Finding 5*.—The pipeline transport industry is safer than other means of transport (e.g., truck, rail) of natural gas or hazardous liquids.

Solutions/Directions: RSPA will continue to articulate the safety of the pipeline mode of transportation through initiatives leading to more openness with our stakeholders and customers and closer cooperation and collaboration with each group. The new emphasis on developing regulations using risk-based principles will enable the pipeline industry to commit its limited resources to those areas of highest risk to maintain and improve on the already high level of safety in the industry.

—*Finding 6*.—Maintaining or restoring public confidence in light of periodic catastrophic pipeline failures.

Solutions/Directions: RSPA, in creating an atmosphere of greater openness and participation with the public, industry, the states and other customers will promote greater confidence in the pipeline program through an awareness of the functioning of the program. Through research into better leak detection, enhanced pipe wall evaluation by smart pigs, and mapping, the level of public confidence in the safety of pipeline systems will be strengthened.

—*Finding 7*.—Maintain Economic Viability of the Pipeline Industry.

Solutions/Directions: The economic consequences of new regulations have been considered by RSPA for some time. This will become an overriding issue in the development of new regulations to assure that regulations have a net positive benefit. The greater use of risk management principles will also provide the operator with a more cost effective method of operating its pipeline systems.

—*Finding 8*.—Need for new and improved technologies.

Solutions/Directions: RSPA's response to this issue has been addressed under earlier issues including greater use of research, risk management assessment, and listening to our customers.

RESEARCH AND TECHNOLOGY FISCAL YEAR 1997 OMNIBUS FUNDING

Question. The Committee provided two earmarks to Research and Special Programs in the Fiscal Year 1997 Omnibus Consolidated Appropriations Act. $2,500,000 was provided for RSPA to conduct a transportation system vulnerability assessment. Is this assessment complete? Please summarize the findings (or include the executive summary verbatim if the report is complete.)

Answer. The Transportation Vulnerability Assessment, which is being conducted jointly with the Department's Office of Intelligence and Security, is expected to be complete in March 1998. The scope of the study covers the entire U.S. surface transportation system: passenger and cargo, military and civilian, private and government owned and the domestic and international elements of the U.S. system. Proper coordination between other transportation infrastructure studies, such as the President's Commission on Critical Infrastructure Protection, has allowed us to tailor the use of these funds to address new issues or current issues at a more in-depth level.

The last stage of the project will be to evaluate the vulnerabilities and threat to each mode and transportation system in order to understand the relative risks and priorities for establishing solutions. Best practices, lessons learned and pilot tests will be conducted to better understand the specifics of the vulnerabilities and identify possible solutions.

Question. $500,000 was provided for a contract with the National Academy of Sciences for an advisory committee on surface transportation security. Has this advisory committee been established? Please detail the committee's actions, schedule, and any recommendations made thus far. What RSPA staff officials, if any, sit on the advisory committee?

Answer. The National Advisory Committee on Surface Transportation Security will be established in July of 1997. The committee will be managed by the National Materials Advisory Board and include representation from other boards (e.g., Transportation Research Board, the Computer Science and Telecommunications Board, the Marine Board, Board on Infrastructure and the Constructed Environment, and Board on Manufacturing and Engineering Design). The committee is expected to hold its first public meeting in September 1997, have initial recommendations on promising technologies and processes to improve transportation-system security by December 1997, and issue a final report in July 1998 after the Department has completed its assessment. The Department's portion of the surface vulnerability study will help define the vulnerabilities and identify key areas for the committee to explore technology solutions. The RSPA Deputy Administrator and Associate Administrator for Research Technology and Analysis will sit on the committee.

TWO FUNDING STREAMS

Question. For fiscal year 1998, the Office of Research and Technology is assuming a dual funding stream: $3,900,000 is requested in appropriated general funds, and the President's NEXTEA proposal assumes $10,000,000 in contract authority from the highway trust fund. How will the appropriated and contract authority dollars be spent? Are the two funding streams designed to serve distinctly different purposes, or is there overlap?

Answer. The two funding streams are designed to serve different but inter-related purposes. The $3,900,000 would be used to fund RSPA's Research and Technology Office in its traditional role of strategic research planning and system assessment, coordinating and facilitating transportation research, technology and safety training, disseminating information on departmental, national and international transportation R&D, managing strategic (intermodal/multimodal) transportation research, and stimulating university research and education. These activities provide strategic planning support and guidance for R&D performed across the Federal government and the Department of Transportation, including those projects performed under the $10,000,000 contract authority.

The $10,000,000 would fund the activities of the NEXTEA-proposed Intermodal Transportation Research and Development (ITRD) Program. The purposes of the ITRD Program in the NEXTEA proposal are as follows:

"(1) enhance the capabilities of Federal agencies in meeting national transportation needs as defined by their missions through support for basic and applied research and development impacting the various modes of transportation including research and development in safety, security, mobility, energy and environment, information and physical infrastructure, and industrial design;

(2) identify and apply innovative research performed by the Government, academia and the private sector to the intermodal and multimodal transportation research, development, and deployment needs of the Department and the Nation's transportation enterprise;

(3) identify and leverage research, technologies, and other information developed by the Government for national defense and non-defense purposes for the benefit of public, commercial and defense transportation sectors; and

(4) share information, analytical and research capabilities among Federal, state and local governments, colleges and universities, and private organizations to advance their transportation research, development and deployment needs."

(See Title VI of the Administration's bill introduced as H.R. 1720; This would be codified as 52 USC § 5231(b)).

If the ITRD Program is authorized and funded, a council comprised of representatives from the DOT modal administrations and other Federal departments supporting transportation-related research would direct the new contract authority program. The Program would conduct inter/multi-modal innovative and applied research to meet transportation needs for the 21st century. This program would identify and fund innovative research, engineering concepts, technologies, and strategic opportunities in academia, Federal laboratories and industry for addressing critical crosscutting transportation issues pertaining to: safety; security; mobility; energy and environment; human behavior and physiology; and information/physical infrastructure. More specifically, activities would include: (1) reducing the transportation-related loss of life and property by first understanding human behavior, and then using "human-centered" approaches to make systems easier to use, and more forgiving of errors; (2) reducing the potential of disruptions from tampering or system failures by applying new sensor and information technologies; (3) developing new ways of managing and operating transportation systems to reduce transportation-related energy consumption and environmental pollution while sustaining economic growth; and (4) improving system planning by developing and using improved tools (e.g., models), knowledge, information and techniques.

NEW NEXTEA CONTRACT AUTHORITY RESEARCH PROGRAM

Question. Please display the NEXTEA contract authority request for Research and Technology over the six year authorization cycle, with a total.

Answer. The contract authority requested in the NEXTEA proposal for the Intermodal Transportation Research and Development Program (Title VI of the Administration's bill introduced as H.R. 1720) is as follows:

[In millions of dollars]

Fiscal year	*Amount*
1998	10
1999	15

Fiscal year	*Amount*
2000	20
2001	25
2002	30
2003	35
Total	135

NEXTEA gives the Secretary the authority to determine which office within the Department will manage the program.

Question. What input will the other modes have in determining the allocation of the intermodal R&D contract funds requested under NEXTEA?

Answer. If the Intermodal Transportation R&D Program is authorized and funded by Congress, we anticipate that a departmental council would provide program direction and management oversight. This council would be made up of representatives from the DOT modal administrations, and include representatives from other Federal agencies responsible for research important to national transportation needs. The council would provide the program with broad guidance on strategic research needs and approve projects based on a competitive, peer-reviewed selection process. An office, to be designated by the Secretary, would manage the program for the Secretary based on the guidance of the council.

Question. If one assumes that the RSPA Research and Technology Office will be the coordinating point for all transportation research and development across the Federal Government, then please describe in detail the process of proposing, approving, planning and deploying research programs and projects, and disseminating the resulting knowledge to interested parties in the public and private sector.

Answer. There are two parts to this question. (1) what does the RSPA strategic planning and coordination function for transportation research and development (R&D) provide to the Federal Government and the Department of Transportation (DOT); and (2) how would a project funded by the proposed Intermodal Transportation R&D Program be identified, approved, reviewed and results disseminated?

(1) The $3,900,000 in the RSPA Research and Technology Office fiscal year 1998 budget would fund strategic planning and system assessment, coordinating development of partnerships in transportation research, technology and safety training, and disseminating information on departmental, national and international transportation R&D. Authorization has been sought under Title VI (Section 6001) of NEXTEA to help institutionalize the strategic planning process for transportation R&D.

The following outlines the steps RSPA took in fiscal year 1997 and will take in fiscal year 1998 to help create a comprehensive strategic planning process for transportation R&D:

—Strategic direction. In fiscal year 1997, RSPA lead the development of the Federal Transportation Science and Technology Strategy which: (1) takes a long-term and systemic view of the Nation's transportation needs (e.g., safety, security, sustainability); (2) forecasts trends; (3) provides strategic direction for transportation R&D to address those needs; and (4) provides meaningful and relevant indicators for measuring the impact of R&D on the performance of the nation's transportation system.

—A National Transportation S&T Strategy, proposed in the RSPA fiscal year 1998 budget, will build on the first Strategy. This effort, in addition to the individual Strategic Plans developed by the Federal agencies in response to the Government Performance and Results Act (GPRA), forms the basis for planning, programming and budgeting guidance and decisions for the individual agencies and DOT operating administrations.

—Planning, Programming and Budgeting.—Interagency plans (Transportation Technology Plan and Intermodal/Multimodal Transportation Strategic Research Plan) identified in the RSPA fiscal year 1998 budget will provide the vehicle to do systemic R&D planning needed to achieve an intermodal transportation system.

—A DOT Transportation R&D Plan will expand on the ISTEA Surface Transportation R&D Plans, to include all modes of civil and commercial transportation. The DOT Transportation R&D Plan replaces the Fifth Edition of the Surface Transportation R&D Plan proposed in the fiscal year 1998 budget submission.

These two planning efforts will be used by the agencies and DOT operating administrations to develop their own detailed plans, adjust their programs, and develop their budgets.

—Program/Project Implementation. Each agency and DOT operating administration is responsible for executing their programs. Procedurally, this step is unchanged. Substantively, all agencies and operating administrations are guided

to identify and develop partnerships, where appropriate, with other Federal organizations, state and local governments, academia and industry. This will help minimize duplication among Federal R&D programs while fostering the dissemination of information and technology.

—Program/Project Evaluation. Each Federal agency and DOT operating administration will conduct program and project evaluations, as they currently do. Starting in the fiscal year 1999 budget cycle, all Federal agencies and DOT operating administrations are encouraged to perform self assessments of their transportation R&D programs using recognized Federal (i.e., President's Quality Award criteria) and industry (i.e., Malcolm Baldrige criteria).

—Transportation Assessments. In the past, DOT has had limited data on the system-wide performance of the nation's transportation system (e.g., safety, security, and efficiency) and the impact transportation R&D has had on it. Furthermore, they have had limited data on foreign R&D and its potential application to U.S. transportation needs.

The RSPA fiscal year 1998 budget funds the first-ever National Transportation System Assessment and International R&D Assessment to start gathering (Bureau of Transportation and Statistics function) and analyzing (RSPA function) this type of data. This data will be used extensively in strategy development and in planning, program and budget development.

An example of this type of assessment is the comprehensive "Transportation System Vulnerability Assessment" of the U.S. transportation system currently being performed by RSPA. This assessment will provide information necessary to recommend countermeasures to make the Nation's transportation system more secure from both physical and information-based threats.

—Peer and Independent Reviews. In the past, the Federal Government and DOT have not conducted peer and independent reviews of: (1) its transportation R&D portfolio from a systemic perspective; (2) the process used to define and manage the portfolio; and (3) system-level assessments. An example of these types of reviews would be the Congressionally directed National Academy of Sciences (NAS) "Advisory Committee on Surface Transportation Security" (ACSTS), a Committee of experts who provide independent inputs to DOT on ways to improve the security of the U.S. transportation system.

The RSPA fiscal year 1998 budget funds the National Research Council (NRC) and the Transportation Research Board (TRB) to review the Transportation S&T Strategy, the Federal strategic planning process for transportation R&D and Federal transportation R&D priorities. In addition, they will be used to provide inputs into transportation system-level and program assessments.

—Dissemination of Program/Project Results. The RSPA fiscal year 1998 funds would initiate the development of a DOT R&D Tracking System to provide accurate information about R&D project status and accomplishments. Currently, there is no such system. This will enable the DOT to provide an input into the Federal-wide R&D tracking system—Research and Development in the United States (RaDiUS) database—and enable more informed decision making on transportation R&D issues.

In addition, a National Transportation S&T Homepage will be expanded in fiscal year 1998 to include information on private and public sector transportation R&D as well as provide an interactive forum for public involvement in the strategic planning process for transportation R&D. Other mechanisms for disseminating information will also continue to be encouraged (e.g., reports and other publications, conferences and seminars).

(2) The $10,000,000 of contract authority in fiscal year 1998 would fund projects under the NEXTEA-proposed Intermodal Transportation Research and Development (ITRD) Program. Assuming the Secretary delegates the staff function for ITRD to RSPA, it would provide an Executive Director to manage the program on a day-to-day basis under the direction of a senior-level council. The council would ultimately approve research projects based on a competitive, peer-reviewed selection process. The council would be made up of representatives from the DOT modal administrations and could include representatives from other Federal agencies responsible for research important to national transportation needs. Projects in the program would go through the following process:

—Identification. The Transportation S&T Strategy identifies areas of enabling or long-term and high-risk transportation research. Using the Strategy as a basis, a NSTC Transportation R&D Committee interagency team, comprised of members from the DOT operating administrations and Federal agencies (e.g., DOD, DOE, NASA and NSF) who perform basic or advanced transportation-related R&D, will document ongoing research and identify future research needs, priorities and potential project areas. The team will develop a broad-gauged, for-

ward-looking Strategic Transportation Research Plan for the Federal Government; this is the Research Plan identified under Planning, Programming and Budgeting under Question (1). This Plan will help minimize duplication and foster collaborative projects across the Federal Government. In addition, it will identify opportunities for either leveraging or filling major gaps in ongoing research. The development of this Plan is not funded by the ITRD.

—Approval. We anticipate that the council would review the interagency Strategic Transportation Research Plan and develop broad program guidance that would be used in soliciting proposals. Interagency research area working groups would receive the proposals, review them for programmatic and technical merit, and submit them for council consideration. Prior to approval by the council, the guidance and the proposed projects would be reviewed by an independent scientific advisory board. Once completed, the council would approve the projects and funding would be awarded.

—Results Dissemination. Data would be collected and disseminated continuously via INTERNET on the status and results of research projects. Reports on individual projects would be published at appropriate intervals.

Question. How much authority will the R&T Office have to approve or disapprove research projects in other DOT agencies or other Executive Branch agencies?

Answer. The R&T Office does not exercise authority to approve or disapprove research projects in other DOT administrations or Executive Branch agencies.

Working with other Federal agencies and DOT administrations and secretarial officers, the R&T Office provides recommendations on program directions and priorities to the White House and Federal agencies, including DOT. Recommendations for government-wide research and development (R&D) activities are coordinated through the Office of Management and Budget and Office of Science and Technology Policy. Recommendations for DOT R&D activities are coordinated through the DOT R&T Coordinating Council and the Office of the Assistant Secretary for Budget and Programs.

Question. Would the new contract authority program actually fund research projects, or is the Research and Technology Office's role still that of planning, coordination, and dissemination?

Answer. The new contract authority proposed under the President's NEXTEA proposal would fund research projects. A council made up of representatives from the DOT modal administrations and other Federal agencies supporting transportation-related research would direct the new contract authority program. If assigned, RSPA's Research and Technology Office would manage the program for the Secretary based on the guidance of the council.

The RSPA Research and Technology Office would also continue in its traditional role of research planning and coordination, as well as managing those inter/multimodal research coordination and training programs assigned to it by the Secretary (such as the University Transportation Centers and the University Research Institutes programs, and the Transportation Safety Institute).

Question. If projects will actually be paid for from this account, please characterize the types of research programs the contract authority program would fund.

Answer. The contract authority under this program would be used to fund long-term, innovative, multimodal research in seven broad categories: Human performance and behavior; advanced materials; computer, information, and communications systems; energy and environment; sensing and measurement; and tools for transportation modeling and design.

This interagency/departmental program would identify and fund innovative research, engineering concepts, technologies, and strategic opportunities in academia, Federal laboratories and industry for addressing critical crosscutting transportation issues pertaining to: safety; security; mobility; energy and environment; human behavior and physiology; and information/physical infrastructure. It would enable the Department of Transportation to leverage the investments being made across the Government and to play a role in major interagency and intergovernmental research initiatives that have application to transportation in the categories listed above.

Research areas of particular interest are: (1) reducing the transportation-related loss of life and property by first understanding human behavior, and then using "human-centered" approaches to make systems easier to use, and more forgiving of errors; (2) reducing the potential of disruptions from tampering or system failures by applying new sensor and information technologies; (3) improving the energy efficiency and environmental quality of motor vehicles and ships (e.g., fuel cells); (4) developing new ways of managing and operating transportation systems to reduce transportation-related energy consumption and environmental pollution while sustaining economic growth; and, (5) improve system planning by developing and using improved tools (e.g., models), knowledge, information and techniques.

Question. How many positions are associated with the NEXTEA first-year funding of $10,000,000? Are additional PC&B expenses in the RSPA R&T Office associated with the new program, or will the program be run by the existing staff? If there are new staffing requirements, how many new FTE's are anticipated in the first year of funding? Will these positions be paid for by the contract authority funds?

Answer. If RSPA's Research and Technology Office is designated by the Secretary to manage the intermodal research program, we do not anticipate additional staffing requirements will be needed.

Question. You have stated that RSPA needs to do cross-cutting and intermodal research. Please give specific examples of key needs in cross-cutting or intermodal research which are not being met.

Answer. Based on a GAO Report: Surface Transportation: Research Funding, Federal Role and Emerging Issues, September 1996, DOT should perform cross-cutting, intermodal and long-term and high-risk research. The report states, "Investment in surface transportation research is inadequate to build knowledge, either in three emerging areas—system assessment, policy research and intermodal research—or in basic, long-term, high-risk research." "Because about 80 percent of the projects are applied, short-term or low-risk, the officials were concerned that quantum leaps—generally credited to basic research—would not occur and users' needs would not be met." Because of RSPA's intermodal responsibilities, it has taken the lead to propose such a research program for the Department.

Today, DOT's predominantly modal structure and Congress's focus on near-term transportation needs of specific modes (air, surface, maritime) provide no mechanism to fund innovative research aimed at: optimizing overall transportation system performance, making transportation systems more adaptable to human needs and safety, and reducing regulatory barriers; or long-term, high-risk, high-payoff research that has pervasive benefits to the transportation enterprise or could provide major breakthroughs in transportation. Most of the basic and applied transportation-related research in the United States is performed in its universities and Federal laboratories. Harnessing this capability and applying the best ideas from international R&D performers not only would save taxpayers' dollars, but would also open up the opportunity for major advances in all modes of civil and commercial transportation.

In addition, transportation infrastructure lasts for generations and has many long-term effects, but the tools and methods for estimating these effects are inadequate and there is little incentive for the private sector to develop them. Underinvestment in long-term, inter/multi-modal transportation research limits the ability of the Department and the Federal Government to develop realistic national policies and to steer and advance the U.S. transportation enterprise.

National transportation goals for safety, security, energy, environment, mobility, accessibility, and global competitiveness must ultimately be achieved over time periods measured in decades. This requires support from an aggressive strategic, interdisciplinary, inter/multi-modal, long-term research agenda. Its elements can start, for example, to:

—reduce the cost for maintaining the nation's deteriorating transportation infrastructure,
—improve access to transportation services for an aging population,
—decrease the vulnerability of the nation's transportation system to natural disasters as well as terrorist attacks,
—provide reliable service for both passenger and freight transport (on time with no damage).

Most of the potential cross-cutting transportation research topics are interdisciplinary and complex, such as:

—human performance and behavior (e.g., fatigue research, research on human-centered systems, use of simulator for driver training and assessment);
—advanced materials for infrastructure and vehicle application (e.g., composites);
—computer, information and communication systems (e.g., high-confidence systems, Next Generation Internet);
—energy and environment (e.g., fuel cells);
—sensing and measurement (e.g., structural monitoring, instrumentation and repair);
—tools for transportation modeling and design (e.g., industrial design).

Many involve aspects outside the traditional transportation mainstream research areas (e.g., computer sciences, industrial design, biotechnology). Achieving meaningful results will take a long-term commitment of resources and will require overcoming institutional barriers, including basic changes in the "corporate culture" of the Department and the transportation industry at large.

Question. Please give specific examples of RSPA's successes in intermodal research or in cross-cutting research?

Answer. RSPA has worked extensively to promote cross-cutting research and coordinate the Department's transportation research programs. As a result, DOT has been able to avoid duplicative projects among the research agendas of the various DOT operating administrations. In addition, research cost savings have resulted from more sophisticated program design, and multimodal applicability of modal-specific technologies. Specific examples of RSPA's successes include:

—University Transportation Centers and University Research Institutes Programs. The University Transportation Centers (UTC) and University Research Institutes (URI) Programs are managed by RSPA. The UTC Program has engaged research personnel and facilities in more than 1,000 research projects with the help of $187 million in Federal and non-Federal matching funds. To date, the UTC Program supports 14 centers with 67 participating universities nationwide, has issued more than 1,000 reports and involved more than 3,200 university students and faculty.

The URI Program, established under the Intermodal Surface Transportation Efficiency Act of 1991, is similar in mission to the UTC Program but differs significantly in that all of the Institutes are located at named universities, and they address topics that were specified in the legislation, such as surface transportation policy, infrastructure technology, urban transit, and intelligent transportation systems.

The URI Program has initiated and completed over 100 intermodal research projects and provided financial support to at least 70 students in the transportation field. Both the UTC and URI Programs have: held several technology conferences and symposia on intermodal surface transportation topics; briefed thousands of transportation practitioners on new technologies and the latest research results; and developed and offered dozens of interdisciplinary transportation courses.

—Small Business Innovation Research Program. RSPA has taken a leadership role in promoting use of the Small Business Innovation Research (SBIR) to develop multimodal technologies. RSPA has already awarded one SBIR contract on use of natural basalt to reinforce concrete, which has great potential for markedly cutting transportation system installation. Proposals for innovations in nanotechnology and transportation system security were included in this year's solicitation, and are now under evaluation.

—Partnership with Advanced Research Projects Agency. RSPA also served as the focal point for interactions with the Advanced Research Projects Agency on its technology re-investment program. Many of these projects are now completed: an ultraviolet LIDAR system to measure air pollution, and an uncooled infrared sensor for night security applications were particularly successful. In addition, RSPA's Volpe National Transportation Systems Center now performs cross-cutting research for all modal administrations and other Federal agencies, including the Department of Defense.

—Surface Transportation Research and Development Plan. On a broader basis, the Intermodal Surface Transportation Efficiency Act of 1991 requires DOT to annually update an integrated national surface transportation R&D plan that focuses on research needed over the next decade. RSPA's Volpe Center has completed the text of the fourth edition of this plan, which is now being prepared for distribution. RSPA released previous editions of the plan in July 1993, March 1995, and March 1996.

The fourth edition of the plan has been extensively revised to reflect the new government-wide National Science and Technology Council Transportation Science and Technology Strategy. Both in the Strategy and in the Plan, enabling research on six cross-cutting topics is highlighted: Human performance and behavior; advanced materials; computer, information, and communication systems; energy and environment; sensing and measurement; and tools for transportation modeling, design, and construction.

RSPA has had successes in all of these areas, in terms of coordinating Departmental activities, actual conduct of needed research, and dissemination of promising research results beyond their initial modal audiences. For example, RSPA has led a Departmental initiative on advanced materials since the early 1990's. The RSPA report Materials Research and Technology Initiatives provides DOT's project managers, customers and prospective research partners with a consolidated summary of materials-related research projects for baseline use in research planning, thereby reducing the possibility of duplication.

Question. Doesn't the Department's Research and Technology Coordinating Council already promote cross-cutting research? If so, what funds are used?

Answer. The Council does promote cross-cutting research for the Department. Since the RSPA Associate Administrator for Research, Technology and Analysis has

been assigned responsibility for managing the Council, funds for this function come from the RSPA Office of Research, Technology and Analysis budget. The Council is also starting to perform some cross-cutting policy research, such as in understanding the technological and behavioral implications of alternative transportation infrastructures and developmental patterns of long-term environmental sustainability, addressing intermodal freight issues and defining meaningful and relevant performance measures for transportation research and development. These activities require funding and are also included in the RSPA budget.

Question. What are the recent specific accomplishments of the Research and Technology Coordinating Council?

Answer. Over the last year, the Research and Technology Coordinating Council [R&T Council] has made improvements in several areas:

DOT has implemented coordinated programs to high-potential technologies with applicability that spans modal lines. Within DOT cooperation and collaboration are particularly apparent on human factors and advanced materials research. Work is ongoing to develop a coordinated program for fuel cells for use in maritime applications and large-scale vehicles. The Departments of Defense and Energy and NASA are becoming involved in supporting several of these efforts.

The linkages between DOT's R&T activities and the departmental priorities as outlined in the DOT Strategic Plan are more clearly defined, and explicitly stated in the NSTC Transportation Science and Technology Strategy.

In response to the Government Performance and Results Act, DOT's research managers are developing a consensus on specific quantitative indicators to evaluate the impact of research and technology investments. Preliminary material on this topic will be included in the Fourth edition of the DOT Surface Transportation R&D plan, and an R&T Council working group is developing a more detailed document exploring this specific topic.

The working relationships which resulted from developing the Surface Transportation R&D Plan are now facilitating DOT efforts to streamline and institutionalize a broader, formal strategic R&D planning process across all modes in the Department as well as lead government-wide efforts to create a strategic planning process for transportation R&D.

The President's NEXTEA proposal includes a proposal for creating a strategic planning process for transportation research and development and an advanced intermodal transportation R&D program for the Department. This action occurred as a direct result of the Council's efforts to respond to the recommendations of the GAO report on Surface Transportation: Research Funding, Federal Role, and Emerging Issues, that the Department needed to a framework for establishing R&T priorities and more emphasis on high-risk, long-term research with broader applicability.

The improved staff working relationships among the surface transportation elements of DOT facilitate cross-modal cooperation on individual research projects. For example, the Federal Highway Administration (FHWA) agreed to participate in RSPA's evaluations of advanced materials proposals received in response to last year's SBIR solicitation. FHWA ultimately funded one of the non-selected proposals itself in addition to the RSPA award. Similar cooperation has become evident between FHWA and the Federal Aviation Administration (FAA) on pavement research issues.

Results of DOT research will soon be more accessible through a new, integrated transportation science and technology home page.

The centralized DOT Technology Sharing program is now providing outreach services for a wider variety of operating administrations: in addition FHWA, FTA and FRA, the Maritime Administration and FAA now use this program to share information on their research activities.

To support their R&D planning and reduce the possibility of duplicating initiatives undertaken in other Federal agencies, R&T Council representatives now have access to and are using the Research and Development in the United States (RaDiUS) data base operated by Rand's Critical Technologies Institute for the Office of Science and Technology Policy. RaDiUS describes ongoing research throughout the Federal Government, and is a particularly useful tool for preventing research duplication on an interagency basis.

Question. You have stated that RSPA needs additional funds to help coordinate research in the Department. Isn't this a function of the Research and Technology Coordinating Council within the Department?

Answer. The RSPA Associate Administrator for Research, Technology and Analysis manages the Research and Technology Coordinating Council for the Department. Since the Research and Technology Coordinating Council receives no funding from Congress and coordinates Department-wide and inter-modal research and tech-

nology issues, RSPA's Office of Research, Technology and Analysis is responsible for funding its activities (e.g., developing the Surface Transportation R&D Plan), managing the Department-wide technology transfer and technology sharing programs, facilitating research and technology programs with other agencies (e.g., maritime applications of fuel cells), and performing analysis on performance measurement which impacts all modes of transportation.

FISCAL YEAR 1998 APPROPRIATIONS REQUEST

Question. The Research and Technology Office's budget justification is detailed, but does not indicate any program cost allocation. RSPA has requested $3,900,000 for the Research and Technology Office in appropriated funds for fiscal year 1998. Please display in tabular form the highlighted bullets on pages 70–75 of the budget justification, indicating the level of funding to be applied for each research area or activity.

Answer. These are the funding levels anticipated for each research area and activity:

Activity	*Fiscal year 1998*
Strategic planning:	
Transportation Science and Technology Strategy Deployment	$300,000
Develop DOT Surface Transportation Research and Development Plan	150,000
Publish Transportation Technology and Strategic Research Plans	100,000
Subtotal	550,000
System assessment:	
Surface Transportation System Assessment	650,000
International Surface Transportation System Assessment	250,000
Transportation System Vulnerability Assessment	
Subtotal	900,000
Policy research: Sustainable Transportation	150,000
Research and technology coordination and facilitation:	
Interagency—NSTC	525,000
Intragency—DOT	50,000
National—Government, University, Industry	425,000
International	200,000
Information Access	375,000
Subtotal	1,575,000
Intermodal and multi-modal research and education:	
Transportation Safety Institute	100,000
University Programs	275,000
Strategic Transportation Research & Development programs:	
Human-Centered Transportation	50,000
Advanced Materials	50,000
Information Systems and Security	200,000
Biomechanics & Micro/Nano Devices	50,000
Subtotal	725,000
Total	3,900,000

Question. Please break down how the $5.2 million provided for the RSPA R&T Office in fiscal year 1997 (combined regular appropriations and Omnibus appropriations) is being allocated on a contract-by-contract basis. Please do the same for the fiscal year 1996 monies.

Answer. RSPA's research and development activities performed at Volpe for fiscal years 1996 and 1997 were funded as follows:

Activity	Fiscal years— 1996	1997
Strategic planning:		
Develop Transportation Science and Technology Strategy and Deployment	$200,000	$200,000
Develop Surface Transportation Research and Development Plan	66,000	100,000
Develop Transportation Technology and Strategic Research Plans	.....	200,000
Subtotal	266,000	500,000
System assessment:		
Surface Transportation System Assessment	100,000	100,000
International Surface Transportation System Assessment	.....	100,000
Transportation System Vulnerability Assessment	.....	2,275,000
Subtotal	100,000	2,475,000
Policy research: Sustainable Transportation	.....	75,000
Research and technology coordination and facilitation:		
Interagency—NSTC	350,000	400,000
Intragency—DOT	50,000	50,000
National—Government, University, Industry	45,000	145,000
International	30,000	100,000
Information Access	219,000	100,000
Subtotal	694,000	795,000
Intermodal and multimodal research and education:		
University Programs	192,000	100,000
Strategic Transportation Research & Development Programs	260,000	195,000
Subtotal	452,000	295,000
Total	1,512,000	4,140,000
Additional monies will be provided to the following organizations/contractors for assisting RSPA in conducting the Transportation System Vulnerability Assessment, supporting the Department's Technology Transfer program, tapping the National Academy of Sciences to review the Federal and Departmental transportation science and technology strategic planning process, and in representing the Department on various National Research Council roundtables and conferences:		
National Research Council/Transportation Research Board	100,000	200,000
National Academy of Sciences	125,000	625,000
Sandia National Laboratories	.....	75,000
San Jose State University	19,000	50,000
Department of Justice	.....	100,000
Logistics Application Inc.	40,000	40,000
Critical Technologies Institute	70,000	.....
Subtotal	354,000	1,090,000
Grand total	1,866,000	5,230,000

Question. How much is requested to prepare and distribute the Annual Surface Transportation R&D plan?

Answer. RSPA has requested $150,000 in fiscal year 1998 to prepare and distribute the Department's annual Surface Transportation R&D plan.

Question. Do you plan on spending monies to promote commercialization of research discoveries made by DOT in the private sector?

Answer. RSPA plans to provide funding to develop mechanisms which promote commercialization of DOT research in the private sector, rather than funding individual commercialization efforts. For example, through the NSTC Transportation R&D Committee, National Academy of Sciences' Government-University-Industry Research Roundtable and DOT-wide Small Business Innovative Research and Technology Transfer and Sharing activities, RSPA will ensure quicker and broader access to information on new technologies by involving partners from government, industry and academia in the strategic planning and technology development process. This should improve the diffusion of these technologies into the market.

RSPA is also facilitating and coordinating the following DOT-wide initiatives:

—Promoting development, promulgation, and adoption of international technical standards;

—Identifying opportunities to reduce regulatory and institutional barriers and, hence, the time and resources required to establish partnerships, including state, local and tribal governments and large, medium and small businesses; and

—Creating a more flexible intellectual property regime and applying ideas, knowledge and concepts rapidly, if not directly, to the development of new products and services by industry.

These initiatives will reduce the resources and time it takes for innovative transportation technology to reach the market. In addition, the proposed National Science and Technology Strategy, which RSPA played a leadership role in developing, puts particular emphasis on "partnership initiatives" as a vehicle to move technologies from development to commercial applicability.

Question. Please prepare a table indicating the amount appropriated and the amount actually spent for the different major categories and subcomponents of the Research and Technology budget for each of the last three years. Please explain any deviation or reallocation of funds.

Answer. RSPA's research and development activities for fiscal year 1995 were appropriated and obligated as follows:

R&D program area	Fiscal year 1995	
	Appropriated	Obligated
Technology development	$1,061,000	$859,000
Technology dissemination	50,000	50,000
Technology application	.....	202,000
Total	1,111,000	1,111,000

In August 1996, the Deputy Secretary of Transportation and RSPA Administrator initiated a major restructuring of the Department's strategic planning and management process for research and development. As such, RSPA's fiscal year 1996 and 1997 budgets were restructured to provide needed funding to support this new approach which focuses on: strategic planning, systems assessment and policy research; research and development coordination and facilitation; and inter/multimodal research and education programs. The following table indicates the allocation of funds for R&D activities in fiscal years 1996 and 1997:

Activity	Fiscal year 1996		Fiscal year 1997	
	Appropriated	Obligated	Appropriated	Obligated
Strategic planning, system assessment and policy research:				
Develop Transportation Science and Technology Strategy and Deployment	$250,000	$250,000	$200,000	$200,000
Develop Surface Transportation Research and Development Plan	66,000	66,000	100,000	100,000
Develop Transportation Technology and Strategic Research Plans	.....	.....	200,000	200,000
Surface Transportation System Assessment	100,000	100,000	150,000	150,000

Activity	Fiscal year 1996		Fiscal year 1997	
	Appropriated	Obligated	Appropriated	Obligated
International Surface Transportation System Assessment	.....	.....	100,000	100,000
Transportation System Vulnerability Assessment/NAS	.....	.....	3,000,000	1,725,000
Sustainable Transportation	.....	.....	75,000	75,000
Research and technology coordination and facilitation:				
Interagency—NSTC	400,000	400,000	550,000	535,000
Intragency—DOT	50,000	50,000	50,000	50,000
National—Government, University, Industry	210,000	210,000	310,000	270,000
International	30,000	30,000	100,000	100,000
Information Access	289,000	289,000	100,000	100,000
Intermodal and multi-modal research and education:				
University Programs	192,000	192,000	100,000	100,000
Strategic Transportation Research & Development Programs	279,000	279,000	195,000	95,000
Total	1,866,000	1,866,000	5,230,000	3,800,000

Question. With a $10,000,000 contract authority research program assumed for fiscal year 1998, why does RSPA need an appropriated research and technology program at all?

Answer. The appropriated research and technology program serves different but inter-related purpose. The $3,900,000 request is needed to fund the RSPA Office of Research and Technology in its role as the Department's and Federal Government's hub for strategic research planning and system assessment, coordination and facilitation of research, technology and safety training, and university research and education. In addition, the funding would be used to disseminate information on departmental, national and international transportation R&D, and to stimulate university research and education. These activities provide strategic planning support and guidance for R&D performed across the Federal government and the Department of Transportation, including those projects that will be performed under the $10,000,000 contract authority.

The $10 million included in the Highway Trust Fund request responds to a specific recommendations from several GAO studies that DOT should perform more basic, long-term, high-risk and intermodal research. This funding would provide a means to leverage technology and research performed government-wide for civil and commercial transportation applications at the Federal, State and local level.

In particular, the $10 million represents startup funding for an Inter/Multi-modal Advanced Research Program as proposed in the National Economic Crossroads Transportation Efficiency Act (NEXTEA). It will enable the Department of Transportation to leverage the investments being made across the Government and to play a role in major interagency and intergovernmental research initiatives that have application to transportation, specifically in areas such as: human performance and behavior; advanced materials; computer, information, and communication systems; energy and environment; sensing and measurement; and tools for transportation modeling and design.

Potential areas for basic research or exploratory development of particular interest are: (1) reducing the transportation-related loss of life and property by first understanding human behavior, and then using "human-centered" approaches to make systems easier to use, and more forgiving of errors; (2) reducing the potential of disruptions from tampering or system failures by applying new sensor and information technologies; (3) developing new ways of managing and operating transportation systems to reduce transportation-related energy consumption and environmental pollution while sustaining economic growth; and, (4) improve system planning by developing and using improved tools (e.g., models), knowledge, information and techniques.

SURFACE TRANSPORTATION RESEARCH AND DEVELOPMENT PLAN

Question. Pursuant to Section 6009(b) of ISTEA, the third edition of the DOT Surface Transportation R&D Plan was published in March 1996, outlining the Depart-

ment's near-term research agenda for 1996–1998. How could the Surface Transportation Research and Development Plan be more beneficial to the Department?

Answer. RSPA has undertaken a carefully planned program to upgrade and improve the utility and relevance of the Surface Transportation R&D Plan to research planners within and outside of DOT.

In response to Congressional concerns, the Third Edition of the Plan placed much more emphasis on research to address longer-term (the next 10 years and beyond) transportation needs.

The Fourth edition, which is now awaiting release, has been restructured to better link plans for DOT's surface transportation research with the top-level goals and directions established in documents like the DOT Strategic Plan and the proposed NSTC Transportation Science and Technology Strategy. Recognizing the need to evaluate the effectiveness of research, it also indicates the range of performance measures available for research, and explores how they might be applied.

In the fiscal year 1998 budget request, we are recommending that the Surface Transportation R&D Plan be broadened to include all of DOT's research and development as well as private sector research investments in transportation. A DOT Transportation R&D Plan would help the Department and Congress get a better picture of national transportation R&D needs, trends, and opportunities. The broader-based Plan would provide an integrated, multimodal strategic vision and elaborate on the DOT R&D thrusts necessary to realize that vision. Emphasis will be on defining a national framework for capitalizing on Departmental and Government-wide transportation R&D investments for all modes and the system at large.

Future editions will further expand in scope to consider Departmental, Government-wide, domestic and international surface transportation R&D investments.

Question. What lessons have been learned about DOT's surface transportation research from preparing the initial plans?

Answer. Based on experience with the Surface Transportation R&D plan and other research coordination activities, the following conclusions can be drawn:

—DOT's R&D Plan should be fully multimodal—including aviation, surface systems, and maritime systems—to assure no duplication of research internal to DOT, except in special cases when competitive approaches need to be considered. Also, there is a need for the plan to include research performance measures, not only to improve management of R&T programs, but also to measure the effectiveness of R&T investments on the performance of the national transportation system. This includes improvements in safety, mobility, and environmental quality.

—DOT's R&D budget is a relatively small component of all transportation R&D conducted in the Federal government, and in the U.S. private sector. DOT's research planners should consider research being done by all DOT elements, other Federal agencies, the private sector, and other non-transportation advanced-technology fields.

—DOT's R&D planning should consider information on foreign R&D, including advanced systems work in Japan and Europe such as in intelligent transportation systems, to assure competitiveness of U.S. transportation products and services in world markets.

—A coherent science and technology program should include enabling research on a multimodal basis, partnership initiatives to demonstrate potential and assure implementation of new technologies, and educational programs to develop a cadre of trained professionals as part of a coherent technology development strategy.

—The transportation system of the 21st century will require a new mix of enabling and multidisciplinary research activities to take advantage of breakthroughs expected in a variety of areas: materials, human factors, computing and information systems, planning techniques and industrial design, sensing, and system sustainability. It will also require a new set of technical and management skills for the Federal, state and local government as well as the transportation industry to support it.

—Because of increasingly complex and interdependent patterns in the economy, communication systems, and the government, we need to use new approaches to perform research and technology development, and new mechanisms to move the technologies into the marketplace.

Question. What tangible results have been realized from efforts to coordinate research across surface transportation modes?

Answer. Most of the efforts to coordinate surface transportation research within DOT have been focused by, or implemented through, the DOT Research and Technology Coordinating Council [R&T Council]. Interagency coordination efforts through the National Science and Technology Council (NSTC) Transportation R&D

Committee have also helped forge a closer working relationship among the surface modes in the Department and with other Federal agencies that perform transportation-related research, such as the Departments of Defense and Energy. The Deputy Secretary chairs the NSTC Transportation R&D Committee, and RSPA provides technical and analytical support.

Results of these efforts include:

—The DOT modal administrators have been added as ad hoc members of the NSTC Transportation R&D Committee, increasing the coordination among all transportation modes and other Federal agencies. New planning activities resulting from a proposed Transportation S&T Strategy are fostering teaming relationships among the various modes to provide intermodal solutions to national transportation needs, such as enhancing freight movement through domestic and international gateways (e.g., maritime terminals), improving access for aging and transportation-disadvantaged Americans, and creating an environmentally sustainable transportation system.

—DOT is implementing more coordinated and intermodal R&T programs in areas such as human factors and advanced materials research. In energy and environmental technologies, the Department has initiated an effort to develop a coordinated program for fuel cells for use in maritime applications and large-scale vehicles. Fuel cells offer the opportunity for energy savings while improving air quality. The Departments of Defense and Energy and NASA are becoming involved in supporting several of these efforts.

—The linkages between DOT's R&T activities and the departmental priorities as outlined in the DOT Strategic Plan are more clearly defined, and explicitly stated in the proposed NSTC Transportation Science and Technology Strategy and other Executive branch planning and budgeting documents.

—In response to the Government Performance and Results Act, DOT's research managers are developing a consensus on specific quantitative indicators to evaluate the impact of research and technology investments. Preliminary material on this topic will be included in the Fourth edition of the DOT Surface Transportation R&D plan, and an R&T Council working group is developing a more detailed document exploring this specific topic.

—Working relationships which resulted from developing the Surface Transportation R&D Plan are now facilitating DOT efforts to create a broader strategic R&D planning process for the Department and to lead government-wide efforts to create a strategic planning process for transportation R&D.

—The President's NEXTEA proposal includes a proposal for formalizing strategic planning within the Department for R&D as well as creating an advanced intermodal transportation R&D program for the Department as a whole. This proposal is a direct result of increased cooperation among the DOT operating administrations, and their efforts to response to the GAO report, Surface Transportation: Research Funding, Federal Role, and Emerging Issues, which identified the need for: "an integrated framework for surface transportation research," "a better understanding of the transportation system's parts and their interrelationships," and a more aggressive research program in "either in three emerging areas—systems assessment, policy research and intermodal research—or in basic, long-term, high-risk research."

—The improved staff working relationships among the surface transportation elements of DOT facilitate cross-modal cooperation on individual research projects. For example, the Federal Highway Administration (FHWA) agreed to participate in RSPA's evaluations of advanced materials proposals received in response to last year's SBIR solicitation. FHWA ultimately funded one of the nonselected proposals itself in addition to the RSPA award. Similar cooperation has become evident between FHWA and the Federal Aviation Administration (FAA) on pavement research issues.

—Results of DOT research will soon be more accessible through a new, integrated transportation science and technology home page being developed by RSPA for the White House and the Department.

—The centralized DOT Technology Transfer and Sharing programs are now providing outreach services for a wider variety of operating administrations beyond FHWA, FTA and FRA: new publications from the Maritime Administration and FAA were released this year through its distribution channels.

—To support their R&D planning and reduce the possibility of duplicating initiatives undertaken in other Federal agencies, DOT operating administrations now have access to and are using the Research and Development in the United States (RaDiUS) data base operated by the Critical Technologies Institute for the Office of Science and Technology Policy. RaDiUS describes ongoing research

throughout the Federal Government, and is a particularly useful tool for preventing research duplication on an interagency basis.

UNIVERSITY RESEARCH

Question. How do you ensure that only high priority projects are funded at these institutions?

Answer. RSPA requires each University Transportation Center and University Research Institute to devise and implement a project selection process that responds to criteria such as regional needs, national priorities, modal balance, availability of matching funds, and student and faculty involvement. Many of these criteria are statutorily mandated and require a balancing of priorities. Each year during the annual review, RSPA evaluates the effectiveness of the project selection process in the previous year and approves any changes to the process for the coming year. RSPA also requires that research projects undergo academic peer or expert review to ensure that they advance the body of knowledge in transportation. Note, RSPA does not directly manage project selection at University Transportation Centers and University Research Institutes.

Question. Please bring us up to date on how RSPA has improved the management and oversight of the university centers and research institutes program.

Answer. Since RSPA took over management of the program in 1992, each University Transportation Center and University Research Institute has been required annually to develop a strategic plan for the following year. This plan is review by DOT staff and discussed with the respective Center or Institute.

Each Center and Institute submits an annual report describing how well they implemented their previous year's annual plan. This is also reviewed by DOT staff and discussed with the particular Center or Institute.

These actions have resulted in a high level of confidence in the effectiveness and value of the University Transportation Centers and University Research Institutes programs.

In 1996, RSPA conducted a program-level review of the Department's University Transportation Centers Program. The purpose of the review was to determine whether the program is meeting its statutory goals to promote transportation education, research and technology transfer. A final report was issued in February 1997, concluding that the program was successful in meeting its legislative mission and merits further consideration at the time of reauthorization under the Intermodal Surface Transportation Efficiency Act of 1991.

Question. Please discuss how the DOT's surface transportation reauthorization bill will improve the Department's contribution to university research.

Answer. The DOT's surface transportation reauthorization bill (the Administration's bill was introduced as H.R. 1720) will improve the Department's contribution to university research in several ways without requiring any additional Federal funding for the program. It would institutionalize the planning requirement by which each Center must produce an annual plan outlining how it proposes to meet the common mission and goals of the program. This approach has strengthened the program by providing the universities with maximum flexibility consistent with prudent oversight. Including it in the legislation will provide the constancy of purpose which is essential to effective management.

The University Transportation Centers and University Research Institutes have been parallel but separate programs. Consolidating them into a single program of National University Transportation Centers will reduce the cost of program oversight. More importantly, it will facilitate the synergy that the Centers, but not the Institutes, have been able to achieve by virtue of their shared program structure and goals.

The proposed legislation would also increase the amount of non-Federal funding available for transit research by specifically allowing transit operators to use operating funds received from the Federal Transit Authority to support transit-related research at University Transportation Centers.

Question. How much is spent on conducting numerous annual on-site evaluations? What are the benefits of these assessments and how does RSPA ensure that the university responds to its comments?

Answer. Each year RSPA staff conduct an annual review of each University Transportation Center and University Research Institute. Whenever possible, that review entails a site visit. The cost of travel for two RSPA staffers to visit the 19 sites once a year is approximately $12,000.

The site inspections serve many purposes, not least of which is providing the reviewers an opportunity to judge the quality of the facilities, equipment, and personnel associated with the program. Site inspections permit the reviewers to meet all

of the people associated with the Center or Institute and to judge from their interaction the extent to which they comprise a unified center. Meeting the students is another way to assess the validity of the described education program. Finally, site visits far exceed written or telephonic exchanges as effective means to communicate a center's actual achievements.

Annual site visits enable the reviewers to determine how effective a Center or Institute has been in the prior year; and they set the stage for negotiating the annual plan that will be the basis for the next year's award. Each approved annual plan is incorporated by reference in the grant awarded by RSPA. If the Center or Institute does not amend its plan or take a particular action to reflect RSPA's comments, then RSPA will suspend, reduce or disapprove the grant.

OFFICE OF HAZARDOUS MATERIALS SAFETY (OHMS)

Question. Please prepare a table indicating the amount appropriated and the amount actually spent for the different categories and subcomponents of the Hazardous Materials Safety budget for each of the last three years. Please explain any deviation or reallocation of funds.

Answer. The following table shows the appropriated & actual amounts obligated for the major categories and subcomponents of the Hazardous Materials Safety budget for each of the last three years.

[In thousands of dollars]

	Fiscal years—					
	1995		1996		1997	
	Appropriation	Obligation	Appropriation	Obligation	Appropriation	Obligation projected to end of year
Program funds:						
Information Systems	950	940	950	950	1,075	1,075
Research & Analysis	300	300	256	256	565	565
Rulemaking Support	481	481	365	365	382	383
Inspection & Enforcement	220	220	180	180	260	260
Registration	1,000	1,000	750	750	750	750
HAZMAT Training	350	350	350	350	475	475
Information Dissemination	170	170	170	170	485	485
Emergency Preparedness	310	310	370	270	370	370
International Standards	140	140	140	140	80	80
R&D:						
Information Systems	300	300	300	300	300	300
Regulation Compliance	386	[1] 623	386	[1] 425	236	211
Research & Analysis	714	[1] 775	699	[1] 628	464	225

[1] Obligations may include carryover funding from prior years.

Question. Please identify the amount and nature of any reprogramming that occurred during the last two years.

Answer. In fiscal year 1996, $20,000 was transferred from the Office of Hazardous Materials Safety's PC&B account to the equipment account to fund the purchase of computers to access DOT's new Docket Management System. The Office of the Secretary's goal was that each operating administration be on line by October 1, 1996. Because of the dollar amount involved and its source/destination (PC&B to equipment), that transfer was not considered a reprogramming action within Departmental definitions. No reprogramming is planned for fiscal year 1997.

Question. Why is the requested legislative language that includes "travel expenses incurred in performance of hazardous materials exemptions and approvals functions" as an allowable cost necessary for RSPA this year?

Answer. This is a technical correction to facilitate continued reimbursement of RSPA's costs to inspect the facilities of certain packaging manufacturers subject to RSPA's exemptions and approvals program. To ensure that safety standards are maintained regardless of product origin, RSPA conducts inspections at cylinder manufacturers, independent inspection agencies, and cylinder requalification facilities in foreign countries. This program permits foreign manufacturers access to the U.S. market while maintaining the same safety standards required of U.S. manufacturers.

PERSONNEL ISSUES AND OPERATING EXPENSES

Question. Please provide the Committee with the current on-board staff count, by position, for the regional OHMS enforcement offices. What is the grade level for the head of each regional office? How does this compare with the grade level of the supervisor for each OPS regional office? Is there a discrepancy between the grade levels of these two jobs?

Answer. Each Hazardous Materials Enforcement regional office has a Grade 14 position, a Grade 13 position, and four journeymen positions. As of June 9, 1997, the following represents the staffing of the regional offices:

OHME unit	Authorized	On-board
Special investigations (HQ)	5	4
Eastern region	6	5
Central region	6	3
Southern region	6	3
Southwest region	6	5
Western region	6	6
Total	39	29

The full performance level of each regional supervisor is Grade 14. The full performance level of each OPS regional supervisor is Grade 15.

Question. Please prepare a table showing the authorized number of inspectors for each of the last three years, and the number of inspectors actually on-board during this period.

Answer. The following table shows the authorized number of inspectors and the actual number of inspectors on-board for the last three years:

Fiscal year	Authorized	On-board
1995	23	21
1996	22	22
1997	37	[1] 28

[1] RSPA was authorized to hire 15 new inspectors in fiscal year 1997. Interviews for these positions were conducted in two phases, with five new inspectors hired following phase one. Phase two interviews were completed in June 1997, and one inspector was hired in May and we expect to have the remaining nine inspectors on board by August 1997.

Question. For each of the key offices under the Associate Administrator for Hazardous Materials Safety, please prepare a break out of the number of personnel assigned to each office for each of the last three years, the grade level, and number of current vacancies.

Answer. The following table summarizes the on-board staff count, grade levels, and current vacancies in the Office of Hazardous Materials Safety for the last three years.

Office	Fiscal year 1995 as of 6/1/95				Fiscal year 1996 as of 6/10/96				Fiscal year 1997 as of 6/4/97			
	Full time positions	Vacancies	Positions	Grade levels	Full time positions	Vacancies	Positions	Grade levels	Full time positions	Vacancies	Positions	Grade levels
Associate Administration and International Standards	8	0	2	SES	8	0	2	SES	6	1	2	SES
			2	15			2	15			1	15
			1	14			1	14			1	14
			1	13			1	13			1	13
			1	8			1	11			1	7
			1	6			1	6				
Standards	17	1	1	15	18	1	1	15	16	4	1	15
			3	14			3	14			3	14
			3	13			3	13			1	13
			7	12			7	12			4	12
			2	11			1	11			1	11
			1	7			2	7			3	9
			1	6			1	6			2	7
											1	6
Technology	16	3	1	15	15	4	1	15	14	5	1	15
			5	14			4	14			4	14
			8	13			8	13			7	13
			1	7			1	7			1	7
			1	6			1	6			1	6
Exemptions and Approvals	14	1	2	14	15	0	1	15	15	2	1	15
			4	13			1	14			1	14
			3	12			5	13			5	13
			1	11			4	12			4	12
			1	10			1	10			1	9
			2	7			1	8			2	7
			1	6			1	7			1	6
							1	6				
Enforcement	21	4	1	15	23	1	1	15	29	10	1	15

			2	14			3	14			6	14
			4	13			4	13			6	13
			7	12			9	12			8	12
			2	11			4	11			6	11
			2	9			2	7			1	9
			1	7							1	7
			1	6								
			1	5								
Initiatives and Training	10	0	1	15	10	0	1	15	8	3	1	15
			2	14			2	14			1	14
			1	13			1	13			1	13
			4	12			4	12			4	12
			1	9			1	9			1	7
			1	7			1	7				
Planning and Analysis	13	4	2	15	14	2	2	15	14	2	2	15
			1	14			1	14			1	14
			3	13			5	13			5	13
			1	12			3	12			3	12
			4	11			1	11			1	11
			1	7			1	7			1	7
			1	6			1	6			1	6
Totals	100	13			103	8			101	28		

ADDITIONAL FISCAL YEAR 1997 FUNDING FOR AIR TRANSPORT HAZARDOUS MATERIALS EFFORTS

Question. In the wake of the May 1996 ValuJet crash, the Senate provided additional funding above the President's request, and directed RSPA to strengthen air transportation hazardous materials inspection, research, training, and rulemaking efforts. Please display how this additional funding above the fiscal year 1997 requested level has been distributed.

Answer. Following the ValuJet incident, Congress provided twenty (20) additional positions, all of which have been filled. Congress also provided funds to support enhancements in the following four program areas:

Hazardous materials information system (HMIS) ($125,000)

A contractor is designing and implementing an on-line document storage and retrieval system that will allow DOT intranet and Internet accessibility of OHMS documents to agency employees, other DOT administrations, Federal, State, and local agencies, and industry and the general public.

Hazardous materials information center (HMIC) ($315,000)

RSPA anticipates that contract negotiations will be completed by the end of July and contractor service will be in place by the end of August. The services provided will: (1) continue and enhance the high standard of customer service provided by the HMIC; (2) maintain, update, and index the HMIC reference library which will provide sources of information to hotline inquiries; and (3) provide contractor support for the specialists in the office to allow them to devote more time to update, revise, and streamline the Hazardous Materials Regulations (HMR).

A contractor is allowing greater access to current and updated information to agency employees, other DOT administrations, and Federal, State, and local agencies, as well as industry and the general public by placing the HMR, and active exemptions and letters of interpretation on OHMS' web page.

Hazardous materials training ($225,000)

In fiscal year 1997, RSPA cooperated with the Federal Aviation Administration (FAA) to increase public and shipper carrier outreach and focus on air transportation issues involving hazardous materials; develop additional training materials and programs involving the air transportation of hazardous materials; and increase information dissemination on compliance with the HMR. To accomplish this, RSPA led a team composed of representatives from FAA, the Transportation Safety Institute (TSI), the air transport industry, and Federal & State enforcement officials who provided technical assistance in developing new training materials and informational brochures targeted to enhance the safe transportation of hazardous materials. Industry and State enforcement personnel/associations participated as distribution partners in distributing the training products to the targeted audiences.

RSPA's CD-ROM modular training series were updated and revised to include a new module developed specifically for transportation of hazardous materials by air. This modular training series was distributed on CD-ROM at a nominal cost and is available for downloading free of charge from the OHMS website. Both distribution avenues are cost-effective for small businesses to train employees in compliance with the HMR. These training modules were developed as self-paced tutorials which do not require an instructor, and RSPA used mass communications technology to reach a wider audience, especially among those smaller jurisdictions that cannot afford formal classroom safety training.

RSPA developed and distributed an 18-minute awareness video that highlights the precautions that must be taken when transporting hazmat on passenger or cargo aircraft to ensure compliance with the Hazardous Materials/Dangerous Goods Regulations. The video, the second in the "ENSURING SAFETY" series, was made available to air carriers and shippers throughout the country—literally to anyone involved in offering, accepting or transporting hazardous materials for shipment by air.

RSPA continues to make compliance training available to FAA inspectors, logistic and depot staff, and State and local compliance personnel through the Transportation Safety Institute's (TSI) resident, train-the-trainer courses, and at RSPA-sponsored seminars and conferences. In addition, through TSI, RSPA is developing an interactive training course for both highway and air transportation to be made available on the Internet.

Hazardous materials technology ($315,000)

This item is used to provide contractor support and additional technical expertise to conduct safety reviews, failure analyses and evaluate exemptions and approvals,

particularly those relating to new technologies. The following are example of the ongoing activities under this item:

—Risk assessment studies to quantitatively evaluate the inherent risk of transporting hazardous materials in aircraft cargo compartments with and without the presence of countermeasures.

—Failure analysis and technical expertise to evaluate exemptions involving advanced materials applications such as design, testing and service life issues related to carbon fiber-reinforced pressure vessels and other high performance pressure vessels. Work includes improving testing techniques for periodic recertification of in service pressure vessels. Support is being provided by the National Institute of Standards and Technology.

—Technical work on explosives and reactive materials, for example, developing a test method to discriminate between explosive and nonexplosive forms of ammonium nitrate. Support is being provided by the National Institute of Occupational Safety and Health.

—Technical system evaluation of emergency product transfer shutdown systems for cargo tanks transporting liquefied compressed gases. This work supports RSPA's emergency rulemaking and industry efforts to develop emergency product transfer shutdown systems for cargo tanks transporting liquefied compressed gases. Current systems installed on the national fleet of more than 25,000 trucks have been shown not to function properly when transfer hoses rupture. Technical support and expertise is being provided by the Volpe National Transportation System Center.

Question. In the fiscal year 1997 appropriations bill, $1,111,000 above the President's requested level was provided for additional hazardous materials inspectors. How many new positions are provided by this funding increase? When did these positions become available, and how many new inspectors have been hired to date? Will all the additional inspectors be hired by the end of this fiscal year?

Answer. The additional funding provided for 15 new hazardous materials inspectors. These positions became available in October 1996. A first round of interviews was conducted in December 1996 and January 1997, and five of the 15 inspectors were hired. A second round of interviews was conducted in April-June 1997 and the remaining ten inspectors were selected. We plan to have all of the inspectors on board by the end of fiscal year 1997.

Question. Where have these additional inspectors been deployed? What is the rationale for these assignments?

Answer. Fourteen inspectors will be deployed in the five regional offices to bring the staffing in each office to six inspectors. One inspector will be assigned to the Headquarters Special Investigations unit.

RSPA believes that each regional office should have the same number of inspectors because we located each office in the heart of a center of hazardous materials manufacturing and shipping. The inspector assigned to the Headquarters unit is an explosives specialist who will provide a dedicated resource with this critical inspection function.

Question. Has the OHMS requested that the RSPA Administrator exercise his discretionary authority to transfer up to two hazmat safety positions and $200,000 into program support? If so, which contract program(s) received the additional funds?

Answer. RSPA's supplemental request for resources following the ValuJet accident included two attorney positions and associated PC&B to provide legal support to the new inspection personnel. These resources were deployed as requested following passage of the fiscal year 1997 appropriations act.

NTSB RECOMMENDATIONS

Question. The NTSB recommended that the FHWA in cooperation with RSPA implement a program to collect information necessary to identify patterns of cargo tank equipment failure. What steps has RSPA taken to expand the 5800.1 incident reporting form, and what has been done to assist FHWA in accomplishing this recommendation? Will there be additional fiscal year 1998 costs associated with addressing this?

Answer. The original recommendation by the NTSB was in response to the perceived inadequate reporting or recording of information. The responsibility for reporting was significantly increased by HM–200 which expanded the scope of reportable accidents to include intrastate transportation as well as interstate movement of hazardous materials. In some markets this will impact reporting by more than 50 percent. Further, in conjunction with the expected expansion of the data collected, RSPA intends to conduct a complete review of the content, procedures, and

data developed by the existing reporting system. We have not requested additional funding for this effort.

Question. Please provide a detailed list of the hazmat recommendations made by the NTSB during the last three years. Also provide a status update for each recommendation that has been closed acceptable or closed unacceptable, and those that remain open. How were each of these addressed, and by which agency?

Answer. In the last three years (1994, 1995, 1996) NTSB made four safety recommendations to RSPA involving the transportation of hazardous materials. They were: R–95–11, Periodic Inspections of Tank Car Linings and Coatings; H–95–37, Improve Crash-worthiness of the Front Ends of Cargo Tanks; A–96–29, Chemical Oxygen Generators as Cargo on Aircraft; and A–96–39, Oxidizers and Oxidizing Materials in Air Cargo Compartments.

These Recommendations are summarized as follows:

R–95–11.—In R–95–11, NTSB recommended that RSPA, in cooperation with the FRA, require that any party using a tank car to transport corrosive materials determine the periodic inspection interval and testing technique for linings and coatings, and require that this information be provided to parties responsible for the inspection and testing of tank cars. A final rule under Dockets HM–175A and HM–201, issued on June 26, 1996, requires the owner of a tank car lining or coating to inform the inspection parties of the interval, test technique, and acceptance criteria required to test the tank car integrity. This recommendation was "Closed-Acceptable Action" on February 10, 1997.

H–95–37.—In H–95–37, NTSB recommended that RSPA, in cooperation with FHWA, study methods and develop standards to improve the crash-worthiness on the front ends of cargo tanks used to transport liquefied flammable gases and potentially lethal nonflammable compressed gases. In response to NTSB Recommendation H–95–37, in July 1996 RSPA contracted with Pressure Sciences Incorporated for a feasibility study of enhanced protection of MC–331 cargo tanks in frontal collisions. It is expected that the contractor will provide RSPA with a draft report by July 1997. Based on the results of the feasibility study, additional work may be undertaken to fully evaluate the benefits and costs associated with design changes. To date, $30,000 has been spent on the feasibility study.

A–96–29 and A–96–30.—As a result of the ValuJet aviation accident on May 11, 1996, NTSB issued two safety recommendations to RSPA (A–96–29 and A–96–30). In A–96–29, NTSB recommended that RSPA, in cooperation with FAA, permanently prohibit the transportation of chemical oxygen generators as cargo on board any passenger or cargo aircraft when the generators have passed expirations dates, and the chemical cores have not been depleted. A Final Rule was published on December 30, 1996, prohibiting the transportation of all oxygen generators as cargo on passenger carrying aircraft. This is broader than NTSB's recommendations which applied only to oxygen generators which had passed their expiration dates. In A–96–30, NTSB recommended that RSPA, in cooperation with FAA, prohibit the transportation of oxidizers and oxidizing materials in cargo compartments that do not have fire or smoke detection systems. A Notice of Proposed Rulemaking was published on December 30, 1996, which will permit air transportation of oxidizers only in accessible locations on cargo aircraft. Further under a Final Rule published June 5, and effective July 7, if the oxygen generator is attached to any type of incitation mechanism its transportation must be specifically approved by RSPA's Associate Administrator for Hazardous Materials and the generator must be transported in a package prepared by the holder of the approval.

In the last three years RSPA has closed eighteen safety recommendations from NTSB, while twenty-five remain open. RSPA is pursuing appropriate actions to address each of the remaining open recommendations. The disposition and status of these NTSB recommendations are summarized as follows:

Record Number	Date closed	Subject
Recommendations closed acceptable or no longer applicable:		
A–88–120	February 15, 1994	Restriction notices at all freight acceptance facilities "Closed-Acceptable."
H–91–034	November 8, 1996	Devices on manhole cover meet same standards as manhole "Closed-Acceptable."
I–78–009	February 16, 1994	Develop a plan of analysis to control risks "Closed-Acceptable."

Record Number	Date closed	Subject
I–81–003	May 3, 1994	Develop a common identifier in compliance records ''Closed-Acceptable.''
I–87–005	May 3, 1994	Establish classification system for explosives ''Closed-Acceptable.''
I–90–005	July 28, 1995	Procedure for test of containers that do not comply with standards ''Closed-Acceptable.''
I–90–006	July 28, 1995	Recall of containers not in compliance with DOT specifications or exemption packagings ''Closed-Acceptable.''
R–85–061	February 10, 1997	Tank-head protection of aluminum & nickel tank cars ''Closed-Acceptable.''
R–91–011	June 28, 1994	RSPA and FRA develop and agree upon a list of hazardous materials to be transported in pressure tanks ''Closed-No Longer Applicable.''
R–95–011	February 10, 1997	DOT and FRA to determine periodic inspection interval and testing techniques for linings and coatings and provide to responsible parties for inspection and testing of tank cars ''Closed-Acceptable.''
Recommendations (closed—unacceptable):		
H–83–029	February 16, 1994	HM–183C rulemaking failed to address the necessity to inspect void space between compartments in multiple compartment cargo tank trailers ''Closed-Unacceptable.''
H–85–034	December 12, 1995	Mandatory Routing of HazMat Vehicles on the Highway ''Closed Unacceptable.''
H–88–026	March 7, 1994	Vacuum Protection of Cargo Tanks ''Closed-Unacceptable.''
H–88–027	March 7, 1994	Reporting Vacuum Failures of HazMat tanks ''Closed-Unacceptable.''
I–78–012	July 7, 1994	Conflict between existing DOT and EPA regulations on shippers and carriers affecting transportation of hazardous materials and hazardous wastes ''Closed-Unacceptable.''
I–83–004	July 8, 1994	Preshipment Inspection Criteria for reused drums ''Closed-Unacceptable.''
I–87–004	July 8, 1994	Thermal protection of explosives ''Closed-Unacceptable.''
I–90–011	October 4, 1995	Visibility of Hazard Placards after accident ''Closed-Unacceptable.''
Recommendations open:		
H–90–91	Open acceptable	Remote shut-off valves.
H–91–34	Open acceptable	Manhole cover fittings and devices.
H–92–01	Open acceptable	Rollover protection; guidance to manufacturers.
H–92–02	Open acceptable	Rollover protection; evaluate design.
H–92–03	Open acceptable	Rollover protection; modeling and analysis.
H–92–04	Open acceptable	Rollover protection; develop standards.
H–92–05	Open acceptable	Rollover protection; phase out older tanks.
H–92–06	Open acceptable	Improve/expand information system for cargo tank accident reporting.
H–93–34	Open acceptable	Cargo tank emergency cut-off valves
H–95–14	Open acceptable	Revise/test and inspect requirements for cargo tanks.
H–95–37	Open acceptable	Improve crash worthiness of front end of cargo tanks.

Record Number	Date closed	Subject
I–80–1	Open Unacceptable	Volume and temperature at loading for tank car loading records.
I–90–8	Open unacceptable	Cylinders-cargo restraint systems.
I–90–9	Open unacceptable	New and reconditioned low pressure cylinders require independent inspection.
I–90–10	Open unacceptable	Amend inspect and test cylinder requirements.
I–92–01	Open acceptable	Design of attachments to HazMat packagings.
I–92–02	Open acceptable	Pressure relief venting for DOT 57 containers.
I–93–1	Open acceptable	Amend pamphlet C–6 (CGA). Thread gage for cylinders.
I–93–2	Open acceptable	Prohibit use of cylinders not meeting C–6 criteria (noted above).
R–89–52	Open unacceptable	Carriers should notify shippers of accident.
R–89–53	Open acceptable	Tank car closure fitting design.
R–89–83	Open unacceptable	''Life-threatening situations'' to update and correct the emergency response guide.
R–92–23	Open acceptable	Periodic testing and inspection of tank cars.
A–96–29	Open acceptable	Prohibit oxygen generators as cargo on passenger aircraft.
A–96–30	Open acceptable	Prohibit the air transportation of oxidizers and oxidizing materials.

Question. How have you responded to the 1995 recommendation on crash worthiness of front heads on MC 331 cargo tanks, and what have been the associated costs in providing resolution to this recommendation?

Answer. In response to NTSB Recommendation H–95–37, in July 1996 RSPA contracted with Pressure Sciences Incorporated for a feasibility study of enhanced protection of MC–331 cargo tanks in frontal collisions. It is expected that the contractor will provide RSPA with a draft report by July 1997. Based on the results of the feasibility study, additional work may be undertaken to fully evaluate the benefits and costs associated with design changes. To date, $30,000 has been spent on the feasibility study.

RESEARCH AND ANALYSIS

Question. What technical advances have resulted from research sponsored during the last three fiscal years by the OHMS?

Answer. Most of the OHMS-sponsored research is focused on the development of national and international standards, assessment of issues related to the issuance of rulemakings and exemptions, characterization of material hazards, assessment of risk, and the development of information on hazardous materials transportation. Research results in the technical basis to develop, assess, guide and support program activities. For example, in the past several years we have gained a better understanding of:

—The factors influencing the choice of mode and route by shippers and carriers of spent nuclear fuel.

—The flows of selected hazardous materials by highway.

—The quality of information obtained through Hazardous Materials Information System (HMIS) release reports, and the implications the report data have for targeting hazmat safety regulatory and enforcement resources.

—The ability of advanced communication technologies to improve responder and community safety at hazardous materials incident sites, as well as to help responders reduce the costs and impacts associated with such incidents.

In addition, research projects have resulted in technical advances. For example, work performed to support development of Initial Isolation and Protective Action Distances used in the 1996 North American Emergency Response Guidebook resulted in technical advances in techniques for dispersion modeling of toxic vapor plumes from hazardous material spills. That work introduced the use of probabilistic application of atmospheric data and advanced a technique for use of commonly available toxicological exposure guidelines where specific emergency exposure guidelines did not exist. This work demonstrated that spills at night could require much larger protective action zones than those required under typical day conditions. Work in support of the 1996 North American Emergency Response Guidebook yield-

ed a list of materials that can produce large toxic vapor plumes when spilled into water.

Question. What are the critical research activities that are being pursued by OHMS and how do these relate to open rulemakings?

Answer. Most R&D is conducted to address current or future issues prior to opening a rulemaking action. Studies are used to assess if rulemaking action is warranted and to identify and evaluate potential rulemaking options. The following is a list of critical research activities that OHMS is pursuing:

—"Design, Testing and Requalification Standards for Composite Cylinders"—potential rulemaking to incorporate new composite cylinder standards.

—"Identification of Factors for Selecting Modes and Routes For Shipping High-Level Radioactive Waste and Spent Nuclear Fuel"—legislatively mandated report to increase information base regarding mode/route selection process—potential rulemaking.

—"Information Technology and Emergency Response"—critical issue that will guide further research and funding for technology deployment at hazardous materials incident sites.

—"Development of Improved Test Methods and Criteria for Ammonium Nitrate Fertilizers." Project to determine if United Nations Explosives Test Series 2 can distinguish between explosive and nonexplosive forms of ammonium nitrate fertilizers—international standards issue and potential rulemaking.

—"Evaluation of Small Explosive Devices"—potential rulemaking to deregulate certain small explosive devices.

—"Hazards Assessment of Lithium-Ion Batteries" is an assessment to support a decision on the proper level of regulation for this new type of lithium battery—potential rulemaking.

—"Hazardous Materials Risk Management Framework" is a project to develop a risk management framework to assist RSPA in the risk management of hazardous materials transportation—critical issue and potential rulemaking.

—"National Assessment of Transportation Risk Posed by Poison Inhalation Hazard Materials, Explosives, Flammable Liquids and Gases" is an assessment to determine the risk associated with the transportation of highly toxic hazardous materials. The study uses the risk of flammable liquid transportation as a benchmark to assess and characterize high-probability low-consequence and low-probability high-consequence events for the subject materials—critical issue and potential rulemaking.

—"Development of Basis and Draft Guidance for Certification of Cylinders Containing Nonfissile and Fissile Excepted Uranium Hexafluoride" will provide regulatory guidance and the basis for adoption into the Hazardous Materials Regulations new International Atomic Energy Agency transportation requirements—planned rulemaking.

—"Guidance for Implementing Revised Transportation Regulations for Low Specific Activity Materials and Surface Contaminated Objects"—planned for publication as a joint Nuclear Regulatory Commission and RSPA regulatory guidance document that will facilitate safe and efficient transportation and regulatory compliance.

—Development of Regulatory Guidance on Transportation of Very Large Contaminated Equipment and Components"—based upon the results of this work, the project will result in a joint Nuclear Regulatory Commission and RSPA regulatory guidance document or rulemaking proposal.

—"Impact Resistance of Specification MC–330 and 331 Cargo Tank Heads In Accidents"—in response to accident experience, a National Transportation Safety Board (NTSB) Recommendation and a potential rulemaking need.

—"Analysis of Risks Associated With Transportation of Hazardous Materials in Aircraft Cargo Compartments"—in response to accident experience, NTSB Recommendation and potential rulemaking need.

Question. What have been the major technical reports that have resulted from research sponsored during the last two years by the OHMS? Which of these reports were entered into the National Technical Information Service? (Indicate NTIS numbers.) Which weren't and why?

Answer. The following are the major final technical reports that resulted from research sponsored during the last two years.

—"Technical Documentation in Support of the 1996 North American Emergency Response Guidebook,"—NTIS-UILU-ENG–97–4001.

—"Technical Documentation to Support 'List of Dangerous Water-Reactive Materials,' 1996 North American Emergency Response Guidebook," NTIS-UILU-ENG–97–4004.

—"Exploration of the Global Positioning System and Related Technologies to Enhance the Safe Transportation of Hazardous Materials," Draft Final, will be sent to NTIS shortly.
—"Information Technology and Emergency Response," Draft Final, will be sent to NTIS shortly.
—"Truck Transport of Hazardous Chemicals: Dodecene-1," DOT-VNTSC-RSPA–96–2.
—"Truck Transport of Hazardous Chemicals: 1-Butanol," DOT-VNTSC-RSPA–95–4.
—"Report on Identification of Factors for Selecting Modes and Routes for Shipping High-Level Radioactive Waste and Spent Nuclear Fuel," Draft Final, will be sent to NTIS shortly.
—"Operation Respond: Lessons Learned—A Research and Development Program to Promote Safe and Secure Transportation by Improving Information Available to First Responders," Final Report, will be sent to NTIS shortly.

Question. Please describe how each component of your research request relates to pending or future rulemakings.

Answer. The Office of Hazardous Materials Safety's (OHMS) Research and Development (R&D) Program provides the technical and analytical foundation necessary to support the hazardous materials program. The R&D Program is composed of three activity areas: Information Systems, Research and Analysis, and Regulations Compliance. The information, technical and analytical analyses, and data produced by the R&D Program support national and international standards development, exemptions, information dissemination, training, emergency response guidance, compliance, and the development of program strategies and their implementation.

The three activity areas of the R&D Program support pending and future rulemaking in the following ways:

—The Information Systems Activity Area directly supports studies, software development, and maintenance to facilitate the analysis and use, by Federal, State, and public users, of information collected in the Hazardous Materials Information System (HMIS). OHMS uses HMIS data to support its mission activities; develop regulations; issue exemptions, approvals, and interpretations; and promote compliance with safety regulations. Information derived by analysis of hazardous materials spill incident data in the HMIS is used to determine the need for and justify rulemakings. Incident data are used in risk and benefit/cost analyses by Federal, State and public analysts to support rulemaking proposals and comments.
—The Research Analysis Activity Area directly supports rulemaking and is used to assess the need for new regulations and the effectiveness of current regulations, and to perform studies mandated by Congress. The knowledge gained is essential to understand the risks associated with hazardous materials transportation and to develop safety regulations both the risks and the burdens on industry, allow maximum operational flexibility, and enhance international competitiveness.
—The Regulations Compliance (Testing) Activity Area provides for compliance testing of Packagings used to transport hazardous materials. Packaging performance is critical to the safe transportation of hazardous materials. This work provides an assessment of the level of compliance with packaging specifications and performance standards. It also identifies sections of packaging specifications and performance standards where rulemaking revisions could improve compliance.

Question. The FHWA is conducting and has planned research activities that will evaluate the real risks associated with hazardous materials transportation, their social impact, and the benefit of their mitigation. Does the OHMS agree that this is the type of research that is needed to mitigate the occurrence of hazardous materials incidents? Is this an idea that is worth pursuing?

Answer. The Office of Motor Carriers (OMC) has undertaken a research project to assess the additional hazards posed by the transportation of hazardous materials by highway compared to non-hazardous material shipments. RSPA supports research which will help both RSPA and OMC better understand and manage the risks of hazardous materials shipments by highway.

Question. How much money did OHMS allocate for Operation Respond in fiscal year 1996? How much is planned for fiscal year 1997 and planned for fiscal year 1998?

Answer. In fiscal year 1996, RSPA (OHMS) allocated $120,000 to Operation Respond. No OHMS funding has been allocated for Operation Respond activities in fiscal year 1997 or fiscal year 1998. RSPA has identified Operation Respond Institute's computer software and training courses as eligible uses of grant funds made avail-

able annually to the Department's Hazardous Materials Emergency Planning grant recipients.

Question. Is DOT developing a coordinated approach to funding Operation Respond? Please comment on other agencies' support, and display the total coordinated fiscal year 1998 request for the program.

Answer. FRA, FHWA, and RSPA have taken a coordinated approach to Operation Respond. With the transition of Operation Respond from its developmental and demonstration phase to an independent operated foundation, the modal administrations are reviewing the extent of their prior support and the potential for additional support of Operation Respond activities.

At this time, it is our understanding that FRA is requesting $103,000 for Operation Respond in the fiscal year 1998 budget. RSPA has identified Operation Respond Institute's computer software and training courses as eligible uses of grant funds made available annually to the Department's Hazardous Materials Emergency Planning grant recipients.

INSPECTION AND ENFORCEMENT PROGRAM

Question. Please present detailed data for the last three years on the number of HAZMAT inspectors and describe how OHMS measures productivity. Be certain to include average number of enforcement cases, warnings issued, amounts of civil penalties assessed, and the amounts collected. Please evaluate these data on a per inspector or similar normalized basis.

Answer. The following table provides the requested information:

	1994	1995	1996 [1]
Cases initiated	262	246	239
Tickets initiated	.....	.....	84
Cases closed	177	189	189
Tickets closed	.....	.....	62
Case penalties collected	$964,040	$1,047,842	$902,438
Ticket penalties collected	.....	.....	$70,725
Total penalties collected	$964,040	$1,047,842	$973,163
Warning letters	134	168	166
Work years of effort	18.4	18.0	19.75
Cases initiated/work-year	14.2	13.7	12.1
Cases closed/work-year	9.6	10.5	9.6
Penalties/work-year	$52,207	$58,213	$45,693
Warning letters/work-year	7.3	9.3	8.4

[1] Tickets are not included in the per-work-year statistics because the first activity did not occur until June 1996.

Question. Please calculate the average settlement percentage [amount of civil penalties collected for valid claims divided by the amount of civil penalties originally assessed for valid claims] for these hazmat cases. Please provide compatible data to that provided last year.

Answer. The following table provides the requested information:

	1994	1995	1996 [1]
Penalties proposed	$1,382,085	$1,540,391	$1,358,225
Penalties collected	$964,040	$1,047,842	$902,438
Percentage collected	70	68	66

[1] Does not include tickets.

Question. As evidenced by OHMS inspections, what is the overall level of compliance with the Hazardous Materials Regulations? What innovative or new strategies are you using to improve your impact on compliance?

Answer. RSPA can continue to report that a majority of its inspections have found no violations of the regulations, although it is difficult to determine a precise rate of compliance (or noncompliance) for any given year. This is due in part to the fact that enforcement actions initiated in a given year may be based on inspections con-

ducted in the previous year. Also, many inspections are initiated on the basis of prior allegations of non-compliance and thus are not an unbiased sample of the regulated community. In the past, in order to come up with a statistic in this area, RSPA simply took the number of enforcement actions (civil penalty cases and warning letters) initiated in a given year and divided that number by the number of inspections conducted in that same year. For example, from 1992 through 1996, RSPA conducted 5,769 inspections, and initiated 1,125 civil penalty cases and issued 700 warning letters based on those inspections. Using the previously mentioned simplistic method, this would equate to a 31.6 percent rate of noncompliance for that five-year period. Users of this data must understand that it is only an estimate.

With the training of most of the new inspectors completed by the end of fiscal year 1997, RSPA will increase the number of compliance inspections conducted, particularly inspections of shippers. RSPA's regional hazardous materials offices also have an important secondary mission to provide outreach, typically through information and training for State and local enforcement and response personnel, and assistance to industry and interaction with the public through presentations, seminars, and workshops. The additional inspector resources will allow these offices to perform more outreach activities to improve compliance.

In fiscal year 1997, RSPA cooperated with the Federal Aviation Administration (FAA) to increase public and shipper/carrier outreach and focus on air transportation issues involving hazardous materials; develop additional training materials and programs involving the air transportation of hazardous materials; and increase information dissemination on compliance with the HMR. To accomplish this, RSPA led a team composed of representatives from FAA, the Transportation Safety Institute (TSI), and the air transport industry, and Federal & State enforcement officials who provided technical assistance in developing new training materials and informational brochures targeted to enhance the safe transportation of hazardous materials. Industry and State enforcement personnel/associations participated as distribution partners in distributing the training products to the targeted audiences.

RSPA is strengthening the Hazardous Materials Information Center which assists shippers, carriers, packaging manufacturers, enforcement personnel, and others in their understanding of requirements in the HMR for the purpose of maximizing voluntary compliance. In addition, the Center staffs the statutorily mandated toll-free number for transporters of hazardous materials, and others, to report possible violations of the HMR or any order or regulation issued under Federal hazardous materials transportation law.

As part of our efforts to improve compliance, RSPA implemented an interagency agreement with the Department of Defense for package testing. A number of packages were procured and tested by the Army's testing facility at Tobyhanna, Pennsylvania. Testing has revealed significant failure problems for certain Packagings and RSPA has alerted the manufacturers about them. Package testing is on-going.

RSPA initiated a limited materials testing program to determine if shippers are properly classifying the hazardous materials they are offering for transportation. Thus far, we have concentrated on Packaging Group III corrosive materials and have found violations, which we are pursing through enforcement.

Question. Please provide a detailed explanation on how compliance will increase, or decrease with the implementation of HM–200. How will this affect the RSPA workload? Does this explain the decrease from $260,000 to $155,000 in inspection and enforcement program costs, and how will the fiscal year 1998 budget be affected?

Answer. The majority of companies who will be subject to the Hazardous Materials Regulations when HM–200 is implemented will be small companies with a lack of detailed knowledge about the regulations. Therefore, compliance could decrease somewhat. However, RSPA plans to take steps to increase awareness of the Hazardous Materials Regulations through additional training and outreach activities. RSPA's inspection workload is based on inspectors performing a specified number of weeks of inspection travel per year. RSPA is not expecting the workload to increase under HM–200.

The difference in funding has no relation to workload under HM–200. The difference reflects the transfer of the COHMED program from the Inspection and Enforcement program area to the Information Dissemination area. It is a presentation change only. The fiscal year 1998 activity levels will not be affected.

Question. What is RSPA's plan for implementing the new HM–200 provision? How will RSPA communicate the regulatory changes outlined in the rulemaking with the OMC so that intrastate motor carriers and shippers of hazmat are properly informed of their responsibilities under the regulations? How will the hazmat industry be assured that enforcement components of this new rule are fairly applied?

Answer. RSPA's strengthened Hazardous Materials Information Center will assists shippers, carriers, packaging manufacturers, enforcement personnel, and others in their understanding of requirements in HM–200 for the purpose of maximizing voluntary compliance. In addition, the Center staffs the statutory mandated toll-free number for transporters of hazardous materials, and others, to report possible violations of the HMR or any order or regulation issued under Federal hazardous materials transportation law. Reported violations will be followed up by the appropriate modes.

RSPA has advised FHWA of the regulatory changes required by HM–200. RSPA also published, on February 27, 1997, and distributed over 50,000 copies of a Safety Alert newsletter which highlights the requirements for shippers and carriers involved in intrastate transportation and reminds them of their responsibilities to ensure that hazardous materials are properly identified, packaged, authorized for transportation, handled, loaded, and transported in conformance with the Hazardous Materials Regulations.

The Spring and Fall Cooperative Hazardous Materials Enforcement Development (COHMED) program conferences and Multimodal seminars provide for the exchange of information among States, local governments, and industry on compliance and enforcement issues. HM–200 has and will continue to be a focus of COHMED efforts. We have developed and will continue to develop educational materials which we will widely disseminate information using industry associations and groups.

Question. What will be the associated costs to the hazmat industry for intrastate carriers and shippers to come into compliance with this new provision?

Answer. The final rule will affect many intrastate shippers and carriers, many of whom are small businesses, but RSPA believes that the economic impact is minimal. Twenty States have adopted the Hazardous Materials Regulations (HMR) in their entirety, and the vast majority of remaining States have adopted transport safety regulations similar to the HMR. However, a number of States have adopted safety regulations which continue to except certain intrastate highway carriers from the HMR or continue to provide safety standards which do not fully track with those in the HMR. Accordingly, compliance costs for shippers and carriers in those States that have fully adopted or adopted similar regulations to the HMR are minimal. Shippers and carriers in those States that have provided exceptions or waivers to intrastate shippers and carriers from applicability of the HMR will be the entities most affected by HM–200 rulemaking. In the assessment of costs and benefits prepared in support of this rule, RSPA estimated that operators of cargo tank motor vehicles that do not conform to current standards specified in the HMR would experience annual costs of compliance of $164 per cargo tank.

RSPA has provided several exceptions in HM–200 to minimize the impacts on many of these entities. For example, the Materials of Trade exception provides a common sense approach in regard to the applicability of the HMR to small and local businesses. The exceptions for Materials of Trade can also used by interstate motor carriers. This exception alone provides a significant reduction in compliance costs for both interstate and intrastate motor carriers.

Other exceptions have been provided for the continued use of non-specification small cargo tanks. A phase-in period of approximately three years has been provided. Non-specification cargo tanks used for the transportation of flammable liquid petroleum products in those States that currently allow the use of these non-specification cargo tanks within their State, can continue to be used indefinitely, under specified conditions. These non-specification cargo tanks will be required to meet the continuing operational and retest requirements HMR. The retest requirements ensure that these cargo tanks are capable of containing the flammable products being transported; e.g., they do not leak during transportation. Since most on the non-specification cargo tanks that are currently being used under State exceptions are used for the transportation of flammable liquid petroleum products, the only increase in costs is associated with continuing maintenance and operations. The three-year phase-in period for testing will also minimize immediate costs.

RSPA has also provided a total exception (not including compressed gases) from the HMR for farmers who transport agricultural products between fields of their own farm over local roads, provided the State in which they operate has provided a similar exception. Therefore there are no cost impacts for these farmers as a result of HM–200. Additionally, under specified conditions, farmers have been provided exceptions from the emergency response information and training requirements. RSPA believes that other requirements of the HMR, such as hazard identification (including shipping papers, labels, and placards) are necessary to provide information on the hazardous materials being transported to emergency responders. RSPA believes that the exceptions provided in HM–200 for Materials of Trade, farmer, and contin-

ued use of non-specification cargo tanks for flammable liquid petroleum products will provide substantial relief to farmers.

Question. Since last year have you made any improvements in how RSPA prioritizes and selects hazmat shippers and manufacturers for inspections?

Answer. RSPA continues to prioritize its selection of companies for inspection. We give priority to complaints and reinspections of companies previously subject to civil penalty enforcement. We follow up leads developed during inspections. Regarding manufacturers and related companies, we attempt to strike a balance between inspections of high-consequence, low-incident packaging like compressed gas cylinders, and low-consequence, high-incident packaging like steel and plastic drums. We target shippers of high-hazardous materials and those frequently appearing on hazardous materials incident reports. We established a program to place emphasis on inspections of shippers who offer hazardous materials for transportation by all modes, especially by air.

Question. What further progress has been made in converting to a more risk-based selection process?

Answer. RSPA is working with its on-site information systems contractor to refine current programs for selecting shippers for inspection. Our effort is underway. We are trying to make better use of the packing group system in the regulations, which provides a priority rank for hazardous materials as high, medium, or low hazard through the assignment of packing group number. We are also utilizing our knowledge and experience to target industry segments and individual companies known or suspected to have compliance problems.

Question. What system does RSPA have in place that will ensure that all reports of hazmat incidents are properly forwarded to the FHWA for action?

Answer. Prior to August 1993, RSPA provided FHWA's Office of Motor Carrier Field Operations with copies of all hazmat highway incident reports received on the 5800.1 form. In August 1993, FHWA requested that RSPA discontinue sending copies of the form, since the data were readily available through RSPA's Hazardous Materials Information System which FHWA may access.

Question. For each of the last two fiscal years, please specify; the average time spent processing enforcement cases by regional staff before being submitted to headquarters; and the time spent reviewing these cases at headquarters before being first submitted to the Office of the Chief Counsel.

Answer. For 1995 enforcement cases, inspectors processed cases in 50 days; headquarters review and referral to the Office of the Chief Counsel (OCC) took 36 days. For 1996 enforcement cases, inspectors processed cases in 46 days; headquarters review and referral to OCC took 53 days.

Question. What are your doing to reduce these backlogs?

Answer. Through 1995, the time intervals for processing enforcement cases were decreasing and we considered them to be acceptable, given the other duties of inspectors and their supervisors which affect report and referral production. The increase in processing time in 1996 was due to key personnel shifts and new assignments within the Hazardous Materials Safety program for most of the year. RSPA currently is considering ways in which this upward trend might be reversed, including the hiring of a staff assistant to help in the processing of referrals to the Office of the Chief Counsel.

Question. What changes in enforcement philosophy or practice have you made since last year?

Answer. In June 1996, as part of Reinventing Government, RSPA established a Pilot Ticketing Program which included certain single violations that are determined to have little or no direct impact on safety, such as operating under the terms of an expired DOT exemption, failure to register with RSPA, failure to maintain training records, or failure to file hazardous materials incident reports. We expect the ticketing program to reduce costs to both government and industry, to substantially reduce the time between inspection and notification of a violation, and to encourage faster resolution of cases through reduced penalties.

In all, 84 tickets were issued by the Office of Hazardous Materials Enforcement in 1996, all of which would otherwise have been issued as regular civil penalty cases by OCC, thereby reducing the burden on OCC. In fact, the 62 tickets closed in 1996 were closed in an average of 38 days from date of issue, compared to 16 months for the average civil penalty case. The penalty for each ticket is half of the civil penalty case amount.

In other actions, RSPA is hiring 15 new inspectors in fiscal year 1997 in order to increase the number of shipper inspections, with an emphasis on shippers who offer hazardous materials for air transportation. We target shippers of high-hazardous materials and those frequently appearing on hazardous materials incident re-

ports. Finally, we will be increasing our efforts to offer compliance training and assistance through our regional offices.

Question. What steps have been taken during the last year to shorten the time period from inspection to case closure? What instructions have been provided to your inspectors and attorneys on this issue? Please provide comparative data for each of the last three fiscal years on the processing time involved in hazardous materials cases.

Answer. The following table provides the case processing data for the past three years.

RSPA CIVIL PENALTY ENFORCEMENT CASE PROCESSING TIMES

	1994	1995	1996
Inspection to report	81 days	50 days	46 days
Report to referral	49 days	36 days	53 days
Referral to notices of probable violation	34 days	30 days	53 days
Notices of probable violation to order	282 days	247 days	142 days
Order to close	114 days	78 days	31 days
Total time	560 days/ 18.4 months	441 days/ 14.5 months	324 days/ 10.7 months

RSPA's emphasis on prompt post-inspection processing and early issuance of Notices of Probable Violations (NOPVs) has resulted in a large increase in cases opened. This activity has consumed a great amount of attorney time and resulted in a growing backlog of open cases.

For 1994, the total processing time from inspection to issuance of NOPV was 5.4 months. This period decreased to 3.8 months in 1995, and increased to 5.0 months in 1996. The NOPV-to-case closure time for 1994–1996 is currently 13.0 months, 10.7 months, and 5.7 months, respectively. We use the word "currently" because cases started in these years continue to be closed in later years. Thus, the total inspection-to-closure times for 1994–1996 are 18.4 months, 14.5 months, and 10.7 months respectively. This downward trend reflects the steps taken by the Office of Hazardous Materials Enforcement (OHME) and the Office of the Chief Counsel (OCC) over the last several years. No new steps were taken during the last year; the increase in report-to-referral time in 1996 was due to personnel reassignments for a major portion of the year. The increase in referral-to-NOPV time was due to attorneys being assigned to high-priority statutorily-mandated regulatory Reinvention rulemaking projects.

Inspectors and attorneys have timely processing of reports and cases as part of their performance plans. They are aware of the need to process cases as quickly as possible.

Question. What are you doing to ensure timely prosecution of all parties responsible for the Valujet crash?

Answer. The Federal Aviation Administration is responsible for initiating enforcement actions based on the ValuJet accident. RSPA will provide support as requested.

RULEMAKING SUPPORT

Question. Please list all pending dockets and rulemakings before the Office of Hazardous Materials Safety. Please specify the date of origin of these regulatory dockets and their expected completion dates.

Answer. A listing of pending rulemaking actions for calendar year 1997, follows:

Rulemaking project	Summary	Current status
Corrosive miscellaneous amendments (HM–166Y).	To make miscellaneous revisions to the HMR that are not significant or controversial.	Initiated: 5/93 NPRM estimated: 7/97.
Hazardous materials regulations: Miscellaneous corrections (HM–189N).	Yearly revision to the regulations to make nonsignificant corrections of typos, spelling, etc.	Project identified: 10/96 Final rule anticipated: 9/97.

Rulemaking project	Summary	Current status
Hazardous materials in intrastate commerce (HM–200).	Extends the applicability of the HMR to the transportation of hazardous materials in wholly intrastate commerce.	ANPRM published: 1987 Delayed awaiting HMTUSA 1/90 NPRM published: 7/9/93 SNPRM published: 3/20/96 Extension of Comment Period Published: 5/17/96 Final rule published: 1/8/97 Response to petitions for reconsideration anticipated: 7/97.
Improving hazardous materials identification systems (HM–206).	To determine methods of improving the current system of placarding vehicles transporting hazardous materials and improving other identification systems.	HMTUSA: 11/90 ANPRM published: 6/9/92 NPRM published: 8/14/95 Public hearing: 10/18/94 Final rule published: 1/8/97 Final rule responding to petitions for reconsideration anticipated: 7/97.
Safeguarding food from contamination during transportation (FS–1).	Requests comments concerning options relative to regulations to ensure that food and other consumer products are not made unsafe as a result of certain transportation practices.	SFTA: 11/90 ANPRM published: 2/20/91 NPRM published: 5/21/93 Further action undetermined.
Tank cars and cargo tank motor vehicles: Attendance requirements (HM–212).	To allow the use of signaling systems (sensors, alarms, electronic surveillance equipment) to satisfy the attendance requirements unloading tanks cars and for loading cargo tank motor vehicles.	Initiated: 2/92 NPRM published: 9/14/92 Final rule anticipated: Undetermined pending HM–223.
Requirements for cargo tanks (HM–213).	To make revisions and updates to the requirements for the manufacture, maintenance and use of specification cargo tanks.	Project Identified: 6/96 FHWA's OMC has lead. NPRM anticipated early fiscal year 1998.
Incorporation of recent U.N. recommendations (HM–215B).	Revises the HMR by incorporating changes based on the most recent changes to the U.N. Recommendations, ICAO, and IMO requirements.	Initiated: 11/95 NPRM: 10/26/96 Partial Final rule published: 12/16/96 Final Rule published: 5/6/97 Effective date: 10/1/97.
Specification 3AL aluminum cylinders (HM–176A).	To revise § 173.34 and Spec. 3AL to correct a specification deficiency related to an aluminum alloy.	Initiated: 7/87 Combined with HM–220.
Labeling requirements for poisonous materials, PG III (HM–217).	To solicit comments on revising labeling requirements for Div. 6.1, PG III materials consistent with International requirements.	Initiated: 6/93 ANPRM published: 11/8/93 NPRM anticipated: 10/97.
Quantity limitations on aircraft (HM–192).	To review utility of quantity limitations and provisions for cargo compartments on aircraft.	ANPRM published: 4/6/84 Public hearing: 5/30/85 Future action undetermined.
Motor carrier safety permits (HM–218).	To prohibit shippers from offering to motor carriers certain hazardous materials for which the motor carrier must have a safety permit.	Initiated: 5/93 Companion rule to FHWA/OMC rulemaking on safety permits. Current rulemaking action terminated.
Shipping paper retention requirements (HM–207B).	To implement self-executing requirement of HMTAA, Sec. 115, that shippers and carriers retain copies of shipping papers for 1 year after termination of transportation.	HMTAA 1994 enacted: 8/29/94 Project initiated: 9/26/94 Further action pending legislation revision.
Consolidation of specifications for high-pressure cylinders (HM–220).	To revise the requirements for reinspection, retesting, and repairing cylinders and consolidate seamless cylinder specifications.	Initiated: 1/94 Outreach meeting: 2/18/95 NPRM anticipated: 12/97.

Rulemaking project	Summary	Current status
Filling of propane cylinders (HM–220C).	Responds to petitions for rulemaking to allow propane cylinders to be filled by volume rather than by weight.	Project initiated: 4/96 ANPRM published: 8/23/96 Further action to be determined.
Use of nonspecification open-head fiber drum packaging (HM–221B).	This final rule terminates RSPA's rulemaking relating to alternate standards for open-head fiber drum packaging. Additionally, this final rule provided for the continued use, until September 30, 1999, of drums filled before September 30, 1997.	Project identified: 2/96 NAS report completed: 3/97 Direct final rule published: 6/2/97 Effective date: 10/1/97 Comment period closes: 8/1/97.
Hazardous materials program issues—jurisdiction (HM–223).	To resolve regulatory jurisdictional issues regarding applicability of the HMR.	Project initiated: 1/96 ANPRM 7/29/96 Three public meetings held. Further action to be determined.
Prohibition of oxidizers on aircraft (HM–224A).	To prohibit the carriage of oxidizers on passenger carrying aircraft and in certain cargo holds on cargo aircraft.	Project identified: 6/96 NPRM published: 12/30/96 Final rule on proper shipping name for oxygen generators published: 6/5/97 Effective Date: 7/7/97 SNPRM anticipated: 7/97.
Cargo tank motor vehicles in Liquefied Compressed Gas Service (HM–225).	Interim final rule specifies conditions under which certain cargo tank motor vehicles may continue to be used on an interim basis, even if the emergency discharge control system may not function as required by the regulations.	Project identified: 11/96 I-FR published: 2/19/97 Three public meetings or workshops held. Notice published: 6/6/97 Authorization expires: 8/15/97 Final rule anticipated: 8/97 NPRM anticipated: 8/97.
Infectious Substances: International Harmonization and Bulk Packaging (HM–226).	Proposes to revise the requirements for infectious substances to harmonize the requirements with international standards and propose bulk packaging requirements.	Project identified: 1/97 NPRM anticipated: late CY 1997.

Question. What were your major regulatory accomplishments during the last two fiscal years?

Answer. The following is a listing of final rules or other final actions issued for fiscal year 1995 through June, 1997.

HAZARDOUS MATERIALS RULEMAKING ACTIONS FINAL RULES FISCAL YEAR 1995 THROUGH JUNE 1997

HM docket	Title	Action	Date
HM–145K	Hazardous substances	Final rule	8/2/95.
HM–169A	Compatibility with IAEA for radioactive materials.	Final rule	9/28/95.
		Response to petitions	5/8/96.
HM–175A/201	Crash worthiness protection requirements for tank car tanks.	Final rule	9/21/95.
HM–181E	Intermediate bulk containers	Final rule	7/26/94.
		Response to petitions	8/4/95.
HM–181G	Infectious substances	Final rule	9/20/95.
HM–181H	Performance-oriented packaging	Final rule	9/26/96.
		Response to petitions	3/26/97.
HM–189L	Editorial revisions and corrections	Final rule	9/21/95.
HM–189M	Editorial revisions and corrections	Final rule	10/1/96.
HM–200	Hazardous materials in intrastate commerce	Final rule	1/8/97.
HM–206	Improvements to hazardous materials identification systems.	Final rule	1/8/97.

HAZARDOUS MATERIALS RULEMAKING ACTIONS FINAL RULES FISCAL YEAR 1995 THROUGH—Continued
JUNE 1997

HM docket	Title	Action	Date
HM–207C	Exemptions, approvals, registration and reports; miscellaneous amendments.	Final rule	5/9/96.
HM–207D	Penalty action guidelines	Final rule	3/6/95.
HM–207E	Enforcement-related documents, ticketing	Final rule	2/26/96.
HM–207F	Penalty guidelines	Final rule	1/21/97.
HM–208B	Registration and fee assessment program	Final rule	5/23/95.
HM–215A	Incorporation of latest U.N. recommendations	Final rule	12/29/94.
		Response to petitions	5/18/95.
		Response to additional petitions.	11/13/95.
HM–215B	Harmonization with the U.N. recommendations, IMO dangerous goods code, and ICAO technical instructions.	Final rule	12/16/96.
		Final rule	5/6/97.
HM–216	Miscellaneous amendments; rail	Final rule	6/5/96.
		Response to petitions	7/25/96.
		Response to petitions	9/25/96.
HM–219	Approval of multi-unit tank car tanks	Termination of rulemaking action.	5/8/95.
HM–220A	Periodic inspection and testing of cylinders	Final Rule	5/28/96.
		Response to petitions	10/1/96.
HM–220B	Restructuring of cylinder specifications	Final rule	5/23/96.
		Response to petitions	10/1/96.
HM–221	Alternate standards for open-head fiber drum packaging.	Termination of rulemaking action.	9/29/95.
HM–221A	Extension of authority for continued use of open-head fiber drum packagings.	Final rule	2/29/96.
HM–221B	Use of non-specification open-head fiber drum packaging.	Direct final rule	6/2/97.
HM–222	Improving the hazardous materials safety program.	Notice	4/4/95.
HM–222A	Elimination of unnecessary, duplicative regulations.	Final rule	4/29/96.
HM–222B	Revision of hazardous materials regulations: Regulatory review.	Final rule	5/30/96.
		Response to petitions	10/1/96.
HM–224	Temporary prohibition of oxygen generators in air commerce.	Emergency final rule	5/24/96.
		Final rule	12/30/96.
HM–224A	Shipping description and packaging of oxygen generators.	Final rule	6/5/97.
HM–225	Cargo tank motor vehicles in liquefied compressed gas service.	Final rule	2/19/97.

Question. What are the key challenges facing you in fiscal year 1997? What challenges lie ahead in fiscal year 1998?

Answer. The key challenge RSPA faces is focusing our resources to maximize compliance, whether through regulations, enforcement, training, publications, or technical assistance. The important regulatory challenges this year and during the next fiscal year involve completion of several current rulemakings. These include issuing final rules responding to petitions for reconsideration on Dockets: HM–200—Intrastate Transportation of Hazardous Materials; HM–206—Hazardous Materials Identification Systems; and HM–225—Cargo Tank Motor Vehicles in Liquefied Compressed Gas Service. RSPA also plans to continue is rulemaking efforts to address: revisions to the cylinder specifications (HM–220); jurisdictional issues (HM–223); issues involving the transportation of hazardous materials by air (HM–224A); and requirements for cargo tanks (HM–213). Additionally, RSPA plans to continue its efforts to harmonize the Hazardous Materials Regulations with international regulations, including those addressing infectious substances.

RSPA also plans to continue the efforts initiated as a result of the Regulatory Reinvention Initiative to simplify, clarify, and reduce regulatory burdens so that the focus is on safety and not unnecessary paperwork.

Question. Is OHMS considering the feasibility of a risk management demonstration program similar to that conducted by OPS? How is this reflected in your fiscal year 1998 budget request? If it isn't, how much would be needed to initiate planning for such a program?

Answer. The Hazardous Materials Safety Program and the Pipeline Safety Program are very different and require different applications of risk management. The Pipeline Safety Program involves distinct fixed facilities where risk management can be uniquely applied to optimize safety and economic benefits. The Hazardous Materials Safety Program is a national and international intermodal program, involving hundreds-of-thousands of shippers and carriers transporting tens-of-thousands of hazardous materials by highway, rail, water and air. Because hazardous materials are packaged and transported world-wide, RSPA employs a single uniform hazard and risk-based regulatory system that is critical in providing safety and efficiencies in packaging, inventory, training and compliance. Uniform hazard and risk-based safety standards also facilitate national and world-wide trade and open markets for American industries.

An essential feature of the hazardous materials risk management program is the regulatory exemptions authorized by the hazardous materials transportation law to address specific cases. Exemptions to the Hazardous Materials Regulations establish alternative regulations that provide for a level of safety equivalent to that provided by the regulations. For more than 20 years, the Office of Hazardous Material Safety has granted hundreds of such exemptions a year to allow the use of new technologies and alternative methods to improve transportation efficiency or to reduce regulatory burden.

Hazard- and risk-based management continue to be used by the Hazardous Materials Safety Program to support the development of regulations and to prioritize issues, needs and resources. Hazard, risk and cost/benefit analysis are also important tools in informing the public about the actual risk and cost as opposed to the perceived hazards, risk and cost involved in an activity. An acceptable level of risk for regulations and exemptions is established by consideration of risk, cost/benefit and public comments. Hazards analyses often are used where risk analysis is not practical or justified. Because of the broad scope and complexity of hazardous materials transportation, a predominately hazard-based system is used to provide a simple, efficient surrogate measure for risk without the cost of detailed risk analysis.

Under the Research and Analysis section of the budget, RSPA has initiated two projects to aid in the risk management of hazardous materials. The first project is to develop a "Hazardous Materials Risk Management Framework" that will serve as a structure to guide all risk management activities associated with hazardous materials transportation. The second project is an "Analysis of Risks Associated with Transportation of Hazardous Materials in Aircraft Cargo Compartments". Under the Research and Development section of the budget, RSPA has initiated a "National Assessment of Transportation Risk Posed by Poison Inhalation Hazard Materials, Explosives, Flammable Liquids and Gases". These projects are designed as initial efforts to develop the risk based information necessary to better manage the risk associated with hazardous material transportation. The results from each of these projects are expected to identify questions and information needs that must be addressed in order to perform more comprehensive risk management.

PROPANE GAS SERVICE EMERGENCY INTERIM FINAL RULE

Question. In February, RSPA published an Interim Final Rule on cargo tank motor vehicles in liquefied compressed gas service that was effective immediately, and was promulgated without an opportunity for notice and comment from the propane industry or general public. The rule attempts to address a specific safety concern involving the potential for release of propane during unloading operations. Please provide a complete list of all accidents resulting directly from this safety concern over the past decade, including any related injuries or deaths, and a description and cost assessment of any damage which occurred as a result of the accident.

Answer. Following is a summary of data taken from RSPA's Hazardous Materials Incident Reporting System (HMIS) on incidents that: occurred between 1987–1996, involved the unintentional release of a liquefied compressed gas, occurred during unloading operations, and are of a type that may be immediately stopped through operational controls imposed by the interim final rule.

REPORTED PROPANE SPILLS—SELECTED INCIDENTS THAT OCCURRED DURING UNLOADING FROM CARGO TANK MOTOR VEHICLES

[1987–1996]

Date	Location	Amount spilled (gallons)	Deaths	Injuries		Reported damages	Remarks
				Major	Minor		
8/10/87	Jeffersonville, IN	640	.....	.....	2	$250	Hose rupture. Fire.
2/17/88	Rochester, NY	245	.....	.....	.....	120	Pump failure.
8/01/88	Weldon, NC	50	.....	.....	.....	100	Valve failure.
8/22/88	Huntington, NY	20	.....	1	.....	10,000	Hose separation. Flash fire.
8/26/88	DeLeon, TX	3,500	1	.....	.....	28,500	Hose separation. Flash fire.
10/17/89	Waitsfield, VT	10	.....	1	.....	15,000	Hose rupture. Explosion. Fire.
12/17/89	Lowell, MI	3,000	.....	1	.....	950	Valve failure.
3/15/90	Ringtown, PA	12	.....	1	.....	356	Hose rupture. Flash fire.
10/02/90	Brighton, CO	50	.....	.....	.....	100	Hose rupture.
3/04/91	Fredericksburg, VA.	30	.....	.....	.....	711,016	Filler valve broke. Explosion and fire. Evacuation.
11/26/91	Titusville, FL	180	.....	.....	.....	100	Pump failure.
9/09/92	Milwaukee, WI	1,255	.....	.....	.....	424	Hose rupture.
4/19/93	Derry, NH	1,850	.....	.....	1	165,060	Hose rupture. Fire.
7/07/93	Horseheads, NY	1	.....	.....	.....	3	Valve failure.
6/09/94	Tucson, AZ	2,000	.....	.....	.....	900	Valve failure. Evacuation.
11/25/94	Louisville, KY	50	.....	.....	.....	4,477	Pump failure. Fire. Evacuation.
2/10/95	Honesdale, PA	5	.....	.....	.....	1,328	Pump failure. Evacuation.
2/16/95	Fisshersville, VA	16	.....	.....	1	102	Hose rupture.
7/05/95	Woburn, MA	200	.....	.....	.....	90	Pump failure. Evacuation.
8/16/95	Ashton, ID	2,000	.....	1	.....	27,000	Piping failure. Flash fire.
3/14/96	Sister Bay, WI	1,500	.....	.....	.....	740	Hose coupling failure.
8/16/96	Danielsville, GA	600	.....	.....	.....	270	Pump failure. Evacuation
9/08/96	Sanford, NC	40,000	.....	.....	.....	20,200	Hose coupling failure.

RSPA does not have a complete list of all incidents of this type, because reporting of incidents involving motor carriers that transport liquefied compressed gases in intrastate commerce was not required during the requested period. A final rule issued earlier this year will bring those carriers under the Hazardous Materials Regulations on October 1, 1997 and requires their reporting of each unintentional release.

In the case of propane, RSPA recognizes that most unloading operations are performed by motor carriers in intrastate commerce. RSPA is now working to develop a precise estimate of the probability of future releases of these hazardous materials, by gathering available information concerning past incidents from other government agencies, like State Fire Marshals, and private safety organizations, like the National Fire Protection Association.

The Emergency Interim Final Rule was issued following an incident on September 8, 1996 in Sanford, North Carolina when more than 35,000 gallons of propane were released during a delivery at a bulk storage facility. During the unloading of a specification MC 331 cargo tank motor vehicle into two 30,000-gallon storage tanks, the discharge hose from the cargo tank separated at its hose coupling at the storage

tank inlet connection. Most of the cargo tank's 9,800 gallons and more than 30,000 gallons from the storage tanks were released during this incident.

The driver became aware of the system failure when the hose began to violently oscillate while releasing liquid propane. He immediately shut down the engine, stopping the discharge pump, but he could not access the remote closure control to close the internal stop valve. The excess flow feature of the emergency discharge control system did not function, and propane continued to be released from the system. Additionally, the back flow check valve on the storage tank system did not function and propane was released from the storage tanks. In light of the large quantity of propane released, this incident could have resulted in a catastrophic loss of life and extensive property damage if the gas had reached an ignition source. Fortunately, there was no fire.

Question. Does the Interim Final Rule effectively mandate that two or more attendants be present while unloading propane from cargo tank motor vehicles? If so, was this RSPA's intent?

Answer. Following the investigation of a September, 1996 propane spill at Sanford, North Carolina, the propane industry determined that none of their cargo tanks, as currently equipped, conform to safety regulations concerning emergency discharge control systems that have been in place for nearly 50 years. Consequently, RSPA and the Federal Highway Administration (FHWA) saw a need to provide for public safety by applying additional operational controls designed to immediately stop the discharge of material in an emergency.

The Interim Final Rule allows industry to continue operating while we work collaboratively on a technical solution to this issue. Since issuance of the Interim Final Rule, RSPA and FHWA have worked closely with industry to develop a permanent solution to this problem. RSPA held public workshops on March 4 and April 16, 1997, and a public meeting on March 20, 1997 to discuss short and long term solutions to the problem.

The major objection by the propane industry is to that part of the Interim Final Rule that specifies the operator must have an unobstructed view of the discharge system and be within arm's reach of a means for closure of the internal valve. Industry representatives interpret the rule as requiring at least two operators. The rule does not require that two operators be in attendance for each unloading operation. In fact, the preamble to the rule notes the acceptability of various alternatives. One alternative being perfected by the propane industry involves use of a radio frequency remote activation device that permits one attendant to immediately stop the discharge from the cargo tank and to shut-down the vehicle's engine.

Question. It is the Committee's understanding that DOT has received Petitions for Reconsideration from the National Propane Gas Association and other organizations. Has RSPA given the petition its priority consideration? How is the agency working to resolve the issues raised in the NPGA's petition?

Answer. RSPA is giving its highest priority to the resolution of issues raised in petitions for reconsideration filed by the National Propane Gas Association and one other organization. On June 9, 1997, RSPA published in the Federal Register a Notice of Deferral of Decision on Petitions for Reconsideration of Interim Final Rule. RSPA deferred action on the petitions for reconsideration in order to avoid prejudging issues that are more appropriate for resolution in the final rule. RSPA will address the issues raised by petitioners and commenters in a final rule, which it intends to issue prior to August 15, 1997, the expiration date of the interim final rule.

On June 23, 1997, RSPA will conduct another public meeting at which two equipment manufacturers are scheduled to provide data on recently developed pressure-differential valves that reportedly meet, or exceed, the current standard to immediately stop the discharge of product in event of a hose separation. Installation of a fully conforming valve would have the effect of removing the cargo tank from the scope of this emergency regulation, thereby eliminating concerns raised by the NPGA. RSPA believes the partnership it formed with this segment of the hazardous materials transportation industry created the synergy that fostered development of this technology.

Question. In light of the fact that over 90 percent of the businesses affected by the Interim Final Rule are small businesses, did RSPA conduct a cost/benefit analysis on the Interim Final Rule prior to its effective date, or since? If so, did the analysis address whether those small businesses would bear disproportionate impacts from the Interim Final Rule?

Answer. RSPA conducted a preliminary assessment of estimated costs and benefits of the Interim Final Rule. While the assessment does not specifically consider whether small businesses would bear a disproportionate impact, RSPA recognized that at least 90 percent of the affected entities are small businesses.

RSPA's decision to apply the selected operational controls was based, in part, upon our sense that most small businesses would select the least costly means for complying with the requirement to be within arms reach of a means for closure of the emergency shut-down device. In the case of small cargo tank motor vehicles the annual cost of compliance was estimated at $1,324 per vehicle.

Question. According to RSPA's current estimates, what would be the total annual costs to society from propane releases if RSPA had not promulgated the Interim Final Rule?

Answer. In its regulatory evaluation, RSPA determined that annualized costs to society for the sixteen incidents reported between 1990–1996 range from a low of $322,192 to a high of $1,520,705. To calculate total annual costs for all such incidents RSPA must first know the number, and consequences, of related incidents involving motor carriers that transport hazardous materials in intrastate commerce. RSPA is currently working to collect those data.

The regulatory assessment also considered the possibility that such a release of propane could have catastrophic consequences on a level similar to other unintentional releases, like a 1975 incident at Eagle Pass, Texas. That incident, involving the release of 8,000 gallons of propane, resulted in 16 fatalities and serious injuries to 51 persons. In monetary terms, RSPA determined that a single plausible unloading incident on that order would result in losses in excess of $50 million.

Question. According to RSPA's current estimates, what are the total annual costs relating to a requirement to have two attendants be present while unloading propane from a cargo tank motor vehicle?

Answer. RSPA's rule does not require that two operators be in attendance for each unloading operation and allows operators to use various alternatives to achieve the level of safety contemplated in the Hazardous Materials Regulations. Our preliminary regulatory evaluation prepared in support of the interim final rule estimates that there would be increased costs to propane marketers who choose to use a second attendant of $0.00041 per gallon in the wholesale market and $0.00123 per gallon in the retail market, or an overall increase in costs of $0.00164 per gallon. In the case of a delivery of 200 gallons of propane, RSPA estimated that the retail customer will pay an additional $0.33. Considering that, at the time of that estimate, the national average retail price of propane was $1.255 per gallon, the extra $0.33 on a fuel bill of $251 was not considered to represent a significant or unreasonable cost increase.

Question. Please discuss the underlying issue of excess flow valve failure. What new automatic emergency shut-off equipment technologies are being considered by RSPA and the industry? What about remote shut-off technology?

Answer. Following the investigation of a September, 1996 propane spill at Sanford, North Carolina, the propane industry determined that none of their cargo tanks, as currently equipped, conform to safety regulations that have been in place for nearly 50 years concerning emergency discharge control systems. The requirement is to ensure that the flow of lading is stopped in the event of a separation or rupture of a hose or piping.

RSPA and FHWA have worked closely with industry to develop a permanent solution to this problem. The regulated industry has agreed that it is the best position to develop new emergency discharge control systems since it is aware of the operational constraints and costs associated with developing new systems or modifying existing systems.

RSPA and FHWA have recently been made aware of two fully automatic and several radio-controlled remote manual shut-down systems that industry has developed and is presently testing. The automatic shut-down systems would function if a hose ruptured or separated. The radio-controlled remote shut-down systems require the operator to initiate shut-down, but would stop any leakage observed by the operator. RSPA has requested details on the automatic systems from the manufacturers and is awaiting information from the industry associations (National Propane Gas Association and The Fertilizer Institute) on the remote systems their task forces have tested.

Question. Has RSPA identified any additional hazardous materials research and analysis needs that would assist the timely development of improved liquefied gas delivery safety equipment?

Answer. The Volpe Center has been tasked to provide RSPA and industry with technical assistance in systems development and evaluation. Volpe has developed a computer model of typical cargo tank piping and hose systems to evaluate system performance over variations in operating conditions. To date, RSPA has not identified any additional research or evaluation needs that would assist the timely development of improved liquefied gas delivery safety equipment.

HAZMAT TRAINING

Question. How many joint inspections did OHMS regional inspectors conduct last year with State inspectors? (Do not include joint inspections conducted with the IPA hazardous materials specialists).

Answer. In 1996, OHMS headquarters and regional inspectors conducted five multi-day multi-agency joint inspections and 14 individual inspections with State compliance personnel.

Question. Please discuss the scope, nature, and frequency of assistance that OHMS regional staff provided to State hazmat personnel during the last year. Please include data on the number of training programs conducted by the regional inspectors for the benefit of State inspectors.

Answer. RSPA does not inspect carriers. Because most State enforcement involves highway carriers, RSPA does not receive many requests for training from the States. We continue to attend every Cooperative Hazardous Materials Enforcement Development (COHMED) program meeting, either making presentations or making staff available, and assure the States that our headquarters and regional offices will assist them in any request they make.

OHMS headquarters and regional staffs receive phone calls from State and municipal agencies on a regular basis. These calls involve requests for clarification of regulations, for other informational material, and, occasionally, a request that RSPA investigate a matter outside the State's jurisdiction. Because most State inspectors work in areas other than those of OHMS inspectors, we receive relatively few requests for training.

In 1996, OHMS headquarters and regional inspectors participated in five multi-day and 14 individual inspections, all of which included State inspection personnel. Although no formal training was conducted, OHMS inspectors made a point to provide training to State and other inspectors during these activities.

Question. How many State officials participated in the IPA specialists program during each of the last three years? How much money was appropriated for this program during each of the last three years? How much is requested for fiscal year 1998?

Answer. In 1995, five State officials participated in the IPA specialists program, in 1996, three participated, and in 1997, one has participated thus far. In fiscal year 1995 and fiscal year 1997, $40,000 was appropriated for the IPA program. No funds were appropriated for the program in 1996.

Question. Please discuss the extent of interest that State and local governments have expressed in the Hazardous Materials Specialists Program. How many applications did you receive for the available positions during fiscal year 1996 and thus far during fiscal year 1997? What do you anticipate for fiscal year 1998?

Answer. The Hazardous Materials Specialist program has generated widespread interest. In 1996, we received 3 applications from potential candidates; so far, in 1997 we have received 1 application.

We anticipate receiving a high volume of written and verbal inquiries requesting information about the program in 1998 as a result of the new HM–200 requirements.

INFORMATION DISSEMINATION

Question. Please breakout the subcategories of anticipated spending by activity for the information dissemination contract program.

Answer. The $520,000[1] requested for fiscal year 1998 to fund the Information Dissemination program is broken down as follows:

—For maintenance of the COHMED program sponsored by the Office of Hazardous Materials Initiatives and Training—$100,000. This program, through semi-annual conferences and the COHMED newsletter, provides for the exchange of information among States, local governments, and industry on compliance, enforcement and regulatory issues.

—To fund the Hazardous Materials Specialist Internship program sponsored by the Office of Hazardous Materials Initiatives and Training—$40,000. In this program, candidates from State and local HM transportation enforcement agencies participate in a six-week residency with RSPA.

—RSPA will also continue outreach and information dissemination efforts through the Hazardous Materials Information eXchange (HMIX), interagency agree-

[1] Cooperative Hazardous Materials Enforcement Development (COHMED) and the HM Specialist Internship Program, previously shown under Inspection and Enforcement, were moved to Information Dissemination.

ments and by direct contact with the public and private safety and emergency response personnel—$25,000.

—RSPA will develop, produce and distribute a video for drum reconditioners, the third in the "ENSURING SAFETY" video series. Drum reconditioners are primarily very small businesses in a competitive industry. They requalify a packaging with high risk potential not only because of the nature of the contents, but because of the volume of distribution—$40,000.

—RSPA is enhancing its Hazardous Materials Information Center capabilities by purchasing up-to-date telephone, facsimile, and computer hardware and software for Internet accessibility to assist HMS permanent staff in answering telephone inquiries—$315,000.

SHIPPER AND CARRIER REGISTRATION PROGRAM

Question. Please provide a detailed breakout of costs and expenditures for the shipper and carrier registration program.

Answer. The registration program is implemented through four contractual arrangements. Forms and fees are submitted to a lockbox bank, which deposits checks and credit car payments into the Treasury, provides data-entry services, and forwards data files and the submitted paperwork to RSPA at the Volpe National Transportation Systems Center (VNTSC) in Cambridge, Massachusetts. The lockbox bank contract is supplied through the Treasury Department's Financial Management Service (FMS).

VNTSC provides data management services, and operational support, including a 24-hour 800-number service. Because VNTSC is an element of RSPA, the vehicle used to obtain these services is a Multi-Year Project Plan Agreement, which is adjusted annually to reflect the level of effort required. In fiscal year 1997, $600,000 was budgeted for these services.

Additional programming and information request response services, including a full-time help desk available during business hours, are provided through an on-site contract at the headquarters office. In fiscal year 1997, $100,000 was budgeted for these services.

The remaining $50,000 was budgeted for printing and distributing the registration brochure and form, other mailings, and other administrative costs of the program.

Question. The shipper and carrier registration program is in its sixth full year of operation. Please display the total in registration fees collected each year, broken out by use (emergency preparedness activities and registration activities). How much do you expect to collect during fiscal year 1997?

Answer.

EMERGENCY PREPAREDNESS FUND—RECEIPTS

Fiscal year	Grants program receipts	Registration receipts	Total receipts
1993	1,433	8,117	9,550
1994	1,397	6,986	8,383
1995	1,365	6,873	8,238
1996	1,605	6,910	8,515
1997 (estimated)	1,200	6,910	8,110
1998 (estimated)	1,200	6,910	8,110

Question. RSPA has requested $750,000 for the Shipper and Carrier Registration System. What cost analysis has been done to indicate that this amount is appropriate? What would be the consequences of reducing the amount of funding for this program?

Answer. RSPA has evaluated the costs of this program and concluded that $750,000 is the minimum amount necessary to provide timely collection and deposit of the fees and issuance of registration certificates, and to respond adequately to the heavy demand for assistance from the public. The costs themselves could be reduced by limiting some of the services we currently supply, such as, the 24-hour 800-line service for expedited registrations. All customer-oriented services, however, are heavily used by persons either required to register or who need assistance in understanding the registration requirements. To curtail these services would tend to adversely impact on the public's ability to get information on a timely basis.

Question. For each of the modal administrations that enforce the registration requirement, please present data on the number of enforcement actions taken against those that have not registered or paid the required fee, or failed to present the registration number as required.

Answer. The Federal Highway Administration (FHWA) opened 295 cases between June 1993 and September 1996 that included citations for violations of the registration regulations. Additionally, FHWA has issued 96 "Notices of the Requirement to Register," an informal notice developed for use during Roadcheck 1993, but used beyond that exercise. FRA has issued 155 of these informal notices and has initiated 3 cases against parties for failure to register. Since the beginning of fiscal year 1994 RSPA's Office of Hazardous Materials Enforcement has initiated 48 enforcement actions which included violations for failure to register, 35 of which were civil penalty cases and 13 of which were ticket citations.

Question. What is the scope of cooperation and assistance that you are receiving from the Office of Motor Carriers regarding enforcement of the hazmat registration program? Are you satisfied with the extent to which OMC Safety Specialists are disseminating information on the registration program and its associated fees?

Answer. RSPA and FHWA's Office of Motor Carriers (OMC) continue to work together to improve compliance with the registration program. For example, OMS has incorporated the registration regulations into its routine compliance review procedures and has issued at least 295 citations for the failure to register or for related record-keeping requirements. When cases for failure to register are completed, OMC frequently issues a press release to highlight the enforcement actions taken. RSPA supplies copies of the registration brochure to the OMC regional offices for them to distribute. Additionally, RSPA and OMC worked together during Roadcheck 1995 to further identify parties failing to register and to obtain more current and accurate compliance information.

Question. What are RSPA, OMC, and FRA doing to publicize enforcement actions against companies who are required to, but are not paying, the registration fee required under the HMTUSA?

Answer. RSPA provides copies of its civil penalty case orders to six trade press publishers. It also publishes an annual Penalty Actions Report that includes all actions taken by RSPA and the Department's modal administrations for violations of the hazardous materials regulations. This report is also incorporated into RSPA's biennial report to Congress on the transportation of hazardous materials. OMC frequently issues press releases to highlight enforcement actions taken.

Question. What compliance rates were achieved in the 1994–95 registration cycle, estimated for the 1995–96 registration cycle, and projected for the 1997–98 registration cycle for the hazardous materials registration program?

Answer. We believe compliance with the registration requirement is greater than 90 percent. This conclusion is based upon analysis by use of the Truck Inventory and Use Survey (TIUS) (1987), which provides specific data on truck characteristics and other data on characteristics of the hazardous materials industry. Included in TIUS are data on the number of trucks involved in hazardous materials transport, and the number of trucks and/or trailers owned and/or operated at the same home base. We were able to extrapolate from these data the approximate number of companies, not under lease, using one or more placarded trucks weighing 26,000 pounds or more. Airlines and railroads are well known, and we are confident that they are registered. Compliance enforcement with the registration requirements was a key element of ROADCHECK–93 and ROADCHECK–95, nationwide inspection efforts sponsored by the Federal Highway Administration. Of 2,300 placarded trucks that were checked for proof of registration during the 1993 inspection, 88 percent were registered and had proof on board. Of the 12 percent that did not have proof on board, 80 percent were already registered. Thus, there was approximately 98 percent compliance with the registration requirement. Of the 1,220 placarded trucks that were checked during the 1995 inspection, 91 percent were registered and had proof on board. Of the nine percent that did not have proof on board, 60 percent were already registered. Therefore, there was approximately 96 percent compliance with the registration requirement. Similarly, during fiscal year 1995 the Office of Motor Carriers conducted 2,338 compliance reviews of carriers of hazardous materials and initiated 100 enforcement cases that cited the registration regulations. This indicates a 96 percent compliance rate. During fiscal year 1996 the Office of Motor Carriers opened 79 enforcement cases citing the registration regulations as a result of 3,215 compliance reviews of hazardous materials carriers, indicating a 97 percent compliance rate. During CY 1995 RSPA's Office of Hazardous Materials Enforcement conducted 1,217 inspections of hazardous materials shippers and initiated 15 cases that involved the registration regulations. In CY 1996 1,208 inspections were performed, resulting in 15 citations of the registration regulations. These

two sets of inspection results indicate a compliance rate of 99 percent. We expect that the compliance rate for 1997 will remain consistent with the previous years.

IMPLEMENTATION OF HAZARDOUS TRANSPORTATION ACT

Question. Please provide a detailed update of how RSPA has implemented Section 116 of the Hazardous Materials Transportation Authorization Act (Public Law 103–311), which requires the Secretary to designate a toll-free telephone number for the reporting of possible violations of hazardous materials transportation laws or regulations. How has the implementation of this provision shown to be beneficial, and how well is this system working?

Answer. RSPA's toll free number (1–800–HMR–4922) was established on May 8, 1995. Each modal Administration (i.e., USCG, FRA, FAA, FHWA) and RSPA have established their own toll-free numbers to handle the reporting of possible violations in their respective enforcement area. RSPA's toll-free number is a computer operated system that allows a caller who wishes to report a possible violation of the Hazardous Materials Regulations to be transferred to RSPA's hazardous materials enforcement office or to any of the other modal administrations without having to place another call. Each mode has established its own mechanism for responding to complaints involving possible violations of the regulations. In addition, through RSPA's toll-free number, a person can receive clarification on the Hazardous Materials Regulations (HMR), copies of training materials, and copies of recent Federal Register publications. Callers can also leave a message requesting information on the HMR. We have set a customer service standard that calls requesting assistance with the HMR will be returned within 24 hours.

RSPA receives more than 25,000 phone calls annually to the Hazardous Materials Information Line (HMIL). Since callers can access the HMIL either by a standard long distance telephone number or by dialing an 800 telephone number, we cannot identify accurately the number of callers using the 800 number. Additionally since callers have a series of selection options, we do not have information on the number of callers that select an individual option. We estimate that approximately 20,000 of these calls are received using the 800 number. Most of these calls (an estimated 80–90 percent) are requests for information on compliance with the HMR. The remaining calls to the 800 number are requests for rulemaking actions, requests for training materials, and reports of possible violations. RSPA believes, that by establishing and operating the 800 number, it has provided better access for the regulated public to obtain regulatory guidance, instructional materials, and rulemaking information, and to report suspected violations of the regulations.

Question. How is the information that is gathered through this system shared with other modes and agencies?

Answer. Callers wanting to report violations of the regulations can be automatically transferred to the appropriate modal administration.

Question. Does the information that is collected through this system include hazmat shippers? If so, how? If not, please provide an explanation on how the system could be modified to incorporate shipper data, and what the costs would be.

Answer. Use of the toll free 800 number provides the opportunity for anyone to report a potential violation of the regulations, including shippers, carriers, freight transporters, and packaging manufacturers.

Question. How does RSPA, OMC and FRA follow-up on complaints or notices of possible violations that are received through this system?

Answer. Complaints received by RSPA through the toll-free number which allege violations by persons under the jurisdiction of RSPA are electronically routed to the Office of Hazardous Materials Enforcement (OHME) through a "blind" transfer feature incorporated into the system. OMC and FRA receive calls in a similar manner.

OHME enters the complaint into its COMPLAINT data set. The complaint is then assigned and investigated. OHME investigates all complaints that it receives.

The message routing calls to OMC advises complainants that their complaint must be in writing and contain specific information about dates, times, material facts, violator name and address and/or location. Complainants must clearly state the alleged violation and/or problem. OMC provides its headquarters address for submission of these written complaints. Upon receipt, OMC forwards them to the appropriate division for handling.

FRA follows a process similar to RSPA's. Complaints (hazmat and otherwise) are logged in and assigned to the appropriate region for an investigation.

Question. What are the fiscal year 1997 and expected fiscal year 1998 costs associated with this system?

Answer. RSPA received $315,000 in a supplemental appropriation in fiscal year 1997 for the Hazardous Materials Information Center and is requesting the same funding level for fiscal year 1998.

Question. Which provisions of current law regarding hazmat safety have not been fully implemented by OHMS? What are your plans to implement these provisions? When will these actions be taken?

Answer. RSPA has implemented all provisions of current law regarding hazmat safety.

REAUTHORIZATION ISSUES

Question. When does the OHMS's current authorization expire? Has the administration proposed new authorizing legislation? What action has been taken to date, if any, by the appropriate Senate and House authorizing committees?

Answer. OHMS's authorization expires at the end of fiscal year 1997. On April 17, 1997, the Administration proposed reauthorizing legislation as Title X of the National Economic Crossroads Transportation Efficiency Act of 1997 (NEXTEA). This legislative proposal is under consideration by the House and Senate authorizing committees. Congressmen Dingell and Oberstar, by request, introduced the Administration's NEXTEA safety titles (titles IX–XIV) as H.R. 1720. The Senate Subcommittee on Surface Transportation and Merchant Marine held a public hearing on the Administration's proposal on May 8, 1997.

Question. What are the major components of your reauthorization bill and how is this strategy or direction reflected in your fiscal year 1998 budget request and program planning?

Answer. The major component of the Administration's bill is a series of amendments that would enhance and clarify the enforcement authority of DOT inspection personnel. These amendments would clearly establish DOT inspectors' right to inspect packages, take samples, hire experts to sample and analyze materials, and issue orders to stop transportation of an undetermined material if an imminent hazard may exist. They also would authorize the Secretary of Transportation to issue emergency orders when there is an emergency situation involving a hazard of death, injury or significant harm to the environment. These authorities would improve DOT's ability to prevent undeclared shipments of hazardous materials, detect violations of the hazardous materials regulations, and prevent hazardous materials transportation that jeopardizes people or the environment.

The fiscal year 1998 budget requests no additional funding for implementation of these provisions. We are planning to implement these authorities when they are enacted through delegations, training and establishment of standards and procedures.

OFFICE OF EMERGENCY TRANSPORTATION

Question. How much of your budget request supports maintenance of the Crisis Management Center?

Answer. In fiscal year 1998, of the $200,000 requested for the Crisis Management activity, $40,000 is designated for Crisis Management Center (CMC) on-going maintenance, based on fiscal year 1977 funding levels. Funding for on-going maintenance is vital to maintaining a technologically strong focal point for transportation response to disasters. The remainder of the funding is allocated for headquarters and regional response team training, the Regional Emergency Transportation Coordinator (RETCO) program support funding, ongoing data processing and geographical outreach efforts with industry.

Question. How useful are the Regional Transportation Coordinators trained by your Office? Are they able to provide full time and attention to the disaster in lieu of their regular positions?

Answer. The 10 Regional Emergency Transportation Coordinators (RETCO's) are senior regional executives from the Federal Aviation Administration, the Federal Highway Administration and the United States Coast Guard. Under the general supervision of the Office of Emergency Transportation, their function is to provide the overall leadership and policy direction for the regional emergency response effort. This includes not only DOT Operating Administrations, but also other Federal transportation support agencies. This leadership role requires a modest expenditure of time and does not interfere with their day-to-day activities.

Each RETCO also has a Regional Emergency Transportation Representative (RETREP). This employee has day-to-day responsibility for planning, monitoring and reporting incidents and providing on-site management of the DOT response during a disaster within their region. Currently, RETREP duties within the DOT Operating Administrations vary from full time, sole duty, to part-time, collateral

duty. The work of the RETREP's is pivotal to the Department's ability to deliver assistance to the victims of disasters.

Question. Please prepare a table indicating the amount appropriated and the amount actually spent for the different major categories and subcomponents of the Emergency Transportation budget for the last three years. Please explain any deviation or reallocation of funds.

Answer. The table below shows the three requested years.

Fiscal year	Appropriation	Obligation
1995:		
Contract programs:		
Transportation Res management	$42,000	$42,000
Operational readiness	80,000	80,000
Crisis management	[1] 454,000	442,000
R&D: Operational management support	50,000	6,000
1996:		
Contract Program: Crisis management	250,000	250,000
R&D: Operational management support	50,000	81,000
1997:		
Contract program: Crisis management	200,000	[2] 215,000
R&D: Operational management support	50,000	[3] 57,000

[1] Funds for CMC design and construction.
[2] Transfer PC&B to contract program.
[3] Estimated obligations.

Question. Please specify what research and development activities the Office of Emergency Transportation plans to accomplish with a budget of $50,000?

Answer. The R&D budget for the Office of Emergency Transportation allows us to harness new technologies to enhance the Department's ability to provide Federal assistance to the States under the Federal Response Plan. This funding allows the CMC to remain contemporary, so that we can manage our future response operations reliably and efficiently. In addition, this funding allows us to upgrade software to extend existing computer databases used within this office to support our response efforts. Finally, we will continue the expansion of our series of informational monographs on threats to transportation systems around the nation, prepared in partnership with the natural hazard scientific community. Over 1,000 copies of the first two volumes of this series have been distributed by the private publishers who has made the publication available through the Internet and by DOT. Copies have been distributed to Federal, State and local agencies, private industry, regional transit operators and engineering firms. The current monographs developed by the Central U.S. Earthquake Consortium (CUSEC) and the Western States Seismic Policy Council (WSSPC) each discuss the importance of increased awareness with regard to earthquake risk and vulnerability of the transportation system (infrastructure). The monographs center around areas in the central U.S. (AR, IL, IN, KY, MS, MO and TN) as well as in the western U.S. (AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, WY, Guam, the Yukon Territory and British Columbia).

EMERGENCY PREPAREDNESS GRANTS

Question. Please describe the allocation formula for emergency preparedness grants.

Answer. RSPA allocated grant funds for fiscal year 1996 based on objective factors using verifiable publicly available data which represented community risks and needs. With the exception of the States and territories that did not apply, and the three percent of the training funds that were set-aside for Indian tribes, each grantee received an award equal to its share based on RSPA's allocation factors.

RSPA used the following factors for allocation of training grants:

—Fifty percent of the funds were allocated to States (including territories) based on their percentage of total population. Population is a surrogate for the number of responders needing training.

—Thirty percent of the funds were allocated to States based on their percentage of total highway miles, which is a surrogate for highway risk.

—Twenty percent of the funds were allocated to States on the basis of their percentage of the total number of chemical facilities, as reported by the U.S. Census Bureau. This allocation measure is a surrogate for fixed-facility risk.

We used an appropriately different approach in allocating planning funds:

—Twenty percent of the funds were allocated to States based on their percentage of total population.
—Forty percent of the funds were allocated based on the State's percentage of total hazardous materials truck miles.
—Forty percent of the funds were allocated on the basis of the State's percentage of the SuperFund Amendments and Reauthorization Act of 1986 §302 chemical facility reports.

Question. What are the measures of success or accomplishments for this program? How do you know whether the grant funds are used effectively by the States?

Answer. RSPA measures the success of the program by the States' accomplishments in terms of training and planning for emergency response to hazardous materials incidents. To the present time, 424,000 hazmat emergency responders have been trained, in part, using grant funds. Also in the latest year, 511 commodity flow studies, which identify where hazardous materials are being transported to facilitate emergency response planning, were accomplished; 770 exercises were held, and 4,477 response plans were created or updated.

RSPA's grants have supported emergency response training along the U.S.-Mexican border in support of NAFTA. Grants have totaled $3.9 million over four years (fiscal years 1993–1996) to the States of California, Arizona, New Mexico, and Texas. RSPA also used the program to fund translation of the North American Emergency Response Guidebook into Spanish, thus helping Spanish-speaking first responders in the U.S. and Mexico.

RSPA grantees have used their grant funds effectively and creatively to train a large number of emergency responders at a modest cost. For example, Arkansas used an educational TV network to provide hazmat training to emergency responders in its communities. North Carolina uses mobile training facilities to provide technician training, and Idaho provides hazmat training in a training center developed at an unused airport.

THE VOLPE CENTER

Question. For fiscal year 1996 and fiscal year 1997, what percent of funds were contracted out? For fiscal years 1997 and 1998, what percent of funds do you plan to contract out?

Answer. For fiscal year 1996 about 74 percent of the Center's obligations were contracted to the private and university sectors. The percentage is not expected to change significantly in fiscal year 1997 or fiscal year 1998.

Question. What percent of your personnel costs are for contract administration, technical program direction, and in-house research?

Answer. About 3 percent of personnel costs is for contract administration. About 73 percent is tied to specific technical project work, including both technical direction and technical performance. No funds or staff were devoted to in-house research (i.e. independent research and development not tied to a client project) in fiscal year 1996 and none is planned for fiscal year 1997–98. The remaining 22 percent of personnel costs covers facility operations and all other Center administrative and management services.

Question. What have you done to stop "pass throughs" to the Volpe Center?

Answer. Neither the Volpe Center Working Capital Fund nor RSPA work acceptance policy permits the Center to accept funds earmarked by the customer for a specific contractor, commonly known as "pass-throughs." The responsibility for the selection, technical direction, and performance of all Volpe Center contracts rests with the Volpe Center (except for the Small Business Innovation Research (SBIR) Program in which the funding agency usually provides the technical team to select and oversee the contracts.) In fiscal year 1996 less than 2 percent of the Center's contract obligations were sole-sourced.

Question. Please break out, in tabular form, obligations by each of the DOT modal administrations to the Volpe Center for each of the last three years. What is the significance of these funding trends?

Answer.

OBLIGATIONS OF DOT MODAL ADMINISTRATIONS TO THE VOLPE CENTER

[In millions of dollars]

	Fiscal years—		
	1995	1996	1997 [1]
FAA	93.6	86.5	85.0
FHWA	10.7	10.0	10.0
USCG	7.2	5.3	6.0
FRA	12.3	9.5	9.0
FTA	5.6	4.8	4.5
NHTSA	6.1	7.9	7.3
RSPA	4.5	4.2	5.2
Other DOT	2.1	2.8	3.0
OST	1.2	1.5	1.2
Total	143.3	132.7	131.2

[1] Estimated.

Note.—Each amount includes that customer's participation in DOT's SBIR program, which the Volpe Center manages.

The trends generally reflect the appropriations to our customers and changes in their program emphasis.

Question. What are you doing to build up the in-house expertise of Volpe personnel and their technical capabilities to do more of their own research?

Answer. This year the Center focused on improving staff competencies in safety and security, environmental issues, traffic management and infrastructure renewal areas. Transportation lecture series focused on issues such as transportation safety, airport strategic planning and information systems modeling. In addition, lunchtime meetings were held monthly to share information, experiences, and current trends of interest to the technical community.

Since last year the number of Center staff who possess advanced degrees has increased from 229 to 236. This increase is due, in part, to the Center's Fellows Program which is designed to provide career staff with the opportunity to seek graduate and post-graduate education in key transportation areas.

During the first eight months of fiscal year 1997 the Center hired two technical staff members for each technical staff loss which resulted in net increases in many technical occupations including Operations Research, Computer Engineering, Computer Systems Analysis, and Environmental Engineering. The Center also has a very active cooperative education intern program involving 12–15 Universities and Colleges.

Question. When was the last time that Volpe conducted customer surveys? What were the results?

Answer. All Volpe Center customers participated in our first round of structured customer satisfaction interviews in 1995 and 1996. The summary results, based on interviews with 219 customers' project managers and 62 senior-level customers, are shown as follows. More detailed results were reported to all customers in a report, "Round 1 Executive Summary of the Customer Satisfaction Monitoring Initiative," October, 1996. The Volpe Center plans to complete its second round of customer satisfaction monitoring during the spring of 1998.

The overall customer satisfaction rating is on a scale of 0 to 10 where 10 equals extremely satisfied.

Satisfaction rating	Project-level interviews (percent)	Senior-level interviews (percent)
10	7	.....
9	22	23
8	40	43
7	19	17
6	7	7
5	1	7

Satisfaction rating	Project-level interviews (percent)	Senior-level interviews (percent)
4	2	
3	2	3
<3		

Question. Please prepare a table showing the percent of the Volpe work that has been conducted for non-DOT agencies for each of the last four years.

Answer.

VOLPE CENTER OBLIGATIONS FOR NON-DOT AGENCIES

[In percent]

	Fiscal years—			
	1994	1995	1996	1997 [1]
DOD	24	12	12	12
Other non-DOT	10	15	16	18
Total	34	27	28	30

[1] Estimated.

Question. What are the Volpe overhead charges and how have you tried to reduce these? Please provide a detailed explanation and dollar figures of what all of the overhead costs are for each of the last three fiscal years.

Answer. Following is the distribution of the Center's indirect expenses:

[In millions of dollars obilgated]

Indirect activity	Fiscal years—		
	1995	1996	1997 [1]
Facility operations	3.7	4.0	3.7
Business services	8.2	7.6	7.9
Line management	2.0	2.3	2.4
Centerwide services	1.2	0.9	1.2
Computer & LAN services	3.6	3.8	4.1
Executive operations:			
Industry outreach	0.3	0.3	0.2
Capability development	0.3	0.3	0.5
Plans and program development	1.0	1.1	1.2
Chief counsel	0.4	0.4	0.5
Executive management	1.1	0.8	0.8
Total indirect	21.7	21.5	22.5
Total obligations	198.2	186.1	195.0
Indirect to total (percent)	10.9	11.6	11.5

[1] Estimated.

The estimated fiscal year 1997 indirect expenses reflect increases for salaries, benefits, negotiated contract price adjustments and other normal cost growth. Reductions from our $25.7 million fiscal year 1993 indirect budget (baseline established by the Federal Workplace Restructuring Act of 1994) have been achieved primarily by administrative staff reductions of 46 FTE. Continuing efforts are focused on process simplification, improved automation and introducing current energy conservation technology.

Question. Please provide a detailed listing of all fiscal year 1997 new start reimbursable agreements that the Volpe Center has with other Federal agencies. Be certain to include all costs that are paid out to contractors hired by the Volpe Center.

Answer. Through eight months of fiscal year 1997 there have been five new starts totaling $1,008,700. The information follows:

Project	Customer	Funding	Planned contract (percent)
Support for the President's Commission on Critical Infrastructure Project	EPA [1]	$320,000	10
Strategic planning support to region III	EPA	80,700	.....
Yosemite National Park environmental logistics & transportation analysis	Interior	350,000	79
Technical litigation support	Justice	8,000	18
Facilities management system planning, development, and implementation support	USPS	250,000	48

[1] Multi-agency effort.

Question. Please provide detailed explanation as to why the Volpe Center tends to hire outside contractors to complete technical aspects of work tasks. Federal agencies using the Volpe Center assume that work is done by "in-house" staff as part of the negotiated amount of contract. Further, please explain why it is critical for Volpe staff to travel, sometimes long distances at huge costs, to provide "quality control" to hired contractors. How can quality be handled without excess travel?

Answer. At any point in time the Volpe Center is responsible for about 350 projects. For each, the Volpe Center determines the appropriate contract support role, if any. Projects in support of Federal regulatory or policy analysis typically rely primarily on our Federal staff. Projects that require extensive software development, specialized testing, or extensive system deployment typically use contractor support more intensively. Project agreements with customer agencies identify the anticipated costs associated with Volpe Center federal staff and with contractor support.

While some Volpe Center staff travel is for contractor oversight, most is for coordination with our agency customers, data collection, or interaction with the ultimate users of systems being developed and deployed. All Volpe Center travel is performed in accordance with federal regulations, and is taken only when it is a cost effective way to achieve results.

ST. LAWRENCE SEAWAY DEVELOPMENT CORPORATION

PREPARED STATEMENT OF DAVID G. SANDERS, DEPUTY ADMINISTRATOR

This budget request for fiscal year 1998 from the Saint Lawrence Seaway Development Corporation (SLSDC) is different from past budget requests. As a result of the Administration's effort to convert the SLSDC to a Performance Based Organization (PBO), the SLSDC is not making an appropriation request. Financing is to be derived from an automatic annual payment from the Harbor Maintenance Trust Fund (HMTF). The PBO proposal includes an automatic annual payment for fiscal year 1998 of $11,200,000 from the HMTF, and $1,220,000 from non-federal source revenue collections and the Corporation's financial reserve. The Corporation's fiscal year 1998 budget program level totals $12,420,000. This includes $11,680,000 to fund operations and maintenance, and $740,000 for capital improvements.

On March 4, 1996, as part of the Administration's reinventing government initiative, Vice President Gore announced the Administration's plans to restructure eight federal agencies as PBO's. The SLSDC was one of the eight agencies chosen for conversion to a PBO.

Prerequisites for becoming a PBO candidate: have a clear mission, measurable services, and a performance measurement system in place or in development; generally focus on external, not internal, customers; have a clear line of accountability to an agency head who has a policy accountability for the functions; have top level support to transfer a function into a PBO; and have predictable sources of funding.

Immediately following the March 4 announcement, Corporation staff began work at three levels: the National Performance Review (NPR) PBO Advisory Group; the SLSDC Conversion Team, which included NPR, the Office of Management and Budget (OMB), Department of Transportation Officials (DOT), and SLSDC staff; and an internal Corporation work group led by the Administrator. In coordination with these groups the SLSDC developed options and recommendations for proposed management, organizational structure, performance indicators, administrative waivers, and a financial plan. OMB the SLSDC PBO plan on June 3, 1996. Legislation, including the financial plan, was submitted to the Congress on July 16, 1996.

On July 31, 1996, the Senate passed the DOT appropriations for fiscal year 1997, which included a sense of the Senate amendment to consider legislation to establish SLSDC as a PBO beginning in fiscal year 1998. The Conference Committee deferred consideration of the SLSDC PBO proposal; however, the Committee directed the GAO to conduct a review of the PBO concept, with special emphasis on SLSDC. This year, revised PBO legislation was resubmitted to the Congress May 5, 1997, and the GAO study was completed May 15, 1997.

Under the PBO plan, the SLSDC would be funded, beginning in fiscal year 1998, by an annual automatic payment (fiscal year 1998 through fiscal year 2002) from the HMTF. The payment is to be a dollar amount equal to the rolling five year average of U.S. international metric tonnage moved through the Seaway, adjusted by a factor of 1.076, and adjusted for inflation by the percentage difference between the Consumer Price Index for all urban consumers (CPI-U) for the first quarter of calendar year 1996, and the CPI-U for the first quarter of the calendar year in which an annual payment is determined. The Corporation would have flexibility to use the funds and other resources to meet the performance targets specified in the COO performance contract. Achieving these targets would meet the overall goals of the PBO initiative: to improve the performance of government by making it more responsive and efficient at reduced cost.

1996 NAVIGATION SEASON OVERVIEW

Overall tonnage levels in 1996 were almost even with 1995 levels. Total tonnage through the Montreal/Lake Ontario section of the St. Lawrence Seaway in CY 1996 was 38.1 million metric tons, which was 610,000 tons or 2 percent below the 1995 total. The decrease was the first downturn in Seaway traffic since 1992. Even with the slight reduction from 1995, the 1996 season exceeded the previous five year av-

erage (1991 through 1995) by 8 percent or 3 million tons. Vessel transits were 2,707, down 3 percent from 1995.

During the 274-day 1996 navigation season (March 29–December 27), the Seaway experienced a sluggish first half of the season, before rebounding during the latter months with the fall harvest of corn and soybeans. Both U.S. and Canadian grain export shipments were down more than 2 million tons or 16 percent below 1995 levels. At the start of the season, U.S. wheat movements and transshipments through St. Lawrence River elevators were temporarily suspended by the Canadian Agricultural Ministry for possible contamination from the Karnal Bunt fungus. Despite a strong overseas market for U.S. grains, exports declined 9.4 percent nationally due in part to low carryover stocks from 1995. By contrast, Seaway movements of iron ore increased 6 percent to 11.6 million tons, the highest tonnage level for ore since 1981.

There was also strong growth in the movement of general cargo, including manufactured iron and steel, which rose sharply in CY 1996. All general cargo through the Seaway totaled 5.9 million tons, an increase of 25 percent. The gain was led by increases in manufactured iron and steel at 4 million tons, an increase of 25 percent, and steel slabs at 1.7 million tons, an increase of 27 percent.

The U.S. locks were open for navigation 274 days in 1996 and available to vessel customers 97 percent of that time. Delays to navigation for all causes totaled 187.6 hours of which weather and visibility conditions accounted for 73 percent or 137.2 hours.

1996 ACCOMPLISHMENTS

Pilotage transfer

On December 11, 1995, regulation of Great Lakes pilotage was transferred to SLSDC from the U. S. Coast Guard (USCG). This transfer of regulatory responsibility has been very smooth and has not resulted in any disruption to navigation. The pilotage staff completed the first full pilotage rate making review since 1987. The audit was completed at a cost of $50,000, considerably lower than the cost of past audits in the USCG. This resulted in the first increase in pilotage rates since 1992. The final rates became effective March 1, 1997.

Toll negotiations

For the 1996 season, the SLSDC negotiated a freeze on the Canadian Tariff of Tolls at the 1993 Tariff level for the third consecutive year with the Canadian Seaway Authority (SLSA).

PBO conversion

The SLSDC PBO conversion team, beginning in March 1996, worked throughout the year preparing a plan to transform the SLSDC into a PBO. Working closely with Seaway union and non-union employees, NPR, OMB, DOT's Office of the Secretary, and Seaway users, the conversion team developed a draft bill that was submitted to the Congress in July. While the bill was not eventually adopted, a sense of the Senate resolution was attached to the DOT Appropriations Bill declaring the SLSDC PBO initiative worthy of future consideration. The SLSDC's draft bill was used by the NPR as a model for other agencies being considered as PBO's. Since November of 1996, the SLSDC conversion team has worked closely with the GAO staff studying the SLSDC's PBO plan. The report was completed and released on May 15, 1997.

NPR hammer award

On October 4, 1996, the SLSDC and the USCG received a joint Hammer Award for improving the vessel screening program conducted in Montreal. The screening program supports implementation of the Oil Pollution Act of 1990 and the Non-indigenous Aquatic Nuisance Prevention and Control Act of 1990. Combining Seaway and Coast Guard inspections with SLSDC also reduces transit time and operating costs for vessel customers entering the Seaway.

Vessel fleet study

The SLSDC completed a first-of-its-kind "State of the Seaway Fleet" analysis of the world vessel fleet as part of a long-term program to address the challenge of aging vessels in the Seaway fleet. The study found that many more vessels than expected are able to transit the Seaway—over 40 percent of the world fleet.

Trade development

As a result of SLSDC trade development meetings with vessel owners in Denmark and the Netherlands, eighteen new vessels will be equipped with Seaway fittings.

Meetings with vessels owners and operators in Greece and Cyprus resulted in two new vessel services beginning operations in July 1996. Ferum Lines, a Greek firm, has committed four vessels to the Seaway for break-bulk monthly service between the lake ports and the Mediterranean. A Portuguese firm initiated a "project cargo" charter service with a first sailing to the port of Chicago during July.

The SLSDC refocused its trade development efforts during the past year. Instead of organizing large delegations on multi-country trade missions, the SLSDC is now concentrating on smaller, more focused missions. The agency will participate in already existing conferences and events, sponsored by other organizations. This will allow more effective use of resources; instead of focusing on organizing an event and making travel arrangements for an entire delegation, SLSDC can devote more of its resources to targeting important companies and individuals. Greater emphasis is now placed on meeting with companies and individuals that own, operate, and control vessels capable of entering the Seaway. In addition, the SLSDC will devote more time and resources on existing North American customers and potential customers of the Seaway. For example, during the first week in March, SLSDC and SLSA officials traveled to Minneapolis, Winnipeg, and Calgary to meet with U.S. and Canadian grain industry representatives. The SLSDC intends to work more closely with our Canadian counterpart, SLSA, and Seaway stakeholders to plan, fund, and implement trade development initiatives together. The SLSDC's planned trade development schedule for the remainder of Calendar Year 1997 includes: attending the Montana Coal Conference in Butte, Montana (July); during August the Corporation plans to conduct a Seaway North America/Great Lakes trade mission, with programs and events at several U.S. and Canadian lake ports. Each port event, which will include port customers and new business potential users, will be co-sponsored with local port authorities. We have tentative plans at this time to participate in the Universal Congress of the Panama Canal in and the third biennial International Canals and Waterways Chief Executives Conference meeting, both in Panama, during September 1997, and vessel operator, broker and financier exhibitions in Hamburg, Germany, and South Africa during October 1997.

Global positioning system

At the insistence of the SLSDC, a work group has been formed among the two Seaway entities, the two Coast Guards, and Great Lakes vessel carrier associations to determine operational requirements for Global Positioning System (GPS/DGPS) applications throughout the System. The group is also exploring cost-sharing of identified GPS/DGPS systems for implementation. An implementation and cost-sharing timeline is being developed at this time.

Customer exit survey

On June 12, 1996, the Corporation published a report of the 1995 Customer Exit Survey of all ocean and lake vessels transiting the Seaway. The response to the survey was extremely positive, and the information received has been shared with the SLSA to determine what areas are significant to improving customer satisfaction. The Corporation is working with the SLSA to implement many of the suggestions and ideas generated by the Seaway's customers.

United States/Canada working group

Following a June 5, 1996 meeting between the Secretary and the Canadian Minister of Transport, a U.S./Canada Binational Working Group was formed to examine the possibility of greater cooperation between the two countries in administering and managing services in the Great Lakes/St. Lawrence Seaway System. The group, which includes a steering committee and subgroup committees, has exchanged information on respective restructuring of the two Seaway entities, explore options for binational management of the Seaway, and increased binational cooperation in the provision of other Great Lakes services. Several meetings took place during 1996 to prepare for an interim progress report that was presented to the Secretary and Minister on September 17, 1996. The work of the group is expected to continue throughout fiscal year 1997.

Emergency response drill

The SLSDC participated with SLSA, the U.S. and Canadian Coast Guards, and local U.S. and Canadian agencies in the Canada-U.S. Lake emergency response drill that ran round-the-clock for four days during September 1996. The program simulated a major oil spill in the St. Lawrence River. The value of these drills is to ensure 100 percent readiness for quick resolution of emergency situations affecting safety and the environment.

SIGNIFICANT 1997 ACCOMPLISHMENTS TO DATE

1997/1998 toll negotiations

The Deputy Administrator and the President of the Seaway Authority reached agreement on a Tariff of Tolls for the 1997 and 1998 navigation seasons. The final agreement calls for elimination of Lockage fees at the Welland Canal in 1998 and would allow for a 2.5 percent tariff increase across-the-board for all commodity tariff items, to be implemented August 1, 1997. Effective in 1998, the Welland Canal Lockage fee, which discourages smaller vessel transits, will be eliminated and replaced with a $0.12 cent (Canadian) increase on cargo and vessel tolls at the Welland Canal only.

PBO conversion

The revised PBO legislation was completed and submitted to the Congress on May 5, 1997. SLSDC and DOT initiated consultations with appropriations and authorizing committees in both the Senate and the House. The Corporation also worked closely with the GAO PBO study team that prepared a congressionally mandated review of the PBO initiative, with specific analysis of the SLSDC PBO candidacy. The report was completed and submitted to the Congress May 15, 1997.

New union contract

SLSDC successfully concluded negotiations with its bargaining unit employees, represented by AFGE Local 1968, Massena, N.Y. The three-year agreement includes a major rewrite of the union contract and a wage-level increase on a par with industry contracts prevailing in the Massena area. No issues went to mediation or impasse.

Pilotage accomplishments

In the last year, pilotage accidents are down and vessel delays due to pilotage have decreased. All three Great Lakes pilotage associations have adopted improved training plans. All three Great Lakes pilotage associations have adopted improved applicant pilot selection processes. Audits of the pilot associations have improved, current audits are more independent, timely and thorough. All three pilot associations are now in compliance with Federal drug testing requirements. The office of Great Lakes Pilotage hosted the first-ever Great Lakes Pilotage Safety Summit, which brought together pilots and industry to discuss safety matters. The Pilotage office approved funds for each pilot association to test and evaluate the latest Differential Global Positioning System (DGPS) technology, and continues to support the development of this promising new technology.

Ocean vessel inspections

The Corporation and the USCG in conjunction with Transport Canada and the Canadian Seaway Authority, signed a memorandum of understanding March 27 that will more closely coordinate inspection and enforcement activities in the Seaway and on the Lakes. This will expedite the safe transit of shipping through the Seaway and the Great Lakes with significant cost savings to Seaway users. Under the agreement all vessels will be cleared in Montreal before entering U.S. waters; no inspection boardings will be conducted while a vessel is underway except when it is clearly agreed to by all concerned that the boarding will not interfere with safe navigation of the vessel; the number of vessels that require more than one port state control boarding during a navigation season will be minimized; and international shipping throughout the System will continue to meet the highest standards of safety and environmental protection.

Binational GPS steering group

In coordination with Volpe Center staff, the SLSDC completed a review of a Canadian Coast Guard pilot project on alternative Automatic Identification Systems (AIS). The GPS Steering Group will determine the utility of the pilot program for use in development of DGPS-based AIS operational requirements for Seaway operations. The Canadian Seaway Authority has agreed to 50 percent cost-sharing with SLSDC on the Volpe contract to develop the Seaway AIS operating requirements.

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

PERFORMANCE BASED ORGANIZATION (PBO) INITIATIVE

Question. Please fully discuss all points of difference between the July 15, 1996 and May 5,1997 versions of the Saint Lawrence Seaway Development Corporation's ("the Corporation") proposed PBO legislation.

Answer. In agreement with the Office of Management and Budget (OMB), SLSDC implemented a change to the application of the Consumer Price Index (CPI) element of the PBO financial plan to calculate more accurately year-to-year inflation. The revised legislation reference now reads: "* * * adjusted for inflation by the percentage difference between the Consumer Price Index for all urban consumers (CPI-U) for the first quarter of calendar year 1996, and the CPI-U for the first quarter of the calendar year in which an annual payment is determined."

Significant changes to the 1996 legislation are the result of a collaborative effort among the NPR, OMB, the Office of Personnel Management (OPM), the Office of Federal Procurement Policy (OFPP), and the General Services Administration (GSA). The group developed a PBO template legislation to be used by all PBO candidates. The model legislation has been cleared through the interagency legislative review process; the personnel flexibilities were prepared by OPM, the procurement flexibilities by OFPP, the support service flexibilities by GSA. The title of Chief Executive Officer changed to Chief Operating Officer (COO). by a team at the Commerce Department. Application of the template to the SLSDC bill results in some additional potential personnel and acquisition flexibilities. It is our understanding that these changes were developed in consultation with national federal employee union representatives.

Question. The Committee understands that one difference in the new proposed legislation is that this revision would not create a reduction in the discretionary spending cap scored to offset the mandatory funding stream. How would this work? Is an amendment to the Budget Enforcement Act necessary?

Answer. We understand that considered with other elements of the President's proposed program, this proposal meets the pay-as-you-go requirements. Therefore an amendment to the Budget enforcement Act is not necessary.

Question. Please update the Committee on any legislative actions taken by either the House Transportation and Infrastructure Committee or by the Senate Commerce Committee toward moving the performance based organization legislation in the 105th Congress.

Answer. There has been no legislative action taken to date by either the House Transportation and Infrastructure Committee or by the Senate Commerce Committee.

Question. Has there been any official reaction from the Senate Commerce Committee or any members of the committee regarding the lack of confirmation procedures in the Chief Operating Officer (COO) selection process?

Answer. There has been no official reaction from any committee staff or members regarding the lack of Congressional confirmation in the COO selection process.

Question. What are the benefits of having a COO versus an Administrator? How were goals in the proposed COO's performance contract developed? What are the sanctions if performance is not met?

Answer. The COO would be vested with all the authority currently residing in the position of Administrator, however there would be significant changes that would increase the position's effectiveness. For example, the competitive selection of a COO would ensure that the head of the agency possesses the highest qualifications. The selection of a COO based on knowledge and experience rather than political affiliation would help ensure that SLSDC operates in the most economically and operationally rational manner possible. The COO would have to agree to clearly articulated performance goals and the COO's record in achieving or failing to achieve those goals would be easily measured. Currently, the Administrator enters into a yearly performance agreement with the Secretary, however, the only penalty for failure to meet those goals is a mild rebuke. The proposed performance incentives and penalties would ensure that the COO meets agreed-to goals. Failure to meet these goals will result in termination of the COO's position. The financial incentives provided in the PBO plan are a powerful tool to the COO and all SLSDC employees to foster greater productivity, creativity and effectiveness.

The goals and performance measures were developed over the course of the past 16 months, since the SLSDC PBO initiative was begun in March 1996.

Representatives from the SLSDC, NPR, OMB, and DOT/OST developed the draft document.

Sanctions will be listed in the performance agreement between the Secretary and the COO. The ultimate sanction for failure to meet performance goals will be dismissal of the COO by the Secretary.

Question. For purposes of comparison, please display the enacted appropriated funding level for the Saint Lawrence Seaway Development Corporation from fiscal year 1983 through 1997. In a second column, please adjust each year's funding to 1997 dollars. In a third column, please project what the PBO formula would have

provided to the Corporation (in constant 1997 dollars), using actual tonnage figures for each year.

Answer. For fiscal year 1983 through fiscal year 1986, SLSDC did not receive appropriations. We became appropriated April 1, 1987, and received a partial appropriation for the year, and used emergency reserves to meet our needs. fiscal year 1988 was the first full year for SLSDC as an appropriated agency. Therefore the requested information is shown for fiscal year 1988 to fiscal year 1997.

Fiscal year	Enacted HMTF appropriation (nominal dollars)	Appropriation in 1997 dollars (constant dollars)	PBO formula in 1997 dollars (constant dollars)
1988	$10,806	$10,806	$12,788
1989	11,097	11,325	12,755
1990	11,375	11,936	13,327
1991	10,250	12,438	13,447
1992	10,550	12,811	13,513
1993	10,734	13,195	10,502
1994	10,765	13,598	10,439
1995	10,193	13,917	10,263
1996	9,549	14,335	10,568
1997	10,322	14,722	11,760

Question. One of the primary reasons for pursuing PBO status is the Corporation's belief that mandatory payment will give them more reliable funding. Are there other means besides becoming a PBO to ensure the necessary level and stability of funding?

Answer. The only other means to achieve more reliable funding is alternative legislative action by the Congress within the budget process.

Question. Please provide specific examples of Departmental constraints from which a PBO framework would free the Corporation. Please estimate the personnel time and associated funding that would be saved in each instance, on an annualized basis.

Answer. Rather than constraints, we characterize the issue as a Departmental mandate that requires SLSDC to participate in all DOT-wide programs and initiatives along with the other, much larger, operating administrations. Mandatory participation in all DOT-wide programs coupled with the relatively limited Corporation mission and resources add up to a serious challenge to the agency's effectiveness.

We do not maintain time allocation records however, a reliable estimate is 3 to 5 FTE's (17 percent to 29 percent of total D.C. staff) annually, is spent in this area at a total SLSDC average annual compensation of $168,000 to $280,000.

Question. What reporting requirements are currently placed on the Corporation by the Department of Transportation? Has the Corporation sought a waiver from any of these reporting requirements?

Answer. We have sixty-two reports, ranging from weekly to annual, that are required by the Department, some of which are required of DOT by other federal agencies. As a PBO the Corporation will have fewer report requirements. We also have 32 reports required by other federal agencies, primarily due to our Corporation structure.

We have not sought a waiver from DOT or other federal agency reporting requirements.

Question. Unlike the British "Next Steps" agencies, the PBO concept focuses on improving performance rather than reducing operating costs. In the statement of purpose and need included in the May 1997 proposed PBO legislation, performance measures for the corporation are listed as: (1) safety; (2) reliability; (3) trade development; (4) management accountability; and (5) cost effectiveness. For each of these five areas, explain why improved performance is necessary. Use concrete examples and numbers to the greatest possible extent.

Answer. With respect to the SLSDC PBO conversion plan, reduction of operating costs is included in improved performance. The SLSDC plan has four performance areas. The actual measures and numbers to develop a basis for performance evaluation in the COO performance contract are being developed at this time. Examples of programs being considered for measurement are noted below.

Safety.—Safety measures will apply to vessel and workplace safety, the first priorities of the SLSDC, as well as to environmental protection. The SLSDC will be held accountable for maintaining acceptable levels of safety and reducing the likelihood

of accidents that result in costs to users and injuries to workers. It will have to demonstrate that it is prepared to respond in a timely manner in the event of an environmental emergency, such as an oil spill. In its role as Captain of the Port, the SLSDC is responsible for initial response to and containment of environmental emergencies. Draft performance areas being considered, include but are not limited to: reduction of the risk of vessel incidents; reduction of employee lost time from work injuries; and response time to vessel spill incidents.

Long and Short Term Reliability.—The Corporation seeks to maximize the Seaway while minimizing costly delays to ships going through the Seaway. The SLSDC's plans and decisions must ensure Seaway user confidence in System availability and the long term reliability of U.S. navigation facilities. Draft performance areas being considered, include but are not limited to: SLSDC measures to maintain the availability and reliability of the navigation facilities each navigation season; reduction of vessel delays due to facility failure and pilot delays; and evaluation of maintenance and inspection programs.

Trade Development.—The SLSDC will make every effort to increase the international tonnage through the Seaway, through trade development and promotional programs. The goal is to encourage greater System utilization, which benefits the Midwest economy and increases System competitiveness. Draft performance areas being considered, include but are not limited to: the annual growth rate of international tonnage volume; and the increase of ocean vessel utilization.

Management Accountability, including Customer Service, Fiscal Performance and Cost Effectiveness.—The SLSDC must provide direct mechanisms to ensure that the customers themselves will have a voice in evaluating its performance and contributing to business decisions. The SLSDC will ensure that the capital reserves are adequate to keep U.S. Seaway navigation facilities in good working condition. Human resources must be managed in a way that promotes the health and productivity of the organization. Performance targets will be used to promote both employee satisfaction and human resources management practices that serve the business needs of the SLSDC. To achieve those targets, the SLSDC will continue to partner with employees and their representatives. Draft performance areas being considered, include but are not limited to: vessel customer satisfaction ratings; an employee baseline satisfaction survey; emergency reserves management and goals; and reduced operating costs.

Question. The President's fiscal year 1998 budget request assumes enactment of PBO legislation and does not include an appropriations request for the Corporation. If the authorizing committees fail to enact PBO legislation before the Senate passes its version of the fiscal year 1998 Transportation appropriations bill, will the administration submit a budget amendment requesting an appropriation of $11,200,000 from the harbor maintenance trust fund? If not, and appropriations legislation is conferenced and passed without including appropriated funds for the Corporation, how will the agency make up the funding shortfall?

Answer. If the PBO legislation is not enacted, we believe the administration will submit a budget amendment, however we do not have formal confirmation of such action.

If not, the Corporation would have no choice but to rely on its available emergency reserves.

NAVIGATION SEASON

Question. Please provide the opening and closing dates and number of shipping days for the Seaway for the 1993, 1994, 1995 and 1996 navigation seasons, and the opening for 1997.

Answer. The information follows.

MONTREAL-LAKE ONTARIO SECTION OPENING AND CLOSING DATES 1993–1997

Navigation season	Opening date	Closing date	Navigation days
1993	March 30	December 26	272
1994	April 05	December 29	269
1995	March 24	December 28	280
1996	March 29	December 27	274
1997	April 02		

STATUS OF ADMINISTRATOR

Question. When did Gail McDonald leave her position as Administrator of the Corporation? Has a new Administrator been nominated?

Answer. Administrator McDonald's resignation was effective May 1, 1997. A new Administrator has not been nominated by the President.

ADVISORY BOARD MEMBERSHIP

Question. Please list all the current members of the Seaway Advisory Board. Provide each Board member's term dates and a brief description of their employment background and qualifications.

Answer. The information follows. Currently the term dates for Advisory Board members are at the pleasure of the President.

Anthony S. Earl.—Appointed October 3, 1994. Mr. Earl has been a Partner, in the Quarles and Brady Law Firm since 1987 and was Governor of the State of Wisconsin from January 1983 to December 1986. Other positions include: Assistant District Attorney, Marathon County, WI 1965; City Attorney, Wausau, WI, 1966–1969; Member WI State Legislature, 1969–1974; Secretary, WI Department of Administration, 1975; and Secretary WI Department of Natural Resources, 1976–1980.

Vincent J. Sorrentino.—Appointed October 3, 1994. Mr. Sorrentino has been a Senior Partner of Cole, Sorrentino, Hurley and Hewner, P.C. since 1964. Other positions include: 1988 to the present, Mr. Sorrentino has served as Commissioner of the Buffalo and Fort Erie Bridge Authority and Town Attorney and/or Deputy Town Attorney for Hamburg, NY; since 1989 to the present, he served as Commissioner of the Erie County Water Authority; and 1991 to the present, Treasurer of the Erie County Water Authority.

Jay C. Ehle.—Appointed August 14, 1995. Mr. Ehle joined Cleveland Builders Supply in 1938 and retired as President and Chairman in 1985, remaining on the Board of Directors until 1989. He served on the Board of the Cleveland/Cuyahoga County Port Authority for nineteen years, eleven years as Chairman, and later as a special consultant to the Board.

George D. Milidrag.—Appointed December 26, 1995. Mr. Milidrag is the Chairman and owner of Engineering Technology, Ltd., an engineering and design firm which he founded in 1973. Mr. Milidrag served as a Director of Midwest Guaranty Bank. He was honored in 1993 as Commodore of the United States Naval Institute and recently honored by the Society of Automotive Engineering as one of the Chief Executives of 100 of the world's leading automotive industries.

William L. Wilson.—Appointed June 11, 1996. Mr. Wilson is a Research Fellow at the Center for Urban and Regional Affairs at the University of Minnesota's Hubert H. Humphrey Center in Minneapolis. From 1980 to 1993 he served as Council member (and as President from 1989 to 1993) of the Saint Paul City Council. Mr. Wilson has previously served as Commissioner of the Saint Paul Port Authority and serves currently as a member of the Board of Directors of the Minnesota World Trade Corporation.

HARBOR MAINTENANCE TRUST FUND

Question. Please discuss the current status of the pending appeal against the U.S. Court of International Trade's ruling that the harbor maintenance tax is unconstitutional. If this ruling is not overturned, what are the potential ramifications for the Saint Lawrence Seaway Development Corporation's source of funding?

Answer. Our understanding is that the ruling applies only to the Harbor Maintenance Tax (HMT) on export goods in transit, and not to imports, domestic trade or cruise ships. If the Supreme Court agrees to hear the appeal, resolution of the issue could be delayed another 18 months or more. If the Supreme Court declines to hear the appeal, refunds to exporters could begin in as little as nine months. If the Tax is revoked on exports alone, we believe sufficient funds would be available in the HMTF to fund the SLSDC. If that is not the case, the Corporation would have to pursue Congressional action to provide funding.

Question. Please update the table on page 984 of Senate Report 104–671, part 2, regarding harbor maintenance trust fund revenues, transfers, and year-end balances for fiscal years 1994 through 1997.

Answer. The U.S. Customs Service furnished the following available information, published report data is not available at this time.

HMTF REVENUE AND TRANSFERS

[In thousands of dollars]

	Fiscal years—	
	1995	1996
Beginning balance	670,532	698,267
Revenues:		
HMTF	670,532	698,267
Toll receipts	173	.....
Interest	30,186	40,870
Net revenue	700,891	739,137
Net available	1,152,276	1,360,331
Transfers:		
Corps of Engineers	519,196	482,126
SLSDC	10,193	9,539
Toll rebates	1,512	.....
DOT/SLSDC rent	181	169
Administration costs	.....	3,000
Net expenditures	531,082	494,834
Surplus/(Deficit)	621,194	865,497

REVENUE AVAILABLE

Question. Please update the table on page 991 of last year's hearing record regarding revenue available by source in fiscal years 1997 and 1998.

Answer. The information follows.

REVENUE AVAILABLE BY SOURCE FISCAL YEAR 1997 AND FISCAL YEAR 1998

	Fiscal years—	
	1997	1998
Interest on retained earnings	$500,000	$500,000
Concession operation	300,000	300,000
Rental of administration building	44,000	45,000
Miscellaneous	56,000	55,000

FINANCIAL POSITION

Question. Please update the tables on pages 991 through 993 last year's hearing record regarding the statement of your financial position, as well as the statement of operations and changes.

Answer.

ST. LAWRENCE SEAWAY DEVELOPMENT CORPORATION STATEMENT OF FINANCIAL POSITION AS OF SEPTEMBER 30, 1996, 1995, AND 1994

[In thousands of dollars]

	1996	1995	1994
ASSETS			
Current assets:			
Cash:			
Held by U.S. Treasury	1,573	2,631	4,031

ST. LAWRENCE SEAWAY DEVELOPMENT CORPORATION STATEMENT OF FINANCIAL POSITION AS OF SEPTEMBER 30, 1996, 1995, AND 1994—Continued

[In thousands of dollars]

	1996	1995	1994
Held in banks and on hand	20	13	22
Short-term time deposits in minority banks	10,908	10,403	9,180
Tolls and other receivables	131	138	1,510
Other current assets	.....	4	3
Inventories	279	292	316
Total current assets	12,911	13,481	15,062
Non-current assets: Long-term time deposits in minority banks	1,470	1,207	1,206
Plant, property and equipment:			
Plant in service	151,848	151,495	150,993
Less accum depreciation	−63,912	−62,250	−60,205
Net plant in service	87,936	89,245	90,788
Work in progress	302	162	429
Total plant, property and equipment	88,238	89,407	91,217
Other assets:			
Lock spare parts	777	659	674
Less accum depreciation	−109	−82	−54
Net Lock spare parts	668	577	620
Investment in Seaway Int'l Bridge Corporation, Ltd	7	7	7
Total other assets	675	584	627
Deferred charges: Workman's compensation benefits	1,397	1,232	1,179
Total assets	104,691	105,911	109,291
LIABILITIES AND EQUITY OF THE U.S. GOVERNMENT			
Current liabilities:			
Payable to the U.S. Treasury	.....	.....	1,403
Accounts payable	691	743	875
Accrued leave	691	611	596
Accrued payroll costs	373	297	293
Deferred revenue	.....	.....	3
Total current liabilities	1,755	1,651	3,170
Actuarial liabilities: Workman's compensation benefits	1,397	1,232	1,179
Total liabilities	3,152	2,883	4,349
Equity of the U.S. Government:			
Invested capital	103,053	104,230	106,050
Cumulative results of operations	−1,514	−1,202	−1,108
Total equity of the U.S. Government	101,539	103,028	104,942
Total liabilities and equity of the U.S. Government	104,691	105,911	109,291

ST. LAWRENCE SEAWAY DEVELOPMENT CORPORATION STATEMENTS OF OPERATIONS AND CHANGES IN CUMULATIVE RESULTS FOR THE YEARS ENDED SEPTEMBER 30, 1996, 1995, AND 1994

[In thousands of dollars]

	1996	1995	1994
Operating revenues:			
Appropriations expended	8,950	9,337	9,694
Other	897	467	534
Total operating revenues	9,847	9,804	10,228
Operating expenses:			
Locks and marine operations	2,163	1,999	1,971
Maintenance and engineering	3,006	3,166	4,021
General and development	2,725	2,486	2,947
Administrative expense	2,935	2,800	2,746
Depreciation	1,776	2,667	2,693
Total operating expenses	12,605	13,118	14,378
Operating loss	−2,758	−3,314	−4,150
Other financing sources:			
Interest on deposits in minority banks	670	553	383
Transfer from invested capital for depreciation	1,776	2,667	2,693
Total other financing sources	2,446	3,220	3,076
Excess of operating revenues and other financing sources over operating expenses	−312	−94	−1,074
Beginning cumulative results of operations	−1,202	−1,108	−34
Ending cumulative results of operations	−1,514	−1,202	−1,108

VESSEL CASUALTIES

Question. Please detail any major vessel casualties in the American waters of the Seaway for the 1996 navigation season, and for the 1997 navigation season to date.

Answer. There were no major casualties during 1996, just four groundings. We have experienced one grounding during 1997 to date. Each of these groundings were resolved without incident.

VESSEL GROUNDINGS DURING CY 1996 AND CY 1997 TO DATE

Vessel	Dates 96/97	Location	Cause	Damage
Steel Flower	April 5, 1996	Near LT. 212	Lost power	None/no pollution.
Kapitonas Stulpinas	June 11, 1996	Above Eisen. Lk	Lost steering	None/no pollution.
Sauniere	Sept. 15, 1996	Bay State Shoal	Human error	Holed/no pollution.
Utviken	Nov. 26, 1996	Near LT. 5	Lost steering	Holed/no pollution.
Canadian Mariner	June 18, 1997	Near Lt. 162	Lost steering	Holed/no pollution.

TRAVEL AND TRANSPORTATION COSTS

Question. In a similar format to that on pages 995 through 996 of last year's hearing record, please provide a listing of trade, mini-trade, Lake State, industry, and other travel missions made by or planned for Seaway personnel September 1996 through September 1997. Be inclusive, including the dates of travel, trip purposes, location, Seaway Development Corporation representatives, travel costs for each, and actual or planned trip results.

Answer. There were no overseas trade missions since the March 1996 mission reported in the fiscal year 1997 questions for the record. We do have tentative plans at this time to participate in the Universal Congress of the Panama Canal and the International Canals and Waterways Chief Executives meeting, both in Panama during September 1997, and vessel operator, broker and financier exhibitions in Hamburg, Germany, and South Africa during October 1997.

Question. For fiscal years 1995 and 1996 actual, and fiscal years 1997 and 1998 estimated, please break out travel and transportation of persons into two categories: (1) trade and travel missions to both potential new markets and traditional markets; and (2) non-trade related travel.

Answer. The information follows.

	1995 actual	1996 actual	1997 estimated	1998 estimated
Trade missions	$30,000	$23,000	$20,000	$20,000
Non-trade related travel	128,000	135,000	154,000	154,000

Question. In as clear and precise a manner possible, please describe specific benefits and new trade or business resulting from previous Seaway trade missions conducted in calendar years 1995 and 1996.

Answer. 1995 Trade Mission to Italy and Morocco. Locations: Milan and Casablanca. Dates: March 24 to April 1. Fertilizer shipments from Morocco to the port of Ogdensburg; wheat shipments from the United States to Italy shipped by Louis Dreyfus. Steel shipments to and from Italy and North America.

1995 Trade Mission to Brazil, Venezuela and Panama. A shipment of 500,000 tons of HBI from Venezuela to mini steel mills in the Great Lakes region; the Corporation and the Panama Canal Commission established an Employee Exchange Program; plans for the shipment of fertilizers, iron ore, and other minerals are being arranged for movement between Brazil and North America; arrangements to move DRI and HBI between Venezuela and mini-mills in Cleveland are underway.

1996 Trade Mission to Norway, Denmark and the Netherlands. At least 18 new ships will be built with Seaway fittings and are planning to trade in the Seaway (the first is scheduled to call on the port of Chicago in August); the port of Duluth expects to handle a shipload of drilling equipment from Denmark this summer; the port of Toledo received a shipload of fertilizers from Norway and three more shipments are scheduled for later this year; two shiploads of U.S. export grain totaling 33,000 tons were arranged for delivery to Europe; and one shipload of U.S. grain was fixed for delivery to the Mediterranean.

SEAWAY SPONSORED EVENTS

Question. Please provide a listing of any trade, industry, or other visits, seminars, or "summits" at the Seaway that have been sponsored by the Corporation during the last year. Please outline the results of and benefits derived from each of these sponsored events.

Answer. The following is a list SLSDC sponsored activities that occurred after the submittal of the fiscal year 1997 report.

July 23, 1996.—The Corporation and the Seaway Authority (SLSA) co-sponsored the first meeting of the binational GPS—Steering committee in Ottawa. Membership includes the two Seaway entities, the two Coast Guards, and carrier representatives of the ocean and domestic laker fleets. The responsibilities of the Steering Committee include determining technologies to be used, proper cost-sharing, developing an overall schedule establishing and approving system requirements, reviewing and approving system design, and overseeing installation and implementation of the system.

August 6 and 7, 1996.—The SLSDC sponsored a Seaway Safety and Pilotage Summit meeting with industry in Linthicum, Maryland. Primary issues raised included GPS technology status; maritime safety training; speed surveillance activities; emergency response procedures; pilotage ratemaking, billing procedures, rest periods and training.

September 24, 1996.—SLSDC conducted a congressional staff briefing, in Washington D.C. to discuss any questions on a published notice of proposed rulemaking which proposed an increase in pilotage compensation.

December 3, 1996.—The Corporation sponsored a meeting of steel importers and exporters, in New York City, to determine the steel customer viewpoint on the Seaway System firsthand.

December 5, 1996.—The Corporation and the Seaway Authority co-sponsered a second meeting of the GPS steering group in Montreal.

March 4, 1997.—The SLSDC and SLSA co-sponsored the third meeting of the GPS steering group.

March 4 and 5, 1997.—The SLSDC and the SLSA sponsored outreach meetings with U.S. and Canadian grain industry customers in Minneapolis and Winnipeg.

March 11, 1997.—The Corporation sponsored a public outreach meeting on Great Lakes Pilotage, in Cleveland, to obtain public input on long-range planning for the pilotage system throughout the Great Lakes and St. Lawrence Seaway.

March 20, 1997.—The SLSDC and SLSA co-sponsored the Annual Industry day event in Montreal with vessel operators to review operations for the 1997 navigation season.

April 2, 1997.—Opening Day ceremonies were conducted in Massena, NY.

During August the Corporation plans to conduct a Seaway North America/Great Lakes trade mission, with programs and events at several U.S. and Canadian lake ports. Each port event, which will include port customers and new business potential users, will be co-sponsored by the local port authority.

DISCRETIONARY CHANGES IN THE FISCAL YEAR 1998 OPERATIONS AND MAINTENANCE BUDGET

Question. Almost $600,000 in management savings are assumed in the Corporation's outlay program, as well as a reduction of 2 FTE's. Please specifically detail these anticipated savings.

Answer. Management savings are derived from an overall reduction in the Corporation's fiscal year 1998 capital outlay program and the elimination of two management positions.

Question. Is the $150,000 increase in discretionary changes associated with office rent a one-time moving cost from the Nassif Building to other office space, or the difference between Nassif Building rental costs and those costs at other Washington, D.C. office locations?

Answer. The $150,000 represents estimated annual rent after relocating the D.C. office out of the current Nassif building site.

GLOBAL POSITIONING SYSTEM-BASED VESSEL TRAFFIC SERVICE

Question. Are any budgeted fiscal year 1998 capital costs associated with the global positioning system (GPS) vessel traffic service? How much has been spent on this program by the Corporation thus far (broken out by fiscal year cost was incurred)? What is the anticipated total project cost?

Answer. No funds were budgeted in fiscal year 1998 for projects associated with the GPS-based Vessel Traffic System (VTS) until cost-sharing issues are resolved. To date SLSDC has expended a total of $200,000; fiscal year 1994—$50,000, fiscal year 1995—$125,000, and fiscal year 1997—$25,000. The anticipated remaining project cost is estimated at $500,000.

Question. Please list the members of the GPS Steering Committee and their organizational affiliation. How many times and when has the Steering Committee met? When will the committee's deliberations be complete?

Answer. Members of the binational GPS Steering Committee are:

Stephen Hung.—Saint Lawrence Seaway Development Corporation
Pat Vincelli.—The St. Lawrence Seaway Authority
CDR. Ken Prime.—United States Coast Guard
Lea Barker.—Canadian Coast Guard
S.B. MacPhee.—Canadian Hydrographic Service
Rejean Lanteigne.—Canadian Shipowners Association
Ivan Lantz.—Shipping Federation of Canada

The Committee has met five times to date, in July, September and December 1996, and in March 1997. The next scheduled meeting is June 25, 1997. A series of meetings will be held over the next 18 to 24 months to resolve major program elements such as: system requirements, test and evaluation plans, performance specifications, cost-sharing issues, and program implementation. Our goal is to have implementation by April 1999.

Question. Have any cost-sharing requirements for project costs been determined by the Steering Committee?

Answer. Detailed cost-sharing requirements have not been discussed thus far but will be addressed as significant elements of the program are resolved. The Canadian Seaway Authority is sharing half of the cost for the fiscal year 1997 technical assistance provided by the Volpe Transportation Systems Center.

Question. What other issues are being addressed by the GPS Steering Committee?

Answer. In addition to cost-sharing, the Committee must resolve major program elements such as: system requirements, test and evaluation plans, performance specifications, and program implementation.

Question. Has the National Research Council Marine Board study on VTS privatization issues yet been released? If so, please provide a copy of the report's executive summary for the record.

Answer. The report was released in June 1996. A copy of the executive summary will be provided under separate cover as an attachment to these questions for the record.

[The information follows:]

EXECUTIVE SUMMARY OF VESSEL NAVIGATION AND TRAFFIC SERVICES FOR SAFE AND EFFICIENT PORTS AND WATERWAYS, INTERIM REPORT, COMMITTEE ON MARITIME ADVANCED INFORMATION SYSTEMS, MARINE BOARD COMMISSION ON ENGINEERING AND TECHNICAL SYSTEMS, NATIONAL RESEARCH COUNCIL

EXECUTIVE SUMMARY

Background

The economic vitality of the United States depends on growing trade, both domestic and international. Foreign trade in particular is of increasing importance. The overwhelming portion of foreign trade moves by water through major seaports on all U.S. coasts. It is, therefore, critical that U.S. ports and waterways foster U.S. economic growth and affirm the position of the U.S. in world trade by ensuring safe and efficient transit for vessels and meeting the demands for the smooth flow of goods.

The United States does not have a centralized, national management structure for ports and waterways, which are remarkably diverse in terms of geography and environmental conditions, the vessel traffic they serve, and the variety of services they provide. Ports must provide efficient, rapid turnaround capabilities to accommodate expanding trade and the increasing size and speed of oceangoing ships, a growing proportion of which are foreign. Many U.S. ports must also handle a large volume of coastal and inland traffic.

Stakeholders in safe and efficient maritime transportation are diverse. The activities that take place in ports and connecting waterways affect practically every citizen. The major categories of stakeholders include federal agencies, commercial groups, state and local groups, and public and community groups. All stakeholders share the following goals:

—Ensuring safety, protecting the environment, reducing the costs of accidents, and promoting law enforcement and national security;
—Moving vessels and cargo in and out of ports efficiently under all conditions;
—Ensuring a smooth flow of goods from one mode of transport to another to save time and reduce costs; and
—Fostering economic growth, creating jobs and prosperity in the process.

Navigational information systems, such as vessel traffic services (VTS), can contribute to the achievement of these goals if vision, leadership, resources, and state-of-the-art technology are combined. This interim report by the Committee on Maritime Advanced Information Systems addresses issues surrounding navigational information systems in general but particularly the U.S. Coast Guard's VTS–2000 program, under which new or upgraded VTS systems would be installed in as many as 17 ports.

Navigational information systems: Needs and solutions

A wide variety of navigational information systems are already being used to foster safe and efficient vessel transits in U.S. ports. The fundamental system essential to all classes of mariners encompasses the buoys, lights, and ranges operated and maintained by the Coast Guard. Combined with nautical charts, notices to mariners, and other primary data about waterways which are still delivered primarily in paper form, these constitute the basic information essential for navigation. A final component is a ship-to-ship and ship-to-shore communications system, which is essential for the adequate exchange of data among waterway users and managers.

Some additional data can now be provided in electronic form using advanced technology, which is more accurate and reliable. New systems include satellite-based positioning systems and electronic charts, which are now available in various forms and will probably become standard in years to come. In selected ports, real-time water levels, currents, and other data now can be delivered electronically.

Although some users and providers of navigational information cooperate and share data, no central entity is responsible for management or control of port-spe-

cific or national information on vessel movements or cargo. Furthermore, because of gaps in the deployment of navigational information systems, information is not always available to users who need it. Evidence of uneven deployment is largely anecdotal, based in part on outreach workshops and site visits conducted by the committee. The evidence indicates that, despite the substantial efforts of federal agencies that maintain navigational information systems and services, and despite recent advances in technology, deficiencies at U.S. ports range from outdated charts to inadequate vessel traffic management. Advanced information delivery services are of little value if the underlying data are inaccurate or unreliable. Some of these underlying data are in question now.

State-of-the-art components and systems are available to meet or exceed most functional requirements. These systems are accurate, reliable, and adaptable. In other words, funding and institutional issues, not technology, are the limiting factors in the implementation of improved navigational information systems. The institutional issues include bringing all vital interest groups together, providing responsible leadership, and fostering a consensus on needs and mechanisms for funding and management.

Existing vessel traffic services

Currently, VTS and related information systems in the United States are federal, federal/private, private, or port authority operations. The Coast Guard has installed and operated VTS systems in a number of major U.S. ports and paid for them with appropriated federal funds. The eight systems currently operating are located in Puget Sound (Washington), New York/New Jersey, Houston/Galveston, San Francisco, Prince William Sound (Alaska), Berwick Bay (Louisiana), St. Mary's River (Michigan), and Louisville (Kentucky). Users of these systems report varying levels of satisfaction. Some assert that VTS systems provide few benefits, while others say they are essential to safe navigation. In general, the committee found that Coast Guard-operated VTS systems are well managed and make a significant contribution to port safety.

In some ports, private entities have deployed VTS-like systems. The most prominent of these are in the ports of Los Angeles and Long Beach (LA/LB) and the Delaware River and Bay. The LB/LB system, authorized by state legislation, is managed by the local Marine Exchange and is manned by both the Marine Exchange and the Coast Guard, both of which have agreements with the state. The Marine Exchange is the legislatively authorized agent of the state of California (which, by statute, has addressed the issue of liability) and collects the tariffs authorized by the ports. The funds are then transmitted the state to pay for the Coast Guard billets, which make up half of each operating shift. The Coast Guard has an interagency agreement with the state to ensure funding and clarify the conditions under which operation of the VTIS is carried out. This agreement was authorized by the Coast Guard appropriation bill. The Coast Guard provides half of the staff, which means it has the authority of the captain of the port, which can be exercised in an emergency. The Delaware Bay system is operated by local pilots, and cost are recovered through increased pilot charges to vessels. This system is fully private and does not have legal authority to mandate participation or to direct traffic.

These and other private systems usually satisfy the needs of the operators and users who established the system, but most of them provide limited coverage, and they may not fully serve the needs of the public.[1] Fully private operators do not have legal authority to intervene in emergencies, as the Coast Guard does. There is also widespread concern among private operators about the potential tort liability associated with providing information or direction that could be implicated vessel accidents. This concern has often been advanced as a reason fully private systems are unworkable, but the state of California and Delaware have addressed the liability issue in separate legislation.

The committee could not locate any comprehensive data that could be used to quantify improvements in safety and efficiency provided by VTS and VTS-like systems. However, there is anecdotal evidence of the utility of these systems in averting accidents and saving lives. It is interesting to note that the benefits of VTS are accepted as obvious in certain foreign ports. A committee work group visited the ports of London (United Kingdom), Rotterdam (Netherlands), and the Elbe River (Germany). Although formal cost-benefit analyses were not available, VTS systems enable the Rotterdam and German ports to stay open on many days when they oth-

[1] This committee finding is supported by comparisons of the capabilities of specific private systems with international guidelines for VTS and by input from stakeholders such as environmental and harbor safety organizations.

erwise would be closed. The managers of these systems stated that improved safety and efficiency were obvious benefits and that formal analysis was not necessary.

In general, the history of VTS development in the United States is dominated by public concern about oil spills and tanker accidents. These problems led to national legislation requiring studies of port safety and supporting the development of VTS. Consequently, the available data and analyses are focused mostly on the risk of tanker accidents, which is reflected in references to tanker problems and the discussions of tanker accidents in this report. The committee recognizes that other benefits of VTS are also important and encourages further analyses of the improvements to overall safety and efficiency they can provide.

Perspectives on VTS–2000

The Oil Pollution Act of 1990 (Public Law 101–380) required the Coast Guard to investigate the risk of oil spills in all U.S. ports, estimate the number of (oil spill) accidents that could be avoided with improved VTS, and implement a nationwide program for improving or implementing VTS systems. The resulting program is VTS–2000.

If VTS–2000 is implemented as planned, then the estimated total development and installation costs will be between $260 and $310 million in fiscal year 1993 dollars. The estimated annual operating cost for the complete 17-port system is $42 million. The difficulty of obtaining federal funding at these levels in an era of tight budgets has prompted the administration, the U.S. Congress, and others to question the extent and cost effectiveness of the program as well as the viability of current funding plans. Private initiatives that have established user fees to recover costs, like the one in LA/LB, have been held up as alternatives.

Although the Coast Guard has yet to design VTS–2000 systems for specific ports, the maritime industry, port managers, vessel operators, and other interested parties already have strong opinions about how the program should be implemented and alternative approaches that may serve their needs and ensure safe and efficient maritime transportation:

—Local users in many ports believe VTS–2000 goes beyond their needs.
—The VTS–2000 program, as currently structured, will not fulfill the most urgent needs, such as improving basic navigational safety in some ports.
—If local stakeholders will be required to pay user fees, they demand more involvement in VTS design and procurement than in the past.
—Although the Coast Guard conducted an outreach program to determine VTS-2000 requirements, many do not feel their concerns were heard.
—In other words, many local stakeholders say the federal government should fully fund VTS systems. If that is not possible, some local users may tolerate paying modest user fees, but this would increase the need for a partnership approach to development and implementation of the system.

CONCLUSIONS

The VTS–2000 program originated in response to a congressional mandate following the 1989 Exxon Valdez accident and subsequent oil spill in Alaska. But the context in which VTS–2000 is being carried out has changed since the program was designed. Efforts to reduce the federal budget and the role of the federal government have become major items on the national agenda. Many policy makers now advocate shifting responsibility for programs like VTS from the national to the state or local level. Therefore, it now appears that justifications for a fully national system with complete federal funding cannot be sustained in the future.

Given the importance of ports and waterways to U.S. trade and economic prosperity, and the persistent risk of maritime accidents involving casualties and environmental damage, there is significant public interest in ensuring the safety and efficiency of maritime transportation through Coast Guard missions addressing port safety and security, maritime law enforcement, and search and rescue operations. The committee concludes that there is a compelling national interest in protecting the environment and in providing safe and efficient ports and waterways. This interest serves the purposes of ensuring national security, enhancing public safety, facilitating commerce, and fostering environmental protection. The public interest in safety and environmental protection is especially important. Efficiency, which is of some national interest economically, may be of greater concern to the commercial sector.

Many factors contribute to the safety and efficiency of maritime transportation. Chief among these factors is the availability of accurate and reliable navigational information. The committee concludes that environmental protection, safety, and the efficiency of ports and waterways depend on the accuracy and availability of traditional and advanced navigational aids, nautical charts, and real-time hydrographic

and meteorological data. When multiple vessels are involved, safety and efficiency also depend on effective waterways management, adequate electronic communications, and local knowledge of the kind typically supplied by pilots. In addition, the committee concludes that there are deficiencies in the accuracy and availability of many essential types of navigational information provided by federal agencies.

VTS can enhance maritime safety and efficiency by collecting and managing the most reliable navigational information, monitoring and evaluating vessel traffic and potentially dangerous traffic situations, and providing accurate and timely information to mariners. When dangerous situations arise, the Coast Guard has the authority to impose traffic controls in areas covered by VTS to ensure safety of life and prevent accidents and pollution. The committee concludes that VTS can be a significant factor in enhancing the safety and efficiency of ports and waterways when used in conjunction with other traditional aids to navigation and hydrographic and other information.

The public derives substantial national benefits from safe and efficient ports and waterways, and VTS systems can contribute to safety and efficiency. Therefore, the committee concludes that the implementation, function, and role of VTS systems are integral to the Coast Guard's federal mission of safeguarding the nation's ports and waterways. However, VTS–2000 was developed in a different political atmosphere than exists today. Possible user fees have changed the attitudes of waterway users toward the perceived scope and costs of VTS–2000. Progress now depends on achieving better understanding and building partnerships among federal agencies and port and waterway users at the local level.

Private support has been suggested as a means of reducing federal costs for VTS–2000. The existence of private VTS-like systems indicates that user fees are feasible and acceptable to local maritime communities under certain circumstances. A key requirement for acceptance of user fees is some measure of local control. However, local funding of VTS may not be possible in many ports, primarily because the amount of revenues required and the willingness to pay could vary significantly. The committee concludes that there are significant unresolved issues associated with competitiveness, both domestic and international, that are affected by port-specific fees. User fees to pay for VTS systems would be affected by the capital and operating costs of the system, which would differ widely among ports depending on geography and port-specific needs. In addition, there are major impediments to non-federal development of VTS-like systems. These impediments include the significant capital needed to acquire and install VTIS systems and the potential liability inuring to private operators. Significant concerns could also be raised about the uniformity and consistency of systems, which need to be established through federal standards.

THE IMPORTANCE OF PUBLIC/PRIVATE PARTNERSHIPS

Both public and private stakeholders have a role In the development and implementation of navigational information systems.

The Coast Guard needs to maintain the legal authority to ensure the safe operation of ports and waterways, and private users need to be involved in development and operation of local VIS.

The utility of all types of navigational information systems depends on (a) recognition of needs and (b) Mechanisms for cooperation among users and stakeholders.

Although the Coast Guard has consulted With local stakeholders in the past, we need true federal/local partnerships, similar to the ones in LA/LB and Some foreign ports.

Local stakeholder groups, such as port authorities and harbor safety committees, need to be identified and should work with the Coast Guard to make decisions.

Federal/local partnerships can foster the development of a consensus on local needs and establish institutions to identify, design, acquire, implement, and operate the most urgently needed systems.

Given the difficulty of implementing VTS–2000 in a cost effective and timely manner and meeting the myriad needs of local users, it may be useful to consider ways of reducing front-end costs and implementing the program in stages. With careful consideration of port-specific needs through continued Coast Guard interaction with local stakeholders, the 17 ports on the current list could be divided into two categories. The high-priority group could include ports with the greatest safety needs, if those needs could best be satisfied by VTS. This group might include four to six ports, roughly equivalent to the current list of four ports scheduled for implementation by the year 2000 and the three scheduled for implementation in 2001. Justifying the selection of these ports would depend on the results of ongoing re-evaluations of the current and specific needs of each port by the Coast Guard. The second

group could include ports with less urgent needs where VTS or, perhaps another, more appropriate navigational information system could be implemented at a later date. This approach might reduce the overall capital costs of VTS–2000.

To support this approach and justify continued federal funding, the minimum scope and service level of VTS to ensure safety must be established. The Coast Guard would need to establish a baseline for each port slated to receive a VTS–2000 system, as well as for each existing VTS and VTS-like system, to ensure minimum safety levels nationwide. The committee concludes that local institutions, in partnership with federal agencies, could introduce new strategies for implementing VTS–2000. Acceptance of VTS–2000 could be promoted by shifting the focus to establishing a generic baseline system for a small number of high priority ports to meet national safety needs and Coast Guard mission requirements.

Recommendation 1.—The Coast Guard should take the lead in promoting public/private partnerships for the acquisition and operation of VTS systems in specific ports. Partnerships have already evolved in certain localities, and the Coast Guard has adequate experience working with the maritime community and other stakeholders to evaluate problems, identify needs and improve navigational safety. Organizations like harbor safety committees already exist in some ports and could help develop the partnerships.

Recommendation 2.—The Coast Guard should use public/private partnerships to help establish local institutions for implementing local VTS systems. These institutions must bring all parties together and establish specific requirements for each port. They must also seek acceptance from all stakeholders for specific designs, operational approaches, and funding schemes.

Recommendation 3.—The Coast Guard should select ports with the greatest safety needs for VTS and identify a minimum generic, baseline system that meets national safety needs as well as Coast Guard mission requirements for each port. A second group of ports should be selected, for a phase 2 program, and a similar baseline system should be defined for this group. Funding for both capital and operating costs for the baseline systems should be the responsibility of the Coast Guard and should be incorporated into long-range funding plans.

Recommendation 4.—Each port, through a public/private partnership, should apply to the Coast Guard for enhancements beyond the generic system that would provide economic and other benefits to users. The application should include proposals for funding. Funding for enhancements should be the responsibility of local partnerships. Applications may also be used to justify or modify the priority status of ports.

Recommendation 5.—The Coast Guard should examine its existing VTS as well as private VTIS and enhancements in order to upgrade all systems to meet national safety needs and Coast Guard mission requirements. Upgrades required to meet national safety needs should be funded by the Coast Guard. Enhancements beyond the generic baseline system should be funded by the local entities in the partnership.

COST-SHARING OPTIONS

Although the national interest in safe and efficient ports and waterways justifies federal funding for generic VTS systems that meet national safety needs and Coast Guard mission requirements, the committee recognizes that full federal funding may not be feasible in the future. Private support can best be encouraged by negotiations to determine a cost-sharing formula acceptable to local stakeholders. The committee identified three general cost-sharing mechanisms that could be used as a basis for developing a more specific formula. Each mechanism would provide for both federal funding and local user funding, with specific shares to be determined by the relative benefits derived by each party. Some mechanisms would make use of existing institutions and authorities, but others would require establishing new authorities and, possibly, legislation. All of them would require the establishment of local partnerships to facilitate implementation. Any one of the three could be selected and applied to fit a specific situation. The options include (1) establishing new or using existing national trust funds, (2) using federal grants combined with local cost-sharing measures, and (3) imposing local user fees to supplement federal funding.

RELATED AGENCY

SURFACE TRANSPORTATION BOARD

PREPARED STATEMENT OF LINDA J. MORGAN, CHAIRMAN

Chairman Shelby and Members of the Subcommittee, I am Linda J. Morgan, Chairman of the Surface Transportation Board (Board). It is my pleasure to submit the budget request for the Board for fiscal year 1998.

BACKGROUND ON THE BOARD

As you know, on January 1, 1996, the Board was established pursuant to Public Law 104–88, the ICC Termination Act of 1995 (ICCTA). Consistent with the trend toward less economic regulation of the surface transportation industry, the ICCTA eliminated the ICC and, with it, several regulatory functions that it had administered. The ICCTA transferred to the Board core rail functions and certain non-rail adjudicative functions previously performed by the ICC. Motor carrier licensing and certain other motor functions were transferred to the Federal Highway Administration within the Department of Transportation (DOT).

The Board is a three-member, bipartisan, decisionally independent, adjudicatory body organizationally housed within DOT. The rail oversight of the Board encompasses rate reasonableness, car service and interchange, mergers and line acquisitions, and line constructions and abandonments. The important rail reforms of the Staggers Rail Act of 1980 are continued under the ICCTA. The jurisdiction of the Board also includes limited oversight of the intercity bus industry and certain pipeline carriers; rate regulation involving non-contiguous domestic water transportation, household goods carriers, and collectively determined motor rates; and the disposition of motor carrier undercharge claims. The ICCTA empowers the Board, through its exemption authority, to promote deregulation administratively. The Board currently has pending a little over 500 adjudications related to all of these functions. The number of cases pending at the Board at any given time remains relatively constant at a level between 500 and 600 because, even as cases are resolved, new cases are filed.

THE BOARD'S FISCAL YEAR 1998 BUDGET REQUEST

The Board's fiscal year 1998 budget request totals $15.853 million and 134 FTE's. This budget proposes the same level and manner of funding provided to the Board for fiscal year 1997, and reflects the relatively constant workload expected and the statutory and regulatory deadlines associated with the resolution of the cases filed.[1] This amount includes an appropriations request of $12.753 million and a request for $3.1 million in reimbursements from the offsetting collection of user fees, based on the Board's existing program assessing fees to cover the costs incurred by the Board for fee-related activities.

By comparison, the President's fiscal year 1998 budget for the Board totals $14.3 million, all to be funded by user fees. In this regard, additional statutory authority would be required to implement the President's user fee proposal, as the Board's current user fee authority would not allow the Board to increase user fees sufficiently to fully fund itself.[2] The difference between the Board's request of $15.853 million and the President's request of $14.3 million is $1.5 million. The Board estimates that funding at the President's level would require the reduction of 24 FTE's:

[1] Attached (Attachment 1) is a table that presents in more detail the specifics of the Board's fiscal year 1998 budget request.

[2] Such a statutory change, if enacted would have needed become law by early June of this year. This would have allowed the minimum time necessary for the Board to complete a rulemaking to implement, by October 1 of this year, whatever new fee structure is needed to fully fund the Board in fiscal year 1998.

the Board's budget is predominantly for personnel costs, and includes little in the way of other discretionary funds that can be reduced.

OVERALL GOALS AND ACCOMPLISHMENTS OF THE BOARD

In the performance of its functions, the objective of the Board is to ensure that, where regulatory oversight is necessary, it is exercised efficiently and effectively, integrating market forces, where possible, into the overall regulatory model. In particular, the Board seeks to resolve matters brought before it fairly and expeditiously. Through use of its regulatory exemption authority, streamlining of its decisional process and the regulations applicable thereto, and consistent application of legal and equitable principles, the Board seeks to facilitate commerce by providing an effective forum for efficient dispute resolution and facilitation of appropriate business transactions. The Board continues to strive to develop, through rulemakings and case disposition, new and better ways to analyze unique and complex problems, to reach fully justified decisions more quickly, and to reduce the costs associated with regulatory oversight.

The Board thus views its responsibility as one of promoting, where appropriate, substantive and procedural regulatory reform in the economic regulation of surface transportation. In this regard, the Board has exempted certain commodities and classes of transactions from regulation. It also has adopted several rulemakings that eliminated unnecessary regulations, streamlined existing regulations, and provided for expedited procedures and deadlines to handle various adjudicative matters before the Board. In addition, it has processed various matters brought before the Board in a way that has promoted private-sector negotiations and resolutions, where appropriate, and facilitated market-based transactions in the public interest.

To be more responsive to the surface transportation community by fostering governmental efficiency, innovation in dispute resolution, private-sector solutions to problems, and competition in the provision of transportation services, the Board will:

—Continue to strive for a more streamlined process for the expeditious handling of rail rate reasonableness and other complaint cases, in an effort to provide additional regulatory predictability to shippers and carriers;

—Continue to reduce processing time for all cases before the Board, in particular to ensure that appropriate market-based transactions in the public interest are facilitated; and

—Continue to develop new opportunities for the various sectors of the transportation community to work cooperatively with the Board and with one another to find creative solutions to persistent industry and/or regulatory problems involving carriers, shippers, employees, and local communities.

BOARD WORKLOADS FOR FISCAL YEAR 1997 AND 1998

Attached is a table (Attachment 2) that shows workload trends, which form the basis for the Board's request to have its current level of funding maintained in fiscal year 1998. As the table indicates, the Board believes that the number of decisions issued is the best measure of workload. In accordance with the Board's continued commitment to resolving matters before it expeditiously, it anticipates approximately the same amount of work and output in fiscal year 1998 as is estimated for fiscal year 1997.

In forecasting future workload trends, workload related to rail carrier consolidations is expected to remain constant for fiscal year 1997 and fiscal year 1998. In particular, the Board will continue to monitor the implementation of the Union Pacific/Southern Pacific merger pursuant to the five-year oversight condition that the Board imposed as part of its approval of the merger in 1996. In addition, a joint proposal for the control of Conrail will soon be filed by CSX and Norfolk Southern (NS).[3]

Regarding oversight of rail rates and services, the workload is expected to remain at the fiscal year 1996 level through fiscal year 1997 and then increase somewhat in fiscal year 1998 in anticipation of: rate reasonableness complaints expected to be filed as long term coal transportation contracts continue to expire; and the anticipated filing of complaints seeking application of the Board's recently issued non-coal rate guidelines.[4] In addition, the Board anticipates activity by parties seeking com-

[3] On April 10, CSX, NS, and Conrail jointly filed a notice of intent to file such a proposal on or before July 10, 1997. These parties have indicated that such a filing will be made on June 16, 1997.

[4] On December 31, 1996, the Board issued simplified guidelines to govern the disposition of small rail rate complaints for which the application of a more complex rate analysis is too costly.

petitive access remedies in accordance with the Board's recent bottleneck rate decision.[5]

As part of the ongoing restructuring occurring throughout the rail industry, rail abandonments and line constructions are expected to remain at the fiscal year 1996 level through fiscal year 1997. The Board's recently completed rulemaking streamlining the abandonment process should further facilitate abandonments that might have already been planned. A small decrease in abandonment activity, however, is projected for fiscal year 1998 due to an expected increase in line sale activity. Normally, it is expected that as line sales increase, abandonments decrease, and vice-versa, as line sales usually involve lines that would otherwise be abandoned. Other line transactions (such as leases and trackage rights) are expected to continue at the fiscal year 1996 level during fiscal year 1997, and to increase somewhat during fiscal year 1998.

Other rail activities are expected to remain steady during fiscal year 1997 (at the fiscal year 1996 levels) and then increase somewhat in fiscal year 1998 due to: workload related to labor arbitration appeals following implementation of railroad mergers recently approved; and the continued use of exemption authority as appropriate, with a view toward continuing to eliminate unnecessary rail regulations and streamline remaining rail regulations.

Motor carrier undercharge workload is expected to follow the fiscal year 1996 level during fiscal year 1997 and then to decrease in fiscal year 1998. As these cases have tended recently to be filed in large groups, primarily in response to court action, a high volume of work remains pending at this time. While the filing of new cases should end at some point, it cannot be said with confidence when that point will arrive.

Other non-rail activities are expected to remain at fiscal year 1996 levels during fiscal year 1997, but indications are that there will be an increase in workload in this area during fiscal year 1998, in particular because of the statutorily mandated review of motor carrier collective rate-making agreements that the Board must undertake, and continued intercity bus restructuring transactions.

SUMMARY

The Board's budget request would ensure the resources needed for the Board to continue to implement its responsibilities expeditiously and effectively as Congress intends. I would be happy to answer any other questions that the Committee may have about the Board's fiscal year 1998 budget request.

ATTACHMENT 1.—SALARIES AND EXPENSES

[Dollars in thousands]

	Fiscal years—			Difference from enacted
	1996 actual [1]	1997 enacted	1998 request	
Permanent positions	132	134	134	.....
Full-time equivalents	106	134	134	.....
Personnel compensation and benefits	$10,171	$11,623	$12,009	$386
Former personnel	2,858	712	20	(692)
Travel	35	36	38	2
Other costs	4,316	3,087	3,786	699
Total budget resources	[2] 17,380	15,458	15,853	395

[1] The fiscal year 1996 numbers represent only three quarters of the fiscal year. The Board was established on January 1, 1996.

[2] This number includes expenses associated with the closure of the Interstate Commerce Commission (ICC).

CHANGES IN RESOURCES

For personnel compensation and benefits, $12,009,000 is requested to support 134 FTE's. This is an increase of $386,000 over fiscal year 1997, of which $78,800 is required to fund the annual cost of the January 1997 pay raise and $207,200 is re-

[5] On December 31, 1996, the Board issued guidelines to govern rail rate reasonableness and route issues in cases where a portion of the rail transportation moves over a bottleneck segment (a segment serving a point for which no other rail transportation route is available).

quired for the January 1998 pay raise originally estimated at 3.1 percent.[6] The request also includes $100,000 for lump-sum leave payments to retiring employees. Funding for costs for former personnel severance and unemployment payments is requested at $20,000, which is a decrease of $692,000 from fiscal year 1997. This is due to a decrease in payments to former ICC and Board employees who were separated from Federal service.

A travel budget of $38,000 is requested primarily for on-site visits to railroads to finalize audits and review public accountants' workpapers, for physical inspection of proposed rail abandonment and construction sites and verification of environmental data provided by parties to proceedings, for defense of the Board's decisions in courts across the country, and for the general presentation upon request of issues within the Board's jurisdiction.

Funding to cover other costs is requested at $3,786,000, a $699,000 increase over fiscal year 1997. Included in this number is a rental payment increase directed by the General Services Administration (GSA). However, the Board's rent funding requirements will decrease over the long term as GSA amortizes the cost for the space alterations and accounts for the rental rate decreases anticipated in connection with the Board's new location. This amount also includes regular cost increases in telephone service, mail delivery, general equipment maintenance and replacement, and the maintenance associated with the operation of the Board's existing software system.

ATTACHMENT 2.—FISCAL YEAR 1998 CONGRESSIONAL BUDGET JUSTIFICATION WORKLOAD SUMMARY [1]

Workload category	Actual fiscal year 1996 [2] decisions issued	Estimated [3] fiscal year 1997 decisions issued	Estimated fiscal year 1998 decisions issued
Rail carrier consolidations	124	160	160
Rail rates and service	71	100	110
Rail abandonments and constructions	369	500	480
Other line transactions	147	200	250
Other rail activities	94	125	140
Motor carrier undercharges	480	640	580
Non-rail activities	55	75	100
Total decisions	1,340	1,800	1,820

[1] The Board believes that the number of decisions issued is the best measure of workload at the Board. Certain activities performed at the Board that provide direct and indirect support to rulemakings and decisions in specific cases are not reflected in these workload numbers. Such activities not reflected include: enforcement action; judicial review work; rail audits and rail carrier reporting oversight; administration of the rail waybill sample and development of the Uniform Rail Costing System; and case-related correspondence and informal public assistance.

[2] This column represents three-fourths of a year (January 1, 1996 to September 30, 1996).

[3] Estimated workload for fiscal years 1997 and 1998 are based on historical information regarding actual filings and best estimates of probable future filings by parties. Because the Board is principally an adjudicatory body, it does not directly control the level or timing of actual case filings.

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

BOARD MEMBERS' TERMS AND STAFFING

Question. Who are the current Surface Transportation Board ("the Board") members, and when do their terms expire? Please display each Board member's office staffing, by name, position title and grade.

Answer. The ICC Termination Act of 1995 (ICCTA) provided that the term for each member of the Board shall be 5 years and shall begin when the term of the predecessor of that member ends. Also under the ICCTA, a Board Member cannot be reappointed for more than one additional term.

[6] The Administration has revised the civilian pay raise assumptions for fiscal year 1998 since the Board's budget request was originally developed. The revised civilian pay increase is 2.8 percent, which amounts to a $22,000 change in personnel compensation requirements.

BOARD MEMBERS AND EXPIRATION OF TERMS

Gus A. Owen, December 31, 1997.
Linda J. Morgan, December 31, 1998.
Vacancy, December 31, 2000.

OFFICE STAFFING

Name	Title	Grade
Linda J. Morgan	Chairman	EX–03
Richard Armstrong III	Chief of Staff	GM–905–15
Mary L. Turek	Confidential assistant	GS–301–12
Gus A. Owen	Vice Chairman	EX–04
Vacancy (as of 6/6/97)	Staff advisor	GS–301–15
Valerie A. Nicholas	Executive assistant	GS–301–11
Vacancy	Commissioner	EX–04
Vacancy	Staff advisor	GS–301–15
Vacancy	Executive assistant	GS-301-11

FUNDING HISTORY

Question. Please prepare a table displaying the Board's funding request, the Administration's request, the enacted funding level, and the end of year staffing level for each fiscal year from fiscal year 1994 to that requested for fiscal year 1998. Please display both appropriated funds and offsetting collections.

Answer. The following table displays the funding history of the Interstate Commerce Commission (ICC) and the Board for fiscal years 1994 through 1998.

BUDGET REQUESTS AND ENACTED APPROPRIATIONS

[By fiscal year]

	ICC			STB		
	1994	1995	1996 [1]	1996 [1]	1997	1997
Board:						
Appropriation	$49,053,000	$45,069,000	$32,892,000	.....	$12,344,000	$12,753,000
Offsetting collections	7,300,000	7,300,000	8,300,000	.....	3,000,000	3,100,000
Budget request	56,353,000	52,369,000	41,192,000	.....	15,344,000	[2] 15,853,000
President:						
Appropriation	45,466,000	44,429,000	33,202,000	.....	.....	.....
Offsetting collections	7,300,000	8,300,000	8,300,000	.....	15,344,000	14,300,000
Budget request	52,766,000	52,729,000	41,502,000	.....	15,344,000	14,300,000
Enacted:						
Appropriation [3]	44,960,000	33,083,000	13,379,000	$8,414,000	12,244,000	.....
Offsetting collections [4]	7,300,000	7,738,000	3,200,000	652,000	3,000,000	.....
Budget request	52,260,000	40,821,000	16,579,000	9,066,000	15,244,000	.....
End of year:						
Staffing level	571	402	[5] 317	132	134	134
FTE level	607	416	[5] 86	106	134	134

[1] During fiscal year 1996, the ICCTA was passed, the ICC was eliminated effective December 1, 1995, and the Board was established effective January 1, 1996. The enacted funding levels for the ICC for fiscal year 1996 reflect ICC operational and termination expenses for one-quarter of the fiscal year and the Board funding levels for fiscal year 1996 reflect Board operational expenses for three-quarters of the fiscal year.

[2] The Board's fiscal year 1998 budget request essentially represents the Board's current funding level (for fiscal year 1997) plus inflationary and personnel salary increases.

[3] Enacted appropriations less enacted rescissions.

[4] Actual offsetting collections.

[5] As of December 31, 1995.

USER FEES AND OFFSETTING COLLECTIONS

Question. Please display in tabular form the level of anticipated user fee income in the Board's fiscal year 1996, 1997, and 1998 budget requests. Please also include columns displaying the President's budget assumptions for user fee income in each of these three fiscal years. In addition, please display the level of user fee offsets included in the appropriations legislation for the Board in fiscal years 1996 and 1997. Finally, please include columns displaying the actual amount of user fees collected in fiscal years 1996 and 1997 (both up to the present, and projected through the end of this fiscal year).

Answer. The following table displays the offsetting collection of user fees for fiscal year 1996 through 1998.

[By fiscal years]

	ICC 1996	STB		
		1996	1997	1998
User fee:				
Anticipated income in budget request	$8,300,000	N/A	$3,000,000	$3,100,000
President's budget assumptions	8,300,000	.....	15,344,000	14,300,000
User fee offsets in appropriations language	[1] 8,300,000	N/A	3,000,000	.....
Offsetting collections:				
Actual	[2] 3,200,000	[2] $651,520	[3] 761,914	.....
Projected end of fiscal year	.....	.....	[4] 3,021,375	.....

[1] Offsetting collections of $8,300,000 were intended to cover, during fiscal year 1996, both the ICC and its successors (the Board and the Department of Transportation (DOT)) to carry outtransferred rail and motor functions.

[2] These numbers do not include the fees collected by DOT for the transferred motor functions.

[3] User fees collected 10/1/97–2/28/97.

[4] Includes $1,779,000 for two Class I merger applications filed in CSX/Conrail/Norfolk Southern rail merger.

Question. Please describe the Board's current user fee structure and schedule of fees. Are any other fees authorized by the Interstate Commerce Commission Termination Act?

Answer. The Board's 1997 User Fee Update became effective on January 23, 1997. The fee schedule includes 109 fee items: fees based on specific types of proceedings; hourly fees for the searching and duplication of records by professional and clerical staff; and administrative fees for photocopying of records, certifications, and generation of computer-generated data files. The fees are updated annually and include direct labor cost, operations overhead, Board and office general administrative costs, and publication costs associated with providing services to the requesting public. There were no new fees authorized by the ICCTA. A copy of the 1997 User Fee Update follows. In addition, the response to the question that follows concerning the history of agency user fees includes other background information pertaining to the existing fee schedule.

Service date—January 23, 1997

This decision will be included in the bound volumes of printed reports at a later date.

Decision—STB Ex Parte No. 542 (Sub–No. 1)

REGULATIONS GOVERNING FEES FOR SERVICES PERFORMED IN CONNECTION WITH LICENSING AND RELATED SERVICES—1997 UPDATE

Decided: January 13, 1997

The Board adopts the 1997 User Fee Update.

BACKGROUND

The Surface Transportation Board (Board) is required by the regulations at 49 CFR 1002.3 to update its user fees annually. The Board's fees are revised based on the cost study formula set forth at 49 CFR 1002.3(d). Also, in some previous years, selected fees were modified to reflect new cost study data or changes in Board or Interstate Commerce Commission fee policy. The Board's last user fee update was issued in Regulations Governing Fees for Service, 1 S.T.B. 179 (1996) (1996 Fee Update I).

The Board's regulations at 49 CFR 1002.3(a) provide that the entire fee schedule or selected fees can be modified more than once a year, if necessary. Because Board employees will receive a salary increase of 3.33 percent in January 1997, and the cost of publishing documents in the Federal Register significantly increased on January 1, 1997, we are updating our user fees to recover these costs. All fees, with the exception of the ones discussed below, will be updated based on the cost formula at 49 CFR 1002.3(d).

1997 UPDATE FACTORS

For this update, the direct labor cost data have been revised to reflect the combined 1997 Government-wide general salary and 1997 locality salary increase of 3.33 percent that will take effect in January 1997. The Government Fringe Benefit Cost used in the update formula remains at 49.55 percent. Based on the Board's Fiscal 1996 actual budget data,[1] the Office General and Administrative Expense Factor has decreased from 26.73 percent to 20.06 percent, while the Board's General and Administrative Expense Factor has increased from 11.36 percent to 12.20 percent. In addition, the Operations Overhead Factor, which is developed from Fiscal 1996 payroll cost data, has increased from 13.97 percent to 23.13 percent. Finally, the cost of publishing documents in the Federal Register has increased as discussed below. The 1997 fully allocated cost for each fee item developed from these factors is set forth in Appendix A.

FEDERAL REGISTER COST

On January 1, 1997, the cost for publishing documents in the Federal Register increased to $126 per column. The minimum cost for publishing a document also increased to $126. Accordingly, we have modified the Federal Register cost for each fee item that includes such cost to reflect these changes.

We have determined that our current fees for items (38) through (41)(i) and (ii) involving major and significant rail finance proceedings do not include Federal Register publication costs. Based on a review of documents published in the Federal Register for two recent rail merger proceedings,[2] we have calculated that Federal Register costs of $4,630.50 for major transactions and $926.10 for significant transactions should be included in the cost for those fee items. We also have increased the Federal Register publication costs for minor transactions and responsive applications to $1,183.96.

FEES ITEMS NOT AFFECTED BY THIS UPDATE

In 1996 Fee Update I, based on concerns expressed by various commenting parties in that decision, the Board determined that fees for formal complaints would be set at 10 percent of the fully allocated cost and would be increased gradually to the fully allocated levels. However, because of on-going legislative debate regarding complaint fees when the 1996 Fee Update I was decided, the Board initially maintained all complaint fees at $1,000. In Regulations Governing Fees for Service Performed in Connection With Licensing and Related Services—1996 Update, STB Ex Parte No. 542 (STB served Dec. 17, 1996) (1996 Fee Update II), the Board established fees for items (56)(i) and (iii), which do not involve rail maximum rates filed by small shippers, at $23,300 and $2,300, respectively. Those fee increases became effective on January 16, 1997. Consequently, in the current update we will not revise the fees for these two types of complaint proceedings.[3] We will increase the fees for these items under the formula adopted in 1996 Fee Update I, in subsequent update proceedings.

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[1] The Board, which was created by the ICC Termination Act of 1995, Public Law No. 104–88, 109 Stat. 803 began operation on January 1, 1996. Therefore, the budget data from which these costs were derived covers the period of January 1, 1996 to September 30, 1996.

[2] Burlington Northern Inc. and Burlington Northern Railroad Company—Control and Merger—Santa Fe Pacific Corporation and The Atchison, Topeka and Santa Fe Railway Company, Finance Docket No. 32549 and Union Pacific Corporation, Union Pacific Railroad Company, and Missouri Pacific Railroad Company—Control and Merger—Southern Pacific Rail Corporation, Southern Pacific Transportation Company, St Louis Southwestern Railway Companny, SPCSL Corp., and The Denver And Rio Grande Western Railroad Company, Finance Docket No. 32760.

[3] Under a gradual fee increase program over a multiple-year period as established in the 1996 Fee Update I, we would be justified in adopting a fee for Item 56(i), Formal complaints filed under the coal rate guidelines set at $24,800 per filing [$248,533.78 (total 1997 cost) times 10 percent and then rounded]. We would also be justified in adopting a fee for Item 56(iii), All other formal complaints set at $2,400 per filing [$24,658.77 (total 1997 cost) times 10 percent and then rounded].

We note that the filing fee for Item 56(ii), A formal complaint involving rail maximum rates filed by a small shipper, remains at $1,000 in keeping with Congressional mandate discussed in 1996 Fee Update II. In addition, the $150 filing fees that were established in 1996 Fee Update I for items involving trails use requests, Amtrak conveyance and compensation proceedings, appeals to Board decisions, and motor carrier undercharge proceedings and the $150 filing fee for labor arbitration proceedings, adopted in 1996 Fee Update II, will be maintained. Moreover, the fee for Item 13, A feeder line development program, will remain at $2,600 and fees for Item 58(i), Petition for declaratory order involving a dispute over an existing rate or practice, and Item 58(ii), All other petitions for declaratory order, are held at the current levels of $1,000 and $1,400, respectively.

OTHER ADJUSTMENTS TO THE FEE SCHEDULE

In Central Power & Light v. Southern Pacific Transportation Company, No. 41242 (STB served Dec. 31, 1996), the Board indicated that in certain cases "bottleneck" rate relief would be available in connection with the filing of a competitive access complaint. Our existing fee schedule, however, does not contain a separate fee for competitive access complaints. In light of our limited experience to date with competitive access complaint filings, we will initially set a fee of $150 for these cases. This fee will be designated Item 56(iv), Competitive access complaints. We will reevaluate our fee for this activity as we gain further experience handling these types of proceedings.

In Class Exem. For the Construction of Connecting Track, 1 S.T.B. 75 (1996), the Board adopted new regulations at 49 CFR 1150.36, that allow for the filing of notices of exemption for the construction and operation of connecting railroad track. Prior to the revisions of the fee schedule in 1996 Fee Update I rail line acquisition and operation proceedings and construction proceedings were grouped under the same item. When these two activities were given separate fee item numbers in 1996 Fee Update I, the revised schedule did not include a fee for notices of exemption involving construction of rail lines. Therefore, we are adding Item 12(ii), Notices of exemption involving construction of rail lines under 49 CFR 1150.36, to cover that activity. The fee for Item 12(ii), is established as $1,100, which is the same level as the fee for notices involving acquisition or operation of rail lines. In future fee updates, that fee level may be adjusted based on our experience handling those proceedings. In order to be consistent with other fee items in our fee schedule, we are also providing for a separate Fee Item (12)(iii), Petitions for exemptions involving construction.

NOTICE AND COMMENT REQUIREMENT

The fee increases involved here only result from the mechanical application of the current update formula at 49 CFR 1002.3(d), which was adopted through notice and comment procedures in Regulations Governing Fees for Services–1987 Update, 4 I.C.C.2d 137 (1997). Therefore, we believe that good cause exists for finding that notice and comment is unnecessary for this proceeding. See Regulations Governing Fees For Services–1990 Update, 7 I.C.C.2d 3 (1990), Regulations Governing Fees For Services–1991 Update, 8 I.C.C.2d 13 (1991), Regulations Governing Fees For Services–1993 Update, 9 I.C.C.2d 855 (1993).

REGULATORY FLEXIBILITY ANALYSIS

We certify that these rules will not cause a significant economic effect on a substantial number of small entities because the Board's regulations provide for waiver of filing fees for those entities which can make the required showing of financial hardship.

It is ordered:

1. 49 CFR Part 1002 of the Code of Federal Regulations is amended as set forth in APPENDIX B. Notice of the final rules adopted here will be transmitted to Congress pursuant to Pub. L. 104–121 (Mar. 29, 1996).

2. These rules are effective on February 24, 1997.

By the Board, Chairman Morgan and Vice-Chairman Owen.

VERNON A. WILLIAMS,
Secretary.

APPENDIX A

[STB Ex Parte No. 542 (Sub-No. 1)]

FEE No.	1996 Direct labor (1)	1997 Direct labor updated (2)	Government fringes (3)	Total (2 + 3) (4)	Operations overhead (5)	Office G&A (6)	Board G&A (7)	Publication cost (8)	Total sum (4–8) (9)
1	$1,029.66	$1,063.95	$527.19	$1,591.13	$368.03	$393.01	$286.96	$4.00	$2,643.14
2	434.09	448.55	222.25	670.80	155.16	165.69	120.98	149.88	1,262.50
3	6,382.49	6,595.03	3,267.84	9,862.86	2,281.28	2,436.12	1,778.79	149.88	16,508.93
4i	1,029.66	1,063.95	527.19	1,591.13	368.03	393.01	286.96	149.88	2,789.02
4ii	24.75	25.57	12.67	38.25	8.85	9.45	6.90	.....	63.44
5	116.13	120.00	59.46	179.46	41.51	44.33	32.37	5.00	302.65
11i	1,655.51	1,710.64	847.62	2,558.26	591.73	631.89	461.39	126.00	4,369.26
11ii	354.50	366.30	181.50	547.81	126.71	135.31	98.80	231.00	1,139.62
11iii	2,882.61	2,978.60	1,475.90	4,454.50	1,030.33	1,100.26	803.38	149.88	7,538.34
12i	17,300.29	17,876.39	8,857.75	26,734.14	6,183.61	6,603.30	4,821.57	162.00	44,504.62
12ii	354.50	366.30	181.50	547.81	126.71	135.31	98.80	231.00	1,139.62
12iii	17,300.29	17,876.39	8,857.75	26,734.14	6,183.61	6,603.30	4,821.57	162.00	44,504.62
13	5,313.76	5,490.71	2,720.65	8,211.35	1,899.29	2,028.19	1,480.94	147.00	13,766.77
14i	1,401.44	1,448.11	717.54	2,165.65	500.91	534.91	390.58	149.88	3,741.93
141i	354.50	366.30	181.50	547.81	126.71	135.31	98.80	231.00	1,139.62
14iii	1,494.58	1,544.35	765.23	2,309.57	534.20	570.46	416.54	165.38	3,996.16
15	357.86	369.78	183.22	553.00	127.91	136.59	99.74	128.86	1,046.10
21i	5,119.05	5,289.51	2,620.95	7,910.47	1,829.69	1,953.88	1,426.67	126.00	13,246.71
21ii	764.16	789.61	391.25	1,180.86	273.13	291.67	212.97	319.78	2 278.41
21iii	1,418.72	1,465.96	726.38	2,192.35	507.09	541.51	395.40	183.27	3,819.61
22	110.71	114.40	56.68	171.08	39.57	42.26	30.85	.....	283.76
23	441.74	456.45	226.17	682.62	157.89	168.61	123.11	.....	1,132.23
24	422.68	436.76	216.41	653.17	151.08	161.33	117.80	.....	1,083.38
25	363.59	375.70	186.16	561.86	129.96	138.78	101.33	.....	931.92
26	5,268.56	5,444.00	2,697.50	8,141.51	1,883.13	2,010.94	1,468.34	.....	13,503.92
27	272.60	281.68	139.57	421.25	97.43	104.05	75.97	.....	698.70
36	4,364.04	4,509.36	2,234.39	6,743.75	1,559.83	1,665.70	1,216.25	149.88	11,335.41
37	2,337.14	2,414.97	1,196.62	3,611.58	835.36	892.06	651.36	149.88	6,140.24

APPENDIX A—Continued

[STB Ex Parte No. 542 (Sub-No. 1)]

FEE No.	1996 Direct labor (1)	1997 Direct labor updated (2)	Government fringes (3)	Total (2 + 3) (4)	Operations overhead (5)	Office G&A (6)	Board G&A (7)	Publication cost (8)	Total sum (4–8) (9)
38i	345,266.30	356,763.67	176,776.40	533,540.07	123,407.82	131,783.75	96,225.26	4,630.50	889,587.39
38ii	69,054.64	71,354.16	35,355.99	106,710.15	24,682.06	26,357.28	19,245.44	926.10	177,921.01
38iii	1,401.44	1,448.11	717.54	2,165.65	500.91	534.91	390.58	1,183.96	4,776.01
38iv	332.32	343.39	170.15	513.53	118.78	126.84	92.62	216.57	1,068.34
38v	1,401.44	1,448.11	717.54	2,165.65	500.91	534.91	390.58	1,183.96	4,776.01
38vi	2,139.22	2,210.46	1,095.28	3,305.74	764.62	816.51	596.20	149.88	5,632.94
39i	345,266.30	356,763.67	176,776.40	533,540.07	123,407.82	131,783.75	96,225.26	4,630.50	889,587.39
39ii	69,054.64	71,354.16	35,355.99	106,710.15	24,682.06	26,357.28	19,245.44	926.10	177,921.01
39iii	1,401.44	1,448.11	717.54	2,165.65	500.91	534.91	390.58	1,183.98	4,776.01
39iv	241.20	249.23	123.49	372.73	86.21	92.06	67.22	233.10	851.32
39v	1,401.44	1,448.11	717.54	2,165.65	500.91	534.91	390.58	1,183.96	4,776.01
39vi	2,139.22	2,210.46	1,095.28	3,305.74	764.62	816.51	596.20	149.88	5,632.94
40i	345,266.30	356,763.67	176,776.40	533,540.07	123,407.82	131,783.75	96,225.26	4,630.50	889,587.39
40ii	69,054.64	71,354.16	35,355.99	106,710.15	24,682.06	26,357.28	19,245.44	926.10	177,921.01
40iii	1,401.44	1,448.11	717.54	2,165.65	500.91	534.91	390.58	1,183.96	4,776.01
40iv	223.42	230.86	114.39	345.25	79.86	85.28	62.27	190.59	763.24
40v	1,401.44	1,448.11	717.54	2,165.65	500.91	534.91	390.58	1,183.96	4,776.01
40vi	2,139.22	2,210.46	1,095.28	3,305.74	764.62	816.51	596.20	149.88	5,632.94
41i	345,266.30	356,763.67	176,776.40	533,540.07	123,407.82	131,783.75	96,225.26	4,630.50	889,587.39
41ii	69,054.64	71,354.16	35,355.99	106,710.15	24,682.06	26,357.28	19,245.44	926.10	177,921.01
41iii	1,401.44	1,448.11	717.54	2,165.65	500.91	534.91	390.58	1,183.96	4,776.01
41iv	265.63	274.48	136.00	410.48	94.94	101.39	74.03	216.00	896.84
41v	1,401.44	1,448.11	717.54	2,165.65	500.91	534.91	390.58	1,183.96	4,776.01
41vi	1,494.58	1,544.35	765.23	2,309.57	534.20	570.46	416.54	165.38	3,996.16
42	479.72	495.69	245.62	741.31	171.47	183.10	133.70	273.00	1,502.58
43	16,189.86	16,728.98	8,289.21	25,018.19	5,786.71	6,179.46	4,512.09	149.88	41,646.34
44i	2,966.04	3,064.81	1,518.61	4,583.42	1,060.15	1,132.10	826.63	149.88	7,752.18

44ii	24.75	25.57	12.67	38.25	8.85	9.45	6.90	.....	63.44
45	184.23	190.36	94.33	284.69	65.85	70.32	51.34	.....	472.20
46	1,820.53	1,881.15	932.11	2,813.27	650.71	694.87	507.38	149.88	4,816.11
47	35,016.04	36,182.07	17,928.22	54,110.29	12,515.71	13,365.18	9,758.92	.....	89,750.10
48	42,470.72	43,884.99	21,745.02	65,630.01	15,180.22	16,210.53	11,836.53	.....	108,857.30
56i	96,965.56	100,194.51	49,646.38	149,840.89	34,658.20	37,010.52	27,024.17	.....	248,533.78
56ii	.....	.....	.....	.....	.....	.....	.....	.....	1,000.00
56iii	9,620.63	9,941.00	4,925.76	14,866.76	3,438.68	3,672.07	2,681.26	.....	24,658.77
56iv	.....	.....	.....	.....	.....	.....	.....	.....	150.00
57	2,063.49	2,132.20	1,056.51	3,188.71	737.55	787.61	575.09	.....	5,288.96
58i	1,938.52	2,003.07	992.52	2,995.60	692.88	739.91	540.26	472.50	5,441.15
58ii	1,533.86	1,584.94	785.34	2,370.27	548.24	585.45	427.48	126.00	4,057.46
59	1,594.62	1,647.72	816.45	2,464.17	569.96	608.65	444.42	149.88	4,237.07
60	3,159.82	3,265.04	1,617.83	4,882.87	1,129.41	1,206.06	880.64	.....	8,098.98
61	1,540.45	1,591.75	788.71	2,380.46	550.60	587.97	429.32	.....	3,948.35
62	2,440.51	2,521.78	1,249.54	3,771.32	872.31	931.51	680.17	.....	6,255.31
76	288.83	298.45	147.88	446.33	103.24	110.24	80.50	2.00	742.30
77	30.55	31.57	15.64	47.21	10.92	11.66	8.51	.....	78.30
78i	5.75	594	2.94	8.89	2.06	2.19	1.60	.....	14.74
78ii	.....	.....	.....	.....	.....	.....	.....	.....	1.00
79i	.....	.....	.....	.....	.....	.....	.....	.....	45.00
79ii	36.40	37.61	18.64	56.25	13.01	13.89	10.14	.....	93.30
80	142.47	147.21	72.94	220.16	50.92	54.38	39.71	.....	365.17
81i	.....	.....	.....	.....	.....	.....	.....	.....	45.00
81ii	36.40	37.61	18.64	56.25	13.01	13.89	10.14	.....	93.30
82	57.85	59.78	29.62	89.40	20.68	22.08	16.12	.....	148.28
83	9.56	9.88	4.89	14.77	3.42	3.65	2.66	.....	24.50
84	61.97	64.03	31.73	95.76	22.15	23.65	17.27	.....	158.84
85	266.35	275.22	136.37	411.59	95.20	101.66	74.23	.....	682.69
86	347.03	358.59	177.68	536.27	124.04	132.46	96.72	.....	889.48
96	7.47	7.72	3.82	11.54	2.67	2.85	2.08	.....	19.15
97	5.69	5.88	2.91	8.79	2.03	2.17	1.59	.....	14.58
98i	72.33	74.74	37.03	111.77	25 85	27.61	20.16	.....	185.39
98ii	107.77	111.36	55.18	166.54	38.52	41.13	30.04	126.00	402.23
99i	44.45	45.93	22.76	68.69	15.89	16.97	12.39	.....	113 93
99ii	.....	.....	.....	.....	.....	.....	.....	.....	25.00

APPENDIX A—Continued

[STB Ex Parte No. 542 (Sub-No. 1)]

FEE No.	1996 Direct labor (1)	1997 Direct labor updated (2)	Government fringes (3)	Total (2 + 3) (4)	Operations overhead (5)	Office G&A (6)	Board G&A (7)	Publication cost (8)	Total sum (4–8) (9)
100i	.....	.....	.....	.....	.....	.....	.....	.....	50.00
100ii	.....	.....	.....	.....	.....	.....	.....	.....	10.00
100iii	.....	.....	.....	.....	.....	.....	.....	.....	20.00
100iv	.....	.....	.....	.....	.....	.....	.....	.....	500.00
100v	.....	.....	.....	.....	.....	.....	.....	.....	400.00
100vi	.....	.....	.....	.....	.....	.....	.....	.....	50.00
100vii	.....	.....	.....	.....	.....	.....	.....	.....	1,500.00
101i	.....	.....	.....	.....	.....	.....	.....	.....	450.00
101ii	.....	.....	.....	.....	.....	.....	.....	.....	150.00
101iii	.....	.....	.....	.....	.....	.....	.....	.....	650.00
101iv	.....	.....	.....	.....	.....	.....	.....	.....	450.00
101v	.....	.....	.....	.....	.....	.....	.....	.....	500.00
101vi	.....	.....	.....	.....	.....	.....	.....	.....	50.00
102*	3.97	4.10	2.03	6.13	1.42	1.52	1.11	.....	10.18
103*	24.52	25 34	12.55	37.89	8.76	9.36	6.83	.....	62.85
104*	16.97	17.54	8.69	26.22	6.07	6.48	4.73	.....	43.50
105*	.56	.58	.29	.87	.20	.21	.16	.....	1.44
106*	42.69	44.11	21.86	65.97	15.26	16.29	11.90	.....	109.42

[STB Ex Parte No. 542 (Sub-No. 1)]

APPENDIX B

For the reasons set forth in the preamble, title 49, chapter X, part 1002, of the Code of Federal Regulations is amended as follows:

Part 1002—FEES

1. The authority citation for part 1002 continues to read as follows:

Authority: 5 U.S.C. 552(a)(4)(A) and 553; 31 U.S.C. 9701 and 49 U.S.C. 721(a).

2. Section 1002.1 is amended by revising paragraphs (a), (b), (c), and (e)(1) and the chart in paragraph (f)(6) to read as follows:

§ 1002.1 Fees for records search. review, copying, certification, and related services.

* * * * * * *

(a) Certificate of the Secretary, $10.00.

(b) Service involved in examination of tariffs or schedules for preparation of certified copies of tariffs or schedules or extracts therefrom at the rate of $25.00 per hour.

(c) Service involved in checking records to be certified to determine authenticity, including clerical work etc., incidental thereto, at the rate of $17.00 per hour.

* * * * * * *

(e) * * *

(1) A fee of $44.00 per hour for professional staff time will be charged when it is required to fulfill a request for ADP data.

* * * * * * *

(f) * * *

(6) * * *

Grade	Rate	Grade	Rate
GS–1	$7.37	GS–9	$17.20
GS–2	8.02	GS–10	18.95
GS–3	9.04	GS–11	20.82
GS–4	10.15	GS–12	24.95
GS–5	11.35	GS–13	29.67
GS–6	12.66	GS–14	35.06
GS–7	14.06	GS–15 and over	41.24
GS–8	15.58		

* * * * * * *

2. In § 1002.2, paragraph (f) is revised to read as follows:

§ 1002.2 Filing fees.

(a) ***

(f) Schedule of filing fees.

Type of proceeding	*Fee*
PART I: Non-Rail Applications or Proceedings to Enter Upon a Particular Financial Transaction or Joint Arrangement:	
(1) An application for the pooling or division of traffic	$2,600
(2) An application involving the purchase, lease, consolidation, merger, or acquisition of control of a motor carrier of passengers under 49 U.S.C. 4303	1,200
(3) An application for approval of a non-rail rate association agreement. 49 U.S.C. 13706	16,500
(4) An application for approval of an amendment to a non-rail rate association agreement:	
(i) Significant amendment	2,700
(ii) Minor amendment	60
(5) An application for temporary authority to operate a motor carrier of passengers. 49 U.S.C. 14303(i)	300

Type of proceeding	*Fee*
(6)–(10) [Reserved]	
PART II: Rail Licensing Proceedings other than Abandonment or Discontinuance Proceedings:	
(11) (i) An application for a certificate authorizing the extension, acquisition, or operation of lines of railroad. 49 U.S.C. 10901	4,300
(ii) Notice of exemption under 49 CFR 1150.31–1150.35	1,100
(iii) Petition for exemption under 49 U.S.C. 10502	7,500
(12) (i) An application involving the construction of a rail line	44,500
(ii) A notice of exemption involving construction of a rail line under 49 CFR 1150.36	1,100
(iii) A petition for exemption under 49 U.S.C. 10502 involving construction of a rail line	44,500
(13) A Feeder Line Development Program application filed under 49 U.S.C. 10907(b)(1)(A)(i) or 10907(b)(1)(A)(ii)	2,600
(14) (i) An application of a class II or class III carrier to acquire an extended or additional rail line under 49 U.S.C. 10902	3,700
(ii) Notice of exemption under 49 CFR 1150.41–1150.45	1,100
(iii) Petition for exemption under 49 U.S.C. 10502 relating to an exemption from the provisions of 49 U.S.C. 10902	3,900
(15) A notice of a modified certificate of public convenience and necessity under 49 CFR 1150.21–1150.24	1,000
(16)–(20) [Reserved]	
PART III: Rail Abandonment or Discontinuance of Transportation Services Proceedings:	
(21) (i) An application for authority to abandon all or a portion of a line of railroad or discontinue operation thereof filed by a railroad (except applications filed by Consolidated Rail Corporation pursuant to the Northeast Rail Service Act [Subtitle E of Title XI of Pub. L. 97–35], bankrupt railroads, or exempt abandonments	13,200
(ii) Notice of an exempt abandonment or discontinuance under 49 CFR 1152.50	2,200
(iii) A petition for exemption under 49 U.S.C. 10502	3,800
(22) An application for authority to abandon all or a portion of a line of a railroad or operation thereof filed by Consolidated Rail Corporation pursuant to Northeast Rail Service Act	250
(23) Abandonments filed by bankrupt railroads	1,100
(24) A request for waiver of filing requirements for abandonment application proceedings	1,000
(25) An offer of financial assistance under 49 U.S.C. 10904 relating to the purchase of or subsidy for a rail line proposed for abandonment	900
(26) A request to set terms and conditions for the sale of or subsidy for a rail line proposed to be abandoned	13,500
(27) A request for a trail use condition in an abandonment proceeding under 16 U.S.C.1247(d)	150
(28)–(35) [Reserved]	
PART IV: Rail Applications to Enter Upon a Particular Financial Transaction or Joint Arrangement:	
(36) An application for use of terminal facilities or other applications under 49 U.S.C. 11102	11,300
(37) An application for the pooling or division of traffic. 49 U.S.C. 11322	6,100
(38) An application for two or more carriers to consolidate or merge their properties or franchises (or a part thereof) into one corporation for ownership, management, and operation of the properties previously in separate ownership. 49 U.S.C. 11324:	
(i) Major transaction	889,500
(ii) Significant transaction	177,900
(iii) Minor transaction	4,700
(iv) Notice of an exempt transaction under 49 CFR 1180.2(d)	1,000
(v) Responsive application	4,700
(vi) Petition for exemption under 49 U.S.C. 10502	5,600
(39) An application of a non-carrier to acquire control of two or more carriers through ownership of stock or otherwise. 49 U.S.C. 11324:	
(i) Major transaction	889,500
(ii) Significant transaction	177,900
(iii) Minor transaction	4,700

Type of proceeding	*Fee*
(iv) A notice of an exempt transaction under 49 CFR 1180.2(d)	850
(v) Responsive application	4,700
(vi) Petition for exemption under 49 U.S.C. 10502	5,600
(40) An application to acquire trackage rights over, joint ownership in, or joint use of any railroad lines owned and operated by any other carrier and terminals incidental thereto. 49 U.S.C. 11324:	
(i) Major transaction	889,500
(ii) Significant transaction	177,900
(iii) Minor transaction	4,700
(iv) Notice of an exempt transaction under 49 CFR 1180.2(d)	750
(v) Responsive application	4,700
(vi) Petition for exemption under 49 U.S.C. 10502	5,600
(41) An application of a carrier or carriers to purchase, lease, or contract to operate the properties of another, or to acquire control of another by purchase of stock or otherwise. 49 U.S.C. 11324:	
(i) Major transaction	889,500
(ii) Significant transaction	177,900
(iii) Minor transaction	4,700
(iv) Notice of an exempt transaction under 49 CFR 1180.2(d)	850
(v) Responsive application	4,700
(vi) Petition for exemption under 49 U.S.C. 10502	3,900
(42) Notice of a joint project involving relocation of a rail line under 49 CFR 1180.2(d)(5)	1,500
(43) An application for approval of a rail rate association agreement. 49 U.S.C. 10706	41,600
(44) An application for approval of an amendment to a rail rate association agreement. 49 U.S.C. 10706:	
(i) Significant amendment	7,700
(ii) Minor amendment	60
(45) An application for authority to hold a position as officer or director under 49 U.S.C. 11328	450
(46) A petition for exemption under 49 U.S.C. 10502 (other than a rulemaking) filed by rail carrier not otherwise covered	4,800
(47) National Railroad Passenger Corporation (Amtrak) conveyance proceeding under 45 U.S.C. 562	150
(48) National Railroad Passenger Corporation (Amtrak) compensation proceeding under Section 402(a) of the Rail Passenger Service Act	150
(49)–(55) [Reserved]	
PART V: Formal Proceedings:	
(56) A formal complaint alleging unlawful rates or practices of rail carriers, motor carriers of passengers or motor carriers of household goods:	
(i) A formal complaint filed under the coal rate guidelines (Stand-Alone Cost Methodology) alleging unlawful rates and/or practices of rail carriers under 49 U.S.C. 10704(c)(1) except a complaint filed by small shipper	23,300
(ii) A formal complaint involving rail maximum rates filed by a small shipper	1,000
(iii) All other formal complaints (except competitive access complaints	2,300
(iv) Competitive access complaints	150
(57) A complaint seeking or a petition requesting institution of an investigation seeking the prescription or division of joint rates or charges. 49 U.S.C. 10705	5,200
(58) A petition for declaratory order:	
(i) A petition for declaratory order involving a dispute over an existing rate or practice which is comparable to a complaint proceeding	1,000
(ii) All other petitions for declaratory order	1,400
(59) An application for shipper antitrust immunity. 49 U.S.C. 10706(a)(5)(A)	4,200
(60) Labor arbitration proceedings	150
(61) Appeals to a Surface Transportation Board decision and petitions to revoke an exemption pursuant to 49 U.S.C. 10502(d)	150
(62) Motor carrier undercharge proceedings	150

Type of proceeding	*Fee*
(63)–(75) [Reserved]	
PART VI: Informal Proceedings:	
(76) An application for authority to establish released value rates or ratings for motor carriers and freight forwarders of household goods under 49 U.S.C. 14706	700
(77) An application for special permission for short notice or the waiver of other tariff publishing requirements	70
(78) (i) The filing of tariffs, including supplements, or contract summaries (per page. $14 minimum charge.)	1
(ii) Tariffs transmitted by fax (per page)	1
(79) Special docket applications from rail and water carriers:	
(i) Applications involving $25,000 or less	45
(ii) Applications involving over $25,000	90
(80) Informal complaint about rail rate applications	350
(81) Tariff reconciliation petitions from motor common carriers:	
(i) Petitions involving $25,000 or less	45
(ii) Petitions involving over $25,000	90
(82) Request for a determination of the applicability or reasonableness of motor carrier rates under 49 U.S.C. 13710(a)(2) and (3)	100
(83) Filing of documents for recordation. 49 U.S.C. 11301 and 49 CFR 1177.3(c) (per document)	24
(84) Informal opinions about rate applications (all modes)	150
(85) A railroad accounting interpretation	650
(86) An operational interpretation	850
(87)–(95) [Reserved]	
PART VII: Services:	
(96) Messenger delivery of decision to a railroad carrier's Washington, DC, agent (per delivery)	19
(97) Request for service or pleading list for proceedings (per list)	14
(98) (i) Processing the paperwork related to a request for the Carload Waybill Sample to be used in a Surface Transportation Board or State proceeding that does not require a Federal Register notice	150
(ii) Processing the paperwork related to a request for Carload Waybill Sample to be used for reasons other than a Surface Transportation Board or State proceeding that requires a Federal Register notice	400
(99) (i) Application fee for the Surface Transportation Board's Practitioners' Exam	100
(ii) Practitioners' Exam Information Package	25
(100) Uniform Railroad Costing System (URCS) software and information:	
(i) Initial PC version URCS Phase III software program and manual	50
(ii) Updated URCS PC version Phase III cost file, if computer disk provided by requester	10
(iii) Updated URCS PC version Phase III cost file, if computer disk provided by the Board	20
(iv) Public requests for Source Codes to the PC version URCS Phase III	500
(v) PC version or mainframe version URCS Phase II	400
(vi) PC version or mainframe version Updated Phase II databases	50
(vii) Public requests for Source Codes to PC version URCS Phase II	1,500
(101) Carload Waybill Sample data on recordable compact disk (R-CD):	
(i) Requests for Public Use File on R-CD—First Year	450
(ii) Requests for Public Use File on R-CD Each Additional Year	150
(iii) Waybill—Surface Transportation Board or State proceedings on R-CD—First Year	650
(iv) Waybill—Surface Transportation Board or State proceedings on R-CD—Second Year on same R-CD	450
(v) Waybill—Surface Transportation Board of State proceeding on R-CD—Second Year on different R-CD	500

Type of proceeding	*Fee*
(vi) User Guide for latest available Carload Waybill Sample	50

* * * * * * *

HISTORY OF USER FEES

Question. Please briefly summarize the history of user fees at the Surface Transportation Board, and the Interstate Commerce Commission. (Include a synopsis of the most recent fee increases in January 1997.)

Answer. In 1982, after a critical report by the General Accounting Office, in Interstate Commerce Commission Should Revise Its User Fee Program (GAO Report RCED 83–55, 1983), Congress directed the ICC to revise its user fee program. In response, the ICC instituted a complete review of all of its activities to identify all of those services for which fees should be assessed. Subsequently, the ICC conducted an agency-wide cost study to determine the cost of providing the identified services to the public.

In Regulations Governing Fees for Services, 1 I.C.C. 2d 60 (1984), the ICC adopted a new fee schedule, which reflected direct labor costs and overhead costs of providing services to the public. Those overhead costs included Employee Fringe Benefits, an Operations Overhead Factor, which reflected upper-level supervisory costs, and a Commission Overhead Factor, which covered costs associated with the Commissioners and their immediate staff. When it was appropriate, Federal Register publication cost was added for each fee item. In addition, pursuant to a Congressional mandate, the ICC adopted a rule in 49 CFR 1002.3(a)[7] requiring that its fees be updated annually pursuant to the cost formula in 49 CFR 1002.3(d) that measured the changes in the ICC's direct labor and overhead costs.

From 1985 to 1994, the ICC issued annual user fee updates. Most of those use fee update proceedings were limited to revising fees according to the cost formula to reflect increases in direct labor and overhead costs. In the 1987 update proceeding, however, the ICC modified the cost formula by adding an Office General and Administrative Cost Factor to reflect costs for personnel support, rent, communications, utilities, etc., for each office involved in fee-related activities. In the 1988, 1990, and 1994 user fee update proceedings, the ICC revised the fees for various items in the existing fee schedule and added new fee items based on cost studies conducted by the ICC's staff.

The Board issued its first user fee update in 1996. In its decision in Regulations Governing Fees For Service Performed, 1 S.T.B. 179 (1996), the Board: (1) revised its entire fee schedule based on the cost study formula set forth at 49 CFR 1002.3(d) related to inflationary increases in direct labor and overhead costs; (2) modified selected fees to reflect new cost study data; (3) established new fees for services and activities that had not been previously included in the Board's fee schedule; and (4) removed caps on various fee items. The Board also eliminated fee items related to activities that were transferred to the Federal Highway Administration or were no longer under the Board's jurisdiction. In a subsequent decision in Regulations Governing Fees for Services Performed In Connection with Licensing and Related Services—1996 Update (STB Ex Parte No. 542, STB served Dec. 17, 1996), the Board limited the filing fee for rail maximum rate complaints filed by small shippers to $1,000, as required by Section 1219 of the Federal Aviation Authorization Act of 1996, Pub. L. 104–264, 110 Stat. 3213 (Oct. 9, 1996).

In Regulations Governing Fees For Services Performed In Connection With Licensing and Related Services—1997 Update, (STB Ex Parte No. 542 (Sub-No. 1), STB served Jan. 23, 1997), the Board modified its fees to reflect the 1997 combined Government-wide general salary and 1997 locality salary increase of 3.33 percent that took effect in January 1997, and changes in the Board's overhead costs.[8] In addition, the Federal Register publication costs in the user fee items were adjusted to reflect the increase in Federal Register charges.[9]

Question. Please detail in tabular form the 1997 user fee schedule, including all 109 fee items or sub-fee items, including both the 1996 and 1997 fee amounts, with a column showing the amount of increase, if any.

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[7] In 1994, that rule was modified to allow the ICC to update fees more than once a year, if necessary.

[8] In 1997, there was no change in Government Fringe Benefits. The changes in the overhead factors for 1997 are as follows: (1) the Administrative Expense Factor decreased from 26.73 to 20.06 percent; (2) the Board's General and Administrative Expense Factor increased from 11.36 to 12.20 percent; and (3) the Operations Overhead Factor increased from 13.97 to 23.23 percent.

[9] We note that, because the Board uses the fee rounding formula in 49 CFR 1002.2(e), not every fee changes annually.

Answer. The following displays the pricing for fee items under the 1996 User Fee Update and the 1997 User Fee Update, along with the change from the 1996 to the 1997 schedules.

COMPARISON OF STB EX PARTE NO. 542 FEE SCHEDULE WITH STB EX PARTE NO. 542 (SUB–NO. 1 FEE) SCHEDULE

Fee or sub-fee description	STB EP 542		STB EP 542-S1		Change from 1996 to 1997
	1996 fee item	1996 fee amount	1997 fee item	1997 fee amount	
Application pooling or div. traf. non-rail	1.0	$2,400	1.0	$2,600	$200
Application purchase, Lease—MC passenger	2.0	1,100	2.0	1,200	100
Application approval non-rail rate association AGR	3.0	15,400	3.0	16,500	1,100
Application amend non-rail rate association—significant	4.1	2,500	4.1	2,700	200
Amend non-rail rate association agree—minor	4.2	50	4.2	60	10
Application for temporary authority MC passing	5.0	250	5.0	300	50
Application extension or acquisition or operation	11.1	4,000	11.1	4,300	300
Notice of exemption 1150.31–1150.35	11.2	1,000	11.2	1,100	100
Petition for exemption (except construction)	11.3	7,000	11.3	7,500	500
Application involving the construction of line	12	41,700	12.1	44,500	2,800
Notice of exemption 1150.36 construction	.....	950	12.2	1,100	150
Petition for exemption construction of line	12.1	41,700	12.3	44,500	2,800
Feeder line development program application	13.0	2,600	13.0	2,600	.....
Application class II–III acquire or extend line	14.1	3,400	14.1	3,700	300
Notice of exemption acquire or extend line	14.2	950	14.2	1,100	150
Petition for exemption acquire or exte line	14.3	3,700	14.3	3,900	200
Notice of modified certificate PC&N	15.0	950	15.0	1,000	50
Application to abandon or discontinue service	21.11	2,400	21.1	13,200	800
Notice of exemption abandon or discontinue	21.2	2,000	21.2	2,200	200
Petition for exemption abandon or discontinue	21.3	3,500	21.3	3,800	300
Application to abandon CRC–NE rail service	22.0	250	22.0	250	.....
Abandonment filed by bankrupt railroads	23.0	1,000	23.0	1,100	100
Waiver request for filing required—abandonment	24.0	1,000	24.0	1,000	.....
Offer of financial assistance (OFA)	25.0	900	25.0	900	.....
OFA—set terms and conditions	26.0	12,700	26.0	13,500	800
Request for a trails use condition	27.0	150	27.0	150	.....
Application for use of terminal facilities	36.0	10,600	36.0	11,300	700
Application pooling or DIV. TRAF. (Rail)	37.0	5,700	37.0	6,100	400
Application to merge or consolidate—major	38.1	830,500	38.1	889,500	59,000
Application to merge or consolidate—significant	38.2	166,100	38.2	177,900	11,800
Application to merge or consolidate—minor	38.3	3,400	38.3	4,700	1,300
Notice of exemption merge or consolidate	38.4	950	38.4	1,000	50
Responsive application merge or consolidate	38.5	3,400	38.5	4,700	1,300
Petition for exemption merge or consolidate	38.6	5,200	38.6	5,600	400
Application non–carrier to control—major	39.1	830,500	39.1	889,500	59,000
Application non–carrier to control—significant	39.2	166,100	39.2	177,900	11,800
Application non–carrier to control—minor	39.3	3,400	39.3	4,700	1,300
Notice of exemption non–carrier control	39.4	750	39.4	850	100
Responsive application non–carrier control	39.5	3,400	39.5	4,700	1,300
Petition for exemption non–carrier control	39.6	5,200	39.6	5,600	400
Application to acquire track rights—major	40.1	830,500	40.1	889,500	59,000
Application to acquire track rights—signficant	40.2	166,100	40.2	177,900	11,800
Application to acquire track rights—minor	40.3	3,400	40.3	4,700	1,300
Notice of exemption acquire track rights	40.4	650	40.4	750	100
Responsive application acquire track rights	40.5	3,400	40.5	4,700	1,300
Petition for exemption acquire track rights	40.6	5,200	40.6	5,600	400
Application of carrier to purchase property—major	41.1	830,500	41.1	889,500	59,000
Application of carrier to purchase property—significant	41.2	166,100	41.2	177,900	11,800

COMPARISON OF STB EX PARTE NO. 542 FEE SCHEDULE WITH STB EX PARTE NO. 542 (SUB–NO. 1 FEE) SCHEDULE—Continued

Fee or sub-fee description	STB EP 542		STB EP 542-S1		Change from 1996 to 1997
	1996 fee item	1996 fee amount	1997 fee item	1997 fee amount	
Application of carrier to purchase property—minor	41.3	3,400	41.3	4,700	1,300
Notice of exemption carrier purchase property	41.4	800	41.4	850	50
Responsive application carrier purchase property	41.5	3,400	41.5	4,700	1,300
Petition for exemption carrier purchase property	41.6	3,700	41.6	3,900	200
Notice of a joint project involve relocation	42.0	1,300	42.0	1,500	200
Application rail rate association agreement	43.0	39,000	43.0	41,600	2,600
Amendment rail rate agreement—significant	44.1	7,200	44.1	7,700	500
Amendment rail rate agreement—minor	44.2	50	44.2	60	10
Authority to hold position—officer/director	45.0	400	45.0	450	50
Petition for exemption RR not otherwise covered	46.0	4,400	46.0	4,800	400
Amtrak conveyance proceeding. 45 USC 562	47.0	150	47.0	150	.....
Amtrak compensation proceeding. sec. 402(a)	48.0	150	48.0	150	.....
Complaint filed under coal rate guidelines	56.1	23,300	56.1	23,300	.....
Complaint filed by small shipper—rate	56.2	1,000	56.2	1,000	.....
Complaint—all other except competitive access	56.3	2,300	56.3	2,300	.....
Competitive access complaint	.....	.....	56.4	150	150
Complaint or petition request investigation	57.0	4,900	57.0	5,200	300
Petition for declaration order—existing rate	58.1	1,000	58.1	1,000	.....
Petition for declaration order—all others	58.2	1,400	58.2	1,400	.....
Application for shipper antitrust immunity	59.0	3,900	59.0	4,200	300
Labor arbitration appeal reviews	60.0	150	60.01	150	.....
Appeals to STB Dec. Pet. revoke exemption	61.0	150	61.0	150	.....
Motor carrier undercharge proceeding	62.0	150	62.0	150	.....
Application—authority released value rates	76.0	650	76.0	700	50
Application special permission short notice or waiver	77.0	70	77.0	70	.....
Tariffs, including supplement and contract summary	78.1	13	78.1	14	1
Tariffs submitted by fax	78.2	1	78.2	1	.....
Special docket application involving $25,000 or less	79.1	40	79.1	45	5
Special docket application involve over $25,000	79.2	80	79.2	90	10
Informal complaints about rail application	80.0	300	80.0	350	50
Tariff reconciliation petition MC $25,000 or less	81.1	40	81.1	45	5
Tariff reconciliation petition MC over $25000	81.2	80	81.2	90	10
Request availability or reasonable MC rates	82.0	100	82.0	100	.....
Filing of documents for recordation	83.0	22	83.0	24	2
Informal opinions rate application—all modes	84.0	100	84.0	150	50
Railroad accounting interpretation	85.0	600	85.0	650	50
An operational interpretation	86.0	800	86.0	850	50
Messenger delivery of decision—RR agent	96.0	17	6.0	19	2
Request for service or pleadings list	97.0	13	97.0	14	1
Request carload WAYB no FR notice require	98.1	150	98.1	150	.....
Request for service FR notice required	98.2	350	98.2	400	50
Application for the STB practioners' examination	99.1	100	99.1	100	.....
Practioners' examination information package	99.2	25	99.2	25	.....
URCS—initial PC versus PH III soft PROG/MAN	100.1	50	100.1	50	.....
Updated PC versus CST file, disk by requst	100.2	10	100.2	10	.....
Updated PC versus CST file, disk by STB	100.3	20	100.3	20	.....
Public request for source codes—PH III	100.4	500	100.4	500	.....
PC versus or mainframe versus URCS phase II	100.5	400	100.5	400	.....
PC versus or mainframe versus update phase II	100.6	50	100.6	50	.....
Public request for source codes—phase II	100.7	1,500	100.7	1,500	.....
Requests for public use file R–CD first year	101.1	450	101.1	450	.....
Requests for public use file R–CD additional years	101.2	150	101.2	150	.....

COMPARISON OF STB EX PARTE NO. 542 FEE SCHEDULE WITH STB EX PARTE NO. 542 (SUB–NO. 1 FEE) SCHEDULE—Continued

Fee or sub-fee description	STB EP 542		STB EP 542-S1		Change from 1996 to 1997
	1996 fee item	1996 fee amount	1997 fee item	1997 fee amount	
Waybill—STB or ST. proceeding R–CD FIR	101.3	650	101.3	650	.....
Waybill—STB or ST. proceeding R–CD—DIFF	101.4	450	101.4	450	.....
Waybill—STB or ST. proceeding on R–CD—same	101.5	500	101.5	500	.....
User guide latest available carload WB	101.6	50	101.6	50	.....
Certificate of the secretary	102.0	9	102.0	10	1
Examination of tariff or schedules—certification	103.0	24	103.0	25	1
Checking records to certify authenticity	104.0	16	104.0	17	1
Electrostatic copies tariffs, reports, et	105.0	5	105.0	5	.....
Search and copy services add process	106.0	42	106.0	44	2

OFFSETTING COLLECTION REQUEST

Question. Why doesn't the Board anticipate a greater increase in fiscal year 1998 in offsetting collections above the fiscal year 1997 level of $3,000,000, given that fees collected throughout all twelve months of the fiscal year will be at the higher 1997 user fee schedule, whereas in fiscal year 1997, four months of collections were at the 1996 schedule levels?

Answer. The Board does not project a significant increase in fiscal year 1998 offsetting collections above the fiscal year 1997 level because the Board anticipates its workload to remain essentially the same into fiscal year 1998. In fact, based on current estimates, if no class I rail merger is filed in fiscal year 1998 (which is likely), the Board could very well fall short of its fiscal year 1998 goal. The Board has collected $761,914 through February 1997, due in part to the increased fees adopted in the 1997 User Fee Update. However, this five-month figure represents only 25 percent of the Board's user fee target of $3,000,000 for fiscal year 1997. The two $889,500 filing fees by CSX and Norfolk Southern to accompany applications to acquire control of Conrail will allow the Board to attain the $3.0 million level. Because the Board's current user fee collection program is based on actual filings, the Board has no control over what is actually collected, and estimates of future collections may or may not be realized.

Question. In the Board's opinion, who are the "beneficiaries" of the Surface Transportation Board's activities?

Answer. The direct beneficiaries of the Board's activities are the parties that request the Board to approve or exempt from regulation a particular transaction, such as a merger or construction, sale, or abandonment of a rail line, or the parties that ask the Board to resolve an adjudication, such as a rail rate complaint or a rail labor dispute. By law, the Board is to assess fees against direct beneficiaries based on the cost of specific services rendered to them. Because these parties are the direct beneficiaries of the Board's actions, it is appropriate that user fees for those activities be paid by such parties.

The Board also recognizes that the general public is the indirect beneficiary of the Board's activities. However, because the benefits that flow to the public generally are incidental to the private benefits that are derived from the Board's activities, it is not necessary to allocate costs for these activities to the public. See Cent. & Southern Motor Freight Tariff Ass'n v. United States, 777 F.2d 722 at 732, (D.C. Cir. 1985), in which the court stated: "If the asserted public benefits are the necessary consequence of an agency's provision of the relevant private benefits, then the public benefits are not independent, and the agency would therefore not need to allocate any costs to the public."

Question. Will the Board realize "the anticipated carryover of approximately $800,000 in fees derived from 1997 rail merger activities" [Appendix, fiscal year 1998 Budget of the United States Government, p. 822]? If not, how in the Board's opinion was this number derived?

Answer. In the Office of Management and Budget (OMB) Passback on the Board's fiscal year 1998 Budget Request, OMB assumed that, with the filing of two merger applications and associated filing fees, the Board would have $800,000 more than the $3.0 million limit for fiscal year 1997, which would carry over into fiscal year 1998. The Board cannot explain OMB's carryover assumption. As previously indi-

cated, with the user fees associated with the two merger applications for Conrail, the Board will barely meet the $3.0 million level, based on the current fiscal year 1997 fee item workload filings.

Question. Will the Board have any carryover user fees above $3,000,000, to be available for obligation after October 1, 1997. If so, how much?

Answer. With the filing of the two merger applications associated with the Conrail merger, the Board projects that it may have approximately $21,000 carrying over into fiscal year 1998 under the statutory provision contained in the fiscal year 1997 appropriation allowing for user fee collections in excess of the $3.0 million amount.

PERSONNEL COMPENSATION AND BENEFITS

Question. The President's budget submission states that the Board's request reflects a higher 1998 pay raise for Surface Transportation Board employees than the Administration requests for other federal employees. Please discuss this statement.

Answer. The Board, because it is organizationally housed within DOT, depends upon the Department for administrative updates of information and guidelines so that it may conform to, among other things, budgetary development guidance. In July 1996, the Board was notified by DOT that the fiscal year 1998 cost of living adjustment (COLA) would be set at 3.1 percent for Federal employees. This figure was used to calculate the pay raise for Board employees for the fiscal year 1998 budget. Only after the President's budget was prepared and submitted was the Board notified that the COLA for fiscal year 1998 had been decreased to 2.8 percent.

Question. Why wasn't the $78,000 associated with the January 1997 pay raise paid from fiscal year 1997 funding?

Answer. Federal cost-of-living pay raises increase Federal annual salary rates for the entire year even though they are enacted in January of each year. This means that three-fourths of COLA will be paid out in fiscal year 1997 and one-fourth in fiscal year 1998. When the fiscal year 1997 appropriation request was enacted, the Board, along with other agencies, received funding for three-fourths of the 1997 pay raise. The remaining part of the 1997 pay raise must be funded in fiscal year 1998, thereby increasing the salary base by $78,000.

Question. If the Board assumes a 2.8 percent pay increase for fiscal year 1998 (for 134 employees), what will be the total fiscal year 1998 costs associated with the January 1998 pay raise?

Answer. The total fiscal year 1998 costs associated with the January 1998 pay raise of 2.8 percent for 134 employees is $185,200.

BOARD'S REQUEST VS. PRESIDENT'S BUDGET

Question. How many FTE's would a total funding level of $14,300,000 support in fiscal year 1998 (assuming a 2.8 percent pay increase on January 1, 1998)?

Answer. Using an average salary method, the Board estimates that a reduction from the current staffing level of approximately 24 FTE's would be required for the Board to meet the President's funding allocation.

Question. In meetings with Appropriations Committee staff, Board officials have asserted that a funding level of $14,300,000 would result in a cut of 24 FTE's. However, the President's budget avers that this funding level would result in the elimination of only 2 FTE's; and that these positions would no longer be required because of the completion of the one-time workload imposed by the Interstate Commerce Commission Termination Act, and productivity improvements. There is a marked difference between the Administration's and the Board's correlation of funding levels to staffing levels. Please explain this disconnect in detail.

Answer. There are three fundamental differences in assumptions between the President's budget proposal and the Board's budget request that contribute to the disparity between the two.

—The President's budget assumes that the Board funded the 1997 relocation to new office space. In fact, the General Services Administration (GSA) funded the relocation due to the fact that it was a forced move associated with the closing and renovation of the old ICC building. Therefore, the assumption that one-time funds associated with the Board's move can be eliminated from the Board's fiscal year 1998 budget request is unfounded: elimination of such an amount from the Board's fiscal year 1998 budget would mean that more FTE's than estimated by the Administration would need to be eliminated.

—The President's budget proposal assumes a reduction in rent costs due to the Board's relocation to new office space, and the repricing of the space based on GSA's anticipated rental rates. The Board, as of yet, has not received a final rent bill for the new office space. GSA has indicated that the Board would pay approximately $26 per square foot of office space. However, the build-out and

relocation costs incurred by GSA will be amortized over the term of the lease that GSA has negotiated for the Board and included in the rent bill. Thus, the reduced rental costs assumed in the President's budget proposal cannot be justified by any documentation that the Board has received from GSA: an underestimation of rent puts at risk the FTE level needed and requested by the Board.

—Even assuming that the President's budget only would result in the reduction of 2 FTE's, this reduction is based on an unfounded assumption that these 2 FTE's are no longer needed because they were originally dedicated to handle one-time workload associated with the ICCTA. While many rulemakings have been completed in accordance with the ICCTA, other rulemaking activity pursuant to the ICCTA continues as the Board further rescinds unnecessary and obsolete regulations, streamlines the decisional process, and explores new ways to analyze and resolve complex problems presented to it. In addition, as staff complete tasks associated with implementation of the ICCTA, they are shifted to case work: if the current staffing level is reduced, the Board will find it more difficult to meet case deadlines and to resolve matters before it expeditiously in accordance with Congressional intent.

OTHER SERVICES COSTS

Question. Please explain the dramatic increase in the fiscal year 1998 requested funding for "purchases of goods from government accounts" ($327,000 in fiscal year 1997; $871,000 requested for fiscal year 1998).

Answer. The increase in the fiscal year 1998 requested funding for "purchases of goods from government accounts" is primarily attributable to the anticipated need for VOLPE's facility management of the Board's software systems and computer database network. A smaller amount of the increase reflects additional funds for employee training.

RENT & UTILITIES COSTS

Question. Please explain the increase in the fiscal year 1998 requested funding for "communications, utilities, miscellaneous charges" ($211,000 in fiscal year 1997; $352,000 in fiscal year 1998).

Answer. The increase in the fiscal year 1998 requested funding for "communications, utilities, miscellaneous charges" is due to an increase in local telephone costs associated with Bell Atlantic service at the Board's new location and to the replenishment of the Board's postage meters. The Board's postage meters had preexisting fund balances when transferred from the ICC, pursuant to the ICCTA, and covered the needs of the Board in fiscal year 1997.

Question. Please compare rental costs at the Board's 1925 K Street, N. W. office site to the old Interstate Commerce Commission building. What is the difference in total annual rent? What is the cost per square foot and total square footage utilized by the Board at each site? How long does the Board intend to stay at its site?

Answer. The Board's relocation was directed and funded by GSA because of the impending closure and renovation of the old ICC building at 1201 Constitution Avenue, NW. The rental rate at the old ICC building is estimated at $32.59 per net usable square foot for office space. The Board's assigned space totaled 64,658 square feet as of December 15, 1996.

The Board has not received a rent bill for the new office space at 1925 K Street, NW. The Board has included $1,806,000 for rental payments in the fiscal year 1998 Budget Request. GSA has indicated that the Board would pay approximately $26 per square foot of office space. However, the build-out and relocation costs incurred by GSA would be amortized over the term of the lease that GSA has negotiated for the Board. While the total assigned square feet of office space to be subject to rental payments has yet to be finally determined by GSA, the Board occupies less office space at the new location than in the old ICC building.

The original lease was for five years; however GSA exercised a five year option and the current term is now ten years.

Question. Under what object classification line item are costs of publication in the Federal Register included? What were the fiscal year 1996 and 1997 costs of Federal Register publications of official decisions and other matters? What costs are anticipated for fiscal year 1998? What is the estimated annualized cost for the Board of Federal Register printing, taking into account the January 1997 price increase per column?

Answer. The object classification line item which includes the Board's publications in the Federal Register is 26.00, Supplies and Materials. The fiscal year 1996 cost for publication in the Federal Register was $104,700. The fiscal year 1997 and 1998 budget allocations are $82,500 and $90,750, respectively. However, as of March 1,

1997, the Board obligated $64,630 for publications costs, and the new estimated annualized cost for Federal Register publishing for fiscal year 1997 is $113,000, due to the January 1997 price increase per column and the number of documents necessitated by the ICCTA and required to be published in the Federal Register.

TRAVEL

Question. The Board has requested $38,000 for travel in fiscal year 1998. Generally, what sort of travel is required for Board members and employees? What were travel costs in fiscal year 1996 and 1997?

Answer. Travel resources provide for Board representation upon request at meetings and conferences with shippers, carriers, employees, States and localities, and other parties interested in the activities of the Board. Court appearances throughout the country by Board employees are required to defend Board decisions and present the Board's views on issues within its jurisdiction. Travel funds are also required for activities associated with personnel complaints, visits to railroads to review public accountants' workpapers, and physical inspection of rail abandonment and construction sites by environmental staff. Travel funds allocated for fiscal year 1996 and fiscal year 1997 were $35,333 and $36,000 respectively.

OMB PASSBACK VS. BOARD'S REQUEST

Question. Please provide a table contrasting the Board's proposed fiscal year 1998 budget request and the OMB Passback, by office.

Answer. The Board's Budget was developed by object classification rather than individual offices. The side-by-side comparison table follows.

[By fiscal year]

Title	Board's 1998 budget request	President's 1998 budget request
Personnel compensation	$10,383,900	[1] $9,067,800
Personnel benefits	1,625,400	[1] 1,448,500
Payments to former personnel	20,000	20,000
Transportation of personnel	38,000	38,000
Transportation of things	8,000	8,000
Rent	1,806,000	1,806,000
Communications and utilities	352,000	352,000
Printing	33,000	33,000
Contractual services	1,254,700	[1] 1,194,700
Supplies	272,000	272,000
Equipment	60,000	60,000
Total request	15,853,000	14,300,000
Appropriation	12,753,000	.....
Offsetting collections	3,100,000	14,300,000

[1] This table reflects that reductions in personnel and training would be necessary to meet the President's funding level. The other expenses to be incurred by the Board are not discretionary and thus cannot be reduced in order to meet the President's level.

AUTHORIZATION ISSUES

Question. The Board's current authorization is in the Interstate Commerce Commission Termination Act of 1995. When does the authorization expire? Who are the House and Senate authorizing committees?

Answer. Pursuant to Section 705 of the ICCTA, the Board has a 3-year authorization through fiscal year 1998. The Senate and House authorizing committees are the Senate Committee on Commerce, Science, and Transportation and the House Committee on Transportation and Infrastructure.

Question. Please discuss the Senate Commerce Committee's proposal to merge the Surface Transportation Board with the Federal Maritime Commission.

Answer. S. 414, the Ocean Shipping Reform Act of 1997, proposes to transfer the Federal Maritime Commission (FMC) functions to the Board and renames the Board the Intermodal Transportation Board (ITB) effective January 1, 1999. Two members would be added to create a five-member ITB. The FMC would be authorized at $15.0 million for fiscal year 1998. The Board is already authorized for fiscal year 1998.

The Board/ITB authorization for fiscal year 1999 and beyond is not addressed in S. 414.

RELATIONSHIP WITH DEPARTMENT OF TRANSPORTATION

Question. Please describe the Board's relationship with the Department of Transportation. Does the Secretary have any input into the Board's budget request or operations?

Answer. The Board is a decisionally independent body organizationally housed within DOT. The Board's decisional independence is explicitly expressed in the ICCTA. However, DOT is apprised of rulemakings and adjudications as they are served or published and may appear before the Board as a party in the Board's regulatory activities and decisions, just as DOT appeared before the ICC as a party. Any role or input that DOT may have in a Board's regulatory activity or decision, like any other party, is carried out through a filing of public record. Administrative functions such as accounting, procurement, warehousing, equipment inventory, and personnel security are performed by DOT staff, and the Board reimburses DOT for the cost of those services.

The ICCTA provides the authority for the Board to develop and submit budget estimates, requests for information, and legislative recommendations and testimony directly to Congress at the same time they are sent to the Secretary of Transportation. The ICCTA allows for the review and assessment of the budgetary needs of the Board by the Secretary in each annual request for appropriation by the President.

ADMINISTRATION OF SEVERANCE PAY BENEFITS FOR RAIL EMPLOYEES

Question. What are the Board's statutory responsibilities in regard to the administration of severance pay benefits for rail employees?

Answer. The Board's responsibilities in this area derive from the statutory provision at 49 U.S.C. 11326 governing employee protective arrangements in transactions involving rail carriers. Subsection (a) of section 11326 embodies the pre-ICCTA provision at 49 U.S.C. 11347, which mandates labor protective conditions for employees affected by Board-approved railroad consolidations, mergers, or acquisitions of control. The Board has similar responsibilities under 49 U.S.C. 10901 to protect employees adversely affected by Board-approved railroad abandonments and discontinuances.

The Board meets these responsibilities by imposing conditions upon transactions it approves that require protection at or above the level mandated by statute. For most types of transactions, standard conditions have evolved and are routinely imposed. For example, in railroad mergers, the Board imposes the conditions set out in New York Dock Ry.—Control—Brooklyn Eastern Dist., 360 I.C.C. 60, aff'd sub nom. New York Dock Ry. v. U.S., 609 F.2d 83 (2d Cir. 1979). For railroad leases and trackage rights, respectively, the Board imposes conditions set out in Mendocino Coast. Rwy., Inc.—Lease and Operate, 354 I.C.C. 732 (1978), and Norfolk and Western Ry. Co.—Trackage Rights—BN, 354 I.C.C. 605 (1978), both as modified in Mendocino Coast Ry., Inc.—Lease and Operate, 360 I.C.C. 653 (1980), and both aff'd sub nom. Railway Labor Executives Ass'n v. U.S., 675 F.2d 1248 (D.C. Cir. 1982). In abandonments and discontinuances, the Board imposes conditions set out in Oregon Short Line R. Co.—Abandonment—Goshen, 360 I.C.C. 91 (1979).

These conditions provide for severance pay benefits for adversely affected railroad employees under certain conditions. These benefits normally take the form of dismissal allowances or separation allowances. A dismissed employee may elect a separation allowance in lieu of other protective benefits and accept a lump sum payment that is computed in accordance with section 9 of the Washington Job Protection Agreement of May 1936.

As a general matter, the Board does not administer the process by which severance or other protective payments are made because the conditions are self-executing. The Board may, however, from time to time, be called upon to ensure that parties, in implementing a transaction and the applicable protective conditions, have not abrogated employees rights provided by the protective conditions (see Norfolk & Western R. Co. v. Nemitz, 404 U.S. 37, 44 (1971) and Rilling v. Burlington Northern R. Co., 31 F.3d 855, 858 (9th Cir. 1994)), or to resolve disputes, most often in the context of a request that the Board review a decision of an arbitrator who has issued a ruling as provided for where disputes arise in the implementation of Board-imposed conditions.

The ICCTA added a new statutory provision at subsection (b) of section 11326, which limits the labor protection mandated by subsection (a) of that section to one year of severance pay in consolidations, mergers, or acquisition of control trans-

actions involving a Class II and one or more Class III rail carriers. Similar language limiting labor protection to one year's severance pay for line purchases by Class II carriers is included in 49 U.S.C. 10902 (also a new provision), which governs short line purchases by Class II and Class III rail carriers. See 49 U.S.C. 10902(d). Also under the ICCTA, the Board may not require labor protection in consolidations, mergers, or acquisition of control transactions that involve only Class III carriers (see 49 U.S.C. 11326(c)), in transactions involving line purchases by Class III carriers (see 49 U.S.C. 10902(c) and (d)), or in transactions involving line purchases by noncarriers (see 49 U.S.C. 10901(c)).

In Wisconsin Central Ltd.—Acquisition Exemption—Lines of Union Pacific Railroad Company, STB Finance Docket No. 33116 (STB served Nov. 27, 1996), which involved a proposed line purchase by a Class II railroad, the Board sought public comments on whether it should establish and oversee procedures and standards for employee protective arrangements in that type of transaction. The Board found that it had authority to oversee implementation of approved or exempted transactions and the labor protection mandated by the new statutory provisions.

Question. What severance pay administration responsibilities, if any, does the Board have in relation to layoffs associated with termination of Amtrak lines?

Answer. The Board has no such responsibilities.

RULEMAKINGS

Question. Please list all unnecessary and obsolete rulemakings that have been rescinded by the Surface Transportation Board since January 1996.

Answer. The following table list rulemakings that have been rescinded by the Board.

OBSOLETE PROCEEDINGS TERMINATED

Rail:

—*State Intrastate Rail Rate Auth'y Pub. L. No. 96–448,* Ex Parte No. 388 (Apr. 3, 1996).

—*Cost Ratio for Recyclables—1994 Determination,* Ex Parte No. 394 (Sub-No. 13) (Mar. 29, 1996).

Motor:

—*Revision of Tariff Regs.—Indexes,* Ex Parte No. MC–211 (Mar. 8, 1996).

—*Policy Statement on the Transp. Industry Regulatory Reform Act of 1994,* Ex Parte No. MC–222 (Apr. 3, 1996).

—*Policy Statement on Motor Contract Requirements Under the Negotiated Rates Act of 1993,* Ex Parte No. MC–198 (Sub-No. 1) (May 3, 1996).

—*Review of Motor Tariff Regs.—1993,* Ex Parte No. MC–212 (May 3, 1996).

SUPERSEDED PROPOSALS WITHDRAWN

Rail:

—*Uniform System of Records of Property Changes for Railroad Companies,* Ex Parte No. 512 (Mar. 7, 1996).

—*Abandonment Proceedings: Elimination of the Revenue and Cost Data for All Years Prior to the Base Year Period,* Ex Parte No. 274 (Sub-No. 26) (Mar. 15, 1996).

—*New Procedures in Rail Exemption Revocation Proceedings,* Ex Parte No. 400 (Sub-No. 4) (Mar. 22, 1996).

—*Rail Gen. Exemption Auth'y—Exemption of Nonferrous Recyclables and Railroad Rates on Recyclable Commodities,* Ex Parte No. 346 (Sub-No. 36) (May 5, 1997).

OBSOLETE REGULATIONS REMOVED:

Multimodal:

—*Removal of Obsolete Regs. Concerning Filing Quotations for Gov't Shipments,* 1 S.T.B. 39 (May 16, 1996) (STB Ex Parte No. 547) (removing 49 CFR 1330).

Rail:

—*Removal of Obsolete Rail Tariff Regs.,* 1 S.T.B. 4 (Feb. 28, 1996) (STB Ex Parte No. 530) (removing 49 CFR 1314).

—*Removal of Obsolete Recyclables Regs.,* 1 S.T.B. 7 (Feb. 28, 1996) (STB Ex Parte No. 531) (removing 49 CFR 1134, 1135.1, 1145).

—*Removal of Obsolete Regs. for Reasonably Expected Costs and Joint Rates Subject to Surcharge or Cancellation,* 1 S.T.B. 10 (Feb. 28, 1996) (STB Ex Parte No. 532) (removing 49 CFR 1138, 1140 & 1039.18).

—*Removal of Obsolete Passenger Train or Ferry Discontinuance Regs.,* 1 S.T.B. 14 (Feb. 28, 1996) (STB Ex Parte No. 534) (removing 49 CFR 1153).

—*Removal of Obsolete Securities Regs.,* 1 S.T.B. 17 (Feb. 28, 1996) (STB Ex Parte No. 535) (removing 49 CFR 1175).
—*Removal of Obsolete Valuation Regs.,* 1 S.T.B. 20 (Mar. 7, 1996) (STB Ex Parte No. 539) (removing 49 CFR 1262).
—*Removal of Obsolete Regs. for Determination of Avoidable Losses under the Rail Passenger Service Act of 1970,* 1 S.T.B. 23 (Apr. 11, 1996) (STB Ex Parte No. 540) (removing 49 CFR 1154).
—*Removal of Obsolete Regs. Concerning Railroad Contracts,* 1 S.T.B. 71 (June 7, 1996) (STB Ex Parte No. 550) (removing 49 CFR 1039.23).

Motor:
—*Removal of Obsolete Regs. for Discontinuance of Bus Transp. in One State,* 1 S.T.B. 26 (Apr. 22, 1996) (STB Ex Parte No. 544) (removing 49 CFR 1169).
—*Regulations Implementing Section 7 of the Negotiated Rates Act of 1993,* 1 S.T.B. 29 (May 3, 1996), *pets. to reopen denied,* Ex Parte No. MC–180 (Sub-No. 3) (Mar. 12, 1997) (removing 49 CFR 1053).
—*Removal of Obsolete Regs. Concerning Owner-Operators,* 1 S.T.B. 33 (May 10, 1996) (removing 49 CFR 1164 & 1311).
—*Removal of Obsolete Regs. Concerning Exemption of Motor Carrier of Property Finance Transactions,* STB Ex Parte No. 553 (Feb. 4, 1997) (removing 49 CFR 1186).
—*Removal of Obsolete Regs. Concerning Expedited Complaint Procedures Against Bus Carrier Rates,* STB Ex Parte No. 621 (Feb. 4, 1997) (removing 49 CFR 1142).

Water:
—*Removal of Obsolete Regs. Concerning Water Carriers,* STB Ex Parte No. 557 (Oct. 17, 1996) (removing 49 CFR 1070 & 1071).
—*Removal of Obsolete Regs. Concerning Extension of Operations by Water Carriers,* STB Ex Parte No. 620 (Jan. 30, 1997) (removing 49 CFR 1166).

ALAMEDA RAIL CORRIDOR

Question. In June 1996, the Board approved the construction of the Alameda Rail Corridor in California. What are the Board's adjudicative responsibilities as they apply to new rail corridor construction? Please briefly and generally describe the approval process, and outline the factors considered in deciding whether to approve such construction.

Answer. Under 49 U.S.C. 10901, a person may construct an additional railroad line or an extension to any of its railroad lines only if the Board issues a certificate authorizing the construction. A proceeding before the Board commences when a person files an application for construction authority. On receiving the application, the Board publishes notice of it in the Federal Register and affords members of the public the opportunity to comment on it. Following consideration of the application and the comments, the Board must grant the sought authority and issue a certificate unless it finds that the construction is inconsistent with the public convenience and necessity.[10] Under the law, the Board may approve the application as filed or with modifications, and may require compliance with conditions (other than labor protection conditions) that it finds necessary in the public interest.

The statute does not define "public convenience and necessity," but the agency and its predecessor have developed and applied certain criteria for evaluating whether a proposed construction project is permissible. Principally, the Board asks: (1) whether the applicant is financially fit to undertake the construction and provide services; (2) whether there is a public demand or need for the proposed services; and (3) whether the construction project will be in the public interest and not unduly harm existing services. In deciding railroad construction applications under the statute, the agency and its predecessor have applied Section 10901 in light of the Rail Transportation Policy (RTP) now set out at 49 U.S.C. 10101. The agency considers the RTP to be a statement of the public interest that it uses as a guideline in determining whether the construction of a new rail line is consistent with the public convenience and necessity. Finally, the agency also considers environmental and energy impacts in deciding whether to approve construction.

While Board approval for construction of the Alameda Corridor was sought and obtained through an application filed under 49 U.S.C. 10901, Board authorization for construction can alternatively be pursued through the Board's exemption powers

[10] The law that existed prior to the passage of the ICCTA, and which governed processing of the Alameda Rail Corridor proceeding, differed slightly from the law in effect now. The old law permitted construction only if the agency found that the present or future public convenience and necessity required or permitted it.

found at 49 U.S.C. 10502. Under that provision, the Board must exempt rail construction if consideration of an application is not necessary to carry out the RTP and either the proposed construction is limited in scope or consideration of an application is not necessary to protect shippers from an abuse of market power. Even if an exemption is appropriate, however, the environmental impacts of the construction must be considered.

Question. Specifically, in the Board's review of the Alameda Rail Corridor construction application, what were the determining factors for a favorable decision?

Answer. In reviewing the Alameda Rail Corridor construction application, the Board found numerous factors warranting a favorable decision. First, as there was broad-based financial support for the construction, and the applicants (the cities of Los Angeles and Long Beach, CA) projected greatly increased tonnage that would generate revenues and associated economic benefits, the project was deemed feasible and financially viable. Next, it found that, as applicants anticipated a substantial growth in port-related train movements over rail lines serving the port area, there was a clear public need for the proposed project and service. The agency further found that the proposed consolidation of rail traffic of three rail carriers onto a single, high-density rail system would divert from the railroads' separate lines port-related traffic that traversed residential areas. Next, as applicants projected an increase in the percentage of their traffic that would move in intermodal cargo containers and a concomitant reduction in the truck transportation of containers from ships to rail transfer facilities, the Board concluded that inefficiencies and traffic congestion would be reduced. The Board also found that the project would not result in harm to existing carriers. To the contrary, it was noted that the three major rail carriers serving the port area had reached agreements with applicants and were willing participants in the project. The Board further noted that the project was pro-competitive, as each involved railroad would continue to serve non-port-related shippers over its own rail lines, and each would be solely responsible for any improvement to its existing rail lines that might be required to carry out that railroad's common carrier obligations.

The Board found that approval of the construction application would significantly advance specific goals of the RTP. It found that the proposal would contribute to a sound transportation system, meet the public need, and promote effective competition and coordination among rail, motor, and ocean carriers. Finally, the Board concluded that, subject to specified environmental "mitigating measures," a grant of a certificate was warranted and that its action would not significantly affect either the quality of the human environment or the conservation of energy resources.

DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1998

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

NONDEPARTMENTAL WITNESSES

[CLERK'S NOTE.—The following testimonies were received by the Subcommittee on Transportation and Related Agencies for inclusion in the record. The submitted materials relate to the fiscal year 1998 budget request.

The subcommittee requested that public witnesses provide written testimony because, given the Senate schedule and the number of subcommittee hearings with Department witnesses, there was not enough time to schedule hearings for nondepartmental witnesses.

AVIATION-RELATED TESTIMONY

PREPARED STATEMENT OF THE AIR TRAFFIC CONTROL ASSOCIATION, INC.

INTRODUCTION

The Air Traffic Control Association, Inc. ("ATCA") is a professional association of forty-years standing dedicated to advancement in the science and profession of air traffic control and aviation safety. Its membership is worldwide in scope and represents all aspects of the air traffic control discipline, from air traffic control specialists and airway facilities technicians who operate and maintain the air traffic control system, to those individuals and companies who develop and manufacture the technology, equipment, and services which support the system, to the citizens, government agencies, and airlines who use the system.

Because of rapid growth in the volume and complexity of air traffic, and the availability of new technologies to meet that growth, ATCA urges the Congress to make increased funding for activities and projects of the Federal Aviation Administration in fiscal year 1998 a National priority.

THE CHALLENGE

Between 1995 and 1996, US domestic air traffic increased over 5 percent. US air carrier traffic increased over 4 percent worldwide, up nearly 7 percent on routes to Latin America and the Pacific. This trend is expected to continue. Over the next twelve years, US air traffic activity is anticipated to increase at an annual rate of 1.5 percent or more per year. Worldwide traffic is expected to increase 5 percent per year. These large increases in air traffic will mean proportional increases in accidents and fatalities, unless improvements in aviation safety continue apace. Achieving increased safety in air transportation will require substantial investments, both in aviation infrastructure and technology.

Rapidly increasing air traffic also is resulting in congestion in all phases of air transportation—choking congestion in many terminal airspace areas and airports. Air transportation—both for commercial and business purposes and for recreation and tourism—is a significant driver of the Nation's economy, and can be a limiting

factor on economic growth if capacity is inadequate to meet demand. Therefore, substantial and continuous expansion of air transportation capability is an absolute necessity, in addition to maintaining an acceptable level of aviation safety.

Despite the clear need for expanding and improving the Nation's air transportation capability, the National Airspace System gradually is being permitted to deteriorate. Delayed infusion of new or replacement equipment, deferred maintenance, resource deprivation, and personnel reductions have exhausted all reserves of flexibility and unexploited operating potential in the system.

In testimony last year at this time, the Association described for the Congress an air traffic control system which by all indicators is under considerable strain. Nothing has changed. Older equipment continues to break down and is more and more time consuming and difficult to repair. Reductions in force (FAA has experienced the unfortunate distinction of being a leader within the Federal Government in "downsizing" activities) are creating personnel shortages which delay or eliminate important safety and capacity-enhancing activities—training, new procedures, research, engineering and development.

Acknowledging the value of reducing fat in federal government activities, a "leaner and meaner" FAA will not result from cutting into muscle and bone. Rather, the organization must be invigorated and sustained with resources—both financial and human—suffcient to fuel not only continued safe operation of a patched-up, antiquated National Airspace System, but adequate to replenish and improve infrastructure so as to keep pace with expanding global aviation demands.

ASSURING ADEQUATE FUNDING

The Administration requests $5.386 billion for FAA Operations in fiscal year 1998, an 8.7 percent increase over the fiscal year 1997 enacted level. This amount would fund an additional 500 controllers, 326 additional flight standards inspectors, and 25 new field maintenance technicians. It also would provide $47 million to bring operational new safety and capacity equipment.

It's not enough. The proposed increase is approximately offset by non-discretionary increases associated with mandatory pay adjustments and inflationary growth in costs, rendering the proposal merely a current services budget. Virtually no additional funds would be available for personnel and other costs of eliminating backlogs of deferred maintenance, training on new equipment and procedures, accelerated development of innovative operating concepts and procedures, intensified international standardization and harmonization efforts, and other important activities that enhance aviation safety and efficiency. FAA's Operations account must be funded significantly above the amount the Administration requests for fiscal year 1998 if FAA is to meet aviation challenges of the 21st century.

The Administration requests $1.875 billion in fiscal year 1998 for FAA Facilities and Equipment, a 3 percent decrease from the fiscal year 1997 enacted level. Again, it's simply not enough.

Although FAA controllers today provide safe ATC services to the world's largest aviation marketplace, they do this using proven but antiquated equipment improved by a patchwork of temporary fixes and upgrades designed to enhance system reliability and capacity while modernized equipment is being developed and fielded. Although dedicated, creative airway facilities personnel keep the system operating remarkably well, equipment continues to deteriorate, wiring becomes more brittle, spare parts are increasingly difficult to obtain, and repairs are more difficult and time consuming. Meanwhile the volume and complexity of air traffic is increasing exponentially. Major infrastructure investment is an absolute necessity, and it must be made now.

Concern also is intensifying over potential security threats to aviation, including the threat of attack on the air traffic control system. Significant new resources will have to be made available to protect against these threats—resources which cannot come from funding allocated for air traffic control modernization or aviation safety improvements.

Other news however is very good. FAA has programs and projects well underway to replace legacy air traffic control systems with modernized equipment which not only is more reliable, but also is capable of enhancing capacity and permitting more flexible operating procedures. For example, modernized communications for en route ATC facilities (Voice Switching and Control System) already is being fielded. New air traffic controller work stations (Display System Replacement) will begin to appear in 1998. ATC terminal automation (Standard Terminal Automation Replacement System) is on a fast track to begin implementation in 1998.

These new systems will accommodate useful automation tools (Decision Support Systems) that will help air traffic controllers align and sequence aircraft in ways

that increase safety and expedite the flow of air traffic. For example the Converging Runway Display Aid/Controller's Automated Sequencing Aid projects the "ghost" of one aircraft onto the displayed flight path of another, helping the controller visualize the distance between two aircraft and thereby establish safe spacing between them, even though they are approaching to land on diverging runways. Another new tool is the Center/TRACON (Terminal Radar Approach Control) Automation System, computer software that provides the controller optimal aircraft arrival and departure sequences. A third tool is the Surface Movement Advisor, a much needed safety system which aids controllers in separating aircraft on the airport surface.

Between departure and arrival, Traffic Flow Management will be enhanced with Automated En Route Air Traffic software under development that will probe the ATC system for potential conflicts between the routes of aircraft, alert the controller, and suggest to the controller a safe maneuver to resolve the potential conflict. Like tools used by terminal controllers, AERA will foster more efficient use of airspace, allowing en route controllers to reduce unnecessarily large buffers of airspace between aircraft without degrading safety.

Technological advances such as these potentially will allow safe transition to "Free Flight," a new concept in air traffic operations permitting aircraft operators to select their route and speed of flight, with air traffic control intervening only to ensure safety. Aircraft will be taking advantage of the entire volume of airspace rather that just fixed corridors, and it is hoped therefore that Free Flight will increase airspace capacity.

Also well underway is the application of satellite technology to air traffic control. Enhanced by the Wide Area Augmentation System, planned for initial implementation in 1998, and by Local Area Augmentation Systems the Global Positioning System will permit aircraft to determine their own position to within ten meters. This information will increase the flexibility of aircraft operators to land at airports without ground based landing aids. Through the concept of Automatic Dependent Surveillance, aircraft can provide position information to air traffic control, allowing ATC to compile a depiction of air traffic even in places where radar is unavailable such as over the oceans. Future systems will allow this location information to be broadcast, giving appropriately equipped aircraft a Cockpit Display of Air Traffic Information. Widespread aircraft equipage and use of ADS and ADS-B (Broadcast) will allow ATC safely to reduce separation between aircraft, thereby increasing airspace capacity. It also will reduce costs by eliminating the need for many ground based navigation aids and sensors.

All of these essential technological improvements are on the horizon, promising substantial and long term operating benefits for users and economies for the Federal Government. Controllers, airway facility maintenance technicians, and aircraft operators eagerly await these needed new technologies and systems. The Vice President's Commission on Airline Safety and Security (the "Gore Commission") has endorsed accelerated application of satellite technology to air traffic control. Now simply is not the time to pinch pennies on ATC infrastructure improvements.

ATC modernization is well underway, and will be a continuing process. As air traffic increases and technology advances, new concepts and improved systems will become available to make air traffic control more safe, productive, and efficient. As in other enterprises, wise and systematic investment will continue to make good economic sense. The Administration's fiscal year 1998 budget proposal is below that [required to maintain momentum and prevent funding shortfalls from becoming a limiting factor in the progress of needed and promising modernization initiatives. Inadequate investment today will translate directly into deferred operating benefits and lost economies. To maintain the momentum of needed ATC modernization and to pursue the objective of accelerated application of satellite technology to air traffic control, ATCA urges Congress to appropriate $1.969 billion, 5 percent more than the Administration's request, for FAA Facilities and Equipment in fiscal year 1998.

The Administration proposes $200 million in fiscal year 1998 for FAA Research, Engineering and Development, a decrease of 4 percent from the fiscal year 1997 enacted level. In view of the aviation challenges ahead and the great benefits to be derived from investments in aviation research, ATCA urges Congress to increase the amount appropriated for FAA RE&D to $250 million in fiscal year 1998.

Aviation research plays a critical role in advancing aviation safety and efficiency.. Not only must FAA continue a high level of research directed toward aircraft safety and security. The increasing level and complexity of air traffic, and the emergence of operating concepts such as "Free Flight" are opening new areas for safety-critical and capacity-enhancing research. Aviation human factors including human-machine interaction, high levels of automation, wake vortex and hazardous weather detection and dissemination, advanced traffic flow management, improvements in communications technologies and data link, applications of information technology to ATC,

modeling and simulation, satellite technology in ATC, and cockpit collision avoidance are new and expanding avenues of research which can yield significant safety and economic benefits. Work in many of these areas, especially advanced air traffic management and developments in ATC communications, navigation and surveillance directed toward enabling "Free Flight", could be accelerated with additional funding. As in the case of ATC modernization, prudent and systematic investment in aviation research and development makes good sense.

The Administration proposes a one-third drop in funding for Airport Grants-in-Aid, from $1.46 billion in fiscal year 1997 to $1 billion in fiscal year 1998. Again, the funding proposed simply is not enough. ATCA urges Congress to enact funding of at least $1.5 billion for Airport Grants in fiscal year 1998.

The complexity and volume of traffic through the nation's airports increases daily. Regardless of how safe and efficient the air portion of the journey is, congestion and delay before take-off or after touch-down can make the difference between a peasant, timely trip and a harried, unsatisfactory ordeal. Although the ability of airports to assess a limited passenger facility charge provides some measure of relief, localities especially small communities are hard pressed to pay for the airport improvements needed to keep pace with an expanding aviation marketplace. Continued prudent investment in airport infrastructure remains an essential component of a balanced plan to meet aviation demands of the 21st Century.

RELIABLE FUNDING STREAM NEEDED

During the coming year, aviation policy makers in partnership with the aviation community will conduct comprehensive discussions directed toward devising a mechanism that will assure adequate and reliable funding for aviation safety and air traffic control activities of the Federal Government. ATCA looks forward with other members of the aviation community to these deliberations.

Regardless of the outcome, the ultimate reality is that greater levels of resources—both dollars and people—must be applied to the air traffic control system now, today, if FAA is going to be able to meet the demands of increasing air traffic while continuing to provide the same safe and reliable ATC and aviation safety services the traveling public enjoys and has come to expect, and which have fueled the national economy since the inception of Federal air traffic control in 1936.

CONCLUSION

The potential for rapid advance of ATC-related technology and the emergency of new concepts for air traffic management give cause for optimism about the future of air transportation, and provide opportunities for the United States to forge ahead in its position as world leader in aviation and air traffic control. The Air Traffic Control Association urges Congress to join hands with FAA and the aviation community in a partnership for progress, enacting funding levels for FAA in fiscal year 1998 which are not merely adequate, but which foster excellence into the 21st Century.

PREPARED STATEMENT OF WELLINGTON WEBB, MAYOR, CITY AND COUNTY OF DENVER

On behalf of the City and County of Denver, I am proud to say that Denver International Airport successfully completed its second full year of operations on February 28, 1997.

I want to thank Congress, and particularly this Subcommittee, for providing the funding that enabled the FAA to provide AIP grants and equipment and facilities for this nationally important project. DIA is the first major airport built in the United States in over 20 years. It is a critical component of our national transportation infrastructure and its successful completion simply would not have happened without the close cooperation of the City, the FAA, the DOT and Congress. To those of you who have not yet seen DIA, I would like to extend an invitation to visit the airport and would like to give you a personal tour of its state-of-the-art facilities, which are serving as a model for other cities that are building new airports all over the world.

There are three main reasons why DIA was built.

One was to provide a more efficient, cost-effective and user-friendly facility for the citizens of the City of Denver, the State of Colorado and the Rocky Mountain region, and the millions of visitors who are so important to the region's economy.

The second, closely tied to the first, was to provide a more cost-effective and efficient hub by reducing or even eliminating the delays that were keeping Denver from

taking maximum advantage of its central geographical location and were impacting the nation's air transportation system.

Third, Stapleton was the source of serious noise problems that required a resolution. It was located only seven miles from downtown Denver and was surrounded on three sides by residential communities. About 14,000 people lived within the 65 LDN contour—the noise level which the FAA has determined is unsuitable for homes.

Against the background of these three objectives, I can report to you that DIA has met or exceeded our goals in every respect. The Airport's revenues have exceeded its expenses; it is highly efficient and has the least delays of any of the nation's 20 busiest airports and the second highest percentage of on-time arrivals; and we have slashed the number of people impacted by noise from about 14,000 to about 500.

By virtue of this performance, DIA has made a major contribution to the efficiency of the carriers operating at the Airport and, according to the FAA, to the national system through reduced flight delays. What seems to remain, however, are some cobwebs of myth and echoes of the past which I would like to take the opportunity to dispel.

Let me now turn to more specifics about the results of DIA's first two years of operation.

A. DIA'S FIRST TWO YEARS OF OPERATIONS HAVE BEEN VERY SUCCESSFUL

1. DIA Is Financially Sound.

DIA's record of performance confirms that the Airport is managed properly and is financially very viable. For our second full year of operations, we project that our net revenues, i.e., revenues less operating expenses and debt payments, will more than $30 million, an increase of 50 percent over the prior year. Under our agreement with the airlines, 80 percent of these net revenues are provided to the carriers, which reduces their costs at DIA. We are achieving these highly favorable financial results despite the fact that Continental Airlines eliminated its Denver hub operations for reasons, I might add, unrelated to the fact that DIA was built. To put Continental's withdrawal into perspective, in 1993, only four years ago, Continental and Continental Express had over 250 flights per day at Stapleton and accounted for about 35 percent of the passengers. Today, Continental accounts for only about a dozen flights per day and less than three percent of DIA's passengers. While some airports would have suffered tremendously from such a downsizing by a major airline tenant, Denver bounced back extremely well. The gap was substantially filled by our other airlines, almost all of which have reported increases in passengers compared to their passenger levels at Stapleton. As a result, traffic for 1996 was up to about 32.3 million (or four percent over 1995). This solid traffic level is evidence of Denver's strong origin and destination market and also its central geographic location for east-west hubbing operations.

We also carefully managed our other sources of revenue, such as concessions and parking, and our costs, particularly through successful refinancing of our debt obligations. As a result of the strong revenue performance and the Airport's ability to control operating costs, our bonds were upgraded to investment grade by Standard & Poor's to BBB and are presently rated at Baa by Moody's. The marketability of our bonds, tested by our refinancing, reflects the Airport's overall financial strength and the public's support for DIA. As you also know, the GAO issued a report confirming that DIA is financially sound and, despite all the allegations about problems at DIA, the Airport has uniformly received a clean bill of health.

I would also like to address questions that have arisen concerning the cost to build DIA. The total cost was $4.9 billion, which includes FAA and airline costs. This has to be considered in the context of other airport projects. As shown in Attachment 1, the cost for this new airport is low by comparison with other new airports worldwide and other airport projects here in the United States, such as the $4 billion projects at JFK International and Miami International.

As we enter our third year of operations, we expect our record of financial success to continue and believe that DIA will continue to be one of the world's most efficient airports.

2. DIA Has Substantially Reduced Delays.

Our second major goal was to reduce delays. The latest results for 1996 show DIA to be the least delayed of the nation's 20 busiest airports. Specifically, we had 1.9 delays per thousand operations, half the amount of the airport ranked number two. We also enjoyed the second highest percentage of on-time arrivals for 1996 among the top 20 U.S. airports. In contrast, at Stapleton, we suffered 14 delays per thousand operations, one of the worst records in the United States. Stapleton, a major

connecting airport for travelers flying between the eastern and western parts of the country, was a terrible bottleneck during bad weather. While Stapleton could handle 88 air carrier jet arrivals per hour on two runways in good weather, it would be down to only one runway and barely 32 arrivals per hour in a storm, resulting in tremendous backups throughout our national aviation system. That was one of the major reasons for then-Secretary of Transportation Skinner's strong support which was the impetus that allowed DIA to be built.

Since DIA opened, its benefits to the national air transportation system have been dramatic. In fact, on the day we opened, Denver was hit by a snowstorm that would have left Stapleton with only one operating air carrier jet runway and only 32 operations per hour. Despite the bad weather, DIA had three runways operating at the same time and the capacity to handle up to 120 flights per hour. As a result, the FAA has credited DIA for contributing to a nationwide reduction of 11 percent in flight delays due to bad weather.

3. DIA Has Substantially Reduced Airport Noise Impacts.

Our third major goal was to reduce the tremendous impact of aircraft noise on the people of our communities. As previously mentioned, Stapleton was located only seven miles from downtown Denver and had about 14,000 people living within the 65 LDN contour, a noise impacted area which the FAA has determined to be unsuitable for homes.

To solve this serious problem, DIA was built 23 miles from downtown Denver on a 53-square-mile site. The location and size of the site were chosen specifically to minimize noise problems as far as possible. The result was to reduce almost to the point of elimination the number of individuals within the 65 LDN contour from 14,000 at Stapleton to only about 500 at DIA.

Although this is a dramatic reduction, DIA, like every major airport in the nation, still receives noise complaints, in some cases from individuals as far as 50 miles away where the noise impact is significantly below 65 LDN. The noise levels for many of these individuals, while no doubt bothersome to them, are not within the FAA's established criteria, so that there are no Federal resources available for mitigation purposes. However, we are taking these community concerns very seriously.

Under our Intergovernmental Agreement with Adams County, noise limits were established at 101 specific points. We are in compliance with 97 of these points and are working to comply with the remaining four. The City has also established a technical task force consisting of experts from DIA, United Airlines, other airlines at DIA, noise and airspace consultants and seven counties to address the noise impacts on all the surrounding communities. The Task Force issued nine recommendations, including construction of DIA's sixth runway. Denver and the FAA have implemented seven of these recommendations. The eighth recommendation is under review. The ninth recommendation is the sixth runway.

In summary, DIA's successful first two years have proven that we, and by that I mean the people of Denver, Colorado, the Rocky Mountain region, the FAA, the DOT and Congress, have been able to build the safest, most efficient airport in the world, and the first new airport in this country since Dallas/Fort Worth was built over 20 years ago. This statistic alone is evidence of the enormous hurdles that cities face today in trying to build new airports. Chicago and Minneapolis, as most recent examples, have considered building new airports, only to give up because of the almost insurmountable obstacles facing such massive projects. Yet, Denver took on this difficult challenge. Sure, with hindsight, there are some things we might have done differently but, as DIA's performance has demonstrated, there are lots of things that we did right and a lot of things that no other city has been able to achieve in over 20 years and for who knows how many more years to come.

I would hope that this Subcommittee, Congress and people across the country will focus on this positive achievement in building this great airport and the tremendous benefits it has for the entire nation.

When we did not open on time and things did not go as we had planned, there were some grounds for valid criticism and, where that was the case, we accepted responsibility. But that is the past and we must now deal with the present and the future. If we do not—if we continue to focus only on the negative—a strong signal will be sent to other communities that the risks of building a new airport are simply not worth it and we may never see a major airport built in the United States again. That would be terribly damaging to aviation and to the nation's overall transportation system.

B. DENVER SHOULD NOT BE BARRED FROM SEEKING AIP FUNDS FOR DIA'S SIXTH RUNWAY

Having reported on what DIA has achieved, we must now focus on one significant component of the DIA project that is only partially built and requires completion—the sixth runway.

Your Subcommittee has been a strong advocate of measurable criteria for federal funding at airports, an initiative Denver supports. In conjunction with this, I would like to request that this Subcommittee allow Denver the opportunity to be measured under these criteria by eliminating the unique statutory prohibition on our ability even to apply for, much less to receive, AIP funding for our sixth runway. As you know, this prohibition was first enacted in 1994, before DIA was opened and while we were addressing the problems with the baggage system. The statutory prohibition was repeated again the following year and then, again, the year after that for the third time in a row. Since we now have a successfully operating airport, it is simply not appropriate to single DIA out for this harsh treatment. There are over 3,000 airports nationwide that are eligible to complete for AIP funds and we believe we merit an equal right to compete by having the statutory prohibition lifted. Punitive legislation against us is not warranted. If there are continuing concerns with DIA that you will share with us, we will work with you, the FAA or whoever else is involved to address them, but we ask that the blanket prohibition on our eligibility for AIP funding be lifted.

I also want to highlight that DIA is a national asset. We estimate that about 75 percent of the 32 million passengers using DIA each year come from states other than Colorado. Thus, the AIP funding prohibition impacts not only Denver, but also people throughout the country.

Some people have questioned why we want to add a new runway to an airport that just opened a year ago. This issue, of course, is separate from whether Denver has the right to apply for AIP funds under the same criteria as other airports. However, the fact is that the sixth runway is not a recent development. DIA was designed originally to have six runways so that the Airport would have three separate arrival runways and three separate departure runways in order to minimize delays.

The record clearly shows the long-term planning and support for the sixth runway.

—The sixth runway was included in the Environmental Impact Statement for DIA.

—The sixth runway is on DIA's Airport Layout Plan, which was approved by the FAA several years ago.

—The local FAA Air Traffic personnel and the FAA's Northwest Mountain Region have long supported the sixth runway, as evidenced by a White Paper entitled "Completion of the Sixth Runway by Opening Day".

—The Airline Flight Operations and Airfield Subcommittee supported the sixth runway in 1991 and the Airline Technical and Affairs Committee several times since then.

—The FAA awarded Denver a $10 million AIP grant in September 1993 for site preparation work for this runway and Denver has completed this work.

The total cost of the runway will be about $85 million. About $15 million has been spent for site preparation work and about $70 million is needed for construction, of which up to $52 million is eligible for AIP funds. Note that I say "eligible". If the sixth runway prohibition is not enacted again, it will still be up to the FAA, using the same criteria it applies to every other airport in the nation, to decide how much it will provide for DIA.

However, there is a condition that must be met before DIA would apply for FAA funds for the sixth runway. That condition is that Denver must demonstrate, through the use of an FAA-approved computer simulation, that annual operating cost savings are equal to or exceed the annual debt service and operating and maintenance costs of the sixth runway. The computer simulation process requires FAA input on flight patterns, which, in turn, affects the noise impact of the sixth runway on surrounding communities. This is a significant community issue which we are very much trying to address and we need FAA participation in the process. Yet, this Subcommittee's prohibition on the use of FAA funds "for planning, engineering, etc." is construed by the FAA as barring its involvement and stands in the way of what would be a productive process of analyzing the runway's cost-benefits and community noise impacts. It is, we hope, an unintended result but it is obstructive, nonetheless, and represents another cogent reason why, after three years of enactments, and two years of successful airport operation, the time has come to eliminate the prohibition.

In summary, Mr. Chairman, I am not asking this Subcommittee to give us AIP funds for the sixth runway. I am simply asking this Subcommittee to let the AIP statutory criteria and FAA regulations apply to DIA, just like thousands of other airports nationwide, and ask that you not re-enact the prohibition on AIP funding for DIA's sixth runway.

I appreciate the opportunity to provide this report on DIA's second year and invite you to visit our airport to see its operation first-hand.

Thank you.

[ATTACHMENT 1]

DENVER INTERNATIONAL AIRPORT PROJECT COST COMPARISONS

The City County of Denver received considerable value for its $4.2 billion outlay to build Denver International Airport (DIA's total cost is $4.9 billion when FAA, airline and other tenant costs are added). A comparison with current U.S. airport improvement projects and with new international airport construction projects is illustrative.

NEW AIRPORT PROJECTS COMPARISON

Airport	Size (acres)	Runways	Passenger capacity	Cost
Denver Int'l	34,000	5	50,000,000	$4,900,000,000
Inchon Int'l (Seoul, Korea)	11,715	2	27,000,000	4,980,000,000
Chep Lap Kok (Hong Kong)	3,083	2	30,000,000	9,000,000,000
Kuala Lumpur	24,989	2	25,000,000	3,800,000,000
Kansai Int'l (Osaka)	1,300	1	30,000,000	14,000,000,000
Franz Joseph Srauss (Munich)	3,705	2	15,000,000	6,000,000,000

U.S. AIRPORT IMPROVEMENT PROJECTS COMPARISON

Airport	Projects	Cost
Denver International	New airport	$4,900,000,000
Los Angeles Int'l	20-year expansion	12,000,000,000
John F. Kennedy Int'l	New international terminal, light rail, other improvements.	4,300,000,000
Miami International	New terminal, parking garages, cargo buildings, fourth runway.	4,000,000,000
San Francisco Int'l	International terminal, light rail ground transportation center, other improvements.	2,400,000,000
Washington National and Dulles International.	New National terminal, Dulles terminal expansion, other improvements.	2,000,000,000
St. Louis Lambert	New terminal, new runway, runway extension, more gates, people mover, parking.	2,000,000,000

Sources: Airports, Aviation Week & Space Technology, FAA, Franz Joseph Strauss Airport, Jane's Airport Review, Korea Airport Construction Authority, Metro Detroit Connections, New York Times, San Francisco International Airport Master Plan Executive Summary.

PREPARED STATEMENT OF THE GREATER ORLANDO AVIATION AUTHORITY

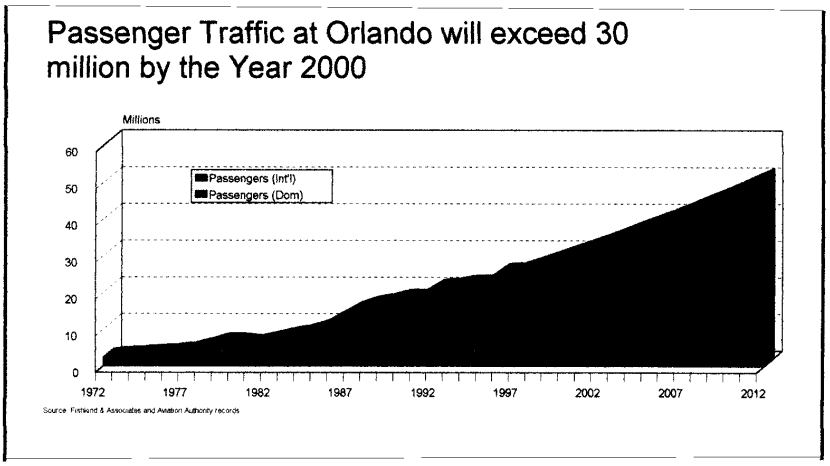
Senator Shelby, and distinguished members of the Senate Transportation Appropriations Subcommittee:

The Greater Orlando Aviation Authority (GOAA) is extremely pleased to submit written testimony to you, and we deeply appreciate this opportunity to provide you with the current status of the development of Orlando International Airport (OIA). GOAA is very grateful for the past support of this Committee, and will strive to maintain your trust and confidence. The future ability of the national aviation system to ensure safe and secure air transportation will strongly depend on the Airport

Improvement Program (AIP). In order to ensure the Federal Aviation Administration (FAA) has the resources needed to fund critical capacity improvement projects, GOAA respectfully requests the Senate Transportation Appropriations Subcommittee to fully fund AIP at the authorized level of $2.347 billion with an obligation ceiling of no less than $1.46 billion.

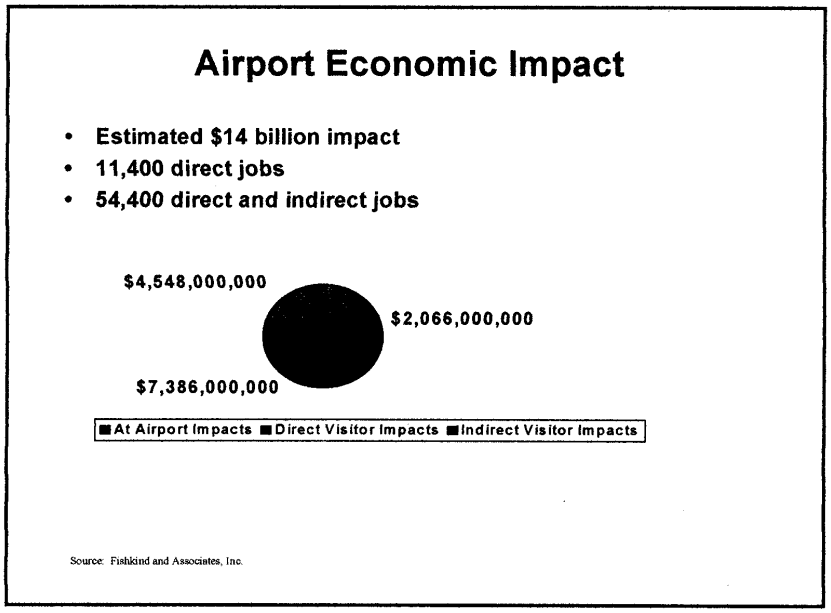
Airfield improvements are intended to increase needed capacity, provide improved flight safety operations, and enhance the efficiency of the national aviation system. The AIP is a critical component of the financial strategy to ensure airports, including OIA, have the resources necessary to construct essential airfield improvements.

Past aggressive planning efforts have enabled OIA to accommodate a phenomenal growth rate over the past 15 years. Forecasts indicate OIA will experience at least a 7–10 percent annual growth rate during the next five-year period. In 1996 OIA marked a 13.8 percent increase in passenger traffic which was among the top three fastest growing airports in the world. During the same year OIA recorded 25.6 million passengers which was an increase of 3.1 million passengers over the previous year.



The Central Florida community continues to grow at an amazing rate. Walt Disney World is only 25 percent developed and will open its fourth theme-park in 1998 (Animal Kingdom). Universal Studios is underway with a seven year, $3 billion expansion program that will create 14,000 new jobs. The Orange County Convention Center recently completed a major expansion program that now ranks Orlando as one of the top 5 US cities for convention facilities. Orlando is the fastest growing Metropolitan Statistical Area (MSA) in the US and currently ranks as the 39th largest. Orlando is expected to generate 232,000 new jobs, an increase of 32.4 percent, between 1994 and 2005. Businesses in the areas of computer software, laser optics, and health services are among the fastest growing employers in Orlando. The development of Orlando International Airport must keep pace with the growth of the community.

An independent economic impact study reports Orlando International Airport generates an annual economic benefit of $14 billion and is responsible for more than 54,000 jobs throughout Central Florida. This report further stated the total economic benefit will be $20 billion when passenger traffic reaches 30 million.



Orlando International Airport has the largest acreage of any commercial airport on the East Coast, and is located at a key strategic crossroads for future global commerce. During the past twenty years GOAA has acquired almost 15,000 acres to ensure OIA will have the ability to satisfy future aviation demands. Our airport has the potential to become the focal point connecting European, South American, and domestic air service. Existing airport property and environmental mitigation will allow the development of an airfield capacity that could exceed one million flight operations per year serving eighty to ninety million passengers. GOAA believes future investments in developing OIA capacity will maximize the national aviation system.

In an effort to create a logical method to fund future airport projects, GOAA has developed a Capital Improvement Program (CIP) to implement the OIA Master Plan. During the next seven years GOAA will undertake nearly $2 billion of airfield, terminal, and roadway improvements. The CIP includes an estimated $170 million or 9 percent of the total projects costs to be funded under the Airport Improvement Program (AIP). On January 23, 1997 GOAA submitted an application for a Letter of Intent (LOI) to the FAA to partially fund three major airfield capacity improvements with a total cost of $208,750,000. The federal share is $156,562,500 which is 75 percent of the full amount. These projects included the construction of a fourth runway system, north crossfield taxiway, and the final rehabilitation of an original primary runway.

Orlando International Airport

Capital Improvement Plan (1997 - 2002)

Project Funding Plan

	Component Description	Project Cost (Escalated)	Amt. Currently Funded	Proposed Funding: PFC/ PFC Bonds	AIP	FDOT	Revenue Bonds	I&D	Other
	TERMINAL								
T1	Airside 2 Terminal	$278,310,000	$27,369,000	$75,895,000	$0	$16,000,000	$160,415,000	$26,000,000	$0
T2	South Terminal - Initial Phase	819,730,000	0	352,240,000	0	17,818,000	418,958,250	30,713,750	0
T3	Existing Terminal Renovations	26,490,000	2,390,000	1,990,000	0	0	23,990,000	510,000	0
T4	Existing Terminal Renovations (Allowance)	20,000,000	0	0	0	0	20,000,000	0	0
T5	Airside Gate Conversions	15,980,000	0	0	0	0	15,980,000	0	0
T6	Existing Terminal Capacity Improvements	117,632,000	103,182,000	0	0	0	117,632,000	0	0
T7	Concession & Hotel Improvements	12,040,000	10,290,000	0	0	0	9,110,000	0	2,930,000
	AIRFIELD								
A1	Mid-Crossfield Taxiway Bridges	45,330,000	2,800,000	22,760,000	2,800,000	0	19,770,000	0	0
A2	Taxiway 'E' and 'F' Extension	2,870,000	175,000	335,000	2,153,000	359,000	0	23,000	0
A3	North Crossfield Taxiway	76,420,000	0	19,105,000	57,315,000	0	0	0	0
A4	Fourth Runway	126,950,000	221,520	0	95,220,000	15,870,000	13,380,000	2,480,000	0
A5	Miscellaneous Airfield Projects	5,790,000	0	3,620,000	1,627,500	271,250	0	271,250	0
A6	Rehab. North West Terminal Support Area Ramp	10,710,000	7,147,800	5,500,000	3,562,200	1,647,800	0	0	0
A7	Rehabilitate South End of R/W 18R/36L	10,230,000	0	0	7,672,500	1,278,750	1,278,750	0	0
A8	New ATCT	27,140,000	0	0	0	0	27,140,000	0	0
	ROADWAY								
R1	Employee Parking Lot Relocation	18,539,000	16,839,000	0	0	8,000,000	8,409,000	430,000	1,700,000
R2	Terminal Access Rd. Enhancements	13,193,000	4,173,000	2,087,000	0	2,086,000	9,020,000	0	0
R3	Cargo Road Expansion and Interchange	63,963,000	51,300,000	58,663,000	0	5,300,000	0	0	0
R4	Miscellaneous Road Improvements	12,540,000	0	2,112,000	0	1,834,000	8,594,000	0	0
R5	Rail Projects	107,982,000	582,000	0	0	2,912,000	0	0	105,070,000
R6	Parking Projects	108,371,000	96,461,000	0	0	0	108,371,000	0	0
	OTHER								
O1	ARFF Facilities	0	0	0	0	0	0	0	0
O2	Fuel Projects	620,000	0	0	0	0	620,000	0	0
O3	Land Acquisition / Development	20,460,000	1,500,000	0	0	0	18,910,000	0	1,550,000
	GRAND TOTAL	$1,941,290,000	$324,430,320	$544,307,000	$170,350,200	$73,376,200	$981,578,000	$60,428,000	$111,250,000

An October 1990 Capacity Design Team Report recommended the construction of a single north crossfield taxiway. The team consisted of FM, GOM, Airline Transportation Association (ATA), and officials representing other airlines serving OIA. This recommendation was based on 294,000 annual operations in 1988. In fiscal year 1996 OIA reported a total of 341,984 operations representing a 16 percent increase. The report further indicated the construction of the north crossfield taxiway would result in $2.9 million annual savings due to improved operational efficiency. In addition, the Airport Capacity Enhancement Tactical Initiative—North Crossfield Taxiway System was completed in November 1995 indicating an eventual annual savings of $4 million. This project will cost $70,600,000.

The Annual Service Volume (ASV) of the existing airfield configuration at OIA is 471,000 operations. On May 21, 1996 the FM accepted as part of the OIA Master Plan that the airport will incur a 4.4 percent increase in annual flight operations through the year 2000. Therefore, it is anticipated this growth requires GOAA to begin construction of a fourth runway in 1998 when operations will reach 80 percent of the established ASV. In addition, the Capacity Design Team Report recommended a fourth runway should be commissioned when the airport reached 400,000 annual operations. This level of aircraft operations is expected in the year 2000. As flight operations increase beyond 400,000 the 1990 Capacity Design Team Report states the fourth runway will generate $47.3 million in annual benefits from reduced delays. Most importantly, the FM, GOAA, and FDOT have committed $72 million towards this project. This amount represents land acquisition, mitigation requirements, initial site preparation, relocation of a high voltage power line, and the preparation of 30 percent design costs. The fourth runway will cost $128,130,000.

GOAA received an earlier FM grant to rehabilitate the initial 9,000 feet of runway 18R/36L. This concrete runway is deteriorating at the joints and has been patched with bituminous material. Continuing deterioration is resulting in excessive foreign object debris. Replacement of this runway will assure the Authority of three operational runways, prevent the unplanned emergency shutdown of the runway, and reduce maintenance costs. The runway's remaining 3,000 feet now requires rehabilitation and will cost $10,020,000.

The OIA Master Plan includes the construction of a new 300 foot Air Traffic Control Tower (ATCT). The proposed tower is absolutely essential for the future development of OIA. The planned construction of a fourth airside building, fourth runway system, and south terminal complex requires the immediate design and construction of this ATCT which is needed to eliminate existing and future line-of-sight problems. GOAA is attempting to identify alternative funding sources; however, OIA will require at least $10 million FAA participation in the construction of the tower and at least $5 million to procure equipment for the tower to be included in the 1998 budget. GOAA hopes these funds will be made available through the FAA Facilities and Equipment budget.

In closing, we would like to express our gratitude for allowing GOAA to submit this testimony. We are confident that our comments have provided you with a better understanding of the future expansion and financial dynamics impacting Orlando International Airport.

COAST GUARD-RELATED TESTIMONY

PREPARED STATEMENT OF CHARLES L. CALKINS, NATIONAL EXECUTIVE SECRETARY, FLEET RESERVE ASSOCIATION

INTRODUCTION

Mr. Chairman and distinguished members of the Subcommittee: The Fleet Reserve Association (FRA) appreciates this opportunity to present its position on the fiscal year 1998 Coast Guard Budget.

The FRA was founded in 1922 and now represents over 162,000 active duty, reserve, and retired members of the Coast Guard, Navy, and Marine Corps. The association is chartered by Congress and represents the interests of its members on personnel issues which are the focus of this statement.

COAST GUARD PARITY

FRA strongly supports full funding of the Coast Guard at the level requested by President Clinton in his proposed fiscal year 1998 Budget. The request addresses the important issue of parity with the Department of Defense (DOD)—an issue especially important to adequate funding for personnel programs.

In the past, the Coast Guard has often been placed in the position of having to rely upon DOD to supplement its annual funding in order to maintain equivalent pay and allowances for its people. The President's budget request addresses this disparity with attention to important quality of life programs. In addition, the request supports the fourth year of a highly effective Coast Guard "streamlining plan" resulting in continued personnel and spending reductions.

COMPENSATION AND ALLOWANCES

Full employment cost index (ECI) annual active duty pay adjustments are a top priority with not only the FRA—but also The Military Coalition (TMC), a consortium of 24 groups representing the interests of over five million active duty, reserve, and retired military personnel. FRA is a founding member and active participant in TMC.

Competitive pay is important to maintaining the all-volunteer force, yet pay raises have been capped below ECI in 11 of the past 15 years resulting in a pay gap in excess of 12 percent and decreased adjustments in allowances tied to annual pay increases.

FRA strongly urges your support of a full ECI pay adjustment. The requested 2.8 percent adjustment is .5 percent less than the ECI, and touted as the "maximum" amount established by law. Not only is this less than the full ECI rate, it is implemented 15 months after statistics are compiled, exacerbating the substantial gap between military and civilian pay.

In the event Congress approves a pay adjustment larger than 2.8 percent, we implore your distinguished panel to include money in the Coast Guard budget to make up the difference and thus ensure parity with DOD compensation and allowances.

FRA also strongly supports the budget request of nearly $8 million for quarters/housing allowances; sea pay for 65′ cutter crews; increased dislocation allowance; VHA locality floor; and round trip travel expenses for POV drop-off during overseas PCS moves. In addition, funds (over $1.2 million) are included to bring Coast Guard child care centers up to the level comparable to DOD standards. This funding will ensure parity with DOD for these vital quality of life programs.

Finally, the FRA supports establishment of a standard measure for the basic allowance for subsistence (BAS) and opposes the DOD proposal to revamp the BAS program by limiting annual adjustments to only 1 percent over several years until BAS is in line with the new standard. Such a plan would result in a decrease in total compensation for enlisted personnel over the adjustment period. Although this is not under the cognizance of your distinguished panel, the FRA wishes to share its position on DOD's proposed revisions to BAS.

The Association supports the 7th Quadrennial Review of Military Compensation (QRMC) recommendation that establishes a BAS standard based on the U.S. Department of Agriculture (USDA) moderate plan level, along with adjusting basic pay in all cases to preserve the value of the compensation package.

HOUSING

Adequate, safe, and affordable housing is a major concern for Coast Guard personnel. Currently, the Coast Guard maintains 5,200 family units and 4,900 barracks rooms for unaccompanied personnel. The condition of many of these units is unacceptable, and there is a six-year backlog for maintenance of major facilities along with a substantial maintenance backlog for family housing units.

Examples of this growing problem include seeping brick walls and leaking windows that flood berthing areas during heavy rains; housing with rotted walls and leaking basements; termite damage; kitchens with rusty and dented metal cabinets; and substandard electrical wiring. These problems are often handled via expensive short-term, piecemeal repairs utilizing scarce housing operating funds. Just as within DOD, which has similar housing problems, deferred maintenance vastly increases the total cost and postpones a permanent resolution to the problems. It's difficult for active duty personnel in all branches of the Armed Forces to understand why housing and barracks facilities have been left to deteriorate to their present condition, while senior officials annually extol the importance of military people and their quality of life. Ironically, incarcerated felons are often afforded better housing than many uniformed personnel who are forced to live in inadequate or substandard housing.

Also compounding the situation is the fact that housing management staffing has fallen to 70 percent of what the Coast Guard indicates is necessary to adequately manage a housing inventory of this size.

The budget request allocates nearly $9 million for housing and barracks maintenance plus funds for additional housing management staff personnel to address these challenges.

Your attention is also invited to the environmental risk assessment of Coast Guard housing units. In 1995, the service began a multi-year evaluation of environmental risks posed to occupants of its housing units and child care centers. Threats include radon, lead, and asbestos especially in the older units which comprise the bulk of the Coast Guard's inventory. While the final results are yet to be determined, the data already indicates that at least 20 percent of the units require immediate attention to remove these hazards. Accordingly, $3,700,000 is included in the budget request to begin work on this threat to Coast Guard personnel and their families.

RECRUITING

The budget includes additional funding for Coast Guard recruiting. Recent surveys indicate only about 25 percent of young people are interested in a military career—and of these, less than 6 percent reveal an interest in the Coast Guard.

Just as the other military services rely on volunteers to fill the ranks, so too does the Coast Guard and the budget includes enhanced funding to support recruiting efforts.

INVALUABLE SERVICE

The Coast Guard provides invaluable service to our nation. A relatively small number of personnel perform a vast array of operations supporting our national security, maritime safety, drug interdiction program, and environmental protection.

Unfortunately, many of these valuable services receive little media and/or public attention. As a return on the taxpayer's investment, the Coast Guard yields significant value in terms of lives and property saved annually. Accordingly, these dedicated professionals deserve parity with the Department of Defense regarding compensation, benefits, and entitlements—essential components of their quality of life.

IN GRATITUDE

The FRA wishes to express appreciation to you and other distinguished members of the Subcommittee for past support of quality of life programs benefiting Coast Guard personnel and asks for your endorsement of the President's budget request.

PREPARED STATEMENT OF ED CARTER, BOATING LAW ADMINISTRATOR, TENNESSEE, PRESIDENT, NATIONAL ASSOCIATION OF STATE BOATING LAW ADMINISTRATORS

Mr. Chairman and Members of the Subcommittee: I am Ed Carter, Boating Law Administrator for the State of Tennessee and I serve as President of the National Association of State Boating Law Administrators.

The National Association of State Boating Law Administrators (NASBLA) is a professional association consisting of state officials having responsibility for administering and/or enforcing state boating laws.

Our Association is recognized for it's stewardship of "Recreational Boating Safety". We have over the years worked closely with the U.S. Coast Guard, the States and others to insure that the intent of Congress to promote uniformity, reciprocity and comity among the various states was given high priority. Testimonial of this is the many resolutions, model acts etc. that has been generated by our Association. In doing this we bring to the table at various meetings, highly qualified personnel in the field of boating law enforcement, education, boating safety and on the water, search and rescue.

Our membership takes pride in their accomplishments and the many words of praise we have received from the Commandant, U.S. Coast Guard and the Chairman, National Transportation Safety Board over the years.

Our reward is saving a life and what a wonderful reward that is.

My testimony today will focus on the Aquatic Resources Trust Fund (Wallop-Breaux) and more specific, the Reauthorization/Appropriation of the Boat Safety Account of this fund.

The boating safety account of the trust fund is derived solely from the tax boaters pay on their motorboat fuel. This user fee paid by the boaters, is returned to the States to help defray their cost for services provided to the recreational boater. We think this is indeed in keeping with the user fee concept, (i.e.) user pays-user benefits, thus not costing the general tax payer one cent and especially noteworthy, does not add one penny to the national debt.

The Wallop-Breaux Trust Fund has resulted in a willingness on the states part to assume a major share of the boating safety and boating law enforcement responsibilities. This, I think is noteworthy since this responsibility is logically and statutorily a joint federal-state responsibility. The financial base provided by Wallop-Breaux funding allows the states to concentrate on establishing an administrative infrastructure, purchase equipment and promote the education and enforcement techniques to stimulate increased boating safety awareness, and thereby decrease fatalities.

Funds made available from the boating safety trust funds have made a major contribution to boating safety. With these trust funds, the states have been able to reduce boating accidents and fatalities, relieve the Coast Guard boating safety teams on many of the nation's waterways, thus allowing the Coast Guard to pursue higher priority programs, provide a higher quality of boating safety education, produce a system of investigating and reporting boat accidents and most of all, provide a more rapid response to boats in distress. It is the desire of the states to continue and strengthen this proven boating safety program known to be in the best interest of the boating public we serve.

Congress (and rightfully so) continues to be concerned over the use and effectiveness of these trust funds. So the question is often asked, "How do the states use federal boat safety trust funds?" Attached is a comprehensive listing of the use of these funds.

Specifically what we are asking this Subcommittee for is appropriation as authorized for the state boating safety program. Again, these are trust funds derived solely from the tax boaters pay on their gasoline used in motorboats.

During the 2nd Session of the 103rd Congress and again in the 104th Congress, legislation surfaced to provide stable and dependable funding for grants to state boating safety programs. If passed, this would have alleviated the uncertainty each year for these trust funds in order that the state could make long range plans and insure continuity in our boating safety efforts.

Again this year we see in the highlights of the Coast Guard's 1998 budget as submitted to the Congress, a proposal of $55 million for the boat safety grant. This proposed legislation would convert state grants to a mandatory appropriation from the Aquatic Resources Trust Fund (Wallop-Breaux).

Where our National Association is recognized for it's stewardship of "recreational boating safety", this Subcommittee over the years, is recognized for their untiring efforts in providing appropriation of boating safety trust funds to help defray the cost of services provided by the states to the recreational boating public. Be assured the efforts of this Subcommittee is well recognized and appreciated throughout the boating community.

Areas of concern to our Association as we focus on long range plans for the 21st century are:

(1) Identify and evaluate future impacts on boating safety and apprise our Association of the status of any legislation, policies or procedures relative to the issue at hand.

(2) Surface use conflicts—Study what is being done and what can be done to alleviate these problems.

(3) Personal Watercraft—Examine what is being done through education, enforcement and regulations and what is the long-range outlook for their sales and use.

(4) Education options—Research what has happened in the states that have adopted "mandatory education" for adults, phase in versus more immediate methods, what is the cost effectiveness of these programs and are they making a difference in the target audience. What about other educational initiatives—dealer-based education or education using computers or the Internet.

(5) Drinking and Boating—Examine what more needs to be done as far as education or legislation.

(6) Personal Flotation Devices. If wearing a PFD will save 80 percent of the boating accident victims—what should we be doing to encourage it, model it or require it?

(7) Funding issues—Examine the outlook and future for state/federal funding.

(8) The Role of the U.S. Coast Guard and the States—Where should we be in the next 10 years in boating safety?

The national trend shows a general boating growth pattern. The momentum is not only expected to continue, but to increase in the coming years. This is readily understandable when you consider that as available land becomes scarce and with 70 percent of the earths' surface covered by water, our waterways are a natural place to seek relief from the pressures of a growing population. The beautiful waters that abound our states satisfy the insatiable appetite of sport fishing, the recreational

boating enthusiast and those who desire to leave pressures behind and to relax and absorb the tranquility of our waters and beaches.

Additionally, the commercial traffic (i.e.) passenger and cargo ships, oil tankers, off shore drilling for oil on the continental shelf, fishing fleets etc. add new responsibility to the states in managing this priceless natural resource, "our waterways". Further, the Coast Guard is downsizing and even more of the responsibilities once absorbed by the Coast Guard are being given to the states. Boating safety is and will continue to be of high priority.

We take pride in the fact that we make the best use of these trust funds and that the end product is a major contribution by the states to the overall reduction in the boating fatality rate.

However, recreational boating safety is still on the National Transportation Safety Board's "most wanted" list. We must continue to focus our attention and coordinated efforts to remove recreational boating safety from this list. (See attached NTSB report).

To keep the momentum in our boating safety efforts we strongly request appropriation as authorized for the states boating safety program for fiscal 1998.

We feel the state program, to date, is a shining example of an ideal State/Federal partnership. We will continue to strive for more innovative use of the funds to better educate the boater and further reduce boating fatalities. However, we cannot overemphasize that stability in the boating safety trust funds is needed if the true fruits of our efforts are to be realized. Needless to say, the Federal boat safety trust funds are critical to the success or failure of our state recreational boating safety program.

We appreciate this Subcommittee continuing support and again ask for your consideration for appropriation as authorized from the Aquatic Resources Trust Fund (Wallop-Breaux) for the states boating safety program for fiscal 1998.

Thank You.

STATES USE OF FEDERAL BOAT SAFETY FUNDS AQUATIC RESOURCES TRUST FUND "WALLOP-BREAUX"

The states are proud of the use and effectiveness of the federal boat safety funds in pursuing our goal of "safe and enjoyable boating for all who use our nation's waterways".

We feel, as statistics validate "that" the state program to date, is living up to the high expectations of the Congress. With full funding as authorized, we will strive for more innovative use of the funds to better educate the boater and further reduce boating accidents and fatalities. We foresee the states taking an even greater lead role in boating safety, boating education and boating law enforcement, thus allowing the Coast Guard to pursue the re-prioritized responsibilities and assignments placed on the service by Congress.

Congress (and rightfully so) continues to be concerned over the use and effectiveness of these trust funds. So the question is often asked, "HOW DO THE STATES USE FEDERAL BOAT SAFETY TRUST FUNDS?". Following is a comprehensive listing of the use of these funds.

—Increased boating safety patrols;
—Better boating accident investigations have pointed to causes which are targeted for increased education and enforcement;
—Increased training of enforcement officers;
—Better communications and enforcement equipment;
—Now reaching more boaters with free education classes;
—Working towards better statistical data on effects of alcohol and boating, (i.e.) in California, a two year study showed that in 59 percent of fatal motorboat accidents where testing could be conducted, alcohol was a contributing factor to the cause of the accident;
—The erection of Kiosks to provide boaters information on coastal bar crossings, navigation, equipment requirements, rules of the road and related information including charts;
—Erection of wind warning strobe lights across heavily used bodies of water to warn boaters of impending high winds;
—Courtesy boat safety inspections;
—Conducting boating surveys, which provide critical data for assessing boat use, conflict areas and safety courses;
—Handing out free literature on boat noise, sailboarding safety, make way in dealing with large ships, hypothermia, pleasure craft, use of life jackets (PFD's) and dealing with alcohol use;
—Waterproof exhibits at boat launching ramps with boater safety information;
—Marking of hazards to recreational vessels;

—Development of school video systems;
—Some states are now handling all regatta permits and thereby completely relieving the Coast Guard of this responsibility.
—States picked up the load after the Coast Guard removed their boating safety detachment teams (BOSDET) from joint jurisdictional waters;
—Developed and placed in use boating safety home study courses;
—Developed and placed at marine dealers, a boating information display;
—Developed coloring books for elementary schools;
—Stepped up TV and radio public service announcements;
—Implementation of boating while intoxicated program including purchase of portable testers, training classes and public awareness announcements;
—Computerizing boat accident information and arrests, which provides capabilities of responding to public, legislative and other inquiries regarding boating accident and water fatality statistics;
—Improved the integrity of the boat registration system;
—Upgraded enforcement equipment;
—Expanded our boating safety education capabilities;
—Purchased special search and rescue boats that are fully equipped for marine law enforcement;
—Adding additional full-time and part-time marine patrol officers and boating safety educators;
—Implemented special boating investigation teams to handle boat accident investigations;
—Improved cooperation with volunteer groups such as the Coast Guard Auxiliary by providing boat dock space, communication stations, phone, utilities, etc. This has resulted in much more visibility of search and rescue units and free boat safety inspections;
—Bringing together federal, state and local authorities in the interest of boating safety, law enforcement, training and equipment needs;
—Better coordination with local governments to establish boating restricted zones in heavy activity areas that present safety hazards to the boating public;
—Updating film library with additional programs and equipment to provide to the general boating community, and to maintain literature dealing with safety equipment regulations, safe boating information, registration, titling and numbering requirements for statewide distribution, so as to be highly visible and readily available to the boating public;
—Improve communications system to provide for better and extended coverage with waterway enforcement officers, end result is improved response time to marine emergencies and as a devise for greater officer protection;
—Establishing new aids to navigation and regulatory marker system for controlled areas;
—Construction and repair of boat access ramps;
—As preventative strategies, inaugurated programs to reach new generation of recreational boaters to the public schools.

The fruits of our labor is evidenced by the fact that the annual fatality rate in the United states has dropped from 1,754 deaths in the seventies to a record low of 784 deaths in 1994, despite more people on our waters in a wider diversity of craft than ever before.

Our Joint efforts are paying off. For this, we feel that we have made the Administration, the Congress, the State Legislators and most of all, the boating public that we serve proud.

[CLERK'S NOTE.—The other attachments to Mr. Carter's statement do not appear in the hearing record, but are available for review in the subcommittee's files.]

PREPARED STATEMENT OF CAPT. FRED R. BECKER, JR., JAGC, USN (RET.), DIRECTOR, NAVAL AFFAIRS, RESERVE OFFICERS ASSOCIATION OF THE UNITED STATES

Mr. Chairman and members of the Committee: It is my pleasure to address this committee concerning the fiscal year 1998 budget request for the United States Coast Guard.

The Reserve Officers Association continues to strongly advocate adequate resource allocations for the United States Coast Guard. Over the past several years, providing the needed resources to the Coast Guard has been a distinct challenge. It has continually required action by the Congress to provided a unique combination of Department of Transportation and Department of Defense funding to support the Coast Guard's requirements. It would, of course, be preferable for the Congress to fully fund the Coast Guard from within Transportation appropriations. If, however,

such is not possible given continuing budget constraints, we would again ask that, recognizing the Coast Guard's role unique role with regard to the Department of Defense that additional Department of Defense funding be provided.

COAST GUARD BUDGET REQUEST

The Coast Guard has shown great professionalism and flexibility in doing more with less. The Commandant, Admiral Kramek, has streamlined the Coast Guard and reduced resource requirements while maintaining the capabilities upon which our nation depends. Already Coast Guard streamlining has saved the American public almost $100M and eliminated over 4,000 positions. As a result the Coast Guard has the smallest work-force in over 30 years. Concomitantly, the responsibilities and work of the Coast Guard have not been reduced. Given the downsizing that has occurred and the continued demands on the force, the Coast Guard must not be further stretched to the breaking point by underfunding.

The Coast Guard's fiscal year 1998 budget request will allow the Coast Guard to maintain current services. It includes the following important priorities:

—An increase in National Security and Drug Law Enforcement Operations ($34.4M),

—Quality of Life Improvements ($26.4M), and

—Acquisitions, Construction and Improvements (AC&I) ($379M).

The AC&I account provides for the acquisition, construction and improvement of vessels, aircraft, information management resources, shore facilities and aids to navigation required to execute the Coast Guard's mission and achieve its performance goals. It is noted that the AC&I account is at the lowest level in 10 years. If not funded to this bare minimum, the Coast Guard would be forced to cancel longstanding contracts to build ships and purchase mission-essential equipment.

SELECTED RESERVE STRENGTH

We strongly support the fiscal year 1998 authorization request to maintain the Coast Guard Selected Reserve end-strength at the 8,000 level. While recognizing that the Coast Guard Reserve's end-strength is currently below 7,600, we have serious concerns regarding the administration's proposal for an appropriated end-strength of only 7,600.

The plans of just a few years ago to reduce the personnel strength of this key part of the Coast Guard's Total Force below the post-World War II low of 8,000 Selected Reservists now authorized was a source of major concern. Since that time the Congress, the administration, and Coast Guard leadership have ever increasingly recognized the unique capabilities of the Coast Guard Reserve. It is now well-recognized that the Coast Guard Reserve has clearly become a value-added resource for peacetime day-to-day operations, as well as a highly cost-effective source of needed trained personnel to meet military contingency and other surge requirements.

In view of the foregoing, we are particularly concerned that the administration and the Coast Guard allowed the Coast Guard Reserve's end-strength to fall below the authorized and appropriated level for fiscal year 1997. We attribute the end-strength shortfall to a failure to devote the requisite assets to recruiting Coast Guard Reservists.

By way of background, Team Coast Guard, has, with limited exceptions, resulted in the complete assimilation of Coast Guard Reservists into the active duty force. Prior to Team Coast Guard, Reserve unit commanding officers had specific responsibilities for recruiting. These recruiting responsibilities were not transferred to active duty commanding officers following Reserve integration. Furthermore, Reserve recruiting quotas have not been assigned to active duty Coast Guard recruiters.

Until just one year ago, no recruiter in the system had ever recruited a Reservist. Recruiting a Reservist is substantially more difficult than recruiting a new entrant. This is because Reservists must be recruited to a targeted billet at a specific location. Concomitantly, it must be noted that the Coast Guard has undertaken some effort to recruit Reservists, to include the production of a formalized recruiting plan for Reservists, requiring Selected Reserve participation for 59 days following release from active duty; mailing out letters to over 6,000 members of the Individual Ready Reserve; creating a Reserve-specific Recruiting Web page; and engaging in limited advertising. Despite these efforts, while the Coast Guard exceeded one-hundred percent of the goals for the active-duty force, it has recruited only 65 percent of those needed for the Reserve force in fiscal year 1996 and through January 31, 1997, only 32 percent of its monthly requirements. Finally, it should be noted that the Coast Guard has not applied the various bonus programs that currently exist in law to recruit Reservists up to authorized and appropriated end-strength.

The administration has requested $65 million for the Reserve Training (RT) appropriation for fiscal year 1997. We support this request as the minimum needed to fund a full training program for 7,600 personnel. Additional funding required to support the full 8,000 level authorized is only $2M. This additional funding would allow sufficient resources, with additional efforts in recruiting, to attain the 8,000 level. Such additional funding would also have a positive morale-building effect on Reservists by avoiding the negative signal that Reserve strength is again in jeopardy.

This committee's support of the Coast Guard has been critical to maintaining its military capability. Your continued support is vital.

TEAM COAST GUARD

The Coast Guard has embraced the reality that its Reserve is a value-added resource. This fact has been demonstrated by the adoption of Team Coast Guard, which as previously discussed, includes the full integration of Coast Guard Reservists into their parent Active force commands. This expansion and modification of the historic method of augmentation training directly benefits the Coast Guard. As a result of Team Coast Guard Reservists now perform day-to-day operations as an integral part of the active duty force. In addition, integration has reduced administrative overhead by making the parent command responsible for Reserve personnel in the same manner as the assigned active-duty personnel.

We support the goals and objectives of this new method of operations. The Coast Guard Reserve has become the "bench-strength" of the active duty force. At a strength of 8,000, the Coast Guard Reserve consumes only 700 full-time equivalent positions. Simply stated, the Reserve leverages the entire organization and stands ready to go in response to both domestic and national emergencies. As a result, the Coast Guard is readily able to surge its forces to meet domestic and national emergencies in an extremely cost effective manner.

Concomitantly, the Coast Guard active duty force must recognize its ownership role of Reservists, from the deck-plates to headquarters, and direct responsibility therefor. As previously noted, integration has eliminated the Reserve support structure in the field. Reserve training officers and administrative officers no longer exist. As a result, questions regarding Reserve career progression, professional development, meaningful assignments for senior Reservists (officer and enlisted), and effective advocacy for Reserve issues are not yet fully resolved. The Coast Guard active duty force must step forward and take a pro-active leadership role and direct responsibility for officer and enlisted Reservists to ensure that they are not "lost in the shuffle" as a result of integration. Finally, we are also concerned about issues such as effective advocacy, identity and continued management responsibility for the Reserve component as the Coast Guard's headquarter's structure is realigned.

PORT SECURITY UNIT REQUIREMENTS

As part of the continuing review of mission requirements, the Coast Guard must establish three additional port security units (PSU's) to meet validated war-fighting CINC requirements. This action has been coordinated with the Chairman of the Joint Chiefs of Staff and the Chief of Naval Operations and stems from war-gaming at Total Force 1993 and 1994 as well as development in several CINC deliberate planning processes.

PSU's are manned by 115 selected reservists and 2 active duty personnel. Each unit has six transportable boats, of Boston Whaler type design, with twin outboard engines, a .50 caliber machine gun forward and two M60 7.62 mm machine guns aft. These units are air deployable worldwide within 4 days' notice. The units provide waterside security of ports and high value assets and fill the security perimeter gap between the land side security force and coastal assets.

The three existing units performed critical mission-essential functions during Operation Desert Storm and during Operations Support and Uphold Democracy in Haiti. The major lessons learned from these operations are:

—The port security unit mission is logical for the Coast Guard Reserve,
—Three additional PSU's are needed to meet CINC requirements, and
—Equipment is needed to replace what has been consumed by the high tempo of operations by the three existing units and to outfit the three additional PSU's.

ROA RECOMMENDATIONS FOR FISCAL YEAR 1998 NG&RE

Coast Guard Reserve

Refurbishing existing PSU's	$4,600,000

Equipping 3 additional PSU's	9,900,000
Total Coast Guard Reserve equipment for consideration in fiscal year 1998 NG&RE	14,500,000

Unfunded equipment needs include transportable PSU boats, secure communications equipment, organizational outfitting and facility equipment, personal equipment and replacement parts.

We recommend that the fiscal year 1998 National Guard and Reserve Equipment (NG&RE) appropriation include funds for port security unit equipment for the Coast Guard Reserve.

Thank you for this opportunity to present the position of the Reserve Officers Association to this committee. I would be pleased to respond to any questions you may have at this time.

HIGHWAY-RELATED TESTIMONY

PREPARED STATEMENT OF THOMAS J. DONOHUE, PRESIDENT AND CHIEF EXECUTIVE OFFICER, AMERICAN TRUCKING ASSOCIATIONS, INC.

EXECUTIVE SUMMARY

ATA asks the Transportation and Related Agencies Subcommittee to evaluate the Federal investment in transportation and increase spending on those programs that are clearly national in scope and economic significance. Recognizing large unspent balances in the Highway Trust Fund and urgent highway needs, ATA encourages the Subcommittee to define the national interest in transportation by supporting those programs that contribute the most to interstate and international travel and commodity flows, national defense, safety, and research.

Specifically, we urge the Subcommittee to increase the Federal investment in transportation and appropriate the maximum allowable funding under current legislative conditions, or $26 billion for the Federal Highway Program. This level of funding would mark a return to the user fee principles of the Highway Trust Fund and deflate efforts to turn back the highway program to the states.

ATA does not believe that the unspent balances in the Highway Account should be allowed to accumulate at the current annual rate of 13 percent. Although over $20.2 billion was appropriated to fund the Federal Highway Program in 1997, annual revenues will reach a net $21.8 billion this year. The resulting annual unspent surplus of $1.6 billion in highway users' tax revenue represents a 13 percent annual increase and brings the total Highway Account surplus to $13.7 billion.

The importance of properly funding the NHS cannot be overstated. The NHS represents only 4 percent of the nation's total highway miles but carries 40 percent of all traffic and 75 percent of all commercial truck traffic. The core of the NHS is the Interstate system. Sadly, the FHWA finds that over 37 percent of urban Interstates and 27 percent of rural Interstates are in poor or mediocre condition. Over 24 percent of Interstate bridges are classified as deficient. A total of 115 billion vehicle miles of Urban NHS travel occurred in congested conditions in 1995. Over 50 percent of the investment requirements to maintain conditions on the NHS are needed to increase highway capacity. But investment remains 40 percent below even basic maintenance requirements. These deplorable conditions can only be remedied through funding the Federal Highway Program at the maximum allowable level of $26 billion.

U.S. economic growth and the Highway Trust Fund depend on trucking. The trucking industry is the prime mover of American freight and is four times larger than all other freight modes combined. In 1995, shippers moved 5.5 billion tons of freight by truck, spending 79 percent of their freight dollars on trucking. That $348 billion outlay represents 5 percent of gross domestic product. Furthermore, commercial trucks pay 43 percent of the Highway Trust Fund taxes. The vital role of trucking in the economy and its strong contribution to the Trust Fund, dictate that maximum allowable levels of funding be directed to the most productive programs.

I. INTRODUCTION

ATA REPRESENTS THE TRUCKING INDUSTRY

The American Trucking Associations, Inc. (ATA) is the national trade association of the trucking industry. The ATA federation includes nearly 4,200 carriers, affiliated associations in every state, and 13 specialized national associations. Together,

ATA represents every type and class of motor carrier in the country. Combined with ATA's direct membership, we are a federation of over 36,000 member trucking companies, representing an industry that employs over 9 million people. All across the country, ATA represents businesses whose survival depends upon a high quality and productive work place—the highway network.

ATA appreciates the opportunity to present testimony to the Appropriations Transportation and Related Agencies Subcommittee. We applaud the Committee for its strong commitment to good highways and for its decision to fund the Federal-aid Highway Program at the authorized level of $20.2 billion for fiscal year 1997.

However, ATA urges the Subcommittee to increase that funding to $26 billion, the maximum level allowed under current legislative conditions.[1] This is the minimum level of funding needed to improve safety, reduce congestion, maintain the roads and bridges on the National Highway System, provide for national defense, and conduct essential research. Unfortunately, it is still inadequate to deal with the costs associated with improving the system as a whole.

II. THE CORE HIGHWAY PROGRAM

In light of these urgent highway needs, ATA encourages the Subcommittee to fully fund the following core highway programs as essential to transportation goals that are national in scope and economic significance: the National Highway System including the Interstate Maintenance Program, the Federal Bridge Program, the Federal Lands Program, the FHWA Highway Safety Programs, which includes the Motor Carrier Safety Assistance Program (MCSAP), and the FHWA Highway R&D (403) Program.

A. National Highway System

ATA encourages the Subcommittee to target Federal dollars to fund the National Highway System (NHS). The NHS represents only 4 percent of the nation's total highway miles but carries 40 percent of all traffic, 80 percent of all highway tourism, and 75 percent of all commercial truck traffic. The Federal Highway Administration reported to Congress on December 9, 1993 that "the National Highway System (NHS) will serve as the backbone of a national intermodal transportation network." The NHS program addresses the problem of movement within cities—a fact reflected in that 25 percent of all NHS miles are within urban areas. Just as important, these areas must be linked together and bound to our rural and suburban areas and our NAFTA partners by a system of highways and bridges which are interconnected to the appropriate rail, airport, and port facilities.

The National Highway System is a program that maximizes the efficiency of past highway investment. In fact, only 2 percent of the NHS involves newly constructed roadways. The program calls for the maintenance, preservation, and improvement of 160,000 miles of road deemed by FHWA and the Congress as most critical in meeting America's future civil and defense transportation needs.

B. The Bridge Program

ATA supports a separate appropriation for the bridge program. Maintaining our nation's bridges is imperative for safe and efficient highway travel for both passengers and freight. A total of 11,035 bridges on the rural Interstate System are classified as deficient, as are 28,063 of the bridges on the Urban Interstate.

FHWA estimates an annual investment over the next 20 years of $5.1 billion is needed to ensure that the nation's bridges deteriorate no further. ATA encourages funding the nation's bridge program at least at the ISTEA authorized $2.76 billion annual program level.

Here in the Washington area we see the safety and congestion problems created by the old and deficient Woodrow Wilson Bridge. As the owner of the Wilson Bridge, the Federal government is responsible for providing the funds needed to replace this major link on the I–95 corridor. A total of 17,000 trucks use the Wilson bridge every day to provide groceries, petroleum, and other manufactured items to the surrounding area. Approximately 80 percent of the truck traffic on the Wilson Bridge serves communities along the I–95 corridor between Richmond and Baltimore, including Washington, DC.

If the Federal government fails to provide the necessary $1.5 billion to replace the bridge, these trucks will be diverted to other already seriously congested highways, worsening existing congestion and air pollution problems. The additional costs imposed on truckers, already operating on razor-thin profit margins, would have to be

[1] Current legislative conditions include the 4.3 cents that is diverted to the General Fund, including the Highway Trust Fund in the Unified Budget, and maintaining separate accounts for mass transit and highways.

passed on to area consumers as higher prices. The basic necessities, home heating fuel and groceries would be especially hard hit.[2]

The Federal government should honor its obligation to fully fund the Woodrow Wilson Bridge.

C. Truck Safety and Related Research

ATA supports full funding at authorized levels of the FHWA Highway Safety Programs, and the FHWA Highway R&D (403) Program as integral to the national interest in a safe, efficient, and well designed highway system. ATA continues to support the Motor Carrier Safety Assistance Program (MCSAP), especially its program of roadside inspectors.

Motor Carrier Safety Assistance Program (MCSAP)

The trucking industry has long been a strong supporter of efforts to improve highway safety and continues to promote and invest in highway safety programs. ATA fully backs funding of efforts to get to the root causes of highway safety issues. We have fully supported—and we appreciate—efforts of this Subcommittee to fund safety initiatives, such as the Motor Carrier Safety Assistance Program (MCSAP), which pays for state inspectors and roadside inspection programs. ATA applauds the Subcommittee's decision to recommend an increase in MCSAP spending to $77,425,000 in 1997 and encourages the committee to fund the MCSAP program at the maximum allowable levels for fiscal year 1998.

III. THE IMPORTANCE OF TRUCKING

A. The Trucking Industry Works to Improve Highway Safety

The trucking industry continues to work to make travel on the nation's highways safer. Truck safety has improved dramatically because thousands of trucking companies across the country have made safety a top priority. Over the 1985–95 decade, while the number of miles heavy trucks put on the road increased 41 percent, the fatal accident rate dropped 39 percent. Furthermore, 1995 police reports show that 72 percent of the fatal accidents involving a truck and a car cite the driver of the car, not the driver of the truck. Successful safety-related legislation and other initiatives we have supported include:

—creation of a single, national Commercial Driver's License, with stringent standards to test and license commercial drivers;
—a more than ten-fold increase in the number of inspections of heavy trucks;
—cost-effective drug and alcohol testing to ensure that truck drivers are free of substance abuse when they are behind the wheel;
—elimination of commercial zones in which trucks and drivers were allowed to operate without having to comply with Federal safety regulations;
—common-sense placement of reflecting tape to make trucks more visible at night;
—a ban on radar detectors in trucks; and
—rear trailer guards at a height to reduce car under-ride of truck trailers.

To make sure that the latest technical improvements are fully employed to improve truck safety, as an industry, we are investing an estimated additional $6 billion over the next ten years to equip our trucks with anti-lock brake systems.

We are prepared to do even more. For example, we are redoubling our efforts to understand and prevent safety problems:

—ATA, in partnership with the Federal government and several universities, is investing millions of dollars through the ATA Research Foundation to investigate fatigue-related questions. One of the research findings was a shortage of highway rest areas, a situation which ATA worked with Congress to address in the recent National Highway System legislation. Those safety areas are now eligible for 100 percent Federal funding.
—ATA is working with the AAA Foundation for Traffic Safety, National Association of Truck Stop Operators, and the National Private Truck Council to distribute crucial safety information and driving best practices to all highway users.
—ATA created and recently expanded the America's Road Team, a group of professional truck drivers who help teach motorists how to share the road safely with trucks. We are sponsoring 40 communications programs annually in major cities to convey highway safety education, through the local media, schools, and community groups.

[2] Safeway and Giant food chains both have distribution centers in Landover, Maryland. Closure of the Bridge would cause at least a 60 mile increase in length of haul. Home heating fuel currently delivered to southern Maryland from the pipe transfer facility in Newington, Virginia would be effected. Prices would increase due to increased length of haul and increased exposure to accidents.

B. The Trucking Industry Pays Its Fair Share in Highway-User Taxes

Commercial trucks will pay an estimated $11.1 billion in Federal highway user taxes, or 43 percent of all revenue to be paid into the Federal Highway Trust Fund, although trucks account for only 15 percent of all motor vehicle miles traveled. Commercial trucks will pay $21 billion in combined Federal and state highway user taxes this year. Per gallon, the Federal diesel fuel tax is 24.3 cents and the average state diesel fuel tax is 20.53 cents, as of January 1, 1997.

Fuel costs account for anywhere from 4 percent to 20 percent of a trucking company's operating revenue, depending on the nature of the company's vehicles, customers, and length of haul. Trucking companies operate on razor-thin profit margins: reports show an average 2.08 percent profit margin in 1995. For example, a truck with 40,000 lbs. of cargo typically would be paid by the shipper about $600 to move the cargo 500 miles. The company would pay $20.25 in Federal diesel fuel tax alone—and earn a profit of $12.00 on the shipment.[3]

Failure to spend Highway Trust Fund revenues to improve roads and bridges increases trucking operating costs (fuel and vehicle replacement) and makes it harder for trucking companies to provide the timely and reliable service U.S. manufacturing industries require in today's "just-in-time" inventory systems, which improve productivity and sustain jobs.

But moneys from the Highway Trust Fund have been increasingly siphoned off for non-highway purposes. In addition, 4.3 cents of the Federal fuel tax is deposited into the general fund, for an estimated revenue loss to the Highway Trust Fund of more than $6 billion per year.

C. The Trucking Industry Plays a Vital Role in the U.S. Economy

Trucking is vital to the American economy. The trucking industry is the prime mover of American freight and is nearly 4 times larger than all other transportation modes combined. In 1995, shippers moved 5.5 billion tons of freight by truck, spending 79 percent,[4] or $348 billion of their total $441 billion freight dollars on trucking. This $348 billion represents 5 percent of Gross Domestic Product (GDP). And we're growing. By the year 2004, truckers will drive 29 percent more miles while adding 14 percent more heavy vehicles to haul the nation's freight.

Trucking firms employ over 9 million people and provide 1 out of 14 civilian jobs. And these are good jobs—with the potential to earn good wages. Truck drivers earn an average annual salary of $35,000 with additional benefits that bring average total compensation to $45,000, greater than the national average salary.[5]

1. U.S. Economic and Industrial Growth Depend on Reliable Trucking

The U.S. economy grows when industry is more productive. And industry is more productive when highways, especially the National Highway System (NHS), allow trucks to deliver their products in a timely and reliable manner.[6] That's why recent research funded by the Federal Highway Administration (FHWA) shows a strong link between carefully targeted highway investment and economic prosperity. In fact, each dollar invested in the NHS allows industry to reduce its production costs by 24 cents. And, between 1980 and 1989, 8 percent of all U.S. annual productivity growth is attributed to highway investment.[7]

The chart below shows that economic prosperity, measured as increased GNP, and industrial productivity depend on trucking.[8]

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[3] Class 7–8 trucks average 6 miles per gallon. This trip would consume 83.3 gallons of fuel at .243 cents Federal diesel fuel tax per gallon.

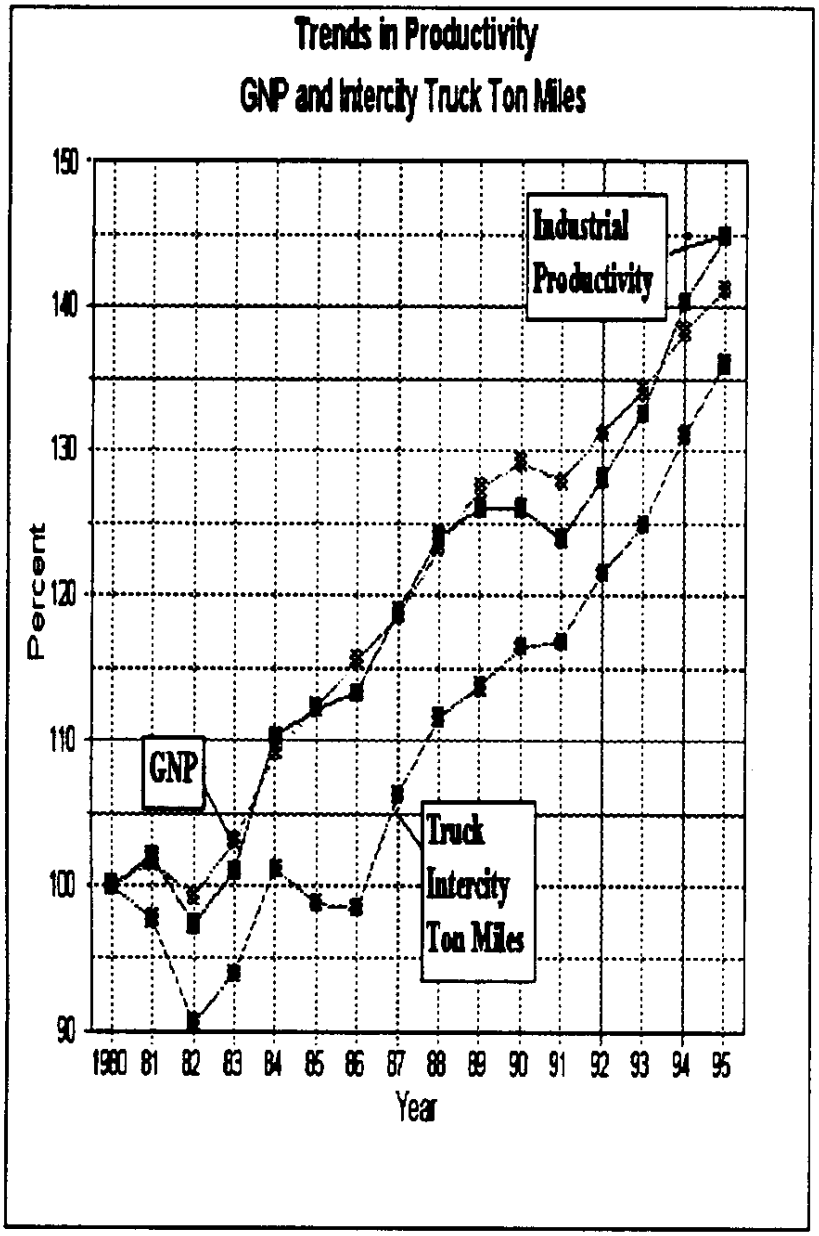
[4] *Transportation in America,* The Eno Transportation Foundation, Inc., 1996. p. 9.

[5] Ibid. p. 23.

[6] *Measuring the Relationship Between Freight Transportation Services and Industry Productivity,* Hickling Lewis and Brod Inc., NCHRP (2–17(4), The National Academy of Science, April 1994. p. b–7.

[7] *Highway Capital and Productivity Growth, Nadiri, M. Ishad and Theofanis Mamuneous, 1996.*

[8] Data for this Chart is complied from *Transportation in America,* The Eno Foundation, Inc., 1996, pp. 38 and 39, Tables: *Transportation Outlays and the Gross National Product, and National Economic and Transport Trends.*



Industry has substituted fast and reliable truck services for other factors of production to reduce costs and the results are increases in industrial productivity and economic prosperity.

Highway investment improves industrial productivity because better highways let trucks deliver goods on more timely and reliable schedules. Improved delivery schedules allow firms to restructure and reduce the number and size of their ware-

houses along with their associated labor costs. These changes allow industry to reduce production costs 24 cents for every $1 invested in the NHS.[9]

Because timely and reliable truck services improve industrial productivity, U.S. firms are able to maintain a competitive edge over countries that compete in global markets on the basis of low wages.

2. Timely and Reliable Trucking Becomes "Moving Warehouse" for Industry

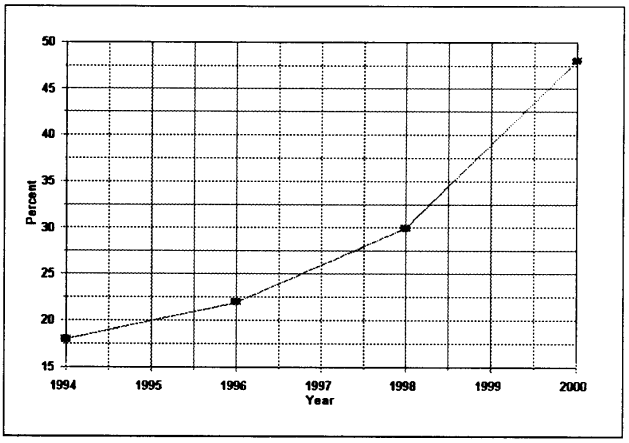
Trucking has become a "moving warehouse" for industry, allowing businesses to cut inventory costs and to respond immediately to changes in consumer demand. Timely and reliable trucking provides easy access to world-wide markets, allowing industry to save more when purchasing raw materials and to increase market share by selling more goods at lower prices.

U.S. industry will continue to press for more efficient delivery systems in production and distribution. In 1994, 18 percent of total shipments were "Quick Response" and "Just-In-Time" (JIT). By 2000, nearly half of all shipments will fall under these categories.

Use of "Just-In-Time" and "Quick Response" truck delivery as a percentage of total shipments[10]

Year-Percent

1994-18%
1996-22%
1998-30%
2000-48%



3. Trucking is Essential to Emerging Industries

To continue to grow, the U.S. needs to capture emerging industries. Emerging industries include microelectronics, biotechnology, material sciences, telecommunications, computers, civilian aircraft, and machine tools and robotics. These "brain powered" emerging industries depend even more on efficient trucking than established industries—and they can locate anywhere on the globe. But, emerging industries will choose to locate in those countries with, among other things, the superior highway systems that enable timely and reliable truck services so essential to competing effectively in global markets.

4. Trucking Vital to the U.S. Economy and the Highway Trust Fund

It is clear, therefore, that timely and reliable trucking is vital to current and future economic growth and productivity, and that the trucking industry pays its fair share of user fees into the Highway Trust Fund. Further, failure to spend Highway Trust Fund revenues on urgent highway needs can only result in less efficient trucking and economy-wide productivity losses which result in lower wages and reduced quality of life.

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[9] Nadiri and Hickling Lewis and Brod Inc.

[10] Bernard J. LaLonde, Professor Emeritus, Ohio State University. Published in *Traffic World,* September 23, 1996. p. 49.

IV. FEDERAL FUNDING IS NOT SUFFICIENT

A. Current Highway Conditions

Unfortunately, the current Federal investment in highways is not even sufficient to keep up with the transportation needs of existing or emerging industries. The Federal Highway Administration (FHWA) estimates that an annual capital investment of $50 billion from all levels of government is required just to keep the system from further deterioration. Last year, all levels of government provided $30 billion in highway capital investment. The shortfall in funding has resulted in the following:

—Over 37 percent of Urban Interstates and 27 percent of Rural Interstates are in poor or mediocre condition.[11] (Poor conditions require immediate improvement and mediocre require improvement in the near future.)

—Some 13,000 bridges, or over 24 percent of the bridges on the Interstate system are classified as deficient.[12] Twenty-eight percent of the bridges on all other arterial highway systems are deficient.

—A total of 115 billion vehicle miles of Urban NHS travel occurred in congested conditions in 1995.[13] The costs of congestion, not including lost productivity, has reached $50 billion[14] in the 50 metropolitan areas where highway congestion is the worst.

B. Safety is Suffering on the NHS

The shortfall in Federal highway investment limits states' ability to make the roadway improvements needed to increase safe driving conditions on the NHS. The importance of safe driving conditions on these highways is underscored by the fact that Americans traveled over 1.04 trillion vehicle miles on the NHS in 1995.[15]

FHWA 1995 crash statistics confirm this concern. On the Interstate, there are .73 fatalities per 100 million vehicle miles traveled. But on the NHS, there are 1.16 fatalities per 100 million vehicle miles traveled, or a 59 percent increase in the fatality rate. And on NHS miles off the Interstate, the fatality rate jumps to 1.74 per 100 million vehicle miles traveled, or 138 percent higher than on Interstate miles. The fatality rate on NHS miles off the Interstate increased a full 18 percent from 1994 to 1995, from 1.48 to 1.74 per 100 million vehicle miles traveled.[16]

This is a sad reminder of the life-threatening effects of failing to fully invest in the National Highway System.

Unsafe conditions can be improved by increasing the Federal investment in the NHS. In fact, improved roadway characteristics such as 12-foot lanes and ample shoulders, gentler curves, and improved median barriers can significantly reduce the number and severity of highway accidents.[17] A 1995 study estimates that full funding of the NHS over a 10-year period would prevent 720 fatal crashes, 55,000 personal injury crashes, and 120,000 property damage crashes, for an annual societal saving of $800 million.[18]

The safety impact of fully funding the NHS becomes more clear when one considers that over 43 percent of the NHS is comprised of two-lane roads, often with no median separation to prevent head-on collisions. Two-lane roads are more prevalent on NHS mileage off the Interstate, where the fatal accident rate is high and increasing rapidly *(See above).*

Recent research shows that adequate lane width, wide shoulders, and clear zones provide motorists with the critical space they need to recover the control of a vehicle in an emergency situation. But these features are inadequate or nonexistent on the NHS two-lane roads. In fact, two-lane roads on the NHS are characterized by tight curves with few warning signs and poor visibility to alert motorists before it is too late to slow down and change direction.

C. The Administration Claims Highway Congestion has Stabilized

Deputy Secretary of Transportation Mortimer Downey claimed that highway system performance, measured by peak hour congestion, "has stabilized" when he pre-

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[11] *FHWA Highway Statistics,* 1995, Table HM–64.

[12] *FHWA 1995 Conditions and Performance Report,* p. 132.

[13] *FHWA Highway Statistics,* 1995, Chart-page v–67, and Table HM 14.

[14] *Urban Roadway Congestion—1982–1993, Volume 1: Annual Report,* David Shrank and Timothy Lomax, Texas Transportation Institute, Texas A&M University, August 1996. p. 62.

[15] *FHWA Highway Statistics,* 1995, Table VM–3.

[16] *FHWA Highway Statistics,* 1994 and 1995, Table FI–1.

[17] *Effects of Highway Standards on Safety,* McGee, H.W., W.E. Hughes, and K. Dailey, Final Report to National Cooperative Research Program, Project 17–9. Dec. 1994.

[18] *Safety Effects Resulting from Approval of the National Highway System,* AAA Foundation for Traffic Safety, Bellomo-McGee, Inc., July 1995.

sented the Administration's Fiscal Year 1998 Transportation Budget.[19] This "improvement" was used to support the Administration's budget, which would hold the Federal investment in highways at fiscal year 1997 levels through 2002.

But, there are two measures of congestion. The Deputy Secretary was referring to volume to service flow ratios. In fact, the volume to service flow ratio has stabilized because highways, especially the Urban NHS, have reached full capacity during peak periods of congestion, or a volume to service flow ratio greater than .8, the top of the scale. But by this measurement, things can't get any worse.[20]

A second measure of congestion, the average daily vehicles per lane (AADT), gives a more complete picture. AADT measures the severity and the duration of congestion. By this measure, peak period congestion continues to get worse. In fact, at current AADT levels, non-recurring congestion, or incident-induced congestion, increases more rapidly than recurring congestion.[21] This is important to highlight because not only does increased non-recurring congestion seriously reduce safety on the nation's highways, but non-recurring congestion also makes it very difficult for truckers to make "Just-In-Time" and "Quick-Response" deliveries. Reduced truck reliability erodes the productivity gains made possible by previous highway investments.

D. Congestion Increases on the Urban NHS

The severity and duration of congestion on the Urban NHS is getting worse.

Average daily vehicles per lane Increased from 12.8 to 13.1 million vehicles from 1994 to 1995, an increase of about 2.3 percent.[22] (*See chart below.*) At this level of use, highway capacity is decreased to the point where any disruption will bring traffic to a standstill. This is termed non-recurring congestion.

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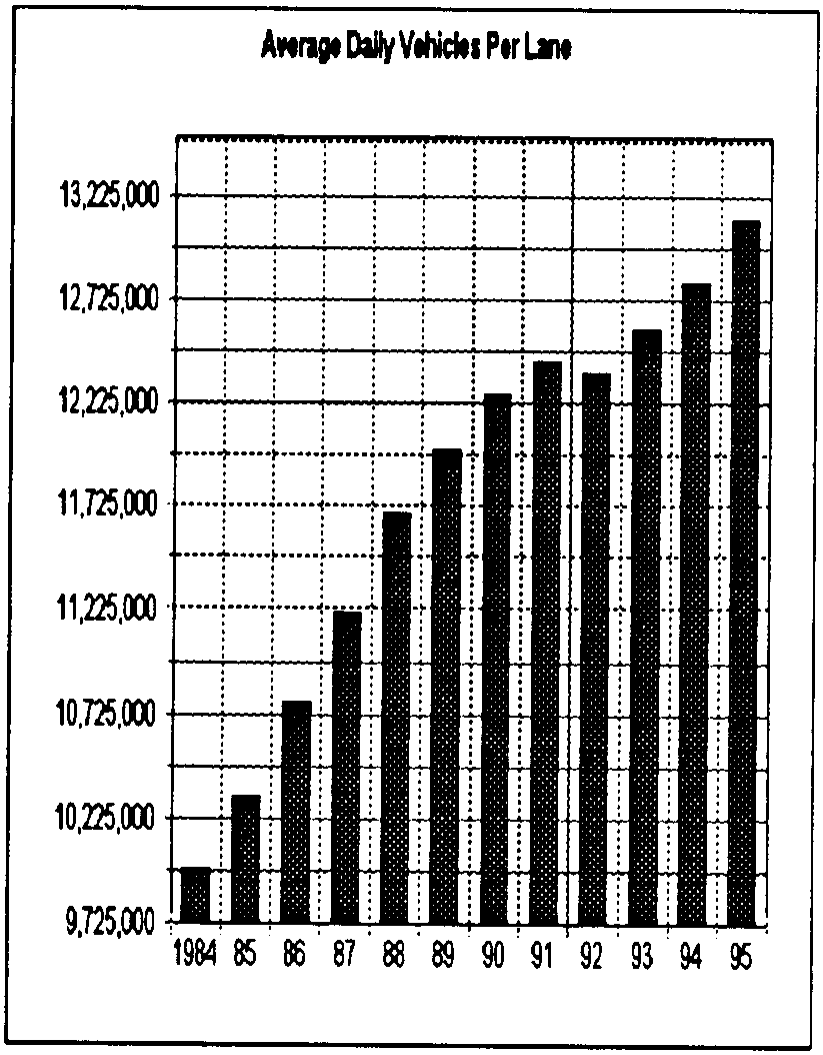
[19] *Remarks Prepared for Delivery, Fiscal Year 1998 Budget Presentation,* U.S. DOT. Office of the Secretary. p. 2.

[20] *Urban Roadway Congestion—1982–1993, Volume 1: Annual Report,* David Shrank and Timothy Lomax, Texas Transportation Institute, Texas A&M, August 1996. Introduction.

[21] FHWA, Office of Policy Development, Highway Needs and Investment Branch, Division Chief, phone number 1–202–366–9208.

[22] *FHWA Highway Statistics,* 1995, p. V–67.



Travel on the Urban NHS increased 3 percent from 1994 to 1995,[23] measured in vehicle miles traveled, or at about the same rate as congestion. This indicates that highway capacity is not keeping up with the additional truck trips required to sustain growing businesses.

1. Capacity Requirements on the Urban NHS

The Urban NHS, the metropolitan component of the major trade routes deemed by Congress as essential to continued growth and economic prosperity, does not have sufficient capacity to support that growth.

The need to improve capacity accounts for over 50 percent of the investment needs identified by FHWA to maintain the urban NHS at current conditions.[24]

[23] *FHWA Highway Statistics,* 1994 and 1995, Table VM–1.
[24] *FHWA 1995 Conditions and Performance Report,* p. 175.

2. True Costs of Congestion Include Lost Productivity

Texas Transportation Institute (TTI) at Texas A&M University reports that the costs of congestion for the 50 urban areas studied was approximately $50 billion in 1993, up $7 billion from 1990. (*See appendix.*) These are the latest figures available. TTI includes only wasted fuel and driver time in its calculation.

But, traffic congestion and bottlenecks on major trade routes serving large metropolitan areas not only impose delays on local commuters and regional freight, it also interferes with the timely and reliable cargo movement essential to increase industrial productivity and enhance global competitiveness.

ATA believes that the true cost of congestion includes reduced safety and additional loss of life in highway accidents. Add to this reduced industrial productivity, which will limit future economic growth and prosperity, and the critical nature of the problem is clear.

V. ATA RECOGNIZES SERIOUS FUNDING CONSTRAINTS

The American Trucking Associations supports well-targeted investment in the nation's infrastructure. ATA also recognizes serious funding pressures that constrain all federal discretionary spending. In light of these conflicting considerations, ATA encourages the Subcommittee to set two priorities when considering the Federal Highway Program.

A. Spend Highway Trust Fund Annual Incoming Revenues

First, ATA encourages the Subcommittee to spend annual incoming revenues to the Highway Trust Fund. Last year, although $20.2 billion was appropriated for the Federal Highway Program for fiscal 1997, the Treasury Department's Mid-Session Review estimates that a net $21.8 billion in fuel and vehicle use taxes will be deposited in the Highway Account of the Highway Trust Fund.

The resulting annual surplus of $1.6 billion will increase the total surplus in the Highway Account to $13.7 billion in 1998. This represents a 13 percent increase over the $12.1 billion 1997 Highway Account surplus. ATA believes that annual revenue into the Highway Account should be spent to build better roads and bridges.

ATA encourages the Subcommittee to fund the Title I Federal Highway Program at the maximum level allowable under current conditions,[25] or $26 billion. ATA supports this level of funding as the Federal share of funding essential to provide for the maintenance and improvement of the highways necessary to move people and goods safely into the 21st century.

B. Programs that are National in Scope and Economic Significance Take Priority

Second, funding for basic highway programs that are clearly national in scope and economic significance should take priority. For this reason, ATA urges the Subcommittee to target increased funds to the Core Highway Program.

VI. CONCLUSION

ATA urges Congress to provide the Department of Transportation with the maximum levels of funding allowable under current legislative conditions to maintain the nation's highway system, or $26 billion. The inevitable funding shortfall between actual funding and investment requirements just to maintain the system at current conditions requires the Congress to target Federal investment to those programs that are clearly national in scope and economic significance. That shortfall argues strongly against diverting funds from the Highway Account of the Highway Trust Fund to other transportation purposes or not fully spending annual revenues.

More than 42,000 people die each year on our nation's highway—the equivalent of a Valujet crash each day. To reduce this carnage, we need to invest in better highways.

American industry, and the associated jobs, depends more than ever on reliable, efficient, and timely freight movement. ATA encourages the Congress to prioritize Federal investment in the nation's surface transportation program and consider the urgent funding needs reported by FHWA to maintain the nation's highways and bridges. By investing in the NHS, Congress will ensure that the nation's infrastructure is able to support a growing economy and a growing population into the 21st century.

ATA urges the Congress to continue funding Federal safety and research programs as integral to a well-balanced national transportation program.

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[25] Current conditions include a diversion of 4.3 cents of the Federal fuel tax to the General Fund, including the Highway Trust Fund in the Unitary Budget, and providing separate accounts for mass transit and highways.

ATA thanks the Subcommittee for the opportunity to present our testimony.

APPENDIX

TOTAL CONGESTION COSTS BY URBAN AREA FOR 1993 [1]

[Millions of dollars]

Urban area	Cost	Rank
Los Angeles, CA	8,530	1
New York, NY	7,600	2
San Fran-Oak, CA	2,980	3
Chicago, IL	2,800	4
Washington, DC	2,790	5
Detroit, MI	2,340	6
Houston, TX	1,920	7
Boston, MA	1,560	8
Atlanta, GA	1,360	9
Seattle, WA	1,350	10
Philadelphia, PA	1,310	11
Dallas, TX	1,240	12
Miami, FL	1,090	13
San Berno-Riv, CA	1,040	14
Phoenix, AX	880	15
San Jose, CA	880	16
San Diego, CA	770	17
Denver, CO	750	18
Baltimore, MD	730	19
St. Louis, MO	640	20
Pittsburgh, PA	560	21
Fort Worth, TX	530	22
Minn-St. Paul, MN	510	23
Portland, OR	420	24
Sacramento, CA	380	25
Ft. Lauderdale, FL	380	26
San Antonio, TX	360	27
Cleveland, OH	320	28
Norfolk, VA	320	29
Honolulu, HI	310	30
Jacksonville, FL	300	31
New Orleans, LA	300	32
Cincinnati, OH	280	33
Austin, TX	270	34
Columbus, OH	240	35
Orlando, FL	230	36
Milwaukee, WI	220	37
Tampa, FL	220	38
Kansas City, MO	210	39
Hartford, CT	200	40
Nashville, TN	170	41
Charlotte, NC	160	42
Louisville, KY	150	43
Indianapolis, IN	130	44
Albuquerque, NM	130	45
Memphis, TN	130	46
Oklahoma, OK	130	47
Salt Lake City	120	48

TOTAL CONGESTION COSTS BY URBAN AREA FOR 1993 [1]—Continued

[Millions of dollars]

Urban area	Cost	Rank
El Paso, TX	60	49
Corpus Christi	20	50

Total Costs of Congestion in these Fifty Urban Areas: $50 billion.

[1] "Urban Roadway Congestion—1982–1993, Volume 1: Armual Report," David Shrank and Timothy Lomax, Texas Transportation Institute, Texas A&M University, August 1996, p. 62.

PREPARED STATEMENT OF MICHAEL P. KENNY, EXECUTIVE OFFICER, CALIFORNIA AIR RESOURCES BOARD, ET AL., CALIFORNIA INDUSTRY AND GOVERNMENT COALITION

Mr. Chairman and Members of the Subcommittee: On behalf of the California Industry and Government Coalition on PM–10/PM–2.5, we are pleased to submit this statement for the record in support of our fiscal year 1998 funding request of $100,000 for the California Regional PM–10/PM–2.5 Air Quality Study.

The San Joaquin Valley of California and surrounding regions exceed both state and federal clean air standards for small particulate matter, designated PM–10/PM–2.5. The 1990 federal Clean Air Act Amendments require these areas to attain federal PM–10/PM–2.5 standards by December 31, 2001, and the proposed PM–2.5 standards by mid-2003. Attainment of these standards requires effective and equitable distribution of pollution controls that cannot be determined without a major study of this issue.

According to EPA and the California Air Resources Board, existing research data show that air quality caused by the PM–10/PM–2.5 problem has the potential to threaten the health of more than 3 million people living in the region, reduce visibility, and impact negatively on the quality of life. Unless the causes, effects and problems associated with PM–10/PM–2.5 are better addressed and understood, many industries will suffer due to production and transportation problems, diminishing natural resources, and increasing costs of fighting a problem that begs for a soundly researched solution.

PM–10/PM–2.5 problems stem from a variety of industry and other sources, and they are a significant problem in the areas that are characteristic of much of California. Typical PM–10/PM–2.5 sources are dust stirred up by vehicles on unpaved roads, unpaved shoulders and dirt loosened and carried by wind during cultivation of agricultural land. Soil erosion through wind and other agents also leads to aggravation of PM–10/PM–2.5 air pollution problems. Chemical transformations of gaseous precursors are also a significant contributor to PM–2.5, as are combustion sources.

The importance of this study on PM–10/PM–2.5 is underscored by the need for more information on how the federal Clean Air Act Amendments standards can be met effectively by the business community, as well as by agencies of federal, state and local government whose activities contribute to the problem, and who are subject to the requirements of Title V of the Clean Air Act. There is a void in our current understanding of the amount and impact each source of PM–10/PM–2.5 actually contributes to the overall problem. Without a better understanding and more information—which this study would provide—industry and government will be unable to develop an effective attainment plain and control measures.

This research has direct applications to the Department of Transportation. Specifically, Federal Highway Administration research funds are available through Caltrans for a number of targeted proposals under discussion by officials of both Caltrans and the California Air Resources Board. Included among the priority research topics are:

1. Analysis of methodologies for estimating emissions of PM–10/PM–2.5 from California roadways; Significant emphasis on characterizing emissions from unpaved shoulders due to large amounts of heavy duty vehicle traffic through Central California, which is necessary to support California's economy;
2. Characterization of the sources and composition of PM–10/PM–2.5 emissions from roadway construction;
3. Tunnel study; and
4. Characterization of heavy duty truck activity.

These studies will explore the effects of roadway construction and use on ambient PM–10/PM–2.5 levels. Other proposals under review would address problems with

unpaved road shoulders, roadway dust mitigation strategies and assessment of heavy duty truck travel patterns. Currently available data and other PM–10/PM–2.5 research efforts do not adequately address transportation concerns, so DOT support of this targeted research is essential.

California industry wants to be a part of the effort to solve this major problem, but to do so, we need federal assistance to support research and efforts to deal effectively with what is essentially an unfunded federal mandate.

Numerous industries, in concert with the State of California and local governmental entities, are attempting to do our part, and we come to the appropriations process to request assistance in obtaining a fair federal share of financial support for this important research effort. In 1990, our Coalition joined forces to undertake a study essential to the development of an effective attainment plan and effective control measures for the San Joaquin Valley of California. This unique cooperative partnership involving federal, state and local government, as well as private industry, has raised more than $14 million to date to fund research and planning for a comprehensive PM–10/PM–2.5 air quality study. Our cooperative effort on this issue continues, and our hope is that private industry, federal, state and local governments will be able to raise an additional $13 million over the next three years to fund this important study.

The following is a list of PM–10/PM–2.5 research projects which are in progress:

—*Planning.*—Development of protocols for emissions, field monitoring, data analysis and modeling.

—*Technical support studies.*—Suitability of data base; 1995 Integrated Monitoring study; micrometeorological parameters; fog formation/dissipation; ammonia from soils.

—*Modeling.*—Demonstration of modeling system for application in SIP's.

—*Data analysis.*—Analysis of existing data to aid project planning.

—*Demonstration studies.*—Almond, fig, walnut, cotton, harvesting; unpaved agricultural roads; unpaved public roads; unpaved shoulders of paved roads; dairies, feedlots, poultry, dry cereal grain.

For fiscal year 1998, our Coalition is seeking $100,000 in federal funding through the U.S. Department of Transportation to support continuation of this vital study in California. We respectfully request that the Appropriations Subcommittee on Transportation provide this additional amount in the DOT appropriation for fiscal year 1998, and that report language be included directing the full amount for California.

The California Regional PM–10/PM–2.5 air quality study will not only provide vital information for a region identified as having particularly acute PM–10/PM–2.5 problems, it will also serve as a model for other regions of the country that are experiencing similar problems. The results of this study will provide improved methods and tools for air quality monitoring, emission estimations, and effective control strategies nationwide.

The Coalition appreciates the Subcommittee's consideration of this request for a fiscal year 1998 appropriation of $100,000 for DOT to support the California Regional PM–10/PM–2.5 Air Quality Study.

PREPARED STATEMENT OF WAYNE SHACKELFORD, COMMISSIONER, GEORGIA DEPARTMENT OF TRANSPORTATION

Mr. Chairman, Members of the Committee, I am Wayne Shackelford, Commissioner of the Georgia Department of Transportation. Thank you for the opportunity to present our appropriations request for the Sidney Lanier Bridge, located in Brunswick, Georgia, and share with you our concern about an undertaking that is crucial to both maritime and highway safety in Georgia, as well as the economic future of our region and nation.

As you will recall, last year I came before this committee and requested your attention on the Sidney Lanier Bridge replacement at the Post of Brunswick in Glynn County, Georgia. At that time, I pointed out ten people were killed when a ship struck the Sidney Lanier Bridge in 1972, and that an eleventh life was lost during bridge repair work following another incident in 1987.

I also reminded you that I was directed by Congress in the 1990 Coast Guard Omnibus Bill to remove this bridge. The Commandant of the Coast Guard issued an order directing the state to alter the bridge by reconstructing it on the same general alignment.

Under the provisions of the Transportation Appropriations Acts of fiscal year 1992, 1993, 1994, 1995, 1996, and 1997 Georgia has received $28.75 million in federal appropriations to begin removal and replacement of the bridge. The State of

Georgia has matched this appropriation with $28.75 million, demonstrating our commitment.

Under the direction of the Coast Guard, these funds have been used to advance the engineering and design for a new high level, fixed span bridge that will remove the threat to public safety and provide the navigation clearance necessary for the Port of Brunswick to remain competitive in the rapidly changing global economy.

With replacement of the bridge and other planned port improvements, the port will be capable of expanding services and competing internationally. The Port of Brunswick is located in a region of the United States that has the potential to benefit from both NAFTA and GATT. Already, the Port of Brunswick is exporting automobiles manufactured by the General Motors Saturn Division and lumber products for varied uses around the world.

The Port of Brunswick is an economic generator for the southeastern region of the United States. The Port created over $188 million in business income in fiscal year 1996. The Port also generated $971 million in sales revenue for Georgia and is directly responsible for over 8,400 jobs statewide.

Georgia's congressional delegation has requested $27.95 million in federal funds for fiscal year 1998 to advance the replacement of the Sidney Lanier Bridge. This will allow us to proceed on schedule with the funding requirements for the main span, and pier protection for the replacement bridge.

This request represents the 50 percent federal share provided for in Section 302 of the Coast Guard Omnibus Act of 1990. Mr. Chairman, we ask that funding continue to be provided under the Coast Guard appropriation, and that the Coast Guard continue to be the federal manager.

Our deepwater ports at Savannah and Brunswick are a valuable asset for Georgia, and benefit the entire nation in the global economy we must now operate in. We urgently request your help in getting the maximum benefit from them for our state and the nation.

The attached "Transportation Evaluation Criteria" provides additional detail on the design, construction, and funding requirements for the Sidney Lanier Bridge.

Thank you.

TRANSPORTATION EVALUATION CRITERIA—SIDNEY LANIER BRIDGE, BRUNSWICK, GA

Criteria 1—Primary Congressional District: 1

Congressman: The Honorable Jack Kingston, The U.S. House of Representatives

Criteria 2—Primary Implementation Responsibility:

Georgia Department of Transportation, No. 2 Capitol Square, Atlanta, GA 30334

Criteria 3—Project Eligibility:

Congress designated this bridge as an unreasonable hazard to navigation in the 1990 Coast Guard bill, and called for its replacement under the Truman-Hobbs Act. The roadway and bridge are functionally classified as a Principal Arterial making the project eligible for federal funds. The project is also on the National Highway System.

Criteria 4—Design, scope and objectives of the project:

The principal objective of the Sidney Lanier Bridge Replacement is to provide the transportation infrastructure that will result in the safe and efficient movement of people and goods throughout the US 17 corridor. Providing a high-level fixed-span bridge replacement can achieve this by removing the potential for bridge/ship collisions that continue to expose motorists and endanger lives.

The Sidney Lanier Bridge Replacement project consists of several phases:

(1) MLP–25(66)—US 17/SR 25—Preliminary Engineering and Design

(2) RWMLP–25(66)—US 17/SR 25—Right-of-way Acquisition

(3) MLP–25(66)—US 17/SR 25—Construction of Roadway and Approaches for Sidney Lanier Bridge Replacement. (See the attached location map)

(4) CG–009–2(4)—US 17/SR 25—Sidney Lanier Bridge Approaches Construction Engineering and Inspection

(5) CG–009–2(1)—US 17/SR 25—Construction of Main Span of High Level Sidney Lanier Replacement Bridge and removal of existing bridge. (See the attached location map)

(6) CG–009–2(3)—US 17 /SR 25—Sidney Lanier Bridge Main Span Construction Engineering and Inspection

(7) CG–009–2(2)—US 17 /SR 25—Removal of the Old Sidney Lanier Bridge.

The composite of these phases will replace the obsolete Sidney Lanier Bridge across the Turtle River in Brunswick.

Beginning at the Jekyll Island Causeway (SR 520), the project will extend approximately 2700′ north of the existing bridge. The replacement structure will be a new high-level bridge on the east, or downstream side, of the present lift-span bridge. The total project length will be approximately 1.8 miles. Estimated base year traffic (1996) is 12,500 ADT, with design year traffic (2016) projected to be 18,000 ADT. The posted speed limit is 55 mph.

The existing bridge provides a width of 55′ and a vertical clearance of 18′ for the roadway. Horizontal clearance under the bridge for shipping is 250′ and vertical clearance for ships is only 139′. The present bridge is 4,471′ long with a sufficiency rating of 54.0 out of a possible 100.

The proposed typical section for the approaches will include two, 12′ lanes in each direction with a raised median that varies from 6.5′ to 20′ in width. Design speed will be 55 MPH. The cable-stayed bridge will provide two, 12′ lanes in each direction, with 8′ outside shoulders and 2′ inside shoulders, with a median barrier. Both concrete and steel design alternates will be considered for the cable-stayed portion of this bridge. Traffic will be maintained across the existing bridge during construction.

The Sidney Lanier Bridge Replacement Project is a large scale replacement project designed to remove a serious threat to public safety. The principal objective of this project is to replace an obsolete liftspan bridge that poses an extreme hazard to navigation and to highway motorists. Ships have hit the Sidney Lanier Bridge twice in the past twenty-two years, and ten lives have been lost because of these collisions.

The new high-level bridge will provide a minimum of 185′ vertical clearance and 1,038′ of horizontal clearance for shipping, which will allow the development of a major container port in Brunswick. The 1,038′ of horizontal clearance will also allow widening the Turtle River to a proposed 400′ channel width with a 45′ channel depth. The new bridge will improve safety for shipping and vehicular traffic.

Criteria 5—Total Project Cost and Source of Funding:

Estimated design, engineering, rights-of-way and construction costs are $98.2 million. Adding contingencies brings the total estimated cost to $108 million. The total estimated annual life-cycle costs for a high-level fixed-span bridge are $20,000 in the early years, increasing to $70,000 per year in the final years, with periodic maintenance of $335,000 every ten years. For a fifty-year life-cycle, the estimated annual maintenance cost is $78,500 per year. Funding for the annual maintenance expenses of the bridge will be 100 percent state funds. Private sector funding is not available for this project.

TABLE 1.—*Completion costs*

Phase	*Total*
Preliminary engineering and design	$4,183,035
Right-of-way	100,000
Bridge approaches	18,884,886
Construction engineering	5,700,000
Main span and pier protection	65,475,129
Final construction—Including the removal of existing bridge	8,749,979
Contingencies (10 percent)	10,309,303
Total	113,402,332
Less previous Federal appropriations (see question No. 14)	−28,750,000
Less previous State appropriations	−28,750,000
Balance	55,902,332
Federal authorization requested (50 percent)	27,951,166

TABLE 2.—FUNDING PHASES

Phase	Fiscal year	Total	Federal	State
Preliminary engineering	1992–93	$100,000	$50,000	$50,000
Design	1994–95	4,083,035	2,041,518	2,041,518
Right-of-way	1995	100,000	50,000	50,000
Bridge approaches	1995	18,884,886	9,442,443	9,442,443
Construction engineering	1996	5,700,000	2,850,000	2,850,000
Main span and pier protection	1997	65,475,129	32,737,565	32,737,565

TABLE 2.—FUNDING PHASES—Continued

Phase	Fiscal year	Total	Federal	State
Final construction—Including removal of existing bridge	1998	8,749,979	4,374,990	4,374,990
Contingencies		10,309,303	5,154,652	5,154,652
Totals		113,402,303	56,701,166	56,701,166

Criteria 6—Obligation Schedule for Next Five Years:

All phases of the project are expected to be complete over the next five years. Therefore, the full authorization request of $27,951,166 is expected to be obligated during this period.

Criteria 7—Proposed Schedule and Current Status:

TABLE 3.—PROJECT STATUS

Phase	Fiscal year	Status
Design and right-of-way	1992–93	Complete.
Environmental	1993	Complete.
Bridge approaches	1995	Underway.
Main span and pier protection	1997	Underway.
Construction engineering and inspection	1996–98	Underway.
Final construction—Including removal of existing bridge	1998	

Preliminary engineering is complete. The Project Concept Report was approved in March 1992. Design of the bridge approaches was completed in 1994. The project environmental impact statement was approved in November 1992 and the Section 404 permit has been approved. Construction on the new roadway and approaches is underway. The State awarded a contract for construction of the main span in January 1997.

Criteria 8—Metropolitan and/or State Transportation Improvement Plan and Funding Schedule:

The Brunswick Metropolitan Transportation Improvement Program and the State Transportation Improvement Program (STIP) both include the main span and bridge approach projects. (See attachments)

Criteria 9—Support by State and/or Regional Transportation Officials:

Ten lives have been lost in the past twenty-one years because of ship/bridge collisions. Following a 1987 accident, the Georgia Department of Transportation began urgently seeking funding to remedy this hazardous situation. Receiving funds is critical so that construction of the main span and removal of the old bridge can continue on schedule. The Brunswick Metropolitan Transportation Plan and Georgia's Statewide Plan include the Sidney Lanier Bridge project. Georgia Ports Authority expansion plans also include the replacement bridge.

Criteria 10—National/Regional Significance:

The Coast Guard declared the bridge an unreasonable hazard to navigation in 1990. US 17 is designated as a National Highway System (NHS) route. US 17 serves as an emergency alternative route for I–95 and is a major linkage between the Brunswick area and the surrounding coastal region. US 17 is significant to regional freight movement because it provides a direct linkage to the Georgia Ports Authority's Brunswick facilities.

Criteria 11—Environmental opposition, obstacles or concerns:

No significant opposition has been encountered, nor is it expected. A project environmental impact statement was completed and approved November 1992. The project has received strong support from local governments. The Brunswick Metropolitan Transportation Improvement Program and the State Transportation Improvement Program (STIP) both include the main span and bridge approach projects. Construction for the roadway and bridge approaches is underway. The State has awarded a contract for the construction of the main span.

Criteria 12—Economic, energy efficiency, environmental, congestion mitigation and safety benefits:

Economic.—With replacement of the bridge and deepening of the channel, it is estimated that sales revenues will increase by $464 million annually; personal income will increase by $107 million annually; tax revenues will increase by $15.8 million annually; and jobs will increase by 1,100 by the year 2010.

The value of increased tonnage into the Port of Brunswick by the year 2010 is estimated at $183,000,000 in 1991 dollars.

Energy Efficiency.—Current conditions on the Sidney Lanier Bridge are a 50 mile per hour speed limit with approximately 120 minutes of delay over a twenty-four hour period due to the raising and lowering of the bridge. Current estimated average annual daily traffic (AADT) is 9,100 vehicles per day. Approximately 455 vehicles traverse the bridge during peak hours. At this rate, the delays caused by the raising and lowering of the bridge result in approximately 150 vehicle minutes of delay for each raising. With an average of twenty railings per day, there are approximately 3,000 vehicle minutes of delay per twenty-four hour period. At the rate of $0.07 per hour of vehicle delay, the cost associated with this delay is $27,375 annually.

Environmental.—Replacement of the current lift span bridge by a high level fixed span bridge will result in continuous traffic flow. Air quality benefits will be positive but negligible.

Congestion Mitigation.—Providing a high level fixed span bridge will result in continuous flow in vehicular traffic and adequate safe clearances for ships navigating the channel.

Safety Effects.—The value of improved safety improvements is estimated at $3.5 million annually by the year 2010.

Criteria 13—Previous Federal funding:

The authorization requested for the Sidney Lanier Bridge continues a prior Federal commitment for Federal funding from the General Fund as originally provided in the Coast Guard Omnibus Act of 1990 (and reaffirmed, by funding in subsequent Appropriations Acts, and Coast Guard Authorization Acts) for bridges that are unreasonable hazards to navigation. Further, the requested authorization conforms to the Federal funding commitment provided for highway bridges as provided under Section 1103 of the Intermodal Surface Transportation Efficiency Act of 1991, and consistent with congressional directives included with the passage and subsequent enactment of the Department of Transportation and Related Agencies Appropriation Acts, 1994, 1995, 1996, and 1997.

Criteria 14—First Federal authorization or increase to previous Federal Authorization:

PREVIOUS FEDERAL APPROPRIATIONS

	Fiscal year	Federal share
Truman-Hobbs Act (Coast Guard)	1992	$900,000
Do	1993	5,000,000
Do	1994	6,000,000
FHWA Demo—transferred to Coast Guard	1995	1,850,000
H.R. 2002 ''Alterations of Bridges'' (Coast Guard)	1996	8,000,000
Public Law 104–205	1997	7,000,000
Total		28,750,000

[CLERK'S NOTE.—The attachments to Mr. Shackelford's statement do not appear in the hearing record but are available for review in the subcommittee's files.]

PREPARED STATEMENT OF HARRY HARRIS, CHAIRMAN, EXECUTIVE BOARD, DEPUTY COMMISSIONER, CONNECTICUT DEPARTMENT OF TRANSPORTATION, I–95 CORRIDOR COALITION

Thank you for the opportunity to submit this written testimony for submittal to the record of the Subcommittee on Transportation and Related Agencies, Committee on Appropriations, U.S. Senate.

The I–95 Corridor Coalition, which I currently chair, is a partnership of the major public and private transportation agencies serving the Northeast Corridor of the United States. Since 1993, the Coalition has focused on bringing our member agencies together to develop and improve multi-agency activities that result in a more effective and efficient use of existing infrastructure through the integration of technologies. The relationships that have been developed are continuing to expand and support the delivery of a seamless, multi-modal transportation network benefiting both travelers and goods movements throughout the Northeast.

The Coalition consists of twenty-eight transportation agencies and over a dozen private sector organizations in the twelve states from Maine to Virginia. These member agencies include the twelve state departments of transportation (DOT's), the City of New York DOT, the Washington, DC Department of Public Works, as well as most major toll and bridge authorities, and Amtrak.

The transportation operating agencies who are members of the Coalition recognize the importance of Intelligent Transportation programs and are prepared to spend portions of their discretionary dollars to support them. Public sector agencies in the Northeast are now investing over $400 million a year to support over 350 Intelligent Transportation projects and programs. The activities of the I–95 Corridor Coalition provide a foundation for the continuing coordination and integration of traditional products and services, using new technologies which enhance the effectiveness of transportation investments.

BACKGROUND

In 1991, ISTEA established a strategic plan to enhance transportation services through the use of technologies. The overall goal of making the most of our nation's transportation investments and resources with strategic applications of technology was supported by the principles of economic productivity, safety, environmental protection, return on investment, and innovation.

To assist the nation in incorporating these principles into transportation projects, Congress provided for the designation of several "Priority Corridors," including the Northeastern United States. Since that time, the I–95 Corridor Coalition and our member agencies have worked hard to fully incorporate the ISTEA themes or principles into the planning and development of transportation projects. We are now engaged in deploying the technologies to make these projects work.

ACHIEVEMENTS OF THE I–95 CORRIDOR COALITION

Much of the Coalition's work to date has centered on the all-important task of building operational coordination and interjurisdictional cooperation among twenty-eight separate agencies within our twelve member states. While the benefits of this effort are difficult to quantify, this work has been, and still is, absolutely critical in achieving our goal of uniform and coordinated applications of technology to improve transportation flow for people and goods. Successful "Model Deployment" can not occur until after a system of institutional coordination has been established and tested. Having successfully established this cooperative institutional framework, the Coalition is now moving aggressively toward the deployment and implementation of smart transportation projects.

Among our accomplishments to date are the following:

Operational Coordination.—The "Information Exchange Network" (IEN) allows any member agency to quickly communicate with other Coalition agencies during emergencies, and to coordinate transportation management and traveler information on a regional and Corridor-wide basis. The Coalition's IEN system provides the points of entry and access to transportation agency databases for highway operations centers and metropolitan transit operation centers. Currently, there are over 40 operating IEN stations with plans for about 12 additional stations.

The Coalition's member agencies have developed standard operating guidelines for the Incident Management process throughout several subregions of the Northeast Corridor. Multiple regional workshops were held to achieve consensus on elements of the "Regional Response Plans." The project also included the preparation of a "Regional Resource Guide" based on an inventory of the Corridor's related resources.

Commercial Vehicle Operations (CVO) Program.—The Coalition has developed a CVO program that will enhance the productivity and safety of the goods-movement industry through the identification and application of technologies in the areas of safety, automated credentialing, and information-sharing. These technologies and applications are being developed and tested through a partnership of public agencies and private industry. For example, the Coalition is implementing a system that will provide commercial vehicle dispatchers and drivers with information on traffic con-

gestion, accidents, weather and alternative routing to help meet the needs of businesses for reliable delivery of goods and services.

Electronic Toll and Traffic Management.—All of the Coalition's members agencies have jointly adopted an Electronic Toll and Traffic Management (ETTM) vision for compatibility within the Northeast. The Coalition will champion the achievement of only one automated tag per vehicle, one account per customer, and one set of credentials per commercial vehicle.

Traveler Information.—The Coalition provides travelers with information in a variety of ways. For example:

—The Northeast Travelers Alert Map identifies locations of major construction activities, dates and location of upcoming events, and locations of holiday and/or weekend bottlenecks. Through the I–95 Corridor Coalition, this map is made available to travelers at welcome centers, rest areas, truck stops and regional AAA offices, and is also located on the Coalition's World Wide Web home page.

—The Coalition's World Wide Web home page includes traveler information and facilitates the distribution of Coalition products and services between member agencies and the traveling public.

The Coalition distributes information to highway travelers through the use of variable message signs, highway advisory radio, and public broadcast traffic reports.

Additional achievements include:

—a two-year test of a variety of business arrangements to provide enhanced traveler information services;

—installation of Highway Advisory Radio stations at critical points where diverting traffic assists in managing congestion and reducing delays;

—development of guidelines to ensure that messages on Variable Message Signs are consistent throughout the Corridor; and

—encouragement of information and technology exchange.

We believe that these accomplishments are fully in keeping with the strategic planning process laid out in ISTEA. We have done our best to uphold our part of the ISTEA bargain.

ISTEA REAUTHORIZATION AND THE I–95 COALITION

We believe that reauthorization of the ISTEA legislation, and its funding support, should build upon ISTEA's strategic framework to create a state-of-the-art transportation system for the 21st Century. Americans will demand this kind of transportation system as our economy becomes more fully integrated on both a national and international basis. More than ever before, the quality and availability of transportation services is tied to our standard of living. With the application of new technologies and other infrastructure support, innovations such as integrated logistics and "just-in-time" deliveries will continue to allow us to maintain a high level of competitiveness relative to other areas of the world.

Coalition members well understand the realities of the current economic conditions and the resulting pressure placed on the federal budget and the need to restrain spending. However, it is very clear that wise investments in the delivery of Intelligent Transportation Systems will allow us to address our ever growing transportation needs more effectively at a lower cost, over the long term. For example, it is estimated that as much as two thirds of the new capacity required for our most congested corridors can be provided by intelligent transportation systems at significantly lower cost than traditional infrastructure construction. Assuming that the benefits resulting from a comprehensive application of I–95 Corridor strategies could postpone the need for new construction for ten years, the savings could be as high as $40 million.

ECONOMIC BENEFITS OF THE I–95 CORRIDOR PROGRAM

As noted above, investments in Intelligent Transportation are clearly investments in economic growth. The I–95 Corridor Coalition Program has been, and will continue to be, instrumental in enhancing and supporting future economic opportunities.

It is estimated that by the year 2020, travel will increase by 35 percent in the New York metropolitan region alone. At the same time, government resources available for infrastructure investment are certain to be limited. If the nation's transportation infrastructure is expected to continue to meet our national needs and to enhance our economic vitality, it is imperative that we manage the existing transportation system as efficiently as possible. The potential economic effects of transportation investments integrating traditional and new technologies are likely to be analogous to those of highway construction in the past. It cannot be disputed that great benefits were realized from the development and construction of the Interstate

Highway System, both in terms of enhancing the quality of life and in providing economic stability. Likewise, investments made today in the integration of technologies and transportation services will also reap many benefits.

Specific economic benefits of the I–95 Corridor Coalition Program include:

Enhanced business efficiency.—The ability to deliver goods and services in an efficient and timely manner is critical to US businesses hoping to compete in a global economy. The reality of today's market place requires that many businesses operate within a "just-in-time" delivery framework. Improvements in mobility through the implementation of the Coalition's initiatives will enhance business profitability in the Northeast, and throughout the nation. For example, time savings of as little as ten minutes per trip for the 14 million eastbound trucks entering New York City each year, would translate into direct cost savings of nearly $50 million a year. Reduced inventory costs associated with "just-in-time" operations could add an additional $20–30 million in benefits each year.

Lower infrastructure costs.—The capital costs for new highway construction are approaching $18 million per lane mile in some parts of the Northeast. Over 380 new lane miles would need to be constructed each year in the principal I–95 Corridor urban areas just to maintain traffic flow at current levels of congestion. The total estimated cost of this construction could reach almost $6.9 billion annually without considering the associated legal and political difficulties.

Reduced travel delay.—The annual costs of incident-related travel delay exceeds $7.8 billion in the five largest metropolitan areas of the Northeast Corridor. Chronic traffic congestion adds approximately 40 percent more to the costs of delay in these areas. I–95 Corridor Coalition Program initiatives promise to significantly reduce these delays. For example, in Maryland, the early results of the state's incident management program are showing a benefit/cost ratio of almost 6:1.

These significant economic benefits are clearly consistent with our national goals of quality transportation, cleaner air, lower societal costs, and economic prosperity.

FUTURE ACTIVITIES

Coalition members are proud of what they have accomplished and are excited about the future. Assuming the continuation of adequate funding, the next few years will enable us to further realize tangible benefits from dollars invested. The Information Exchange Network Project and the Commercial Vehicle Operations related projects will continue to achieve gains from expanded use and economies of scale. In addition to our focus on integration and deployment of technologies, we are now directing attention toward the development of a comprehensive Intermodal Program as a means of encouraging and facilitating the integration of all modes.

Building on the strong foundation already in place, and with your continued help, we will continue to meet our national transportation objectives.

FUNDING RECOMMENDATION

Thanks to the Priority Corridors Program and the related funding levels made available in ISTEA, the institutional foundations required to create and support a state-of-the-art transportation system have now been put into place. The I–95 Corridor Coalition has played a key role in building these critical foundations. To realize the most significant benefits of the Coalition's previous work, adequate funding for these coordination efforts must be continued.

We have estimated that the I–95 Corridor Coalition can continue to provide the coordination and cooperation among its member agencies with an appropriation of five million dollars, per year. This modest level of funding is needed in order to support the required administration and coordination duties, as well as, key projects and field operational tests for the coming five year period.

SUMMARY

The I–95 Corridor Coalition appreciates the opportunity to submit this discussion of our accomplishments and our plans for the future. To continue our work, we need continued congressional support. Our members have worked hard to fulfill the goals and objectives which were established by Congress in ISTEA. The foundation of an institutional framework to build a state-of-the-art transportation system is in place in the Northeast, and we are now focusing on the deployment of technologies in conjunction with the more traditional transportation solutions to better serve the demand for transportation services.

The potential economic benefits of these efforts, not only to the Northeast, but to the nation as a whole, are enormous. Over the next several years our efforts promises to demonstrate significant and quantifiable benefits for dollars expended as projects go on-line. The Coalition needs your help in meeting our common objectives.

Again, to continue this important work, we respectfully request $5 million in appropriations for fiscal year 1998, and an equal amount for each year of the life of the next authorization legislation.

PREPARED STATEMENT OF ANNE SHANE, CHIEF OF STAFF, TO MAYOR STEPHEN GOLDSMITH, CITY OF INDIANAPOLIS, IN

For those who may have missed it, the reality of the new Indianapolis is a far cry from the old image of Indianapolis as a traditional conservative midwestern city. The City of Indianapolis has invested more than $1 billion in our downtown projects in recent years, including $300 million in the Circle Centre Mall, $240 million in the convention center, and more than $200 million in the RCA Dome. We are researching the possibility of investing $175 million in a new basketball arena downtown.

In addition, at a time when many central business districts in mid-sized cities are facing serious problems, employment in downtown Indianapolis has risen 15 percent over the last five years, while the vacancy rate for commercial office space has fallen 10 percent.

While all this is happening in downtown Indianapolis, the commercial and entertainment center of the central Indiana region, the region as a whole is expected to maintain its strong economy and to continue to attract new residents drawn to our high quality of life and economic opportunity. According to forecasts in the "Indianapolis Regional Transportation Plan," population in the urbanized area is forecasted to grow 27 percent between 1990 and 2020. The number of households is expected to increase by 38 percent, with employment rising by 44 percent.

Much of that development will occur in suburban areas. Growth will be especially concentrated in the area to the north and northeast of Indianapolis and Marion County. Hamilton County is expected to be among the fastest growing areas in Indiana over the coming decades. So we are facing strong development trends at both ends of the northeast corridor. This means that increasing strain will be placed on our already overburdened transportation system. The transportation plan's forecasts are for daily person trips to increase by 48 percent, vehicle miles of travel by 69 percent, and daily vehicle hours of travel by 77 percent. Such dramatic increases in travel could threaten the very quality of life that makes the region so attractive to those of us who live here now and to those who would like to live and work in central Indiana.

Our traditional approach to addressing transportation needs has been to expand the highway system to accommodate greater automobile usage. But we are now at the point where simply adding lanes to existing roads, as well as building new freeways, will not solve the transportation problem. Congressman Burton mentioned the recently completed study of the I–69 corridor which foresees a massive expansion of highway facilities in the northern end of the northeast corridor. That comes two decades after the community killed a plan to extend I–69 into the heart of Indianapolis.

The project that we are discussing today would move toward an alternative solution to a problem widely acknowledged in the community. Under the direction of the Indianapolis Metropolitan Planning Organization, we are completing a feasibility study of several transportation alternatives. These are likely candidates for detailed analysis in a Major Investment Study. We are seeking a fiscal year 1998 appropriation for that study. These include two light rail options, commuter rail, HOV/busway, transportation systems management and highway expansion. We will have preliminary cost and ridership forecasts soon.

We want to carefully consider the costs and benefits of many transportation options in order to connect the downtown with the high growth area to the northeast of Indianapolis. In this way we can help assure the continued vibrancy of the downtown and safeguard the City of Indianapolis' enormous capital investment. I hope we can count on your support to help us address and thoroughly analyze these critical transportation issues.

PREPARED STATEMENT OF LEE R. REDMOND, III, SENIOR VICE PRESIDENT-REAL ESTATE, KAISER VENTURES INC.

Thank you for the opportunity to present to you for the record materials regarding a proposed project in San Bernardino County, California that we believe is worthy of your consideration for the fiscal year 1998 Transportation Appropriations Bill. Our project is located at the juncture of Etiwanda Avenue and the I–10 Freeway, approximately 1 mile east of the I–15 and I–10 Interchange in San Bernardino

County, California. The area affected by this project is generally the area known as the former Kaiser Steel Mill.

Over the past several years, Kaiser has been re-developing a portion of this property into the California Speedway, a major motorsports facility owned and operated by Penske Motorsports which will open on June 22, 1997. We are continuing our efforts to return the remaining acreage to productive new uses. We have identified many uses that are appropriate for the area which will have a direct impact on goods movement through Southern California to both international and national destinations.

A unique attribute of our property is that it is served by both the Burlington Northern Santa Fe and Union Pacific Railroads. This provides for a significant opportunity to establish major intermodal facilities in the area. We also believe that the development of the property for such intermodal use will contribute meaningfully to achieving the purposes of NAFTA.

In light of efforts to improve rail and truck transportation to and from the ports of LA and Long Beach, this freeway improvement will assist in improving the efficiency with which goods move, as well as encourage additional development to serve this expanding sector of our economy. In fact, one of the proposed developments for a portion of the property around this interchange is a major truck stop to provide adequate facilities for the significant existing and future truck traffic.

In order for these goals to be achieved, it is imperative to alleviate certain safety and congestion impacts that currently exist. The project will provide for a grade separation of a major rail crossing at Valley Boulevard which has been identified as one of the most dangerous in the State of California. It will also improve certain congestion safety factors that exist on Etiwanda Avenue and the I–10 Freeway due to the mixture of automobile and truck traffic. In fact, the California Department of Transportation has found this project of such interest that they are working with us to facilitate an expedited review as an emergency safety project.

In summary, the project addresses a number of worth-while objectives: it will relieve congestion; eliminate a hazardous intersection of truck and auto traffic; contribute further to truck safety by providing a major rest stop which addresses fatigue; establishes the linkage for a future intermodal rail/truck facility; and assists the region and the state to maximize the benefits from NAFTA.

We had the opportunity to meet with the clerk of the Transportation Subcommittee, Mr. Wally Burnett, on May 12 to discuss this project. If you should require additional information, I stand ready to provide it. I would also be pleased to provide a tour of the project if you are interested.

Thank you for your time and consideration.

INTERSTATE 10/ETIWANDA AVENUE/VALLEY BOULEVARD INTERCHANGE IMPROVEMENTS PROPOSAL FOR PROJECT SPECIFIC FUNDING AUTHORIZATION UNDER THE INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT (ISTEA) OF 1997

1. Name and Congressional District of the primary Member of Congress sponsoring the project, as well as any Members supporting the project (each project must have a single primary sponsoring Member).

The project site is within the 42nd Congressional District, Hon. George Brown, H.R.

2. Identify the State or other qualified recipient responsible for carrying out the project.

The local agency sponsor for the project is the County of San Bernardino, California, in cooperation with the California Department of Transportation (Caltrans) and Kaiser Ventures, Inc. (Kaiser).

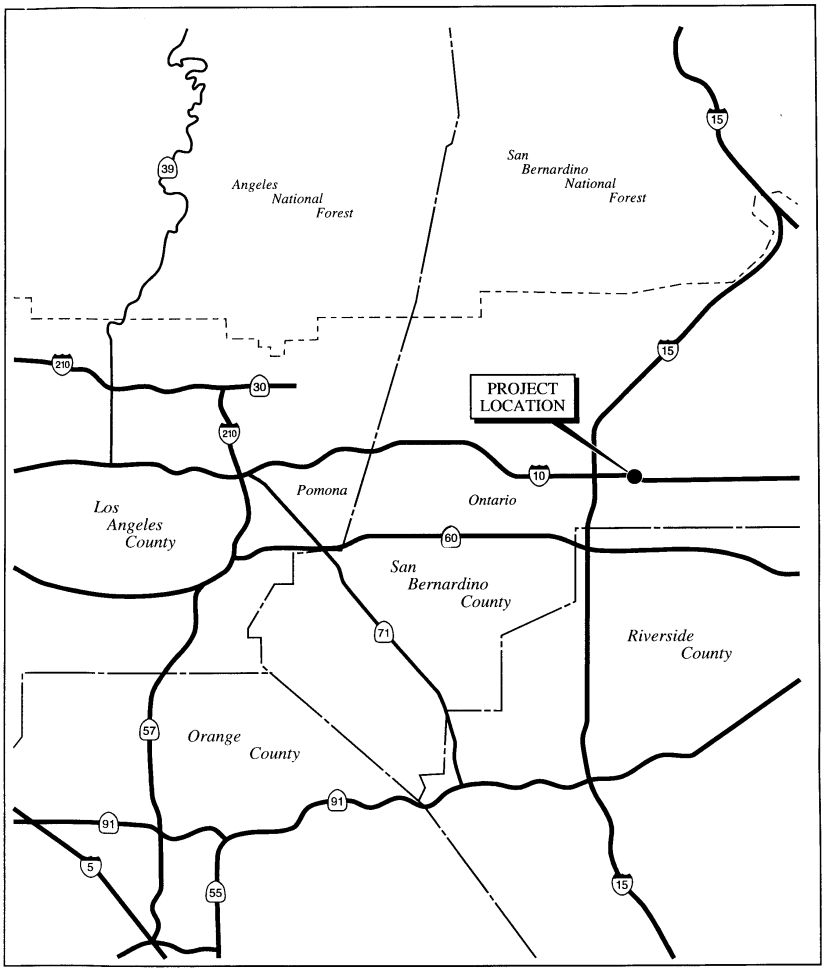
3. Is the project eligible for the use of Federal-aid funds (if a road or bridge project, please note whether it is on the National Highway System)?

Yes. As an Interstate route, the project is eligible for Federal-aid funds. Interstate 10 (I–10) is on the National Highway System.

4. Describe the design, scope, and objectives of the project and whether it is part of a larger system of projects. In doing so, identify the specific segment for which the project funding is being sought, including the terminus points.

The project objectives are to: (1) improve safety and enhance mainline freeway operations on I–10 in the vicinity of the Etiwanda Avenue and Valley Boulevard interchanges by eliminating existing weaving movements with new ramp configurations, and (2) improve access to proposed intermodal and truck stop facilities to be located on a portion of the Kaiser site. The project's regional location is shown in Figure 1. Specific design elements are shown in Figure 2 and include the following:

—Realign and reconstruct Valley Boulevard from east of the SPRR spur track and extend the road west to Slag Haul Road, eliminating the existing at-grade rail crossing of the 1–10 off- and on-ramps.



2/19/97(KAI632)

Figure 1

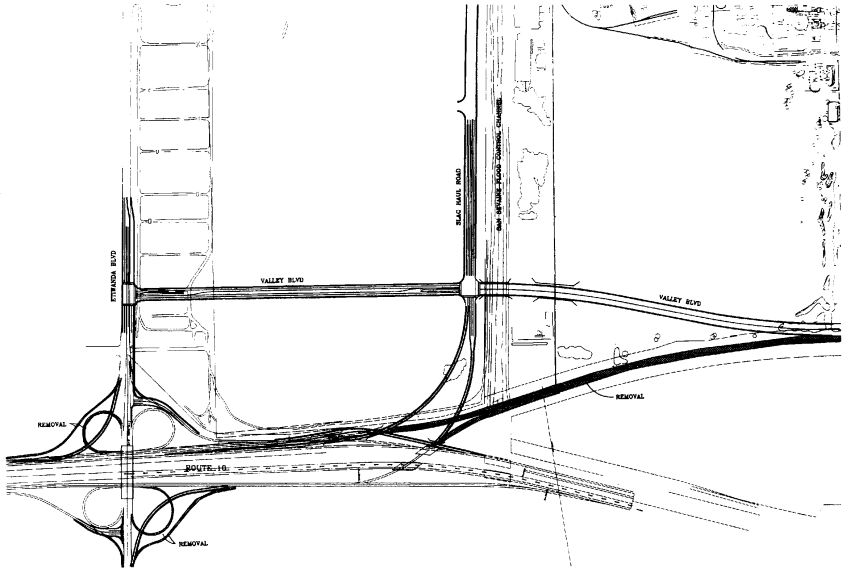
N

LSA

Scale in Miles

0 5

Regional Location



Source: Rajappan & Meyer Consulting Engineers, Inc.

2/19/97(KAI632)

Figure 2

N

LSA

Scale in Feet

0 400 800

Proposed Interchange Improvements

—Reconstruct the existing weaving section on westbound I–10 between the Valley Boulevard on-ramp and the Etiwanda Avenue off-ramp as a "braided-ramp" configuration, which will eliminate the westbound weaving movement.

—Reconstruct the existing Etiwanda/I–10 interchange by converting the existing four quadrant full cloverleaf interchange to a partial cloverleaf, retaining the northeast and southwest loop on-ramps and demolishing the northwest and southeast loop off-ramps. The exit ramps from I–10 in each direction will be connected to Etiwanda Avenue at two new signalized intersections.

The project is not part of a larger system of improvements.

5. What is the total project cost and proposed sources of funds (please identify the federal, state, or local shares, and the extent, if any, of private sector financing or the use of innovative financing) and of this amount, how much is being requested for the specific project segment described in Item No. 4?

The total project construction cost is $13,031,000. Currently, the only project funding commitment to date is private sector funding to be provided by Kaiser. Kaiser's share of the project costs will be determined based upon the Kaiser project's relative contribution to the need for the improvements. Kaiser is funding project design costs, and will be dedicating additional right-of-way needed for the improvements. The amount of funding requested at this time is $10,000,000. The balance of $3,031,000 will be locally funded.

6. Of the amount requested, how much is expected to be obligated over each of the next five years?

The project is proposed for construction in fiscal year 1998–99, and it is anticipated that all funds requested would be obligated in that year.

7. What is the proposed schedule and status of work on the project?

Preliminary engineering is currently in progress, and will result in a Combined Project Study Report/Project Report approval by December 1997. Project design will be completed by mid-1998, with project advertisement for construction scheduled to occur by late 1998.

8. Is the project included in the metropolitan and/or State transportation improvements plan(s), or the State long-range plan, and if so, is it scheduled for funding?

Caltrans has approved the project for inclusion in Administrative Amendment No. 3 to the Regional Transportation Improvement Program (RTIP) and the Federal Transportation Improvement Program (FTIP), and has forwarded its approval to the San Bernardino Associated Governments (SANBAG) (see Attachment A).

The project is consistent with and implements Regional Transportation Plan (RTP) policies supportive of goods movement and intermodal issues, and will have a positive benefit toward meeting the needs generated by the North American Free Trade Agreement (NAFTA).

The project has been included in the Southern California Association of Government's (SCAG) list of projects for ISTEA II consideration per its Transportation and Communications Committee meeting of February 21, 1997.

9. Is the project considered by the State and/or regional transportation officials as critical to their needs? Please provide a letter of support from these officials, and if you cannot, explain why not.

The project is considered important by Caltrans as it has been defined as a needed improvement since the 1980's. Caltrans has approved and is the sponsoring agency for the RTIP/FTIP amendment request.

SANBAG has not formally endorsed this project since the specific project proposal was in early stages of development at the time project submittals were due to meet SANBAG's deadline for Board action at the meeting of February 5, 1997. However, there has been extensive coordination with SANBAG staff, which has assisted in coordination between Kaiser and Southern California Association of Governments (SCAG) staff for presentation of this project funding request.

The transportation improvement project contributes to meeting regional transportation goals for improvements to existing freeways and facilitating intermodal operations. The proposed combination of an intermodal facility and a large-scale truck stop to be served by the transportation project will also facilitate efficient movement of goods into and from the Southern California region.

10. Does the project base regional or national significance?

Yes. The project has regional significance relative to its location along I–10, 1 mile east of the I–10/I–15 interchange. By improving I–10 operations in this segment, the project will facilitate the traffic movements from I–10 to I–15. The proposed improvement has national significance, since both I–10 and I–15 traverse the nation and are critical linkages in increased goods movement resulting from the NAFTA.

The proposed intermodal rail yard to be served by the transportation project is intended to facilitate the movement of goods from throughout the nation into the Southern California region by creating a Southern California hub to which goods

can be shipped by rail, and then be transferred onto trucks for local deliveries throughout the Los Angeles metropolitan area. The area adjacent to the I/10 Etiwanda interchange is the only location within Southern California that is served by both the BNSF and the UP/SP rail systems. As such, it is an ideal location for an intermodal facility, the development of which is dependent upon the proposed interchange improvements.

11. Has the project encountered, or is it lively to encounter, any significant opposition or other obstacles based on environment tat or other types of concerns?

There is no known opposition to this project, nor are there any environmental issues that would be an obstacle to project implementation.

12. Describe the economic, energy efficiency, environmental, congestion mitigation, and safety benefits associated with completion of the protect.

Economic benefits of the project will result by increasing the capacity of the regional transportation system to accommodate existing traffic as well as new traffic generated by new local and regional economic development. The project will improve energy efficient and assist in improving regional air quality by reducing traffic congestion and vehicle idling time, thus resulting in reduced fuel consumption. Environmental benefits of the project will result from reduction in vehicle emissions due to reduced idling time. Congestion mitigation will be achieved since the project will improve the level of service on west-bound I–10 by eliminating a mainline weaving section, as well as eliminating weaving movements on the collector-distributor roads for the Etiwanda/I–10 interchange. The proposed project will improve safety by reducing the potential for congestion related traffic accidents that occur in these short weaving sections. Each of these benefits will be further enhanced by facilitating the movement of goods into the Los Angeles metropolitan region from distant locations throughout the nation via rail for local delivery by truck.

13. Has the propel received funding through the State's federal aid highway apportionment, or in the case of a transit project, through Federal Transit Administration funding? If not, why not?

There have been no previous apportionments of federal aid funds for this project. Although the project need was identified in the late 1980's, project funding was never pursued due to the backlog of other critical transportation needs in San Bernardino County, such as full funding of the State Route 30 freeway project.

14. Is the authorization requested for the project an increase to an amount previously authorized or appropriated for it fit federal statute (if so, please identify the statute, the amount provided, and the amount obligated to date), or would this be the first authorization for the project in federal statute? If the authorization requested is for a transit project, has it previously received appropriations and/or received a Letter of Intent or has FTA entered into a Full Funding Grant Agreement for the project?

This is the first federal funding authorization requested for this project.

[ATTACHMENT A]

SAN BERNARDINO ASSOCIATED GOVERNMENTS
1997 Through 2003
Regional Transportation Improvement Program Submittal Form

CALTRANS - District 8 | Contact: Dr. Paul B. Fagan | Telephone: (909)383-4887
Date: 2/13/97 | Fax#: (909)383-6253

Project Description

Expenditure Authorization: 35450K

Is project being ADDED, DELETED, OR AMENDED (Circle One)

Route or Street: ETIWANDA AVE / VALLEY BLVD INTERCHANGE

Project Limits: (Post Miles if on State Hwy) 08-SBD-10-11.1/11.8

Description of Project: (detailed-i.e. how many lanes exist & how many lanes added)(if widening shoulder-how many ft., rehabilitation-of what) IC RECONFIGURATION, CONSTRUCT GRADE SEPARATION & 700' AUXILIARY LANE, HORIZONTAL & VERTICAL REALIGNMENT.

If this project is being amended, please list:
Which RTIP is project currently in (i.e. 93-99, etc.)
Description of Amendment (What is being changed in this project-from old to new?)

Project Part of an Approved Congestion Management System? [X] Yes [ ] No

Expected Completion Date of Project Dec-99

MAP

EA: 35450K

Air Quality Specific Information

Air Basin Project in SEDAB (South East Desert Air Basin) or SCAB (South Coast Air Basin) (Please Circle) (If project is in two different basins, circle both)

Other Relevant Information

Page in 1994 RTP Project Appears: _____ (Regionally Significant Projects Only-RTP)

STATE, LOCAL, or TRANSIT Project (Circle One)
(Any project located on any state highway must be listed as State project)

Total Cost of Project: $13,031,600

Program Code: (i.e. HE11, etc.) HE11

Project Type: (Regionally Significant Projects-RTP) _____

RTP Code: (SANBAG to fill in) _____

Environmental Type Code: (Neg. Dec., EIR, etc.) EIR(CEQA), CE(NEPA)

Date of Environmental Document 11/97

TCM Code: (SANBAG to fill in) _____

Is Project Exempt from Air Quality Conformity Analysis? (Non-capacity increasing project)
Yes x No _____

If yes, what category does it fall under on the Federal Exempt Project Listing?
Interchange Reconfiguration

Year Project Funded	Fund Code(s) (i.e. CMAQ, STP, etc.)	Construction $ (in 1,000s)	Right-Of-Way $ (in 1,000s)	Engineering $ (in 1,000s)
98/99	SBD COUNTY	11,846	0	1,185

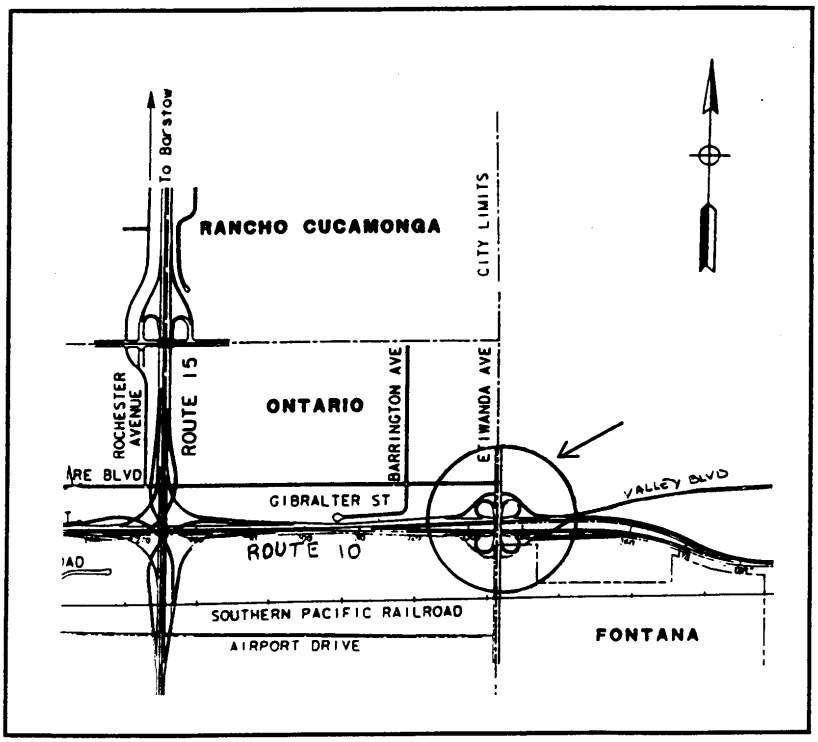
APPROVED BY CALTRANS PROJECT MANAGER, NORM SUYDAM

SIGNATURE: Norm V. Suydam DATE: 2-13-97

APPROVED BY SANBAG PROJECT MANAGER,

SIGNATURE: _____ DATE: _____

LOCATION MAP



PREPARED STATEMENT OF ALLEN GREENBERG, GOVERNMENT RELATIONS DIRECTOR, LEAGUE OF AMERICAN BICYCLISTS

Mr. Chairman and members of the subcommittee, my name is Allen Greenberg and I am the Government Relations Director of the League of American Bicyclists and also represent our International Police Mountain Bike Association (IPMBA) division. The League also works very closely with the Youth Bicycle Education Network (YBEN), which serves at-risk inner-city youths.

Last year I submitted a statement to this subcommittee to describe the national problem of bicycle crashes and the resultant injuries and fatalities. This year I will provide an update on federal activities relating to bicycling safety and will also address a new area: the potential for the bicycle to play a vital role in welfare-to-work transportation.

BICYCLE SAFETY

Annually, bicycle crashes are responsible for 800 fatalities and 600,000 emergency room visits in the United States. This is more than the 600 annual railroad grade-crossing fatalities, and far more than the 30 or so children who have died because of air bags this decade. It is more than aviation, railroad, and maritime fatalities,

to which the Clinton Administration proposes to dedicate $839 million, $57 million, and $804 million, respectively, in fiscal year 1998.

Over the last year, Congress has held multiple hearings on air bag safety and the Clinton Administration is now proposing $8 million for air bag safety research and another $2 million to educate parents about the risks that air bags pose to children. Yet for every child who died because of airbags this decade, seventy children died in bicycle crashes, but there is no response. Last year, the House Transportation Appropriations Subcommittee told the National Highway Traffic Safety Administration (NHTSA), through report language, that "greater efforts are necessary to insure that children are trained to be safe bicyclists." This made sense since NHTSA's "Traffic Safety Facts 1994" reported that 82 percent of bicyclists under the age of 15 killed during that year were at least partially responsible for their fatal crashes.

So what's happened since last year? Senior NHTSA officials met with us and agreed that bicycle safety should get more attention. NHTSA's non-motorized program staff, whose dedication and professionalism are second to none, has been very helpful, but without new resources little has been or can be done.

Washington is a town of rhetoric. But talk is cheap and we must follow the dollars to discern our true values. Are the 30 kids who have died from air bags in the U.S. more important than over ten times that number who die each year in bicycle crashes? If this subcommittee approves the Administration's fiscal year 1998 budget as proposed, your answer, regrettably, will be yes.

We need to put resources into developing a system to enable every child to receive comprehensive bicycle safety education. NHTSA told the House Transportation Appropriations Subcommittee last year that it didn't have the data to demonstrate that bicycle education would work; however, the agency's own data shows that 82 percent of child bicyclist fatalities could have been avoided if the cyclist had behaved differently. NHTSA hasn't spent a dime to get the data it says it needs (despite a detailed proposal we submitted to do this) or to create a program and delivery system to teach our children what they need to know.

There is a double standard being applied here and our children are paying the price. No one has provided data to show that the $800,000 a year "Stay Out of the No Zone" safety campaign to educate drivers about truck blind spots. And where's the Administration's data to show that the $2 million it is seeking to educate parents about air bag safety will work? In each case, education is designed to close a knowledge gap and to encourage people to think about things that they're not now thinking about. This is why we need bicycle safety education, and particularly on-road training, for children. Training serves to improve on-road bicycle handling and overall knowledge, encourages conformity to the rules of the road and to traffic laws, and more experienced and formally trained bicyclists are much more likely to wear helmets and to wear them properly. As the statement I submitted last year said, there is no other transportation safety investment that this subcommittee could make that would be nearly so cost effective in saving lives and reducing injuries.

BICYCLING TO WORK AND OFF WELFARE

The League commends the Clinton Administration and Congress for their interest in providing transportation links to jobs for welfare recipients. The Clinton Administration's proposed fiscal year 1998 budget includes $100 million for a national welfare-to-work transportation initiative. The League believes, however, that insufficient attention has been paid to the essential role the bicycle can play in providing such transportation. We are seeking funding from this subcommittee for an initiative to provide bicycles, training, and commuter support to interested welfare recipients seeking job opportunities that are not transit accessible.

This initiative would entail social service agencies identifying clients who would benefit from bicycle transportation and who are willing to learn what is necessary to make it a viable transportation option for them. The initiative would involve the League's Effective Cycling (EC) instructors teaching EC Road I and Bicycle Commuting Courses, the Youth Bicycle Education Network (YBEN) refurbishing old bicycles, bicycle advocacy groups such as the Washington Area Bicyclist Association inviting welfare recipients to participate in their bicycle commuter mentoring programs, our Police on Bikes helping both YBEN find and collect used bikes and our EC instructors teach bicycle commuting skills, and National Bicycle Dealers Association members offering program participants timely repair services under contract (much as City Bikes in Washington does for bicycle messengers). Working with YBEN, a network of inner-city organizations serving disadvantaged youths, provides the added benefit of having already established credibility in neighborhoods and among populations that are targeted by this proposal.

At the October 1996 People, Jobs and Transportation National Conference in Washington, the personnel director of the Boca Raton Resort Club (with 1,900 employees) said he began offering workers alternative commute incentives to help recruitment and reduce the need for new, costly car parking facilities. Incentives for bicycle commuting were included only as an afterthought, but they are now the most popular and least costly of all those offered. This result is consistent with a December 1994 national poll, commissioned by Rodale Press, which found that while nine percent of all American bicyclists commuted to work by bicycle at some point in their area's last mild-weather month, 20 percent did so among households with incomes of $25,000 or less.

Similarly, a Michigan transportation provider at the conference said that there is typically good fixed route transit service between central city homes and destinations within a couple of miles of suburban employers. Combining a bicycle with transit (such as through popular and inexpensive bike racks on buses) would allow welfare recipients to take advantage of such service and explore employment options beyond those within walking distance of bus routes that pass near their home.

Welfare and job placement agencies often overlook bicycle commuting as a viable, low-cost option and even the few that might be open to it don't know where to begin in helping their clients realize this potential. This initiative would focus on individual welfare recipients who find jobs that either are inaccessible or difficult to access by transit. We would recruit local networks of bicycle clubs, advocacy organizations, and others in no more than ten partner cities to help welfare clients by: acquiring or preparing commuter-ready bicycles; supplying lights, apparel, and other equipment; helping with route selection; teaching Effective Cycling skills; ensuring readily available (and funded) repair services; and helping combine bicycle and transit commuting into a single trip, where appropriate. The network would also work with transit agencies, paratransit providers, taxi companies, employers, and others to identify or provide at least one alternative to bicycle commuting for snowy and icy weather and emergencies.

The League and its local networks would work with job placement and welfare agencies in partner cities by taking full responsibility for meeting the complete range of bicycle commuting needs of welfare and low-wage clients. Once a welfare agency or other government entity, employer, or client determines that bicycle commuting services are needed, or at least should be explored, the League-led bicycle network would take over and provide the combination of services that I have outlined to make bicycle commuting a realistic option. Each client would be fully served for up to one year, and in that time period would acquire all of the equipment, skills, knowledge, and confidence that is needed for independent year-round bicycle commuting. We hope this subcommittee will support this important initiative.

Thank you for this opportunity to submit this statement. I look forward to the opportunity to discuss it further.

PREPARED STATEMENT OF JOHN WEST, CALIFORNIA DEPARTMENT OF TRANSPORTATION AND CHAIR OF THE NAHSC PROGRAM MANAGEMENT OVERSIGHT COMMITTEE, NATIONAL AUTOMATED HIGHWAY SYSTEM CONSORTIUM

INTRODUCTION

I am John West of the California Department of Transportation and Chairman of the National Automated Highway System Consortium (NAHSC) Program Management Oversight Committee. I represent a unique public/private partnership that includes the U.S. Department of Transportation (USDOT) and the nine member National Automated Highway System Consortium (NAHSC). Our mission is to develop the specifications and prototype for automated highway system (AHS) deployment in the United States—the next major improvement in our surface transportation system. An integral part of this effort is to foster the development and early application of safety and control technologies to provide early benefits to all highway users. (See Appendix "A" for our complete Mission Statement.)

We appreciate Congress's past support for the AHS mission and endorse the Administration's proposed budget request of $26 million for the continuing Federal share of this program in fiscal year 1998. This level of funding is essential to continue the established momentum and compares with our current year Federal funding level of $22 million.

The Consortium Core and Associate Participants—now totaling more than one hundred transportation stakeholder organizations throughout the U.S. (see Appendix "B" for list of Associate Participants)—collectively feel that this work is vital if this nation is to maintain its excellent transportation network so critical to economic

vigor and international competitiveness. This is truly a pioneering effort to support and assist the driver by integrating vehicle and infrastructure technologies into a cooperative system with benefits to safety, traffic congestion and the environment.

NATIONAL AHS CONSORTIUM

The NAHSC is a government-industry-academia collaboration working to apply automated control technology to the U.S. vehicle-highway system to greatly improve its safety and efficiency. In response to a provision of ISTEA–91, the USDOT, late in 1993, issued a request for applications for a cooperative research and development program leading to a prototype AHS. The Consortium was formed early in 1994 to prepare an application for this competitive solicitation. In December 1994, the Cooperative Agreement between the NAHSC's nine Core Participants and the USDOT's Federal Highway Administration (FHWA) was initiated. This agreement charges the NAHSC to carry out the systems definition phase of what ultimately could be deployed as the next major performance upgrade of the U.S. vehicle-highway system.

The Core Participants of the Consortium are: Bechtel, the California Department of Transportation (Caltrans), Carnegie Mellon University, Delco Electronics, General Motors, Hughes Aircraft, Lockheed Martin, Parsons Brinckerhoff and The University of California Partners for Advanced Transit and Highways (PATH). Each contributes a high level of prior effort and expertise in technologies the automated highway will use as well as extensive program management experience. Collaboration of the roadway infrastructure designers with vehicle designers and leaders in the development and application of information and control technologies provides unprecedented opportunity to improve the safety and efficiency of our surface transportation. This collaboration, uniquely enabled by the consortium format, also provides vital support in providing an environment that encourages the development of a market for these technologies.

The agreement by the National AHS Consortium to share at least 20 percent of the total cost, without any profit or fee, underscores the commitment of the national transportation system stakeholders to the development of a socially, economically and technically viable AHS.

In addition to the Core Participants, the NAHSC now includes one hundred and three Associate Participants representing nine categories of stakeholders in highway transportation: (1) local, state and federal government agencies, (2) transportation users, (3) public transit, (4) environmental interests, (5) the highway industry, (6) the automotive industry, (7) the electronics industry, (8) commercial trucking, and (9) the insurance industry. These stakeholder organizations have all pledged support for the goals of the AHS program and each category has a voting representative on the Consortium's Program Management Oversight Committee to ensure its interests are accounted for in the direction and conduct of the program.

U.S. DEPARTMENT OF TRANSPORTATION (USDOT)

The partnership of USDOT with the National AHS Consortium makes possible the development of the fully integrated automated highway, capable of flexible deployment and interoperability between all states and municipalities. In developing AHS, a long-term view is necessary to fully realize the benefits to society. Interlinking the roadway infrastructure, which is generally owned and operated by the public sector, with vehicles, which are developed, owned and operated by the private sector requires the participation of both sectors from the early stages. This partnership must continue to maintain the effort.

Leadership from USDOT in this longer-term research and development project is essential for timely and smooth evolution from research to the development of prototype automated highway lanes. In the nearer term, many advances in safety technologies being developed to support vehicle automation should spin off into improved driver aids and safety features on nearer term production vehicles. In addition, USDOT and NAHSC are working together to provide a framework so that Intelligent Transportation Systems technologies being deployed in the near term will be compatible with the later addition of vehicle-highway control technologies.

GLOBAL COMPETITIVENESS

At the present time, the NAHSC is the sole focus of vehicle-highway automation development in the United States. Both Japan and Europe have active public-private cooperative development of vehicle-highway automation technologies.

In Japan the major government sponsor of AHS is the Ministry of Construction. After a visit to the NAHSC Program Office in 1995, Minister of Construction Mori returned to Japan and significantly increased funding for AHS which has led to or-

ganization of the "Advanced Cruise Assist Highway System Research Association". This organization, patterned after the NAHSC, was formally launched in September of 1996. The Association has public-private participation and is funded by the Ministry of Construction at $70M for fiscal year 1996 and $105M for fiscal year 1997 with twenty-four private industry members supplying additional funding. Among these are: Toyota, Nissan, Honda, Mitusbishi, Oki, Sumitomo, NEC, Hitachi, Toshiba, and Nippondenso. Members of the Association have given public demonstrations of automated vehicle-highway technologies in November 1995 and October 1996. The Association has an initial goal of deploying the first AHS roadway in Japan in 2010.

In Europe the focus of automation is primarily on commercial vehicles with a consortium of fourteen organizations led by Daimler Benz with funding coming from the European Commission. A public-private project called Promote-Chauffeur, part of the much larger European ETHOS program, is developing automation technologies for heavy trucks. Initial development employs an "electronic tow-bar" that controls a tractor-trailer to follow one that is driver controlled. The project plans to progress into automated platooning of several automated trucks following a driven lead vehicle and eventually into fully automated platooning without a driver.

The Dutch Ministry of Transportation is planning the development of an automated truck roadway to carry freight from the port of Rotterdam to central Germany. Freight operations within the port of Rotterdam are already fully automated.

It is of vital importance that the public and private transportation sectors in the United States participate in the development of vehicle-highway automation. Only in this way can the U.S. ensure that the technical and operational standards for this future transportation option meet the needs of its citizens for efficient, convenient personal and commercial transportation. Only in this way can the U.S. maintain the vitality of its surface transportation system into the twenty first century.

THE RELATIONSHIP OF AHS TO INTELLIGENT TRANSPORTATION SYSTEMS

AHS is the most advanced component of the Intelligent Transportation System (ITS) plan—and the component that offers the most potential for major gains in safety, efficiency and the environment. The AHS program is building upon and integrating ITS services as they evolve to ensure overall compatibility. AHS activities are fully coordinated with other Federally-sponsored ITS programs and with development of the National ITS Architecture.

The AHS program encompasses the planned evolution from today's vehicle-highway system to the ultimate deployment of automated lanes. The evolution has already begun with the introduction of limited sensing and control systems on vehicles, and simple sensing and communications systems in the roadway infrastructure. It will be spurred on by the integration of more advanced features in vehicles, more advanced capabilities in the infrastructure and by establishing communications and coordination linkages among the vehicles and between the vehicles and the roadway. Some of the initial enabling technologies are coming to market today; many more will be produced over the next decade. For vehicles, these include obstacle detection and collision warning to detect and warn of imminent crashes; adaptive cruise control to maintain safe following distance between vehicles; and lane keeping to warn of lane or roadway departure. For the infrastructure, these technologies include road condition monitoring, automatic toll collection and communications.

BENEFITS OF AHS

Recent research in automated highways has clearly indicated that automated vehicle control technology can offer major improvements in safety and efficiency of existing highways. Approximately 40,000 lives are still lost each year on U.S. highways and more than 1.7 million people are seriously injured. The annual cost to the nation is estimated to be more than $150 billion. Dramatic increases in highway safety through AHS deployment will mean fewer fatalities and injuries with less property damage and should lead to a reduction in driver and shipper insurance costs. The efficiency of automated highways is also expected to greatly improve the mobility and convenience of highway travel. Today, the estimated loss of productivity due to traffic congestion in the U.S. totals more than $50 billion annually. AHS offers the opportunity to turn that loss into a direct gain in productivity by increasing the capacity of each highway lane for the transport of people and goods.

Minimizing traffic congestion and maximizing highway safety are the more obvious benefits of highway automation. Other benefits will include reduced fuel consumption and lower exhaust emissions due to smoother traffic flow with no stop-and-go congestion, reduced driver stress and less fatigue due to safer, less congested

highways. These positive effects will improve every aspect of highway travel, even for those not using the automated lanes.

The NAHSC has defined necessary AHS system design characteristics. Characteristics such as ease of use, operation in inclement weather, affordable cost and economic feasibility, beneficial effects on surrounding conventional roadways, operation with non-AHS vehicles, progressive deployment, flexibility, modularity and the ability to support a wide rage of vehicle types were determined to be the baseline design requirements for successful AHS deployment and operation.

Top level service objectives for system users were determined to facilitate intermodal and multimodal transportation, enhance operation for freight carriers, support automated transit operations, be adaptable to urban and rural highways for all vehicle types and to support travel demand management and sustainable transportation policies. Ultimately, the system will provide operation for the disengaged driver. However, this will not be available for some time to come. To paraphrase Secretary of Transportation Rodney Slater, if the AHS approaches the kinds of benefits expected, this program will represent one of the most productive transportation investments ever made.

1996 ACCOMPLISHMENTS

AHS Concept Development.—During 1996 the Consortium completed phase two of AHS Concept Development. Five concept families produced by phase one were further developed and analyzed against the growing body of system requirements. This analysis work was tied to real-world issues through the use of three application scenarios: (1) the urban freeway network, working with the Southern California Council of Governments (SCAG); (2) the rural highway, working with Interstate 70 and Colorado DOT; and (3) shared transit and high occupancy vehicle lanes, working with Houston Metro. The results of this analysis led to the definition of six key concept attributes that must be addressed to produce an AHS concept sufficiently adaptable to meet a wide variety of local and regional needs while still maintaining national interoperability. These key concept attributes will form the basis of much of phase three concept development:

1. Mixed Traffic Operation—the issues surrounding the intermixing of automated and manually driven vehicles, including decisions about shared and/or dedicated lanes;
2. Deployment Sequencing—the ordering and timing of the steps to evolve from the current vehicle-highway system to one which supports automated operation;
3. Distribution of Intelligence—the allocation of sensing, computation, communications and decision making responsibilities among individual vehicles, groups of vehicles and the roadway;
4. Vehicle Separation Policy—the rules governing the degree of coordination among AHS vehicles: whether they operate in closely coupled platoons or as independent, "free agent" vehicles;
5. Obstacle Management—the degree to which the AHS relies on the ability of the vehicles and/or infrastructure to detect roadway obstacles and the ability of the infrastructure to prevent the intrusion of obstacles; and
6. Driver Role—the issues associated with the division and exchange of responsibilities between the AHS and the driver, driver comfort and driver alertness.

Planning for phase three of concept development was begun and the first draft of the report on phase two was finished. This report will complete Milestone 2 for the AHS Program.

AHS Technologies and Analytical Tools.—As concept development activities matured, the development of technologies and tools have been brought more in line with the specific needs of AHS concepts being proposed.

Technology development focused on the needs of (1) obstacle detection and identification using radar, laser and vision sensors, (2) lateral (steering) control using magnetic markers, radar reflective markers and vision, (3) longitudinal (throttle and brake) control and (4) other critical technologies including road friction estimation, actuator development, electromagnetic compatibility of radars with other vehicle electronics and software reliability. Significant progress was made in most of these areas, and it has become more widely recognized that these developments have near term applications to vehicle and highway safety features.

Development continued on a suite of computer-based analysis and simulation tools. These tools are used for assessing different AHS concepts for: (1) safety effects of different sensors, control algorithms and vehicle characteristics, (2) capacity and throughput effects of different system architectures, roadway geometries and communications strategies, and (3) social benefits including increased safety, reduced

travel time, less congestion, reduced fuel consumption, reduced emissions and improved freight delivery schedules.

Societal and Institutional Viability.—Studies of the societal and institutional issues associated with the future deployment of AHS continued. Working sessions were held with many transportation agencies across the U.S. to understand their processes for introducing new transportation options and acquaint them with the potential for AHS. These included agencies in Denver, Houston, Pittsburgh, Seattle, New Jersey, Michigan, California and the Dulles Corridor in northern Virginia. Five Perspectives white papers were published on issues such as "AHS in Transit Operations" and "Human Factors Issues in AHS". A panel of experts on transportation effects on land use was convened to address the potential effects of AHS deployment. The panel concluded that AHS, as only one component of the surface transportation system, would not have any significant effect on land use.

1997 Demonstration of Technical Feasibility.—Most of the planning for the Congressionally-mandated 1997 Demonstration was completed this year. The demonstration plan was developed, technical specifications and interface requirements were established, and risk analysis and risk mitigation plan was produced. Hardware and software development is well underway and the demonstration vehicles are in various stages of development. These will show increasing degrees of driver support features leading to full automation. The demonstration will take place on 7.5 miles of the high occupancy vehicle lanes of Interstate 15, north of San Diego, August 7–10. Enhancement of the roadway infrastructure to support the AHS demonstration was completed and additional support infrastructure work continues. The 1997 Demonstration has already attracted international attention and will be attended by public sector and private sector leaders of the transportation world. A "local" kick off ceremony in San Diego for the roadway enhancements in June of 1996 attracted more than 350 guests and twenty five print and electronic media outlets, demonstrating the high degree of interest in the concept of highway automation. The on-the-road demonstrations of partial and full automation features will be accompanied by a technical exposition and a conference on future transportation technology jointly sponsored by the Society of Automotive Engineers. The technical exposition will explain those aspects of the AHS program that cannot be shown in the demonstration such as institutional, social and economic issues, and show that AHS technologies have many near term transportation applications.

Stakeholder Participation.—The Consortium has been particularly successful in attracting stakeholder interest in the AHS program and in providing ways for those stakeholders to participate in and shape the program. There are now 103 Associate Participants in the program in nine stakeholder categories. Each of these categories has selected a representative to the Program Management Oversight Committee where they serve in a role equal to the Core Participants' representatives in setting program goals and direction. Stakeholders also provided input to the program through the Stakeholder Forum held May 30–31, 1996 in Boston and the Concept Development Workshop held September 19–20, 1996 in Minneapolis. The Consortium also communicates with the stakeholder community through its Internet site and through its quarterly newsletter AHS Update.

WORK PLANNED FOR 1997

The two major activities for 1997 are the continuation of concept development and the Congressionally mandated demonstration of technical feasibility.

Phase three of concept development is a nearly three year activity to produce the AHS design concept that best meets national needs in terms of technical, economic, social and institutional aspects. In 1997, concept development will address:

1. Identification of user needs as seen by different categories of stakeholder;
2. Development of an AHS system architecture compatible with the national ITS architecture;
3. Producing an AHS operations concept that includes a multi-stage evolutionary path;
4. Focusing of technology and tool development activities to support concept elaboration, analysis and evaluation and to encourage early deployment of advanced safety features;
5. Development of practical AHS deployment strategies through a series of case studies carried out jointly with regional transportation authorities; and
6. Development of a viable range of options for the key concept attributes of Mixed Traffic Operation, Deployment Sequencing, Distribution of Intelligence, Vehicle Separation Policy, Obstacle Management and Driver Roles.

The development of technologies for vehicle-highway automation and the development of computer-based tools to support concept development and evaluation will

continue, both becoming more focused on specific concepts as these become better defined.

Investigation of the societal and institutional viability of automating highway travel will continue. These studies will address the economic, environmental and social benefits of AHS as well as providing a better understanding of the roles that will be played by the public and private sectors in providing and operating the infrastructure for AHS. The Consortium will work with USDOT to support an independent review of the AHS program goals and the value of the public-private consortium approach.

The 1997 Demonstration will be completed. Preparations include development of the AHS demonstration vehicles, enhancements to the roadway and demonstration support infrastructure, logistics and production. There will be seven scenarios demonstrated on Interstate 15: (1) free agent AHS transit buses and passenger cars, (2) platooned AHS passenger cars, (3) rural to urban freeway transition of AHS passenger cars, (4) an evolutionary path to AHS showing the potential for early spin off of safety features, (5) alternative lane sensing methods for AHS vehicle control; (6) tractor trailers with AHS precursor safety technologies, and (7) AHS maintenance operations. Together, these scenarios will demonstrate the evolution from near term safety features to full AHS for a variety of vehicle types. An AHS Exposition and Future Transportation Technology Conference will be held in conjunction with the vehicle demonstrations. The technology developed for the demonstration and the lessons learned from conducting the tests will be reported and will play an important role in the subsequent concept development activities.

PLANS FOR 1998

The major focus will be on AHS concept development activities with the goal of completing the design of the AHS functional and physical architecture, incorporating the inputs from a broad range of stakeholders. Decisions will be made on the sensing, communications and control requirements for vehicles, the sensing, communications and decision making requirements for the roadway infrastructure, the level and method of Intervehicle coordination, the physical configuration of AHS lanes, entrances and exits and similar architectural issues. These decisions will be documented in a substantial set of draft AHS system specifications backed up by analytical and experimental validation supported by application of AHS technologies and tools now being developed. Technology development activities will be focused on the specific needs of the selected AHS architecture and will be used to produce prototype subsystems. Computer-based analytical and simulation tools will be tailored to evaluate concept and technology alternatives and to support specification development.

The Consortium will fund a number of independent evaluations of the system specifications and the ability of the chosen architecture to meet those specifications. These evaluations will address performance, costs, benefits, safety and environmental issues, among others. These formal independent evaluations will supplement the continuing dialog with stakeholders through workshops, public forums and direct participation in the program.

The development of specifications and designs for vehicle and infrastructure subsystems will begin as the key concept attributes are determined, leveraging from the physical properties developed for the 1997 demonstration. The study of AHS applications to transit will continue with follow on work to the Houston Metro case study and other transit opportunities. The needs of Commercial vehicles will continue to play an important role.

1999–2002

The preferred AHS system design will be selected in 1999 and a complete set of system and subsystem specifications will be developed. A subset of these specifications will be used to build and test a set of prototype AHS lanes with a variety of vehicle types. The success of these tests will be evaluated within the NAHSC and by independent organizations. The results of these tests and evaluations will be used to update the AHS system specification. This system specification for a deployable AHS, along with supporting studies of the path to evolutionary deployment, forms the key output of the program.

If the prototype shows AHS to be technically, economically and socially viable, this will provide the basis for an operational field test deployment of AHS lanes shortly after 2002.

CLOSURE

The AHS Program:

—Is an important investment in the future;
—Offers high potential for social benefits and international economic competitiveness;
—Provides significant opportunities for near-term payoffs in improved highway safety;
—Has the full commitment of all of its public and private Core and Associate Participants; and
—Deserves your continued full endorsement and support.

[APPENDIX A]

NAHSC Mission Statement

The NAHSC will specify, develop and demonstrate a prototype Automated Highway System. The specifications will provide for evolutionary deployment that can be tailored to meet regional and local transportation needs. The Consortium will seek opportunities for early introduction of vehicle and highway automation technologies to achieve early benefits for all surface transportation users. The NAHSC will incorporate public and private stakeholder views to ensure that the AHS is economically, technically and socially viable.

[APPENDIX B]

NAHSC U.S. Associate Participants

Organization	*City/State*
3M, ITS Project	St. Paul, MN
Aaderaa Instruments, Inc	Burlington, MA
Air Force Development Test Center (AFDTC)	Eglin AFB, FL
American Association of State Highway and Transportation Officials	Washington, DC
American GNC Corporation	Chatsworth, CA
American Mobile Satellite Corporation	Arlington, VA
American Public Transit Association	Washington, DC
American Trucking Associations	Alexandria, VA
Argonne National Laboratory	Argonne, IL
Aurora Exhibit Solutions Inc	Columbus, OH
Automobile Club of Southern California	Los Angeles, CA
Barrier Systems Inc	Cherry Hill, NJ
Battelle	Columbus, OH
BRW, Inc	Phoenix, AZ
California Highway Patrol (CHP)	Sacramento, CA
Calspan SRL Corporation	Buffalo, NY
CCG Associates, Inc	Silver Spring, MD
CDW Consultants, Inc	Framingham, MA
City of San Diego	San Diego, CA
Concise Systems, Inc	Milford, MI
Contract Compliance, Inc	Philadelphia, PA
Creative Controls, Inc	Warren, MI
Creative Transit Alternatives	Falls Church, VA
Daniel Consultants, Inc	Columbia, MD
Digital Systems	St. Clair Shores, MI
Diversified Risk Insurance Brokers	Emeryville, CA
Dunn Engineering Associates	Westhampton Beach, NY
Dynamic Technology Systems, Inc	Alexandria, VA
Eaton Vorad Technologies, L.L.C	Cleveland, OH
Enerdyne Technologies, Inc	Santee, CA
Enterprise Group—Colorado Dept. of Transportation	Denver, CO
Epsilon Engineering, Inc	Houston, TX
F. R. Aleman & Associates, Inc	Orlando, FL
Federal Highway Administration—Office of Motor Carriers	Washington, DC
Federal Transit Administration (USDOT)	Washington, DC
FPL and Associates, Inc	Irvine, CA
GERI, Inc	Huntsville, AL
Global Embedded Technologies	Oak Park, MI
Harvard Design and Mapping Co., Inc	Cambridge, MA
Haugen Associates	West Bloomfield, MI
Honda R&D North America, Inc	Torrance, CA
HP Microsystems Inc	Rochester Hills, MI
I–95 Corridor Coalition	Alexandria, VA
Idaho National Engineering Lab	Idaho Falls, ID
IMRA America, Inc	Ann Arbor, MI
International Bridge, Tunnel & Turnpike Association (IBTTA)	Washington, DC

NAHSC U.S. Associate Participants—Continued

Organization	*City/State*
Iowa State University	Ames, IA
ITP/Fleet.Net	Boca Raton, FL
ITS America	Washington, DC
ITS Consortium, Inc	Washington, DC
Jet Propulsion Laboratory	Pasadena, CA
L. S. Gallegos & Associates, Inc	Englewood, CO
Louisiana State University	Baton Rouge, LA
Maricopa County Department of Transportation	Phoenix, AZ
Martin Enterprises & Associates, Inc	Reston, VA
Matrix Corporation	Raleigh, NC
Metropolitan Transit Authority of Harris County	Houston, TX
Meyer, Mohaddes Associates, Inc	Seal Beach, CA
Michigan Department of Transportation	Lansing, MI
Michigan State University	East Lansing, MI
Minagar & Associates	Irvine, CA
Montana State University, Western Transportation Institute	Bozeman, MT
National Institute of Standards and Technology	Gaithersburg, MD
National Private Truck Council	Alexandria, VA
New Jersey Institute of Technology	Newark, NJ
New Jersey Transit Corporation	Newark, NJ
New York State Department of Transportation	Albany, NY
Oakland University	Rochester, MI
Penn. Transportation Institute/The Penn State University	University Park, PA
Pennsylvania Turnpike Commission	Harrisburg, PA
Public Technology, Inc	Washington, DC
QST Electronics Inc	Lajolla, CA
Reason Foundation	Los Angeles, CA
Red Zone Robotics, Inc	Pittsburgh, PA
Rizzo Associates, Inc	Natick, MA
Robotic Technology Inc. (RTI)	Potomac, MD
Roper and Associates, Inc	Santa Monica, CA
Ruan Transportation	Des Moines, IA
SAE International	Warrendale, PA
San Diego Association of Governments	San Diego, CA
San Diego Regional Transportation Technology Alliance (RTTA)	San Diego, CA
Sarakki Associates	Foothill Ranch, CA
Shell Oil Products Company	Houston, TX
South Coast Air Quality Management District	Diamond Bar, CA
State Farm Mutual Automobile Insurance Company	Bloomington, IL
State University of New York—University at Stony Brook	New York, NY
Sumitomo Electric U.S.A., Inc	Santa Clara, CA
Technology Management, Inc	San Diego, CA
Texas Transportation Institute	College Station, TX
The Institute of Public Policy—George Mason University	Fairfax, VA
The Ohio State University	Columbus, OH
Toyota Technical Center USA, Inc	Ann Arbor, MI
U.S. Army Aberdeen Test Center	Aberdeen Proving Ground, MD
U.S. Army Tank Automotive Armaments Command (TACOM)	Warren, MI
University of North Carolina at Chapel Hill	Chapel Hill, NC
University of Florida—Transportation Research Center	Gainesville, FL
University of Massachusetts Transportation Center	Amherst, MA
University of Minnesota	Minneapolis, MN
University of Wisconsin at Madison	Madison, WI
Utilicom, Inc	Goleta, CA
Virginia Department of Transportation	Richmond, VA
Virginia Polytechnic Institute & State University	Blacksburg, VA
Volvo GM Heavy Truck Corporation	High Point, NC
Waveband Corporation	Torrance, CA
Wayne State University	Detroit, MI
Wilbur Smith Associates	Columbia, SC
William F. Bundy	Bristol, RI
Zapata Engineering, P.A	Charlotte, NC
Aisin Seiki Company, Ltd.	Kariya, Japan
ERTICO—European Road Transport Telematics Implementation	Brussels, Belgium
New Flyer Industries Limited	Winnipeg, Canada
Ontario Ministry of Transportation	Downsview, Canada
Rijkswaterstaat—Dutch Department of Transportation	Rotterdam, The Netherlands
Toyota Motor Corporation	Toyota, Japan

PREPARED STATEMENT OF THE HONORABLE SHARPE JAMES, MAYOR, CITY OF NEWARK, NJ

On behalf of the City of Newark, New Jersey, let me first thank the Chairman and other Members of the Subcommittee for all their diligent efforts in protecting and maintaining the transportation infrastructure of the City of Newark, as well as the entire State of New Jersey. Now, as you begin the difficult process of crafting the fiscal year 1998 Transportation Appropriations Bill, I would like to bring your attention to a project of great importance to my City, the Urban University Heights Road Connector.

This critical element in the overall transportation plan for Newark is needed to connect the regional highway network to the University Heights area, the County Complex and the Central Business District. In doing so, this project will contribute to the economic vitality of the core of New Jersey's largest city. The absence of this connector has had an extremely negative impact on residential neighborhoods, which are being strangled by backed up commuter traffic. If constructed, it would eliminate considerable congestion and diminished air quality caused by commuters exiting from I–280 to the local streets in order to get downtown and to the five institutions of higher education in the City.

The purpose of the Urban University Heights Road Connector is to channel vehicular traffic directly to University Heights and the business district, thereby providing an improved distribution from the regional highway system to the City street system. The new highway connection would provide these connections along First Street, from that street's exit on I–280. Further, it will relieve peak hour traffic build-up presently being experienced on I–280 through Newark and reduce traffic exiting at the Martin Luther King, Jr. Boulevard ramp and the Harrison Exit.

The project will, for the first time, provide the major universities in the City of Newark direct access and linkage to the Interstate system via I–280. The colleges and universities alone are visited by more than 50,000 people daily. Much of this traffic exits I–280 at First Street, which currently empties onto a tertiary through street and residential grid.

The University of Medicine and Dentistry of New Jersey (UMDNJ) is a national research hospital facility which receives federal research monies in conjunction with infectious disease research, AIDS research, trauma research and numerous other Federal research programs. Improved access to this facility via the Urban University Heights Road Connector is essential in order for UMDNJ to effectively provide safe and quality care to its patients.

Further, this project will provide direct access to the New Jersey Institute of Technology (NJIT), Rutgers University, and Essex County College. NJIT's only campus is also located in the University Heights area of the City of Newark directly next to the urban campuses of Rutgers University and Essex County College. These institutions not only house students in the vicinity of this project but also receive daily thousands of commuters in and out of the City of Newark. This construction and widening project will improve access to these facilities.

In conclusion, the Urban University Heights Road Connector has received strong support from the City of Newark and all the university communities throughout the City. This valuable project will Improve and increase mobility, improve air quality with decreased congestion, and support economic development. Therefore, the City requests $5.7 million from the subcommittee to complete design and construction of this project.

PREPARED STATEMENT OF JOHN T. DURBIN, EXECUTIVE DIRECTOR, PENNSYLVANIA TURNPIKE COMMISSION

INTELLIGENT TRANSPORTATION SYSTEMS ON THE PENNSYLVANIA TURNPIKE

The Pennsylvania Turnpike Commission is committed to continued investment into Intelligent Transportation Systems (ITS). A $300,000 ITS Early Deployment Strategic Plan, financed jointly by the Federal Highway Administration and the Pennsylvania Turnpike Commission, was completed on April 11, 1996. This comprehensive, coordinated, integrated and seamless ITS plan is the basis for implementing ITS on the Turnpike.

Several elements of the intelligent transportation infrastructure will be the result of a number of private/public partnerships.

One private/public partnership is the travelers information boards located in the 22 service plazas along the Turnpike that have been financed by the travel industry. It gives real-time pertinent information to the traveler as well as other necessary travel information such as lodging and attractions, and is controlled through leased

telephone lines. Other potential private/public partnerships are being explored such as additional leasing of space on microwave towers to cellular phone companies. The Commission is also discussing a partnership with a firm to test a new technology to provide variable displays along the roadway. These displays will be capable of displaying information similar to that displayed on a computer monitor or television. This system will enable the Commission to provide valuable information to travelers in a number of different manners.

A significant contributor to an efficient and cost effective ITS is the monitoring and availability of personnel on a 24-hour basis in the Turnpike's Operations Center. With individual ITS components supported by a microwave communication system and leased communication lines, real time information exchange could occur with all service plazas, maintenance yards, State Police barracks. highway advisory radios, travel boards, weather and traffic sensors. incident management (call boxes, *11, and radios), variable message signs, electronic toll and traffic management systems, traveler initiated phone calls, and interact access.

This data, voice, and video communication ability, when all the ITS components are installed, will create a seamless transportation facility for real-time information and customer services on a 506-mile freeway facility that connects the largest five metropolitan areas in Pennsylvania, and will greatly assist intermodal transfers and just in time delivery systems. Rural and recreational areas of the Pennsylvania Turnpike will also be served. The new communication system will integrate and coordinate various independent components of ITS into a single, comprehensive system that will be controlled from a major transportation center in central Pennsylvania.

Electronic toll collection (ETC), when implemented, will provide access through or around toll barriers for the toll agencies in New York, New Jersey, and Pennsylvania. It will provide real-time information for public or private companies as to the location of their vehicles and facilitate electronic transfer of information and collection of tolls by one organization for all members of the Inter-Agency Group. ETC will provide a reduction in operating costs and reduction in air pollution and delays at toll plazas. "Smart Card" technology is currently being investigated for the next generation of electronic payment systems.

Safety and costumer service are two of the most important goals of the Pennsylvania Turnpike Commission. Many ITS components already exist on the Turnpike and are currently operational. The Turnpike accident rates are lower than the Interstate Highway System and has a well established incident management program. Call boxes are located at every mile: cellular number *11 can be utilized for instant communication with our operations center: emergency services and response time have been integrated and coordinated for all sections on the Turnpike: radio communication can be transmitted on the 506 miles of toll road by the microwave communications system; and the Sonic Nap Alert Pattern (SNAP) installed in the shoulder of the highway has saved numerous lives. The Turnpike has committed to enhancing its communication system to provide the capacity for current and future ITS's.

Portable highway advisory radio systems are currently available across the Turnpike, and travel boards are currently in all service plazas where pertinent travel, traffic, and weather information can be obtained by the traveler.

Currently the Commission is installing five Highway Advisory Radio sites and three Travelers Information Displays in the Philadelphia area to provide travelers with information on construction, weather and delays both on the Turnpike and on the roadways adjacent to the interchanges. This $2 million system funded by the Turnpike will be operational by the summer of 1997. In addition, the Commission will be adding staff to the operations center to provide improved 24 hour operations of these and future systems.

The Commission is preparing plans for the installation of 10 additional Highway Advisory Radio sites, four additional Travelers Information Displays, two Closed Circuit Television cameras and an integrated control system. The Highway Advisory Radios will be installed at the Turnpike interchanges with Interstate Highways and will be used to provide information to travelers on the Turnpike as well as those traveling on the interstates. The Travelers Information Displays will be installed in advance of critical junctures on the Turnpike where alternate routing of traffic are available. The Closed Circuit Television Cameras will be installed at two of the Turnpikes largest interchange to allow operators to monitor backlogs, detect and verify incidents and provide immediate and appropriate response to these incidents. Finally, an integrated control system will be developed to provide integrated control of the Commission's existing and future travelers information components. These components of the Commission's ITS are being funded in part with the $3 million Federal appropriations provided in fiscal year 1997.

Although financial resources are being maximized from public and private agencies, there is still a significant shortage of financial resources for deployment of ITS. It is anticipated that 10 to 15 years will be needed for full deployment. A federal-aid grant of $8 million would greatly assist the acceleration of the Commission's ITS program and will demonstrate a comprehensive, coordinated and integrated statewide system on a toll road. It will marry separate components of ITS systems into a universal system that will be comprised of advanced telecommunications, information and computer technologies with the transportation infrastructure. It is a consumer oriented system for information and traveler service that would benefit both intrastate and interstate transportation.

The Commission would like to further expand its Travelers Information System to incorporate additional Highway Advisory Radio sites and Travelers Information Displays at tunnels and other interchanges with significant traffic volumes. In addition, additional Closed Circuit Television Cameras will be installed at major interchanges to monitor traffic flow, verify incidents and provide immediate and appropriate response to these incidents. This will help to lessen interchange area congestion and allow the Commission to provide accurate information to travelers.

To obtain more timely and accurate information on traffic and weather conditions. the Commission would like to install traffic and weather sensors.

Traffic sensors will be installed at interchanges and at intermitted locations between interchanges to monitor traffic flow and provide a means for Turnpike Operators to detect slowing traffic as a result of a disable vehicle, accident or heavy volume of traffic. Initial implementation will occur in the Philadelphia area where reoccurring congestion exists at interchanges and where a minor incident can create gridlock if not detected and cleared immediately. Traffic sensors will be installed on the exit ramps to these interchanges and will detect when traffic is beginning to backlog towards the mainline. This will provide a warning to the operations center as well as providing advanced warning to drivers to slow or stopped traffic in and around the interchange areas. This will provide an essential warning system when Electronic Toll Collection is implemented and higher speeds are anticipated in the interchange areas.

Weather sensors will be installed in areas along the Turnpike where the roadway historically experiences recurring weather events such as fog, icing and extreme temperature variations. Initial implementation will occur in the mountainous sections of central, western and northeastern Pennsylvania where travelers (particularly Commercial Vehicles) rely on the Turnpike to provide safe and efficient travel during inclement weather. This system Will allow the Turnpike to anticipate and more quickly respond to weather events and provide maintenance crews with information to better maintain the highway. In addition, this system will allow travelers to obtain more accurate and timely weather information through the Commission existing and expanded Travelers information System.

The Commission will be remodeling and expanding its operations center within the next few years as part of the rehabilitation and expansion of the Turnpike's Central Office located in Harrisburg, PA. To provide for a state of the art facility, the Commission will provide advanced technologies to provide and obtain real-time information such as traffic sensor data and Closed Circuit Television feeds with other public and private entities. This would include exchanging data with PennDOT's traffic control centers in Philadelphia and Pittsburgh and provide a link between the major operation centers across the state of Pennsylvania. In addition, it will allow for links with agencies in neighboring states and with private entities such as traffic reporting services and office parks.

Other improvements to the operation center include development of a Geographic Information System or electronic map. This system will allow operators to identify on the map locations of incidents, the number of lanes opened at an interchange, lane closures, and will automatically identify the locations of call box calls and nature of the call, status of detectors and cameras, slow moving traffic when detected, weather sensor information and messages on the Travelers Information System components. This electronic map could be projected on to large screen TV so that all management personnel and operators could view everything that is occurring on and near the Turnpike at the same time. This will provide a more coordinated approach to day to day management of the roadway and during incidents. This system will also allow an operator an up-close view of a roadway segment so that he or she can provide emergency response vehicles with information on narrow shoulders, closest access gate, nearest water source and another features which could delay a response or effect the management of an incident.

The Commission currently has Closed Circuit Television Cameras installed in three of its five Tunnels. Images from these cameras are currently only transmitted to the tunnel portal building located at each of the tunnels. The Commission would

like to transmit these images to its control center better assist tunnel personnel during tunnel incidents and repairs.

As Author Dan Cupper seated in his history of the Pennsylvania Turnpike. "As America's first superhighway, the Turnpike sparked a revolution in the way motorist, truckers, engineers and consumers view highway transportation. Simply put it changed the American perception of time." Although we do not intend on changing the American perception of time by implementing ITS, the Turnpike will provide travelers with a timely perception of what is occurring on the roadway in order to provide, as it has for the last 56 years. the most efficient network for the movement of goods and people across the Commonwealth of Pennsylvania. Furthermore, by implementing proven technology in a phased approach, the Commission is demonstrating how ITS's can provide improved safety, efficiently, traffic flow and costumer service to all travelers.

The Turnpike's mission is to "Operate and manage in a fiscally responsible manner, a safe, reliable and valued toll road system." By providing appropriations for the implementation of ITS, the Turnpike's mission will drive us to deliver these services in an efficient and effective manner.

PREPARED STATEMENT OF KURT WEINRICH, DIRECTOR, REGIONAL TRANSPORTATION COMMISSION OF CLARK COUNTY, NV

Chairman Shelby, Senator Lautenberg, members of the Subcommittee, I am Kurt Weinrich, Director of the Regional Transportation Commission of Clark County, Nevada. I would like to thank you for the opportunity to submit this testimony to the Subcommittee.

The Regional Transportation Commission of Clark County, Nevada (RTC) is a public entity created under the laws of the State of Nevada with the authority to operate a public transit system and administer a motor fuels tax to finance regional street and highway improvements. In addition, the RTC was designated by the Governor of Nevada as the Metropolitan Planning Organization (MPO) for the Las Vegas Valley. The RTC is not only a multimodal planning entity, but also a multimodal service provider. As well as funding over $150.0 million annually in new roadway construction, the RTC operates a mass transit system that moves more than 3 million passengers a month and recovers nearly 50 percent of its operating and maintenance costs from the farebox. *See* Exhibit A.

Over the last several years, the Las Vegas metropolitan area has experienced phenomenal growth. The economy of the Las Vegas Valley is characterized by a favorable business environment, including minimal government regulations, an absence of business and personal income taxes, and a comparatively low property tax by national standards. This environment has fostered an era of explosive growth that has fueled the creation of over 150,000 new jobs since 1990, and has witnessed the influx of over 400,000 new residents to the valley since 1990. As shown in Exhibit B, current projections indicate that population will exceed 2 million residents and employment will exceed 750,000 jobs by the year 2015. Currently, over 5,000 new residents move to the Las Vegas Valley each month. With Nevada's positive business climate, strategic location, and reputation as a tourist destination, it is clear why Las Vegas is the fastest growing urban area in the United States.

Las Vegas welcomed over 29 million visitors in 1996. With over 100,000 hotel rooms available, and 14,100 more rooms under construction, Las Vegas continues to remain a world class resort destination that affords a wide variety of recreational opportunities and unparalleled convention and meeting facilities. On any given day, the actual population of Las Vegas, defined as residents and tourists, exceeds 1.5 million persons. To maintain this position and serve the needs of the growing tourist economy, workers must staff the resort hotels in a variety of jobs over a twenty-four hour period.

On December 5, 1992, the RTC initiated the Citizens Area Transit (CAT) system, the largest single start-up of new bus service in an urban setting funded entirely with local funds. CAT has proven extraordinarily successful. In only 4 short years, annual CAT ridership has grown from 14.9 million riders to over 35.0 million, equating to an average annual growth rate of 44 percent. *See* Exhibit C. This rate of growth is faster than the growth in population, employment, hotel rooms, visitor volumes, airport passengers, vehicle miles traveled, auto registrations, and new home sales in the same time period. While the CAT routes operating along the Las Vegas Strip provide service to over 800,000 passengers per month, this accounts for only 25 percent of the total monthly ridership. Clearly, many Las Vegas residents rely heavily on the CAT system to get to work, school, shopping, and recreational facilities. CAT has proven itself an integral part of the Las Vegas community.

To respond to the huge demand for transit services, the RTC has continually increased bus service. Since startup, total annual hours of revenue service have increased by 46.7 percent; from 585,134 hours in 1993 to 858,746 in 1996. *See* Exhibit D. Similarity, annual vehicle miles have increased by 76.7 percent, from 6,384,660 miles in 1993 to 11,283,446 miles in 1996. However, CAT carries its phenomenal ridership, over 3 million passengers per month, on a total fleet of only 192 vehicles. As shown in Table 1, CAT transports up to three times the number of passengers per vehicle as compared to other peer cities.

TABLE 1

System	1996 total passengers	Fleet size	Average passengers per vehicle
CAT	35,044,533	192	182,523
Phoenix	35,028,406	462	75,819
Orange County	44,700,000	425	105,176
Foothill Transit	13,000,000	259	50,193
San Antonio	36,284,571	519	69,912
Austin—Capital Metro	29,100,000	466	62,446

Even with the overwhelming success of CAT, only 36 percent of the current routes operate more frequently than once per hour. *See* Exhibit E. Many routes in the CAT system operate well in excess of the 150 percent capacity standard. Additionally, with the continued growth and development of the Las Vegas Valley, numerous new residential developments are not yet included in the CAT service area. While the demands for service seem to increase daily, the RTC is severely constrained by a lack of rolling stock. Simply stated, additional vehicles are necessary to increase service within the community. To enhance the convenience and reinforce transit as a viable transportation option, increased frequencies on all routes are necessary.

The RTC currently has 55 new vehicles on order for replacement and expansion of the CAT fleet. However, even this number of additional vehicles will be insufficient to meet the ever growing demands for expanded service. To meet this need, the RTC requests $9 million in Section 3 bus discretionary funds to allow the RTC to purchase 23 additional vehicles which would be used to provide more frequent services on a number of heavily utilized routes. Consistent with past appropriations requests, the RTC will provide a substantial overmatch of 30 percent in local funding for these equipment purchases.

Despite the dramatic growth and expansion of CAT, the Las Vegas Valley continues to experience rising congestion levels, especially in the area known as the Resort Corridor. The Resort Corridor defines the true Central Business District (CBD) of the Las Vegas Valley. While many American cities maintain central business districts of multiple city blocks, the Las Vegas CBD is in fact an eight mile long segment of the valley. The employment in this area is not just limited to the resorts. The University of Nevada-Las Vegas, the Hughes Business Center, McCarran International Airport, three regional shopping malls and the region's medical centers are also located within the defined Resort Corridor. Although it covers only 10 percent of the land area of Las Vegas, over 50 percent of the regional employment is located within the Resort Corridor, while 93 percent of the area residents live outside the corridor. In 1996, 70 percent of all trips in the Las Vegas Valley either traveled to, from, or through the Resort Corridor. To meet projected levels of travel demand without the addition of new mass transit services, the Las Vegas Valley would need to add 18 lanes of arterial capacity in the north-south direction and 21 lanes in the east-west direction.

To frame the solutions to these growing problems, the RTC sponsored a Major Investment Study (MIS) for the resort corridor to evaluate the effectiveness of multimodal solutions to regional mobility issues. The MIS process led to the RTC's recent adoption of a Master Transportation Plan that includes a fixed guideway element as well as enhanced bus services. The objective of the fixed guideway system is to provide residents and visitors with environmentally clean, cost effective, public transportation services that will meet the dramatically increasing transportation needs of the Las Vegas Valley.

As described in the Master Transportation Plan, the full fixed guideway system would consist of approximately 18 miles of double-track, elevated, automatic guideway providing service to 28 stations and 3 major terminals. However, since the completion of the MIS, there has been considerable discussion locally about the possibil-

ity of dividing the project into two separate but complementary components: a privately funded monorail serving a portion of the resort area, and a publicly funded system extending north to the City of Las Vegas downtown area. Regardless of the specific outcome of these discussions, the RTC is ready to move forward to the next phase of project development on the public system by proceeding with system and technology refinements and initiation of a Draft EIS in calendar year 1997. To this end, the RTC requests the sum of $5 million in Section 3 new start funding for preliminary engineering and design of this project. We should also note for the committee's information that the RTC is requesting an authorization for this project in ISTEA II.

The RTC appreciates the Subcommittee's continued support of transit projects in the Las Vegas Valley. Through a continued Federal partnership, the RTC will strive to meet the tremendous demands placed upon it through the rapid growth of Las Vegas.

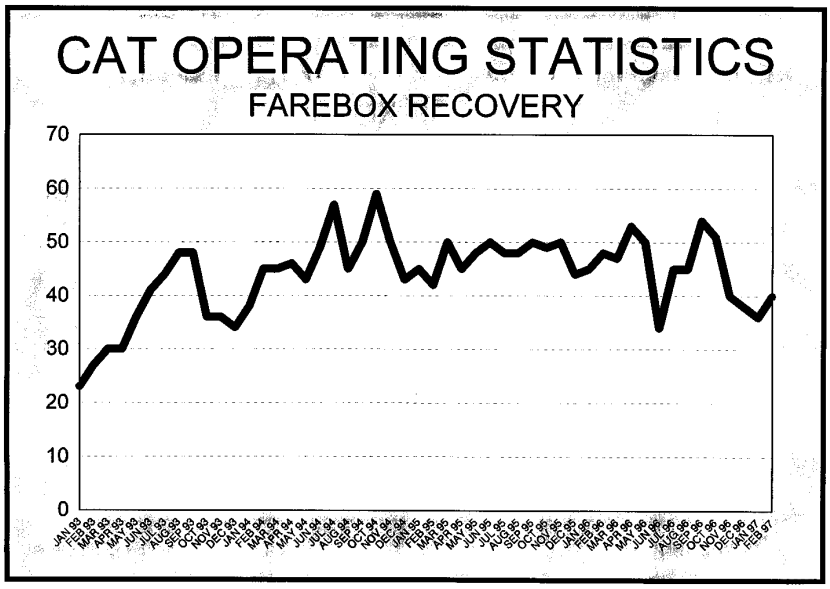


EXHIBIT A

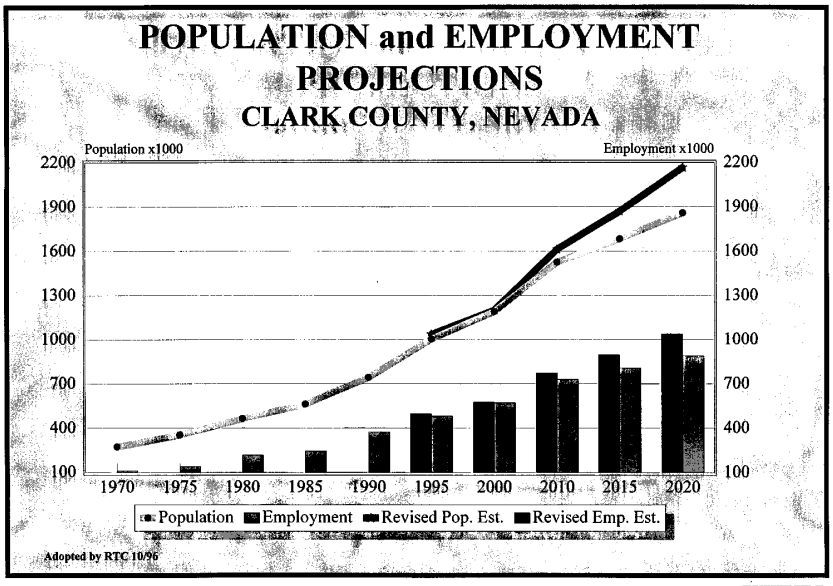


EXHIBIT B

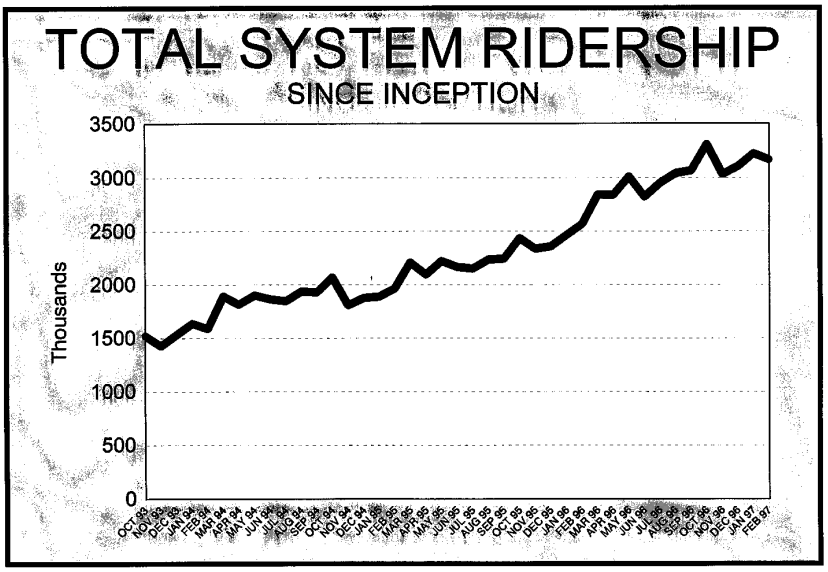


EXHIBIT C

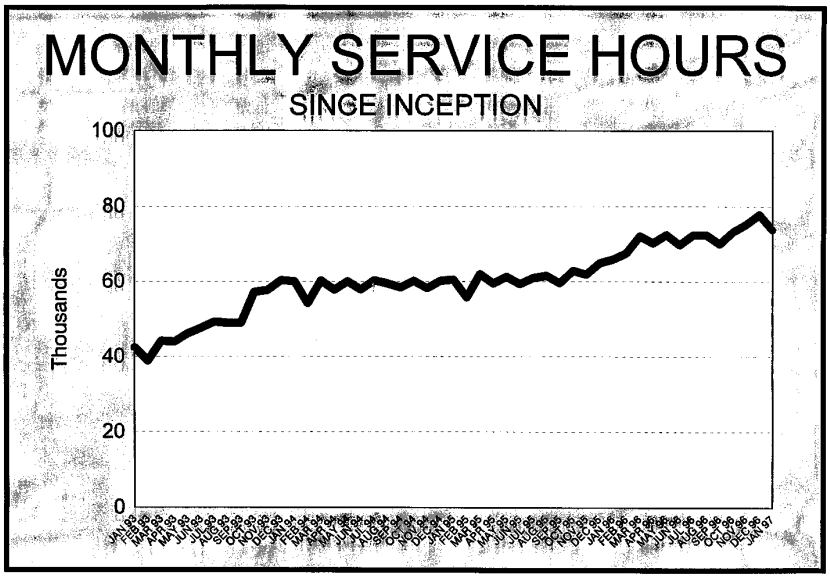


EXHIBIT D

[CLERK'S NOTE.—Exhibit E could not be printed in the hearing record but is available for review in the subcommittee's files.]

MULTIMODAL-RELATED TESTIMONY

PREPARED STATEMENT OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS

The American Society of Civil Engineers (ASCE), founded in 1852, is the oldest national engineering society in the United States. Membership is held by more than 120,000 individual professional engineers, and is equally divided among engineers in private practice; engineers working for federal, state and local governments; and those employed in research and academia. The Society's major goals are to develop engineers who will improve technology and apply it to further the objectives of society as a whole, to promote the dedication and technical capability of its members and to advance the profession of civil engineering.

INFRASTRUCTURE INVESTMENT

ASCE has a longstanding interest in our nation's infrastructure system. As civil engineers, we have played an historic and significant role in building and maintaining the infrastructure that supported the development and prosperity of the Nation. We are deeply concerned about the nation's growing public works infrastructure investment needs. America's infrastructure system has been placed on hold for so long that it is now in immediate need of substantial investments and repair. The maintenance needs of the nation's highways and transit systems continue to outpace the rate of investment.

The Administration's own studies reveal that annual surface transportation spending needs to be increased by $18.2 billion, or more than 40 percent, simply to maintain current highway, bridge, and transit conditions and performance. The United States, however, is investing less than $41 billion each year.

Meeting these challenges is one of the greatest public policy issues facing our nation as we move into the 21st century. Failure to meet these needs will threaten our ability to compete in the global marketplace, and will ultimately jeopardize American jobs and our quality of life.

In order to address these problems, the federal government needs to develop infrastructure investment programs which promote long-term economic growth. The current budget structure however does not highlight for decision making purposes the differences between spending for long-term investment and spending for current

consumption. As a result, Congress is not encouraged to make decisions about how much spending overall should be devoted to programs having a direct bearing on long-term growth and productivity. To assist the federal government to more rationally account for the cost of physical infrastructure, ASCE supports the establishment of a multi-year capital budget that would create an infrastructure investment account within the unified federal budget.

Instituting a capital budget would help eliminate the existing bias against investment in physical infrastructure and would better represent the value of government investment in infrastructure projects. It would also help focus public attention on the nation's physical infrastructure needs. Many state and local governments already use capital budgets to finance the orderly planning and financing of capital assets like transportation infrastructure. ASCE urges the federal government to look to those jurisdictions for guidance in setting up its capital budget.

ASCE commends the efforts of the congressional leadership to control federal spending and reduce the federal deficit. However, we caution lawmakers to approach the deficit problem in an even-handed manner. Disproportionate cuts should not be applied to infrastructure investment programs in general, and transportation programs in particular.

Moreover, the fact that key highway, transit and aviation investment programs are supported by dedicated user fees, such as the federal motor fuels tax and the airplane ticket tax, should be taken into account as Congress confronts the deficit problem. A failure to appropriate adequate funds for highway, transit and airport investments in fiscal year 1998 will further strengthen the case of advocates for moving the four federal transportation trust funds off-budget. ASCE is a strong proponent of H.R. 4. The Truth in Budgeting Act, which now has 224 co-sponsors.

There is strong, if not overwhelming, public support for capital infrastructure investment. Every public opinion survey we have seen on this issue shows strong support. Even proposals to raise the gas tax for infrastructure investment—but not deficit reduction—attract impressive support from the American people. But if transportation excise taxes continue to be used to mask the size of the federal deficit, or diverted to fund other non-infrastructure programs, public support for these dedicated user fees will begin to decline.

FISCAL YEAR 1998 BUDGET REQUEST

ASCE is very concerned about the direction of federal infrastructure investment. Under the Administration's proposal, federal spending on transportation programs would remain essentially flat under the fiscal year 1998 budget. The overall request of $38.5 billion for transportation programs next year amounts to a one percent reduction from the level that was appropriated by Congress in fiscal 1997. ASCE strongly opposes any cuts in key infrastructure investment programs and urges full funding of federal aviation, highway and transit programs in fiscal year 1998. Congress must recognize that cutting transportation funding will not cut transportation needs.

In a major shin from previous policy, the bill also proposes—for the first time—to shift $4.8 billion from the Highway Trust Fund (HTF) to finance Amtrak's capital and operating expenses and moves another $250 million to the Washington, D.C.-area transit program. Such a move only puts further pressure on our existing highway and transit systems which are in critical need of repair and investment.

REAUTHORIZATION OF ISTEA

ASCE is committed to a leadership role in helping Congress rewrite a surface transportation bill that will not only meet the transportation needs of today, but will prepare the nation for the transportation needs of tomorrow.

Recognizing that the reauthorization of ISTEA provides an opportunity to build and improve the existing framework, we support a continued federal role in the nation's surface transportation system. With billions of dollars in state highway funds threatened by any lapse in the program, we strongly recommend that the reauthorization of ISTEA be completed before the September 30. 1997 deadline and encourage Congress to reauthorize the program for a period of at least five years.

We believe that the reauthorization should build on the principles of the original ISTEA legislation with increased emphasis on accelerating the implementation of technologies that will improve safety and efficiency on U.S. highways. The federal government should continue to focus on the essential elements of ISTEA: ensuring a balanced intermodal system; improving transportation safety; encouraging the development and use of advanced technologies; supporting research and education; enhancing U.S. economic competitiveness; and, protecting the environment.

In addition to maintaining current activities and programs, the reauthorization of ISTEA should be enhanced by the following: increasing emphasis on proven and productive safety programs; encouraging efforts to use innovative financing, including public/private partnerships; incorporating innovation and technology transfer as key components; removing barriers to the use of proprietary technology in federal-aid projects; and, strengthening research and development programs by providing adequate resources to implement and improve new and existing technologies.

While ASCE commends the Administration for maintaining and building upon the core principles of ISTEA by providing increased funding for safety and research and development programs, we are deeply concerned that the six-year, $175 billion authorization proposal falls short of the funds needed to maintain and improve our existing transportation infrastructure system. We estimate that Congress will need to spend at least $220 billion in the next reauthorization bill just to maintain the nation's current highway and transit systems.

Under the Administration's plan, annual highway spending would be between $20 and $21 billion over the next six years which translates into roughly a $1 billion increase over current levels. These figures do not take into account the eroding effects of inflation on purchasing power.

A much greater portion of Highway Trust Fund revenues can and should be spent for transportation investments than is currently outlined in the Administration's fiscal year 1998 budget proposal. Reports show that the Highway Trust Fund could easily support annual highway spending of $26 billion. Currently, there is a cash balance of more than $20 billion in the Highway Trust Fund, and this figure is projected to grow to about $48 billion by 2002 under the proposed budget. The existence of this balance not only represents a breaking of the government's contract with American taxpayers, but also undermines our nation's ability to invest in critical transportation improvement projects.

The proposed annual highway spending of $20 billion is unacceptable given our growing infrastructure needs. According to the Department of Transportation's 1995 biennial report to Congress, an estimated $57.2 billion in capital investments would have been needed just to maintain 1993 conditions and performance of our nation's highway, bridge, and transit systems. Instead, capital investments for that year amounted to only $40.5 billion. An estimated $80 billion would have been needed in 1994 to improve the current infrastructure conditions; almost double current spending.

When you compare these figures to the actual conditions of U.S. roads, where 59 percent of the nation's major roads are in need of repair or improvements, the arguments for increased infrastructure spending become even stronger.

In order to increase overall spending for ISTEA programs, we strongly urge the Administration to follow through on its commitment to "rebuild America" by supporting legislation to move the four transportation trust funds off-budget and to redirect the 4.3 cents-per-gallon gasoline tax from deficit reduction to the Highway Trust Fund. Combined, the proposals would allow annual funding for ISTEA programs to grow to approximately $30 billion annually and would help to solve many of the difficult issues confronting the Administration and Congress, including the contentious issue of how to divide highway funding among states.

INNOVATIVE FINANCING

Despite the widely recognized need for increased funding, it has become increasingly apparent that budgetary constraints limit the federal government's ability to adequately address our growing infrastructure problems.

In order to close the gap between transportation needs and available resources, ASCE supports the development of new and innovative methods of financing infrastructure to attract new sources of capital.

The Administration calls for more funds to be used to attract private investment in the highway system. In addition to the $150 million proposed for the State Infrastructure Banks (SIB's), another $100 million would be set aside for a new Transportation Infrastructure Credit Program which would provide seed money to leverage new projects of "national significance."

ASCE applauds the provisions in the President's proposal that encourage creative financing solutions and more private sector involvement in infrastructure improvement and management of America's transportation system.

AVIATION

America's aviation system is a key component of the nation's transportation infrastructure. Since fiscal 1992, the number of airline passengers has grown by 100 mil-

lion, an increase of 21 percent, while aviation infrastructure investments have significantly declined.

The Federal Aviation Administration (FAA) would see a mix of cuts and increases in fiscal year 1998. Overall, the FAA would receive $8.46 billion, a slight decline from current year spending of $8.56 billion. FAA's operating budget would be $5.4 billion, up from $4.8 billion this year.

The biggest cut would be in the Airport Improvement Program (AIP) which would be reduced by 31 percent under the Administration's proposal, from $1.46 billion in fiscal year 1997 to $1 billion in fiscal year 1998. To make matters worse, while the AIP funding is cut, the administration is not proposing to allow airports to increase the maximum Passenger Facility Charge (PFC) to make up for the loss of federal funds. ASCE strongly opposes these cuts. The most recent data reveals that the Airport and Airway Trust Fund could support spending roughly $4.8 billion to finance programs like the AIP.

The AIP helps fund necessary safety, security, noise and capacity enhancement programs at the nation's airports. Such cuts threaten the security and safety at our nation's airports.

Tremendous capital needs remain to be addressed at the nation's airports. The FAA projects that the number of passengers will increase by 351 million in the next 12 years. Much more investment is needed if airport authorities are to come to grips with increasing numbers of customers.

ASCE strongly believes that greater investment in our air transport infrastructure will be necessary to create a safer and more efficient U.S. aviation network

CIVIL ENGINEERING RESEARCH FOUNDATION

Increasing public interest in, and reducing obstacles to, innovation is a formidable task. ASCE, as the representative body of the profession largely responsible for the design and construction of the manmade environment, is deeply concerned about the nation's growing infrastructure needs and believes that R&D programs leading to innovation are vitally important to help close the gap. In pursuit of this goal, ASCE established the Civil Engineering Research Foundation (CERF) in 1989 to foster a unified civil engineering research effort and create a coordinated R&D program that both addresses industry and profession needs and involves industry and the profession in planning and conducting appropriate research projects. CERF is now working with government, industry and academia to develop and finance new cooperative research initiatives in the infrastructure area.

A major focus of CERF's activities is to assist practitioners in moving research findings into practice. Accordingly, CERF has undertaken numerous initiatives to attack existing barriers to innovation, both technical and institutional in nature. Likewise, it "coordinates and integrates" the diverse elements of the design, construction and civil engineering communities to plan and conduct collaborative research to solve high priority real world.

In order to move highway innovation into practice more quickly, CERF, under a cooperative agreement with the Federal Highway Administration (FHwA), established the Highway Innovative Technology Evaluation Center (HITEC) in 1994.

As a nationally recognized service center, HITEC evaluates new and innovative products and technologies for the highway community. Working with a variety of public and private sector organizations, it serves as a national clearinghouse for a wide range of technologies which have application to all phases of the construction process—design, construction, operation and maintenance.

In 1996, HITEC initiated over 25 new evaluations. Currently, HITEC is evaluating numerous other innovations, including: seismic isolation and dissipation devices, bonding agents for pothole repairs, a heated pavement system, a high retroreflectivity traffic sign system, and a precast segmental overpass system. HITEC illustrates the kind of public-private sector collaboration CERF promotes.

RESEARCH AND INNOVATION

ASCE has a long-standing position in support of greater education, research and development related to infrastructure facilities to foster innovation and increase productivity in design, materials, construction, maintenance and operations while maintaining engineering quality and structural integrity.

Investments in surface transportation research have led to significant improvements in our nation's infrastructure system and have provided a great many benefits to users and the economy in the form of safer, faster and more efficient travel. These improvements are largely a result of innovative materials, technologies, and practices that were developed by federal research programs and implemented by transportation planning officials.

Research and development are critical to finding effective and innovative solutions to the growing problems facing our transportation system. Failure to meet these challenges could slow our economic growth and reduce our ability to compete in the global marketplace. Research and development hold the potential to increase the quality and durability of future infrastructure investments as well as to improve the productivity of U.S. businesses which rely on a healthy transportation system for the movement of goods and services.

America's historic decline in infrastructure investment over the past two decades has included an unfortunate under-investment in infrastructure R&D. The Department of Transportation has spent only 2 percent of its total surface transportation budget on transportation research programs. Most of this funding has gone to the Federal Highway Administration which received $2.1 billion.

In recent years, cuts in annual spending for research programs below the amounts authorized by ISTEA have had an adverse effect on the economy and our transportation system, including: increased commuting times and delays, additional cost from wear and tear, decreased industrial productivity and international competitiveness, and increased transportation costs for businesses. Driving on roads in need of repair costs American motorists $23.7 billion a year in extra vehicle repairs and operating costs.

While ASCE commends the Administration for proposing significant increases in programs which support the advancement of technological innovation, much more work needs to be done.

Implementation of research and development programs will enable us to achieve the following explicit strategic goals:

—Reduce the large backlog of needed rehabilitation and renewal of existing transportation infrastructure;

—Improve performance of transportation infrastructure in terms of life-cycle cost, safety, reliability, environmental impacts, transportation service, capacity, efficiency and mobility and access for all; and

—Provide the infrastructure technology base that will be needed for transportation systems of the future.

For example, CERF, working in close coordination with ASCE, has brought together a broad-based coalition of experts from industry, government and academia to develop a specific strategy and program focusing on high-performance construction materials and systems. The initial cost of the transportation portion of this is roughly $70 million per year; half of which, as originally envisioned, would be paid for by the federal government, and half by the private sector partners. Obviously, this is a substantial investment to make at any time and certainly at a time of unprecedented demand to reduce the federal deficit. However, we would like to emphasize in the strongest possible manner that these investments in research and development will ultimately reap dramatic reductions in construction costs and schedules and substantial improvement in overall system performance.

The bottom line is that our nation's infrastructure needs must be satisfied now or later. If we are bold enough to invest in strategic research and development for new materials and construction systems, those long range needs will be met more quickly because our construction dollars will go farther and accomplish more. On the other hand, if we take the short sighted approach and reduce research and development, it will take longer and be more expensive to achieve the same levels of system performance.

CONCLUSION

ASCE believes that transportation infrastructure has been and will continue to be one of the best investments in America. When viewed from myriad perspectives, whether public safety, economic development, national productivity, jobs or international competitiveness, it is not difficult to see why there is such strong public support for infrastructure investment.

We have deep concerns about the Administration's apparent retreat on infrastructure investment in general, and transportation in particular. This fiscal year 1998 budget request is a long way from the one proposed by Presidential Candidate Bill Clinton, who spoke about "Rebuilding America."

PREPARED STATEMENT OF KIRK BROWN, SECRETARY, ILLINOIS DEPARTMENT OF TRANSPORTATION

Mr. Chairman and Members of the Subcommittee, we appreciate the opportunity to submit testimony concerning fiscal year 1998 US DOT appropriations on behalf of the Illinois Department of Transportation (IDOT) to the Senate Appropriations

Subcommittee on Transportation and Related Agencies. We thank Subcommittee Chairman Richard Shelby and the members of the Committee for their past support for a strong federal transportation program and for taking into consideration Illinois' unique needs. Our recommendations for overall funding priorities and our requests for transportation funding for special Illinois' interests are described below.

HIGHWAY OBLIGATION LIMITATION

IDOT urges the Subcommittee to set an fiscal year 1998 obligation limitation at a level which will allow the full use of the federal resources of the Highway Trust Fund (HTF). At a minimum, IDOT supports an obligation limitation well above the fiscal year 1997 ISTEA level, preferably equal to the full authorization level that will be set by the Transportation and Infrastructure Committee in its surface transportation reauthorization bill this spring.

In the past, revenues from the HTF have not been fully utilized and spending has been constrained because overall the obligation limitation has been less than authorization levels. In the six years of ISTEA, state and local transportation agencies have been unable to spend approximately $7 billion dollars in highway funds because of the disparity between authorized and appropriated levels. In fiscal year 1997, the transportation appropriations bill set an obligation limitation of $18 billion—$338 million less than the ISTEA-authorized level. Due to restrictive obligation limitations in past years, Illinois has accumulated a balance of $296 million in highway apportionments that cannot be obligated for highway construction projects. Federal funds are a crucial element in the state and local highway preservation and improvement programs. An efficient highway infrastructure is in turn a crucial element supporting the state and national economies.

INTELLIGENT TRANSPORTATION SYSTEMS EARMARK

If the Subcommittee earmarks Intelligent Transportation Systems (ITS) highway funds in fiscal year 1998, Illinois, along with Wisconsin and Indiana, requests an earmark of $16.5 million for projects in the Gary-Chicago-Milwaukee (GCM) corridor.

Illinois supported securing the designation of the corridor extending from Gary, Indiana through Chicago, Illinois to Milwaukee, Wisconsin under a special ISTEA funding program formerly called the Intelligent Vehicle Highway System (IVHS) corridors program. The GCM corridor is one of four designated priority corridors. Illinois, Indiana, and Wisconsin are working together to coordinate ITS efforts for the corridor. The three states agreed to develop joint or coordinated efforts and pursue multimodal products and services to improve the traveling safety, mobility, and productivity of the 10 million people who live and conduct business in the 16 counties connecting the metropolitan areas of the GCM corridor. Implementation of a carefully planned, multi-year program of projects is under way. The proposed earmark would support a complete program of multimodal projects for the upcoming year.

TRANSIT DISCRETIONARY GRANTS

Bus Capital

IDOT, the Regional Transportation Authority (which oversees the planning and financing of transit in the six-county northeastern Illinois area), the Chicago Transit Authority (CTA), and PACE (which operates suburban bus service) jointly request an earmark of $34 million in fiscal year 1998 Section 5309 bus capital funds for the CTA, PACE and downstate providers. This joint request is a demonstration of our mutual interest in securing funding for essential bus capital needs throughout the state.

The joint request will be for funds for three downstate facilities and to purchase buses in order to replace over-age vehicles and to comply with federal mandates under the Americans with Disabilities Act. All of the vehicles scheduled for replacement are at the end of their useful life; many are well beyond their expected useful life. Downstate urbanized areas have 103 buses older than the standard 12-year design life and the CTA has 718 such buses. Illinois transit systems need discretionary bus capital funds since regular formula funding is inadequate to meet all bus capital needs.

New Systems and Extensions—MetroLink

IDOT supports the Bi-State Development Agency's (the bus and light rail service operating agency serving the St. Louis region) request for an earmark of $120 million in fiscal year 1998 New System funding for the MetroLink light rail system which serves the St. Louis region. This amount is for the eastward extension from East St. Louis into St. Clair County to Belleville Area College including final engi-

neering, land acquisition, construction and rail car acquisition. The line now in service has been a tremendous success and ridership has far exceeded projections. The Administration entered into a Full Funding Grant Agreement for the extension project in 1996.

New Systems and Extensions—Metra Commuter Rail Extensions

IDOT supports Metra's (the commuter rail operating agency serving the six-county northeastern Illinois region) request for an earmark of $7.516 million in fiscal year 1998 New System funding for preliminary engineering to upgrade and/or extend service on three lines—the North Central, SouthWest, and Union Pacific-West. These planned improvements are in areas where significant population and development increases have already been experienced and are projected to continue well into the 21st century. The projects will improve and/or extend commuter rail service which will in turn reduce highway congestion and contribute to attaining clean air objectives.

TRANSIT FORMULA GRANTS

Section 5307 Urbanized Area Funds

IDOT supports fiscal year 1998 funding for Section 5307 Urbanized Area Formula Grants at as high a level as possible. We urge funding higher than the fiscal year 1997 level of $1.978 billion, preferably equal to the full authorization level that will be set by the Transportation and Infrastructure Committee in its surface transportation reauthorization bill this spring.

Section 5307 is a formula grant program for urbanized areas which provides capital and operating assistance for public transportation. In Illinois, these formula funds are distributed to 18 urbanized areas which provide approximately 560 million passenger trips a year. IDOT supports the continuation of operating assistance at least to the smaller, under 200,000 population urbanized areas. A further reduction in the current level of federal operating assistance would especially harm these areas, likely necessitating further fare increases and service cuts. Strong federal funding support for transit service in urbanized areas is necessary to enable transit to continue the vital role it plays in providing urban transportation service.

Section 5311 Rural and Small Urban Formula Funds

IDOT supports fiscal year 1998 funding for the Section 5311 Rural and Small Urban program at as high a level as possible. We urge funding higher than the fiscal year 1997 level of $115 million, preferably equal to the full authorization level that will be set by the Transportation and Infrastructure Committee in its surface transportation reauthorization bill this spring.

The Section 5311 program plays a vital role in meeting mobility needs in the nation's small cities and rural areas. Adequate federal funding assistance for this program is very important to transit systems in Illinois. The needs in these areas are growing yet their local revenue sources continue to be very limited. In Illinois, such systems operate in 41 counties and 7 small cities, carrying approximately 2.3 million passengers annually.

AMTRAK APPROPRIATION

IDOT supports an fiscal year 1998 appropriation at least at the fiscal year 1997 level of $423.5 million to fund capital and operating expenses. IDOT also urges that all Amtrak funding come from general funds.

Amtrak operates a total of 52 individual trains throughout Illinois as part of the nation's passenger rail system, serving approximately 3 million passengers annually. Illinois subsidizes an additional 18 state-sponsored trains which provide intrastate service in four corridors (Chicago to Milwaukee, Quincy, St. Louis, and Carbondale) which carried nearly 514,000 passengers in fiscal year 1997. Amtrak service in key travel corridors is an important component of Illinois' multimodal transportation network and continued federal capital and operating support is needed.

AIRPORT IMPROVEMENT PROGRAM (AIP) OBLIGATION LIMITATION

IDOT supports an fiscal year 1998 AIP obligation limitation above the fiscal year 1997 level of $1.46 billion and as close as possible to the fiscal year 1998 authorization of $2.347 billion.

The federal AIP program, which provides funding to states and airports for the development of a national system of airports, has suffered substantial reductions in appropriations since fiscal year 1992. Obligation limitations have been reduced from a high of $1.9 billion in fiscal year 1992 to $1.45 billion in fiscal year's 1995 and

1996 and $1.46 billion in fiscal year 1997. In these three years alone there has been a disparity of $2.3 billion between the amounts authorized and the obligation limitations. There is inadequate federal funding support for airport expansion and improvements needed at general aviation airports and at commercial airports—which served 605 million people flying on the nation's air carriers in 1996. Enplanements are expected to grow to nearly one billion by 2008 and airports must make improvements to safely and efficiently serve this rapidly growing demand. We believe that the AIP program has suffered disproportionate reductions and that there is a legitimate need to increase the obligation limitation.

The recent underfunding of the AIP program has caused substantial problems, particularly for general aviation, reliever, commercial service and small primary airports. Larger primary airports have been able to more than replace reduced AIP funding with Passenger Facility Charge (PFC) revenue, but small airports are not able to generate sufficient additional revenue to offset the major reductions in federal support. Therefore, adequate AIP funding is especially important for these airports.

This concludes my testimony. I am keenly aware of the pressures you face trying to meet demands for increased transportation funding given the tight federal budget constraints. However, an adequate and well-maintained transportation system is critical to the nation's economic prosperity and future growth. Your recognition of that and your support for the nation's transportation needs are much appreciated. Again, thank you for the opportunity to discuss Illinois' federal transportation funding concerns.

PREPARED STATEMENT OF LOUIS M. KODUMAL, CITY OF MEDIA, PA

The statement of policy of the federal Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) expresses the following purposes of ISTEA (emphasis added):

> ". . . to develop a National Intermodal Transportation System that is economically efficient, environmentally sound, provides the foundation for the nation to compete in the global economy and will move people and goods in an energy efficient manner."

Ostensibly to satisfy such a broad mandate, Congress authorized approximately One Hundred and Fifty Five Billion Dollars ($155,000,000,000) in funding over five years (fiscal years 1992–1997). Among the programs funded by ISTEA dollars are so called "transportation enhancements" under the Surface Transportation Program (STP). Ten percent of all STP funds were set aside for these "transportation enhancements", which the U.S. Department of Transportation has described as encompassing a "broad range of environmental-related activities".[1] Another ISTEA component, the Congestion Mitigation and Air Quality (CMAQ) improvement program, would, in theory, reduce congestion and improve air quality. CMAQ funds were to be made available to areas that failed to meet air quality levels for ozone and carbon monoxide under the 1990 amendments to the Clean Air Act.

A basic question must be asked by the Congress in the ISTEA reauthorization debate: Have the costs incurred in funding so-called 'transportation enhancements' been justified by commensurate benefits to the environment or to the infrastructure of our national transportation system?

A careful examination of the facts leads to the conclusion that the answer to this question must be 'NO'. An illustrative example will demonstrate that these 'transportation enhancements' fail to satisfy the three objectives set forth in ISTEA's policy statement, i.e., (1) economic efficiency; (2) environmental soundness; and (3) energy efficiency. Consider a proposed conversion of an abandoned railway corridor to a pedestrian and bicycle trail (one of the listed "transportation enhancement activities" defined by Section 101(a) of title 23 United States Code). Under 23 U.S.C. Section 217(a), a state may use both STP and CMAQ funds for constructing bicycle/pedestrian facilities.

Assuming that the land needed for the "rail to trail" project is indeed abandoned (which may be an open question whose answer is far from certain given any reversionary rights of adjacent landowners and/or the cost of eminent domain proceedings if necessary), it is likely that this land has returned to its natural state. Destroying what has become the home for various species of plant and animal wildlife over the years as part of the construction and operation of the "transportation enhancement

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[1] "Intermodal Surface Transportation Efficiency Act of 1991: A Summary", U.S. Dept. of Transportation, at page 9.

activity" hardly seems consistent with improving the environment. Moreover, disturbing this area may unleash long-dormant toxic chemical compounds, e.g. polychlorinated biphenyls (PCB's), which were often used as insulators in electrical equipment used by railroads. Would this improve the national ambient air quality?

Moreover, are there any ascertainable standards as to the expected improvement in air quality that must be satisfied in advance of a project moving forward, or are STP/CMAQ funds being allocated and spent in practice on the basis of questionable assumptions or relaxed standards (e.g., "likely to improve . . . the air quality") without meaningful underlying scientific data? Does the estimate that a small group of bicyclists or a single cyclist may decide to travel this bicycle/pedestrian path automatically result in a rubber stamp determination that motorized vehicle miles are necessarily reduced and therefore the project must be a success, regardless of the per mile cost in terms of dollars or emissions reduced? Only a thorough investigation by the Congress will result in answers to these questions.

Finally, once the "rails to trails" project has started operation, what of the benefits then? Would there be any monitoring to determine whether engine cold starts actually increased the congestion in the area as motorists started their cars in the morning, drove to the "rails to trails" project, parked their cars at a stationary point and cycled away, only to return later in the day to drive away (again)? While there may be some merit in having a designated bicycle/pedestrian path as a form of inter-city travel within a major downtown area, surely it is beyond doubt that the vast majority of suburban commuters must travel distances longer than is feasible by walking and/or biking. Wouldn't a designated high-occupancy vehicle lane (i.e. for vehicles carrying more than three passengers) or mass transit lane (i.e. bus or light rail) do more for the reduction of congestion than a bicycle/pedestrian pathway? Would such a bicycle/pedestrian pathway do anything to reduce congestion caused by commercial traffic (i.e. traffic necessary to move goods in significant quantities)? The above are valid questions pertaining to "transportation enhancements" which must be asked and answered in the course of ISTEA reauthorization.

For all of the above reasons, it is respectfully submitted that the best interests of our nations transportation system and (more importantly) the people that use this system would best be served if the financing and environmental aspects of so called "transportation enhancements" activities are investigated by the Congress and subjected to audit, with funding for these ISTEA "transportation enhancements" activities to be deleted in the successor statute to ISTEA.

PREPARED STATEMENT OF THE NAVAJO NATION

INTRODUCTION

Mr. Chairman and Members of the Subcommittee, the Navajo Nation greatly appreciates this opportunity to present our views and recommendations regarding fiscal year 1998 appropriations for the Department of Transportation. This testimony highlights several of the Navajo Nation's priorities for fiscal year 1998 appropriations.

At the outset, we want to thank Chairman Mr. Shelby as well as the other Subcommittee Members for their attention to Navajo Nation's needs in the past years. We look forward to continuing our working relationship with the Subcommittee.

The Navajo Nation

Spanning Arizona, New Mexico and Utah, the Navajo Nation encompasses 17.5 million acres—one third of all Indian lands in the lower 48 states—and is larger than Connecticut, Delaware, Maryland, Massachusetts and Rhode Island combined. Unlike those states, however, the Navajo Nation is home to the poorest of America's rural poor and while the average unemployment rate in America today is about 5 percent, the unemployment rate in the Navajo Nation averages 38 percent to 50 percent, depending on the season. Over 56 percent of the Navajo people live in poverty. Per capita income averages $4,106, less than one-third of that in the surrounding states. Basic "necessities" of life taken for granted elsewhere in the United States are sorely lacking in the Navajo Nation—77 percent of Navajo homes lack plumbing, 72 percent lack adequate kitchen facilities, and 76 percent lack telephone service. Though the Navajo Nation is slightly larger than West Virginia, our 2,000 miles of paved roads compare to barely 11 percent of West Virginia's 18,000 miles. Until recently, we had just three banking facilities within our entire 27,500 square mile area.

Ironically, the Navajo Nation is perceived as one of the more prosperous Indian tribes. Tragically, these types of living conditions are mirrored at hundreds of other

Indian reservations throughout the United States, with the nationwide Indian reservation unemployment rate averaging 56 percent.

We respectfully urge the Subcommittee to address Indian country's economic deprivation by marshalling available federal resources in a dramatic, comprehensive, government-wide effort that can at last rectify the massive infrastructure deficiencies that prevent us from competing on a level playing field against even the most economically-distressed non-Indian communities. Resolving our infrastructure shortfalls, through such redirection of federal resources, is perhaps the key component necessary to enhance Indian nations' efforts to develop self-sustaining reservation economies consistent with self-determination and self-governance. The construction and maintenance of all weather roads is a start in the right direction. Adequate roads is important to economic and community development by providing quick and safe access to businesses, schools, health care and community services.

REQUESTS FOR FISCAL YEAR 1998 BUDGET INCLUSIONS

The Navajo Nation requests funding for the following high priority programs. There are additional projects and programs which we would like to discuss with the Subcommittee; however, today we are merely presenting highlights of our overall requests.

Reauthorization of Intermodal Surface Transportation Efficiency Act of 1991

Statistics show that the Navajo Nation has greatly benefited from the enactment of the Intermodal Surface Transportation Efficiency Act of 1991. From fiscal year 1992 to fiscal year 1996, the Navajo Nation has achieved a total of 950.8 miles of improved roads; 1,008 linear feet of newly constructed bridges; and 1,061.7 linear feet of bridge rehabilitation or replacement. The improvements have allowed for the enhancement of infrastructure development necessary for the continued and increase in economic development and employment opportunities.

The Navajo Nation Council and its Transportation and Community Development Committee supports the reauthorization of ISTEA so that an adequate transportation system can be provided to the Navajo people. Faced with a total projected need of $1.4 billion for the Navajo Nation and an overall Indian Reservation Road (IRR) Program need of $5.5 billion, the Navajo Nation strongly urges the following:

1. Reauthorization of the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1997;
2. Increase ISTEA funds from $191 million to $300 million per year for Indian Reservation Road's Program;
3. Funnel ISTEA funding directly to the Navajo Nation from the Federal Highway Administration (FHWA); and
4. Distribute Indian Reservation Road Program Funding at one hundred percent (100 percent) in accordance with the established relative need formula based on three (3) factors: total Indian population, total vehicle miles traveled, and total cost of construction.

Since the enactment of ISTEA, the Navajo Nation has received $235.9 million for new road construction and new bridge and/or rehabilitation/replacements. While Navajo receives funds for new roads, there is no comparable allocation in the Road Maintenance Program. fiscal year 1997 had an allocation of $6.02 million, Navajo has to maintain 4,490 miles of gravel roads; 1,124 miles of paved roads, and 163 bridges of which 16 are severely deficient. History shows that the program has always been underfunded, despite requests made by the Navajo Nation. Funding for the BIA Navajo Area Branch of Roads Maintenance Program was cut during 1996. The data shows that the level of funding for the Road Maintenance Program needs to be increased in order to maintain an adequate and safe transportation system on the Navajo Nation. The Navajo Nation is requests the subcommittee support an increase of $97 million from the Bureau of Indian Affairs.

NAVAJO TRANSIT SYSTEM FACILITY REQUEST

The Navajo Transit System is in great need of a new maintenance and office facility and has submitted an application to the Federal Transportation Administration (FTA). We hope to secure your support with our application to the FTA. The Navajo Transit System has requested $900,000 for an 8,000 square foot facility. The facility would house a parts department, bus bays, offices, a concrete pad to wash busses, and a parking lot.

For the past 16 years, the Navajo Transit System has provided much needed transportation to the Navajo people. However, the building which the Transit system works out of in Fort Defiance, Arizona was set up as a temporary site and has been determined to be unsafe and inadequate. Further, the Navajo Transit System

has experienced problems with many staff members becoming ill due to ventilation problems within the existing building. The Navajo Transit System has selected a site for the new facility in Window Rock Arizona. The initial land acquisition and the environmental assessment work has been mostly completed with minor amendments remaining. While the Navajo Transit System has a relatively small fleet, the geographical area which is covered on a daily basis is enormous and includes Gallup, NM; Farmington, NM; Shiprock, NM; Crown Point, NM; Tuba City, AZ; Toyei, AZ; Kayenta, AZ; and Sanders, AZ.

Both the New Mexico and Arizona Transportation Departments have expressed support for the construction of the new facility for the Navajo Transit System. The Navajo Nation appreciates your continued assistance to secure federal assistance.

Federal Aviation Administration

Finally, the Navajo Nation requests $500,000 for the Federal Aviation Administration (FAA) to initiate formal consultation with the Navajo Nation under the National Historic Preservation Act (NHPA). The FAA has recently released new rules for overflights of the Grand Canyon National Park. These rules are, at least in part, a response to new regulations requiring that the natural "quiet" of the Park be restored. However, the action of the FAA and implementation of these new flight rules will result in the movement of some flight corridors from the Grand Canyon to Navajo lands outside the Grand Canyon National Park boundary. The Navajo Nation is requesting these funds because the FAA failed to comply with Section 101(d)(6)(B) of the NHPA in its preparation of the Environmental Assessment (EA) (Special Flight Rules in the Vicinity of Grand Canyon National Park). These funds will also be used to address the FAA's insufficient initial "106" consultation under the NHPA. According to correspondence received from the Arizona State Historic Preservation Office, there remains a concern that the effects and cumulative effects of overflights on historic properties have not been adequately considered by the FAA.

CONCLUSION

The Navajo Nation thanks the Chairman and Members of the Subcommittee for their leadership and support of Indian programs.

PREPARED STATEMENT OF THE NIAGARA FRONTIER TRANSPORTATION AUTHORITY

INTRODUCTION

The Niagara Frontier Transportation Authority (NFTA) appreciates the opportunity afforded by the Subcommittee on Transportation and Related Agencies Appropriations to present testimony in support of its project initiatives for transportation appropriations in federal fiscal year 1998. The Niagara Frontier Transportation Authority (NFTA) is a regional multi-modal transportation authority responsible for air, water and surface transportation in Erie and Niagara Counties. NFTA businesses include a bus and rail system, two international airports, a small boat harbor and transportation centers in Buffalo and Niagara Falls.

In support of its transportation mission, the NFTA respectfully requests your consideration of the following transportation appropriations in fiscal year 1998. The appropriation requests are described in the following narrative.

Transit Project Appropriations

FTA Bus Capital.—Appropriate $4 million for HUBLINK, the NFTA Transit Restructuring Program, in federal fiscal year 1998.

Aviation Project Appropriations

Greater Buffalo International Airport (GBIA).—Appropriate $7,526,359 for GBIA Letter of Intent (LOI) in federal fiscal year 1998; or, appropriate $2,452,294 if NFTA's pending application for $5,074,065 under the GBIA LOI agreement is approved in fiscal year 1997.

Niagara Falls International Airport (NFIA).—Appropriate $1.8 million for new taxiway at NFIA.

HUBLINK—TRANSIT RESTRUCTURING PROGRAM

Legislative Request:

Appropriate $4 million for HUBLINK, the NFTA Transit Restructuring Program, in federal fiscal year 1998. These funds will be used to fund capital infrastructure and start-up expenditures.

Project Background:

Metro, the NFTA's public transit business center, is working to meet the difficult financial challenges that impact the viability of the transit system. Fundamental changes in the demographic characteristics of Western New York have altered transportation patterns in and around the urban area that have been prevalent for nearly 50 years. Population shifts to the suburbs have occurred but, for the first time, the loss of population in the central city has been accompanied by a similar migration of business activity as well. Metro is faced with a changing market of potential transit riders. Metro's current service radiates out from the COD to suburban areas and primarily meets that traditional travel demand. In order to remain competitive, Metro must redesign its system to meet the changing demands for service.

A strategic business planning effort that recognized changing demographic characteristics for both population distribution and employment spawned the need to restructure local transportation services. Restructuring Metro is necessary in order to improve mobility for all Western New Yorkers and to meet national policy goals such as the Access to Jobs and Training initiative advanced in the Administration's 1998 budget proposal, as well as the provisions of the Clean Air and Americans with Disabilities Acts legislated by Congress.

During the past year, technical work has been initiated to develop a new vision for Metro. "HUBLINK" is the term that has been coined for the restructuring effort. Simply stated, HUBLINK is a concept for comprehensive, coordinated public transportation. The preliminary concept divides the region into three service areas, urban, suburban and rural based upon geography, population density, and needs for public transportation. Each area would be served by the transportation that best suits its needs. Both traditional fixed route service and non-traditional service approaches will be considered in each area.

The HUBLINK study also seeks to evaluate the opportunities for Health and Human Services (HHS) agency transportation coordination and/or collaboration. The objective of this evaluation is to encourage efficient investment of all sources of transportation funding. This objective is consistent with Congressional intent adopted in fiscal year 1996 transportation appropriations legislation. The aforementioned Access to Jobs and Training program, whereby transit operators can be awarded discretionary funds for securing matching social service transportation funding in support of employment training initiatives, is a good starting point for transportation coordination. We suggest that the transportation appropriations committee consider enhancing both its prior Report language and the Administration initiative by providing such incentives to communities that identify and implement transportation coordination strategies between transportation providers and social service or labor agencies, regardless of trip purpose.

The HUBLINK effort is structured to address the complex technical issues related to coordinating local public transportation services and developing a community consensus on a vision for such services in Western New York. Local participation and involvement are crucial to this project given its focus on coordinating local transportation services with Metro services to create a unique and cost effective transportation system. To date, Metro has introduced this concept to over fifty organizations at informal meetings and briefings. The enthusiastic response has demonstrated the importance of restructuring local transportation services. Also during the past year, a Policy Advisory Committee (PAC) and Technical Advisory Committee (TAC) have been formed. The membership of these committees demonstrates the broad involvement of the community's leadership in the process.

The HUBLINK study is only the first step in the process of restructuring the region's mass transit system. The study effort will produce a financial plan to implement the program that will include capital improvements, such as transit centers, park and ride lots, passenger information equipment, and vehicles. Startup expenditures to demonstrate the new, non-traditional transit services will also be necessary.

The initial financial plan is expected by June, 1997. At this time, the total estimated cost of full implementation of the HUBLINK system is $25 million over five years. In federal fiscal year 1998, we estimate project costs at $5 million. Thus, the NFTA requests your support of a $4 million appropriation to launch the HUBLINK system in federal fiscal year 1998. These funds will be used to fund capital infrastructure and start-up expenditures.

GBIA AIRPORT IMPROVEMENT PROGRAM

Legislative Request:

Appropriate $7,526,359 for GBIA Letter of Intent (LOI) in federal fiscal year 1998; or,

Appropriate $2,452,294 if NFTA's pending application for $5,074,065 under the LOI agreement is approved in fiscal year 1997. NFTA will update the transportation appropriations subcommittee during fiscal year 1997 as to the status of the pending application for funds.

Project Background:

The construction of the GBIA Airport Improvement Program (AIP) is approximately 58 percent complete, with over $101.2 million of construction projects underway. A principal NFTA objective in the coming months is completing the AIP on time and within budget.

The completion of the AIP will enable the NFTA to provide quality aviation services and facilities in a manner which is both cost effective and enhances customer service. The new facilities will upgrade the region's "Gateway Image" and meet future service requirements.

The total cost of the AIP is $157 million. The financial plan to implement the program consists of federal, state, and local resources that include passenger facility charges, airport revenue bonds, and an NFTA airport development fund allocation. Federal participation includes individual grant awards, and a multi-year Letter of Intent (LOI) commitment of both entitlement and discretionary funds.

Fulfilling the projected federal commitment to the AIP is critical to completing the project. The LOI agreement totals $39,004,356 and includes discretionary and entitlement funding. Under the LOI, NFTA received six payments from fiscal years 1992–96. These payments include $6,629,398 entitlement and $14,787,410 in discretionary funding.

In federal fiscal year 1997, NFTA applied for LOI Payment No. 7 in the amount of $13,427,791, including $13,317,538 in discretionary and $110,253 in entitlement funds. These funds are required to meet the cash flow requirements of the program. Congress recognized the importance of this LOI payment in the reauthorization of the Airport and Airways Improvement Act of 1996. However, the FAA has notified NFTA of a grant award in the amount of $8,393,726. This allocation creates a shortfall of discretionary funds of $5,074,065. The reduction of federal AIP appropriations in recent fiscal years has already affected receipt of funding committed under our original letter of intent by stretching out the scheduled receipt of entitlement and discretionary funding from the original financing commitment. Unless we are able to secure the currently unallocated funding, it will be necessary to further increase the use of revenue anticipation bonds and add unbudgeted borrowing costs to the program.

In fiscal year 1998, our financial plan calls for discretionary funds in the amount of $2,452,294. However, in the event that the aforementioned shortfall in funding is not secured, the fiscal year 1998 need is $7,526,359. Please support an allocation in this amount from fiscal year 1998 AIP transportation appropriations. We will update the transportation appropriations subcommittee during fiscal year 1997 as to our initiative to secure the unallocated funds.

NIAGARA FALLS INTERNATIONAL AIRPORT NEW TAXIWAY

Legislative Request:

Appropriate $1.8 million for new taxiway at NFIA in fiscal year 1998.

Project Background:

The Niagara Falls International Airport (NFIA) is an integral part of the Western New York Regional Airport System. This airport serves as a reliever airport for Greater Buffalo International Airport (GBIA), as well as serving the charter needs of both the commercial and supplemental carriers. The airport is also the home base for the 914th Tactical Air Group in the United States Air Force Reserve, as well as the New York Air National Guard (NYANG) 107th Unit.

A recently renovated passenger terminal building contains facilities to handle domestic and international scheduled air carrier and charter flights. Ground handling and security screening are provided by airport personnel. The 12,000 square foot terminal building contains all necessary facilities to accommodate international and domestic passengers, including U.S. Customs and Immigration offices.

NFTA is striving to expand the airport's commercial service activity with a focus on charter service that can utilize NFIA's excellent runway system. Several factors, including the North American Free Trade Agreement (NAFTA) and ongoing initiatives to increase Niagara Falls tourism, could alter dramatically the role of the airport. We believe NFIA is ideally suited to capitalize on NAFTA.

Joint marketing initiatives with Niagara County, including a comprehensive utilization study, are targeted at identifying specific markets that may be served most efficiently at NFIA. International air charter passengers, scheduled air carrier serv-

ice, Canadian air cargo and aircraft maintenance opportunities are being pursued vigorously.

In terms of future development plans, the location of the Niagara County Industrial Development Agency adjacent to the airport property, proximity to the Canadian border, and the international trade opportunities afforded by recent treaties suggest an expanded role for NFIA in Western New York business development. We request consideration of one project by the transportation appropriations subcommittee that will facilitate an expanded role for the airport, the construction of a new taxiway parallel to Runway 6/24.

The current configuration of the airport's runways and taxiways limits the ability to develop the southeast corner of the airport. The southeast corner is adjacent to the Niagara County Industrial Development Agency buildings and its accessibility is critical to the future development of the airport. The construction of a new taxiway and the closing of other obsolete taxiways would open up a considerable area for aviation-related development, as well as create a more efficient taxiway system for aircraft.

The design and construction of the new taxiway is estimated to cost $2,000,000. We request consideration of an appropriation in the amount of $1.8 million to construct the new taxiway under the fiscal year 1998 AIP.

STATUS OF PRIOR YEARS' EARMARKS

1995 Bus Capital:

Crossroads Intermodal Station, $800,000.

Federal Transit Administration (FTA) grant awarded, March, 1996.

Project Status: Design of Intermodal station will be completed during federal fiscal year 1998.

1996 Bus Capital:

Crossroads Intermodal Station, $496,250.

Project Status and Obligation Date: Application for FTA grant funds for construction will be submitted during federal fiscal year 1998.

1997 Bus Capital:

Crossroads Intermodal Station, $992,500.

Project Status and Obligation Date: Application for FTA grant funds for construction will be submitted during federal fiscal year 1998.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION-RELATED TESTIMONY

PREPARED STATEMENT OF JOHN H. SIEGEL, M.D., F.A.C.S., F.C.C.M., WESLEY J. HOWE, PROFESSOR OF TRAUMA SURGERY, CHAIRMAN OF THE DEPARTMENT OF ANATOMY, CELL BIOLOGY AND INJURY SCIENCES, NEW JERSEY MEDICAL SCHOOL

Mr. Chairman, I respectfully present testimony on behalf of the University of Medicine and Dentistry of New Jersey-New Jersey Medical School. The University of Medicine and Dentistry (UMDNJ) is the largest public health sciences university in the nation. Its New Jersey Medical School (NJMS) is the academic medical facility for all of Northern New Jersey and its University Hospital serves as the Level I Trauma Center to coordinate the entire Northern region of the State.

This testimony requests your continued support for the National Highway Traffic Safety Administration (NHTSA) Trauma Network composed of four university trauma systems functioning together in a consortium known as the "CIREN:Human Crash Injury Project". In addition to the UMDNJ-New Jersey Medical School in Newark, N.J., the consortium includes the Charles Mc Mathias, Jr. National Study Center for Trauma and Emergency Medical Services (EMS) of the University of Maryland in Baltimore, the William Lehman Injury Research Center of the University of Miami in Florida, and the Children's National Medical Center of Washington, DC. These four centers have been working together in the study of motor vehicle crash injury which affects both adults, as well as children. Individually and collectively, these studies have resulted in new knowledge which has enabled the identification of the patterns of specific injuries resulting from real motor vehicle crashes. They have pointed the way towards the deployment of the newer safety devices and enabled the evaluation of their impact in reducing the severity of these injuries or preventing their occurrence. In the proposed NHTSA Trauma Network which will support the "CIREN:Human Crash Injury Project", three additional centers designated under the agreement between NHTSA and the General Motors Corporation have also been established and linked to the already existing four operational Trau-

ma Network Centers. These three additional centers are totally funded by the General Motors Corporation under an agreement which excludes funding for the four NHTSA centers

Important information concerning the effect of motor vehicle crashes on car structural integrity has been learned from experimentally-staged motor vehicle crashes and from the use of inert motor vehicle crash-dummies. However, it is necessary to go beyond the behavior of crash-dummies back to the scene of the accident, in order to determine the real mechanisms of injury and to understand the variability of the impact on different types of real people. For instance, the sixty year old woman who has some degree of osteoporosis will likely have a different pattern and magnitude of lower extremity and pelvic fracture injuries for the same impact velocity of crash compared to a twenty-five year old male.

The studies carried out so far, at the New Jersey Medical School have enabled the identification of different patterns of organ and extremities injury related to specific sites of passenger compartment intrusion and shown that these patterns are significantly different as a function of the direction of crash and its impact velocity (See attached reprint). Collaborative studies in Baltimore and New Jersey have identified, subtle but important, aspects of sex and body habitue related driver behavior which can result in more, or less severe injuries to the lower extremities resulting from the same crash forces. The New Jersey and the Miami studies have allowed recognition of the motor vehicle crash patterns which provide clues to occult injuries which would otherwise be missed by the emergency medical services team in triaging patients from severe motor vehicle crashes. These factors have important implications for safety design and creation of biomechanical test instruments to ensure driver and passenger protection. Also, studies carried out by the Children's Medical Center in Washington, DC have focused on the precautions necessary in designing and locating children's safety seats to prevent infant injuries in motor vehicle crashes.

Most important, the net result of these studies has been to focus on the development of motor vehicle safety measures which reduce the chance of injury rather than solely on the prevention of death. For it is injury which is the most costly aspect of the motor vehicle crash, raising health-care costs and forcing insurance premiums upward, not to mention the personal catastrophes which occur daily when a family member is severely injured.

The studies carried out by the New Jersey Medical School and Maryland components of the Human Crash Injury Group have already identified important characteristics of injury which were not previously recognized. These studies have focused on the importance of lower extremity injuries and pelvic fractures as major causes of disability and cost, and have focused on the importance of the air-bag in reducing the severity of brain injuries in high impact frontal motor crashes. In regard to this last observation (see attached reprint), investigations carried out jointly at the New Jersey Medical School and the Charles Mc Mathias National Study Center, have shown that air-bag deployment in frontal motor vehicle crashes significantly ($p<0.01$) reduced the incidence of severe brain injury ($GCS \leq 12$) from 67 percent to 29 percent even though the total incidence of brain injuries remained unmodified (See attached reprint). Air-bags in these types of major force car crashes also reduced the incidence of shock, face fractures, and lower extremity fractures and as a consequence lowered the resulting need to extricate the patient from the motor vehicle, thus speeding the time to treatment. This type of study emphasizes how the "Human Crash Injury Project" (CIREN) and the NHTSA Trauma Network can develop information about the effect of protective devices that cannot be obtained from crash-dummy research, since crash-dummies have no brains and the crash impact on a crash-dummy's skull produces no discernible change in the dummy's intellect or problem solving ability.

The prospective detailed medical:crash injury research investigations carried out under the "CIREN:Human Crash Injury Project" supplement and enhance the retrospective statistical studies now carried out by NHTSA under the NASS Program. It is a measure of the importance with which this project is viewed nationally that the present Administrator of the National Highway Traffic Safety Administration, Dr. Ricardo Martinez, M.D., has indicated that NHTSA wishes to integrate these research efforts into a national Trauma Network to include New Jersey Medical School:UMDM, The Lehman Center at Jackson Memorial Hospital in Miami, the Mc Mathias National Study Center in Baltimore, and the Children's Medical Center in the District of Columbia, and to link these four existing centers to the three new privately-funded GM Centers.

Finally, there is a major new initiative occurring in the Department of Transportation (Federal Highway Administration), which is the development of an Intelligent Transportation System (ITS). As part of the ITS the Automobile Crash Notification

System (ACN) program is in the process of developing an automatic crash notification micro-chip which could be inserted into motor vehicles so as to identify the location and nature of the crash. This new technology has the potential to enable the crash forces which are producing specific injuries and injury patterns to be identified and quantified so that improved safety measures including motor vehicle structural modifications and the deployment of additional air-bags-can be developed. The proper evaluation of the potential effectiveness of the ACN and the rate at which this new technology can be integrated with Emergency Medical Services (EMS) systems nation-wide could be most effectively determined by integration of the testing aspects of the ACN Program with the Trauma Network and its CIREN:Human Crash Injury Project. Not only can this combined program more rapidly evaluate the ACN system, but it will also result in its being implemented immediately in the six states of the Trauma Network, plus the District of Columbia, as a first phase effort.

This effort could solve a very serious problem identified by studies of the Fatal Accident Reporting System (FARS). This is that while the death rate of trauma victims brought to Trauma System Hospitals is decreasing, there has been an increase in on-scene fatalities. This is due in part to delays in notification of EMS team to find and retrieve these injured patient especially in rural areas. The NHTSA supported by Trauma Network could also provide a mechanism for translation of this technology into true state-wide safety programs, since all of the regions mentioned and all of the participating trauma centers have excellent EMS systems which are closely linked to their network of trauma centers. The ACN technology has the potential to be an order of magnitude increment in motor vehicle safety. Its technical development and independent field testing should become integrated at an early phase, so that its value can be determined and a feedback relationship with the Department of Transportation's Highway Traffic Safety Programs and the state-wide EMS Trauma Services can be more rapidly accelerated. The value of allowing the Trauma Research Centers which form the CIREN:Human Crash Injury Project to provide this interactive feedback is that all of the principal investigators are not only experienced trauma surgeons, but are also recognized as trauma investigators with extensive experience in studying the mechanisms of motor vehicle crash injury.

Speaking for myself, with the concurrence of the other directors of these affiliated programs, we request that the House Appropriations Subcommittee on Transportation and Related Agencies designate funding at the level of $500,000 per center to each of the four present NHTSA-funded trauma research centers participating in the Human Crash Injury Project for a total of 2 million dollars. We also request that this appropriation be established on a multi-year basis to extend over a five-year period at the same annual rate adjusted for inflation, so that continuing evaluation and feedback can be provided by the Trauma Network. Also, we request that these Trauma Research Centers be used to evaluate the role of the Intelligent Transportation System's Automobile Crash Notification System in reducing excessive field mortality and injury exacerbation of motor vehicle crashes due to the prolongation of crash recognition by the present EMS system. This will take additional support to implement and test.

This latter additional support should allow approximately 4,000 cars per core center to be instrumented with appropriate communications equipment. This level of support would enable the evaluation of the effectiveness of the ACN Program in identifying potential serious injuries and in facilitating the rapidity with which Emergency Medical Services Advance Life Support Teams could be deployed to the scene of the crash. It is felt that this type of immediate crash notification and localization technology when fully developed and integrated with all of the Nation's regional Trauma Centers could have a major impact in reducing the mortality and injury complications resulting from rural motor vehicle crashes and from serious crashes occurring in urban areas at times when there are few bystanders to request EMS 911 services.

In closing, I would like to express my personal gratitude for the past support of the House and its Appropriations Subcommittee on Transportation and Related Agencies of our group's collective research which, by identifying the mechanisms of human crash injury, has already resulted in improved safety and in a reduction in the incidence and severity of motor vehicle crash injuries. Motor vehicle crashes place all of us at risk, both personally as well as financially, and negatively impact on major segments of our economy. The development of safer motor vehicles and the invention of new and imaginative state-of-the-art motor vehicle crash safety devices and notification systems has spawned a new industry with enormous growth potential, which has already begun to integrate the telecommunications and motor vehicle industries. The small amount of national resources directed into this type of research will pay enormous dividends, not only by the reduction of motor vehicle crash

injury costs, but also by the creation of new technologies and new businesses which can stimulate employment and national growth.

[CLERK'S NOTE.—The attachment to Dr. Siegel's statement are not printed in the hearing record but are available for review in the subcommittee's files.]

PREPARED STATEMENT OF FRAYDUN MANOCHERIAN, THE MANOCHERIAN FOUNDATION

SUMMARY

The Manocherian Foundation is a non-profit organization dedicated to reducing accidents, deaths and disability on our highways. The Foundation was established in 1962 by Mr. Fraydun Manocherian, who as a high school student, lost two friends to a drunk driving crash.

It is extremely important that the reality of highway fatalities not be overlooked when your Subcommittee makes important decisions about how to allocate the resources of the Department of Transportation. Highway fatalities have increased in recent years, the fatality rate based on vehicle miles traveled is stagnant, and the human tragedy of highway crashes continues to plague us all in epidemic proportions.

Although great progress has been made over the past 15 years in reducing road trauma, our achievements are not the envy of the world and many other countries have achieved better results in critical areas like drunk driving and safety belt use.

Funds spent on highway safety return more benefit to American taxpayers than many, if not most, government programs. Studies conducted by the National Highway Traffic Safety Administration conclude that $6 dollars in benefits are returned to the Nation for every federal dollar invested in the vehicle safety programs of the agency, and $30 for every dollar invested in the behavioral aspects of highway safety. Reductions in health care costs, lost productivity, job training, insurance costs, and police and emergency services costs are the result of this investment.

Since progress has slowed in recent years, it is time to devote additional resources to this national health problem. In order to again achieve further gains and the historical return on investment in improving driver, passenger, pedestrian, and bicyclist behavior, new initiatives and approaches to spending federal dollars must be considered.

Increases in the funds available for state programs, like those proposed by NHTSA for alcohol incentive and occupant protection grants, is money well spent. But it is time to aggressively attack the problem. We propose a five-point program to be achieved over five years that would have several features:

1) require NHTSA to articulate national goals to be achieved in five years for safety belt use, percentage of alcohol-related fatalities, and the highway fatality rate,

2) support traffic law enforcement directly with added resources,

3) develop modern educational tools taking advantage of Internet, cd-rom and other technologies,

4) conduct aggressive research to understand aggressive behavior on the highway and its relationship to other injury-causing behavior, and

5) increase national advertising to create awareness of this national tragedy.

Incremental increases in resources will simply not get the job done. By putting further resources into national research and outreach programs, the driving public will be assured that reducing highway death and injury is a national priority and that the appropriate research is conducted to understand behavior and to act on further gains.

We propose that $34 million be added to the NEITSA budget in fiscal year 1998 to begin this important work, and that a longer term solution be considered in the ISTEA reauthorization. One additional single percentage point of funds from the Highway Trust Fund applied to national NHTSA programs would result in about $260 million additionally becoming available. We will propose to the authorizing committee that funds be increased to this level over the life of the next ISTEA reauthorization. But this committee can begin the process by adding badly needed funds to the fiscal year 1998 appropriations. Since over 90 percent of all transportation-related fatalities occur on our nation's highways and 80 percent of those are attributable to driver errors, the additional amounts are appropriate and necessary.

A full discussion is presented below.

THE PROBLEM

Despite large successes over the past 15 years, highway fatalities were about 42 thousand in 1996 with over 3 million reported injuries. Increases in fatalities have taken place in each of the last several years although slight reductions occurred in

calendar year 1996. While the fatality rate, measured in fatalities per 100 million vehicle miles traveled, has been reduced dramatically over the past 15 years, the rate of approximately 1.7 is essentially unchanged since 1992.

Although the United States has a solid record of achievement in reducing highway deaths and injuries, we are by no means the world leaders, particularly in important areas like drunk driving and safety belt use. In the United States, over 41 percent of highway fatalities were alcohol-related while other countries, Scandinavia countries in particular, routinely achieve alcohol-related fatality percentages of less than 30 percent.

Safety belt use in this country is stalled at 68 percent while Canada, Australia, Great Britain, and other countries routinely achieve belt use over 85 percent with some, like Canada, over 90 percent. Since each 10 percent of safety belt increase saves nearly 2,000 lives per year, the potential for further improvement is enormous.

The heart of the problem lies with the willingness of drivers and passengers in this country to aggressively engage in risk-taking behaviors. Not buckling up, driving drunk, driving too fast, not wearing a motorcycle helmet, and even jaywalking or not wearing a bicycle helmet are all manifestations of risk-taking. Right here in Washington, aggressive driving has taken its toll with several recent deaths being attributed to behavior that is unleashed in a vehicle.

HIGHWAY SAFETY ECONOMICS

According to a NHTSA report released in 1996, highway deaths and injuries cost the Nation over $150 billion in 1994, up from $137 billion in 1990. That amounts to 2.2 percent of the Nation's Gross Domestic Product and $580 for every person living in the United States. Every fatality costs society $830,000 and each critically injured survivor $706,000.

There are few of us who do not pay the bill in one of several ways. According to the NHTSA study, the costs of highway crashes are distributed as follows:

Type of loss	*Amount of loss*
Productivity and workplace losses	$58,600,000,000
Property damage	52,100,000,000
Medical costs	17,000,000,000
Travel delay	4,400,000,000
Legal and court costs	5,900,000,000
Emergency services	1,700,000,000
Insurance administration	10,500,000,000
Rehabilitation	156,000,000
Total	150,400,000,000

Despite their enormous cost, highway crashes needn't extract this toll from the lives of families, government, and business. Highway crashes are not random events over which there is no control. Many highway crashes and the consequences of them are controllable.

The bottom line is that highway crashes are still a huge economic and social problem in this country and the amount of resources we are devoting to reducing the toll is very small in proportion to the problem.

NHTSA'S BUDGET IN PERSPECTIVE

NHTSA's total budget request for fiscal year 1997 is $333 million. There are several ways to put this figure in perspective. The first is to compare this amount to the $150 billion lost each year in highway crashes. NHTSA studies have concluded that the return on investment ranges from $6 dollars for every dollar spent on vehicle programs and up to $30 dollars for each dollar spent on programs to alter driver and passenger behavior. With this solid return, further investment, particular in the behavioral programs, makes economic sense. The current levels of investment are far below that which is comparable to the problem and far below those needed to achieve effective economic gain and reducing the devastating effect on families from losing loved ones.

The Highway Trust Fund collects $26 billion per year, and the NHTSA budget makes up just over 1 percent of that figure. The economics of highway safety demand a greater investment. And since about 80 percent of the cause of highway injury lies with driver and passenger behavior, that new investment should be weighed heavily towards changing behavior.

Recent experience with air bag safety makes the effort more important. An extraordinary amount of attention has focused on changing Federal Motor Vehicle

Safety Standard 208. The subject has become almost daily fare in the nation's newspapers and electronic media and NHTSA has come under increasing fire to alter the standard to allow air bags to become less aggressive and to promote the development of the so-called "smart bags". But the simple truth is that the majority of the deaths attributable to air bags could have been avoided through the use of safety belts and ensuring the children under 12 are seated in the rear seat. Again, the need is to increase efforts towards the appropriate use of safety restraints already available in every air bag equipped vehicle.

THE PROPOSAL

The traditional approach to changing behavior on our highways is to 1) enact good state laws, 2) effectively enforce them, and 3) educate drivers and passengers on the importance of avoiding alcohol, buckling up, reducing speed, and other behaviors. When applied aggressively, effective reductions in fatalities and injuries will result. A number of state programs, including North Carolina's "Click it or Ticket" program, have repeatedly demonstrated the usefulness of this approach. Foreign success, particularly safety belt use programs in Canada, Australia, and Great Britain, and drunk driving programs in Scandinavia and Australia, is attributable to this approach.

NHTSA's traditional role in promoting these programs is threefold: 1) conduct national advertising and programs through national organizations to identify highway safety as a national priority and to create issue awareness, 2) develop and provide technical and educational support, both in a research and program development sense, and 3) administer the state and community grant program.

In recent years, the state and community grant program has received increased funding from Congress, principally through the section 402 grant program. An additional $12.5 million was provided in fiscal year 1997 funds for the NHTSA section 402 program, a result of combining the Federal Highway Administration and NHTSA requests. The same amount is asked for by NHTSA for fiscal year 1998. In addition, NHTSA has asked for an addition $8.5 million for fiscal year 1998 in alcohol incentive grants and a new $9 million program for occupant protection incentive grants.

But Americans want more. A recent poll conducted by Louis Harris for Advocates for Highway and Auto Safety concluded that 9 out of 10 Americans want the federal government to display strong leadership in highway safety.

For national level programs, however, conducted through the section 403 program, only small amounts of additional money are being sought for an air bag safety campaign, for emergency services support, and a new youth drug initiative. The total amount of increase is $4 million, but occupant protection and alcohol program development efforts will actually receive less funding under the Administration proposal. The highway safety research request is flat at about $5 million.

While progress is being made in funding state and community efforts, the amounts available for national level programs is inadequate, especially given the stagnation in reducing highway fatality and injuries and the Nation's mediocre performance in highway safety compared to the rest of the world.

If the Nation is to commit resources commensurate to the problem, new investment in changing behavior should support state and community efforts and the need for national leadership in five areas:

1) Set national goals to be achieved over the next five years

—National leadership requires developing national expectations. Aggressive goal-setting is an important facet of national leadership and costs nothing.

—The key areas for which goals should be set are: overall national highway fatality rate, percentage of alcohol-related fatalities, and safety belt use rates. On April 17, 1997, NHTSA announced 5 and 10 year goals for safety belt use. This is a positive step and NHTSA should follow with ambitious drunk driving and fatality rate goals.

—NHTSA should decide the goals to be reached and the time frame without delay and in concert with the highway safety community.

2) Develop an aggressive new program to support traffic law enforcement efforts nationwide directly through police organizations and state highway safety offices.

—Less than $1 million in the NHTSA request supports traffic law enforcement through national organizations and though financial aid and technical assistance to the states.

—An additional $19 million is needed to replicate the success of programs like North Carolina's safety belt and drunk driving programs. Additional resources should be provided to the law enforcement community to reverse the trends of recent years towards less traffic law enforcement.

3) Develop and distribute aggressive education approaches using modern education and communication tools targeting high risk populations.

—Fatality rate reductions among the highest risk populations are stagnant, including the vulnerable risk-taking populations of 21–34 year-old males. Older drivers and new drivers need special attention and program approaches need to be developed. Less than $3 million in program development funds are requested in the NHTSA budget and very few of the NHTSA programs designed to reach youth, older drivers, and the 21–34 age groups have been evaluated.

—An additional $7 million is needed to develop innovative approaches to reach the vulnerable populations, including full evaluations of existing educational approaches to these problems and the development of new technology using the latest Internet, cd-rom and other electronic and motivational approaches.

4) Conduct new research to better understand risk-taking and aggressive driving behavior on the highway.

—Understanding why some drivers and passengers take risks by not wearing safety belts, driving drunk, speeding, or engaging in other behaviors is fundamental to developing effective programs. Although NHTSA has made some progress in understanding risk-taking, these fundamental understandings are crucial to developing national leadership in highway safety. The NHTSA highway safety research budget only contains $550 thousand devoted to this type of research.

—An additional $5 million for risk-taking research is needed. Understanding behavior and how driver and passenger risk-taking behaviors are linked to other non-highway injuries is essential if the NHTSA priority of establishing Safe Communities is ever to reach its potential.

5) Significantly increase public service advertising.

—Of the total NHTSA budget request of $333 million, only about $1 million is devoted to national public service advertising for highway safety.

—An additional $4 million is appropriate to bolster current national efforts and to assist states and communities in supporting increased traffic law enforcement.

The total added funds under these proposals is $34 million, roughly a 10 percent increase in NHTSA's budget and between one and two-tenths of one percent of the expected revenues in fiscal year 1998 to the Highway Trust Fund.

Highway safety program spending should represent a larger portion of Highway Trust Fund revenues. Miles traveled on the Nation's highways is a direct measure of exposure to safety risks and directly affects the amount of money flowing to the Highway Trust Fund. The more miles traveled, the greater the risks, and the more resources that should be available to counter those risks and to make further progress in reducing these intolerable human and economic wastes. If an additional one percent of Highway Trust Fund money were dedicated to NHTSA programs, the programs described above and others could be funded easily. We believe it is time for Congress to consider such an approach. As Congress considers the next ISTEA reauthorization, the portion devoted to highway safety should be proportional to total revenues and should increase dramatically over the life of the bill.

Thank you very much.

RAIL-RELATED TESTIMONY

PREPARED STATEMENT OF HARRIET PARCELLS, EXECUTIVE DIRECTOR, AMERICAN PASSENGER RAIL COALITION

Mr. Chairman, Members of the Subcommittee on Transportation Appropriations, thank you for the opportunity to provide testimony to the Subcommittee. My name is Harriet Parcells and I am the Executive Director of the American Passenger Rail Coalition (APRC), a national association of rail suppliers and businesses working for an efficient, safe and world class U.S. intercity passenger rail system.

The U.S. stands at a crucial crossroads in defining the future for intercity passenger rail in this country. With a federal commitment to provide Amtrak with a more secure base for capital investments and the tools to operate in more business-like and efficient fashion, Amtrak can become a world class national railroad and yield the country a strong return on its investment.

Citizens from coast to coast have expressed their desire for more and improved intercity passenger rail service. At rail forums held 1½ years ago, Amtrak and federal and state officials heard citizens, local officials and businessmen from New York to Texas to Washington state, call for improved, not reduced, Amtrak service and emphasize that Amtrak service is critical not only for mobility in congested

metropolitan areas but for citizens of smaller communities as well, for whom Amtrak is often the only affordable and reliable means of intercity transportation.

States increasingly view rail as a vital component of their transportation infrastructure. Over the past two years, sixteen states have entered into partnerships with Amtrak to initiate new rail service and preserve service that Amtrak would otherwise have been forced to eliminate or reduce for lack of adequate funding. States such as North Carolina, Virginia, Florida, Vermont, California, Washington, Oregon, New York, Pennsylvania and others are using state funds to purchase new rail rolling stock, to make strategic investments to increase rail speeds on key corridors and/or to improve the quality of rail service in other ways.

Amtrak is taking strong actions to become a more efficient and customer-focused railroad. Last year, Amtrak was named the "Most Improved in Customer Service" among American transportation companies in a survey of business executives by Knowledge Exchange, a financial analysis and publishing firm. Amtrak has purchased new equipment—a new generation of Superliners, Viewliners and new locomotives—that has been greeted enthusiastically by rail riders and improved the railroad's efficiency and reliability. Amtrak is forming new partnerships to bring customers better service: partnerships with the states and the partnership announced in November between Amtrak and Greyhound to work together to improve connections between trains and buses. And, last year, Amtrak awarded a contract to a consortium of Bombardier/GEC Alsthom to build 18 high speed trainsets that will operate at top speeds of 150 mile per hour in the Northeast Corridor by the turn of the century and bring a new generation of rail travel to America.

The federal investment in Amtrak is crucial to the success of these developments. A strong federal commitment to Amtrak and the advancement of high speed rail in key corridors in fiscal year 1998 is essential to keeping these developments on track.

A DEDICATED SOURCE OF CAPITAL INVESTMENT: KEY TO A HEALTHY FUTURE FOR AMTRAK

In testimony provided by our association to the Subcommittee last year, APRC underscored the critical need to provide Amtrak with adequate capital funding and urged Congress to establish a dedicated source of funding for Amtrak capital investments, funded by ½ cent of the federal gasoline tax. APRC appreciates the support of many members of this Subcommittee, and the support of other Senators, last year for the Sense of the Senate Resolution offered by Senator Roth to create a dedicated trust fund for Amtrak capital investments, which was approved 57:43 by the Senate on May 23, 1996.

Yet, one year later, Amtrak remains without a dedicated funding source. Senator Roth and co-sponsors—including Senators Lautenberg and Specter, introduced S. 436, the Intercity Passenger Rail Trust Fund Act of 1997, on March 13, 1997, to create an Intercity Passenger Rail Trust Fund and dedicate ½ cent of the federal motor fuels tax (a portion of the 4.3 cents per gallon now going to the General Fund) to Amtrak capital investments for a 5 year period. The country's five states without Amtrak service would receive funds that could be used to help initiate or improve intercity Passenger rail service or intercity bus service. Similar legislation was introduced in the House of Representatives yesterday, April 24, by a bipartisan group of Members from states around the country. APRC strongly supports these bills.

A dedicated source of capital investment is essential to Amtrak's future viability and Amtrak's ability to become free of federal operating subsidies by 2002, as directed by Congress and the Office of Management and Budget. APRC asks the Subcommittee to provide Amtrak with $751 million in capital appropriations in fiscal year 1998 (the amount ½ cent of gas tax would generate), as requested by Amtrak in its fiscal year 1998 budget request. We urge members of the Subcommittee to work with other Members of Congress to ensure that this year the nation puts Amtrak on a secure track to the future. Congress will write and enact legislation to reauthorize the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the surface transportation trust funds. This presents the time and opportunity for Congress to enact S. 436 and ensure a healthy economic future for Amtrak that will provide multiple benefits for current and future generations of Americans.

The fiscal year 1998 request for $751 million for capital will provide for Amtrak's general capital needs as well as critical investments in the Northeast Corridor. For Amtrak operations, APRC asks the Subcommittee to support Amtrak's request for $245 million and for railroad retirement, $142 million. Last year, Amtrak requested $250 million for operations but was appropriated $200 million, a gap of $50 million. We urge the Subcommittee to fully fund the operating request of $245 million this year to allow Amtrak to meet its operating needs and continue on its path to reduced reliance on federal operating subsidies.

Amtrak is committed to reducing its operating costs and becoming more customer-focused. The Amtrak Board of Directors adopted in 1994 a Strategic Business Plan to guide Amtrak's actions and put it on a downward glide path to operating self-sufficiency by 2002. Amtrak has been taking the necessary and difficult steps (employee and management staff reductions; service adjustments and other actions) to reduce its operating expenses. Amtrak cannot, however, get there without key actions by Congress. Key to the successful outcome of the Strategic Business Plan is enactment of a dedicated source of capital funding, adequate operating funding to keep Amtrak on the glide path to zero federal operating subsidy and the implementation of high speed rail service in the Northeast Corridor, with service beginning in 1999.

HIGH SPEED RAIL IN THE NORTHEAST CORRIDOR: AMTRAK'S "ECONOMIC ENGINE"

The electrification of the Northeast Corridor from New Haven to Boston and implementation of high speed train service in 1999, to reduce trips times between Boston and New York to under 3 hours and reduce travel time along the entire Northeast Corridor, is vital to Amtrak's future. Federal Railroad Administrator, Jolene Molitoris, recently referred to the high speed rail investment as the "economic engine" of Amtrak. We are in complete agreement. We urge the Subcommittee to provide Amtrak with strong capital funding in fiscal year 1998 to ensure that needed capital investments in the Northeast Corridor are undertaken to ensure the high speed rail project is implemented on schedule.

The electrification of the Northeast Corridor from New Haven to Boston, along with the purchase of 18 high speed trainsets, will bring a new generation of rail travel to the United States. The high speed rail service will attract an additional 2.6 million riders annually to Amtrak and is estimated to generate a net annual profit of $150 million that will benefit the entire Amtrak system. No other single investment is as strategic to Amtrak's future economic health. The high speed rail investment will provide relief to heavily congested airports and highways in the New York and Boston regions and speed travelers in safety and comfort to their destinations. The high speed rail project will create thousands of new jobs in communities throughout the country, as components for the high speed trains and other strategic infrastructure investments are supplied by manufacturers and businesses in over 20 states. A study by the Coalition of Northeastern Governors estimates the high speed rail investments will generate $440 million in new business sales in the region. And, the successful implementation of high speed rail in the Northeast Corridor will open opportunities for high speed rail developments in other key corridors of the country.

INVESTMENTS IN RAIL SAFETY AND HIGH SPEED RAIL R&D

Efforts to improve the safety of the country's passenger and freight rail systems must be a top priority of the Federal Railroad Administration (FRA). APRC urges the Subcommittee to provide FRA with strong funding in fiscal year 1998 to continue its vital rail safety work. APRC also supports funding for the valuable work of Operation Lifesaver, working with the states to educate the Public on railroad safety matters. And, APRC asks the Subcommittee to continue funding FRA's high speed rail research and development program and Next Generation High Speed Rail Program to carry forward the important work underway on positive train separation, advanced train control and grade crossing technologies, development of a high speed non-electric locomotive and other research and development critical to improving the safe operation of the nation's passenger and freight trains.

STATES SEE IMPROVED PASSENGER RAIL SERVICE AS COST-EFFECTIVE INVESTMENT FOR THE FUTURE

As states around the country plan for the future mobility, economic health and quality of life for their citizens, they are entering into partnerships and making strategic investments with Amtrak, the federal government and each other to bring about improved intercity passenger rail service.

—The benefits of investments by the state of Michigan and U.S. DOT to upgrade the corridor between Detroit and Chicago were showcased in October 1996 when a special Amtrak train was operated over the corridor at speeds of more than 100 miles per hour. Speeds will increase in 1997 from 79 to 110 miles per hour over a 20 mile stretch of track.

—Washington and Oregon are working cooperatively to increase train speeds and quality of rail service over the "Cascadia Corridor" extending from Eugene-Portland-Seattle-Vancouver, BC.

—Pennsylvania recently approved funding to purchase new, more efficient equipment to operate on the Philadelphia-Harrisburg rail corridor.
—In New Jersey, New Jersey Transit, in cooperation with Amtrak, will contribute $25 million per year for 5 years (Amtrak will contribute an identical share) for important improvements in the NJ portion of the Northeast Corridor.
—The Missouri Department of Transportation and Amtrak on April 4, initiated a three-week service demonstration of a Danish-built Flexliner passenger train, operating between St. Louis and Kansas City, with funds provided by the Missouri legislature. The majority of seats for the demonstration service were purchased weeks in advance of the train's arrival by an enthusiastic public wanting to ride the versatile, new passenger train.
—The state of Vermont has made substantial investments in new passenger rail service, working cooperatively with Amtrak to establish the "Vermonter," which features a menu with specialities of the state and a baggage car retrofit to carry bicycles and skis. More recently, Vermont initiated the "Ethan Allen" to serve the west side of the state. Ridership has far exceeded projections, with over 3,000 riders carried between New York and Rutland in the month of December.
—North Carolina used state funds to purchase railcars and locomotives for operation on the Piedmont Corridor.
—Most recently, the Texas legislature approved legislation—now awaiting the Governor's signature—that would enact a loan arrangement between Texas and Amtrak to keep the popular "Texas Eagle" in service.

Other states undertaking studies and infrastructure investments to improve the quality of intercity passenger rail service within their state and region.

A healthy future for Amtrak is key to the success of these rail developments around the country. APRC urges the Subcommittee to provide a strong level of capital and operating investment for Amtrak in fiscal year 1998 and to work with other Senators and the House of Representatives to ensure that a dedicated source of investment for Amtrak capital needs is enacted this year.

APRC thanks the Chairman and Members of the Subcommittee for the opportunity to provide our association's comments on fiscal year 1998 appropriations for Amtrak and high speed rail developments to the Subcommittee.

PREPARED STATEMENT OF THE MEMPHIS AREA TRANSIT AUTHORITY

Overview.—The Memphis Area Transit Authority (MATA) and elected officials are making a strong commitment to transit as a viable mobility alternative for citizens of the Memphis area. Priorities include: (1) completion of the downtown rail circulation system with additional financial assistance for the Medical Center Rail Extension, and (2) initiation of a regional rail system in accordance with the recommendations of the Memphis Regional Rail Plan.

Background.—On April 29,1993 the downtown Main Street Trolley was inaugurated. This project was the first step in the development of a complete downtown rail transit and terminal system. The Main Street Trolley has carried 2 million passengers since its inception. Ridership continues to grow and the system averages 4 passengers per mile—more than twice the rate of the bus system.

With federal support, two downtown transportation terminal projects are fully funded and under construction. The historic Central Station building will be restored and expanded to operate as a regional intermodal terminal at the south end of the Main Street Trolley line. A unique public-private partnership has been formed to blend $17.8 million in federal and local funds with monies provided by a Developer. This partnership will insure that the project serves an important transportation function, and, in addition, becomes a vital commercial and residential center in downtown Memphis. The first phase of construction is underway with completion of the entire facility expected in May 1998. A new North End Terminal, at the north terminus of the Main Street Trolley is also under construction to be completed by the end of 1997.

The Riverfront Loop extension to the Main Street Trolley is under construction as well. It will be in operation by Summer 1997. This line will serve existing and proposed developments along the Mississippi River and connect with the Main Street Trolley, Central Station and North End Terminal.

MEDICAL CENTER RAIL EXTENSION

With all of these projects under construction, only one link remains to complete the downtown rail circulation system. That link is a rail connection to the Medical Center. The Medical Center Rail Extension, in addition to completing the downtown system, can be the first phase of a regional light rail line.

Congress provided $1.25 million of "new start" funds in fiscal year 1996 and $3.039 million in fiscal year 1997 for this project. These monies are being allocated to engineering, program administration, and utility relocation activities.

The Medical Center Rail Extension involves new construction of a light rail line connecting the two largest activity centers in the Memphis region: the Central Business District (CBD), and the Medical Center. The line will be approximately 2.5 miles in length and will operate on-street in mixed traffic using Madison Avenue for most of its length. The line will be integrated with the Main Street Trolley and Riverfront Loop at the west end of the line (in the CBD). At the east end of the line, near the Medical Center, a major station will be the focal point for bus-rail transfers. Other stops will be spaced along the route and will have sheltered waiting areas and wheelchair ramps. The Medical Center Rail Extension is a key in MATA's five year plan for redesign of the bus system from a CBD-oriented radial system to a transit center-based system. A substantial number of bus trips currently made between the CBD and Medical Center will be reassigned to outlying areas since downtown demand will be handled by rail. The operating cost of the Medical Center rail extension will be more than offset by the reduction in duplication of bus service in the corridor. Projected daily ridership in the forecast year of 2020 is 4,200–6,100, depending upon the exact alignment.

A Major Investment Study (MIS) and Environmental Assessment (EA) has been completed for this project. A contract is in place for engineering design which will begin immediately upon receipt of final approval of the MIS/EA by the Federal Transit Administration.

The current cost estimate for design and construction is $30.4 million, with a federal share of $24.3 million. Since the federal share is less than $25 million, this project is not subject to the new starts criteria in Section 5309(e)(2)-(7) of ISTEA. The fiscal year 1997 funding request is for $5.3 million to cover the cost of the following activities: Trackwork fabrication and vehicle acquisition. MATA intends to continue the previous 80 percent federal/20 percent local funding split for this project. Remaining funds for construction of $14.7 million will be requested in fiscal year 1999.

REGIONAL RAIL PLAN

In addition to completing the downtown rail circulation system, Memphis is also prepared to begin the process of implementing a regional rail system. The recently-completed Regional Rail Plan includes recommendations for light rail in three corridors. The Medical Center Rail Extension project is included in the Germantown/Collierville corridor. A summary of key characteristics of the corridors is presented below:

Corridor	Length (miles)	Capital cost	Daily ridership (2020)
Germantown/Collierville	24.8	$443,000,000	34,300
Whitehaven/Mississippi	19.0	330,000,000	21,200
Frayser/Millington	17.6	304,000,000	6,900

A request will be made to the Senate Banking Committee to authorize the three corridors as a Program of Projects in the reauthorization of ISTEA.

The next step is to prepare an MIS to aid in determining priorities and detailing the engineering and financial plans. The MIS will be funded entirely from local sources. The proposed federal/local split for subsequent requests to this committee for the Regional Rail Plan will be 50 percent federal/50 percent local. Additional funding requests will be dependent upon results of the MIS.

LOCAL COMMITMENT

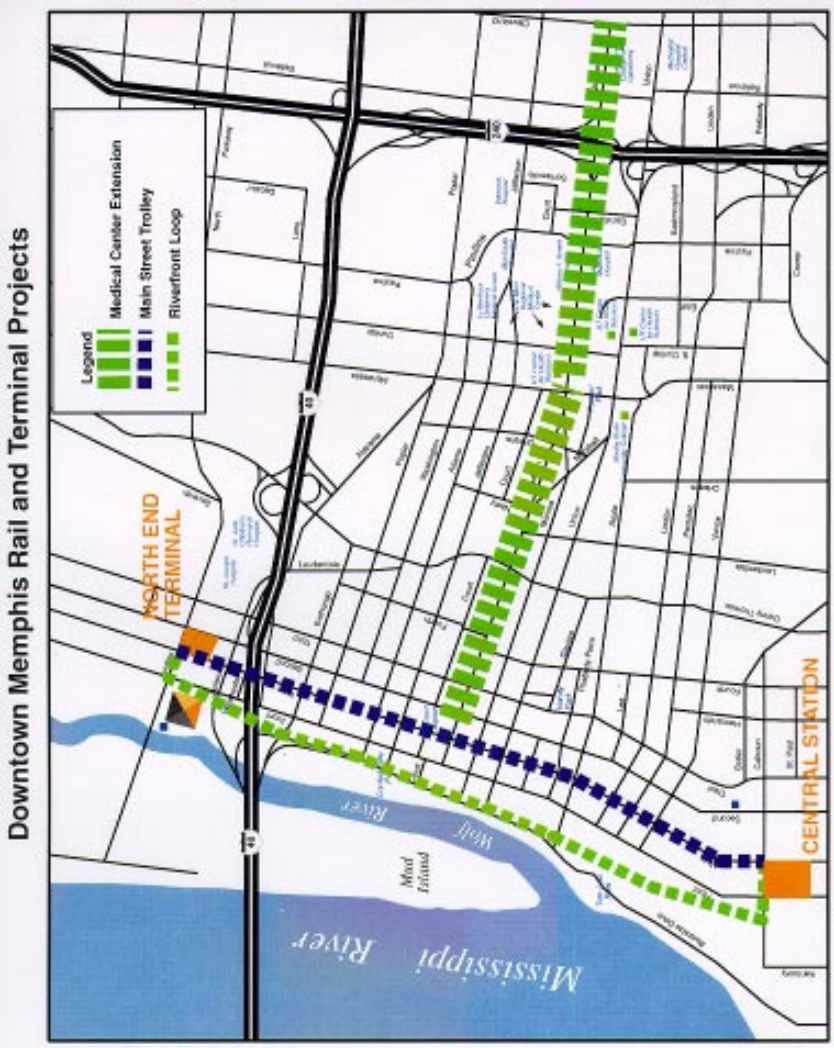
A strong local financial commitment results from a growing recognition among elected officials of the importance of a modern, efficient public transportation system in meeting mobility and economic development needs in the 21st century. One example of past financial commitment is The Main Street Trolley. It was largely financed with Interstate Substitution funds that local decision-makers chose to allocate to transit rather than highways. No Federal Transit Administration (FTA) Section 3 funds were used in the project. In addition, private funding commitments are being secured for restoration of vintage trolley vehicles. The fund-raising effort is continuing with additional corporate sponsors continually being added. Overall, the

project was completed within 1 percent of budget. The Riverfront Loop Rail Extension is also being constructed without Section 3 funds.

Commitment to the Regional Rail Plan is shown by recent actions of local governing bodies. The Memphis City Council and Shelby County Commission adopted identical resolutions supporting state legislation to change the formulas for distributing revenues from automobile registration fees and 6-cents of state gas tax. The changes would give local governments the authority to dedicate these revenues as a permanent funding source for public transportation.

SUMMARY

With the support of local governments, MATA is building on the success of the downtown rail system and initiating major investments identified in the Regional Rail Plan. To continue to move forward, financial assistance is requested in fiscal year 1998 as follows: Medical Center Rail Extension, $5.3 million.


Downtown Memphis Rail and Terminal Projects
Legend
Medical Center Extension
Main Street Trolley
Riverfront Loop
NORTH END TERMINAL
CENTRAL STATION
Mississippi River
Wolf River
Mud Island

PREPARED STATEMENT OF ROSS B. CAPON, EXECUTIVE DIRECTOR, NATIONAL ASSOCIATION OF RAILROAD PASSENGERS

We appreciate this opportunity to comment for the record. Our Association is supported by about 12,000 individual dues-paying members who believe that the nation needs a balanced transportation system.

The committee's hearing book on the National Economic Crossroads Transportation Efficiency Act of 1997 contains the bulk of our comments about the current and potential future importance of Amtrak to the nation's transportation system.

A fiscal year 1998 operating-grant appropriation of $245 million (vs. $200 million requested by the Administration) and a mandatory payments appropriation of $142 million (the Administration supports this) are essential if Amtrak is to survive and provide the benefits we anticipate.

With regard to capital grants, we urge committee approval of Amtrak's request of $750 million, with the understanding that any "half-cent" capital investment trust fund—as finally enacted—would replace Amtrak's regular capital appropriation.

Amtrak now projects a fiscal 1997 year-end cash shortfall of $80 million. This is a marked improvement from the $96 million projected a few months ago, but still substantial. It is one indication that an inadequate fiscal 1998 operating grant may cause Amtrak to cease operations sometime during that year.

Amtrak is starting to benefit from recent restructuring efforts and stability in services offered. In the second quarter (January-March), passenger revenues were up 12 percent, passenger-miles up 4 percent compared with the year-earlier months. For the Intercity Business Unit—which operates the Chicago-based corridor services and almost all of the long-distance trains—second-quarter passenger revenues were up 16 percent and passenger-miles were up 7 percent. Clearly, the public wants to ride trains.

Thank you for considering our views.

RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION-RELATED TESTIMONY

PREPARED STATEMENT OF DAVID ALBRIGHT, RESEARCH BUREAU CHIEF, NEW MEXICO STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

Chairman Shelby and Members of the Subcommittee, I appreciate the opportunity to testify on the importance of a test facility for systems engineering in transportation, as part of the strategic planning efforts of the Research and Special Projects Administration (RSPA), US Department of Transportation.

My testimony is presented in two parts. The first is an overview of a Systems Engineering for Transportation (SET) Test Facility. This includes the national need, the proposed response to the need, and basic attributes of a proof of principle to demonstrate that the response is equal to the challenge. The second part of the testimony details elements of success for the proposed proof of principle. Documents supporting the testimony are noted, perhaps most helpful among them the recently published Sandia National Laboratories Colloquium presentation, "Systems Engineering for Transportation".

OVERVIEW

A National Problem: Fracture of the Transportation System

In the past, transportation has progressed by optimizing one subsystem after another. Canals, railroads, and highways have each played important roles in different times and in different ways. Although there has been and continues to be an economic interest in making the connection among modes efficient, modal research, planning, implementation, construction, maintenance and evaluation mechanisms are characteristically separate rather than singular.

Fracture exists within as well as among transportation modes. Separate, static design of vehicles and infrastructure creates inefficiency and unanticipated effects. In highway transportation, for example, this is seen in premature pavement failure from lack of cooperative vehicle and infrastructure design. It is seen in safety problems such as initial design of antilock braking systems not anticipating pavement deformation at intersections, and initial design of airbags not accommodating some passengers. The problem in fractured highway design is seen, too, in the negative impact of noise on some neighborhoods and communities. Fracture of transportation within modes separates vehicles, infrastructure, and users.

The cost of fracture is high. Fracture optimizes parts of the system and results in secondary, negative effects. Unfortunately, the cost of secondary effects on the

system may be as great or greater than the benefit from the optimized subsystem performance.

In some instances, costs are significant, but difficult to express in economic terms. The cost of failure is expressed in loss of human life through accidents, environmental degradation and resulting impact on health. Some costs associated with failure of the transportation system can be more readily quantified. Cost of traffic congestion, for example, can be calculated in urban areas. Cost can be calculated in reduced competitiveness of transportation products and services due to inadequately understood system interface or product acceptance. Transportation products and services are needed not only to meet the current market, but that can help define future markets.

The separation of functions within and among modes results in denial if not removal of responsibility for the negative system effects of transportation products and services. Public and private transportation investments should be based on system performance, rather than optimizing parts of the system then trying to mitigate unanticipated results that are secondary to the subsystem but primary to a sustainable transportation system.

There is a need to move from system fracture to Systems Engineering for Transportation (SET). Systems engineering offers the potential to address the system as a system rather than as a collection of subsystems. Each transportation mode can benefit from such an approach to transportation. This is true for highways, rail and transit. In addition, the interconnections among modes may be more effectively assessed. There is the potential to enhance economic competitiveness and reduce unacceptable problems in safe, equitable and environmentally responsible movement of people, goods and ideas. There is a need to design and develop vehicles and infrastructure in an interactive environment, termed Simultaneous Vehicle and Infrastructure Design (SVID), and to analyze transportation problems in the same, integrated environment, termed Simultaneous Vehicle and Infrastructure Analysis (SVIA).

This need has been explored with public and private vehicle and infrastructure interests, as well as non-governmental organizations concerned with energy, environment, and social equity. There is interest in the addressing the need, as presented in supportive testimony on SVID by Basil Bama, Idaho National Engineering and Environmental Laboratory, to the Senate Subcommittee on Transportation and Infrastructure ISTEA Reauthorization Field Hearing, March 22, 1997. While there is general agreement the need is urgent, and the systems concept may be helpful, there has not been a clear sense of how the concept could be put into practice beyond encouraging dialogue.

The Proposed Solution: Systems Engineering for Transportation (SET) Test Facility

How the concept could be put into practice was first suggested by Steve Roehrig, Sandia National Laboratories. It is an approach which lends itself particularly well to a proof of principle. Mr. Roehrig suggested developing a Systems Engineering for Transportation (SET) Test Facility. The facility would not duplicate existing capabilities, nor would it obsolete them. Rather, the SET Test Facility would integrate existing test centers, creating a virtual environment to test vehicle products in relation to the current and planned changes to infrastructure. The SET Test Facility would enable system performance questions to be addressed in a way currently beyond our test capabilities.

A Proof of Principle

A proof of principle is recommended to demonstrate that the concept can be implemented. The technical proof must include the ability to integrate information from existing, separate facilities to dynamically assess proposed changes in vehicle and infrastructure design. The institutional proof must include the ability to bring together public, private and non-governmental organizations, employing the technical capability to improve transportation products and services. It is recommended the proof of principle be cooperatively selected and the scope agreed upon by the Research and Special Projects Administration (RSPA) and the proposed partnership. Because all modes can benefit, RSPA is well-positioned to advance a systems capability on behalf of each of the modal administrations.

The Proposed Partnership

In cooperation with RSPA, a partnership will be needed to prove the principle and, if successful, move toward implementation. The idea for the SET Facility began with Sandia National Laboratories, which should lead the partnership. It should do so in cooperation with the Idaho National Engineering and Environmental Laboratory. These laboratories have collaborated on the concept, and have the technology and systems engineering experience to prove the technical principle.

The Alliance for Transportation Research (ATR) Institute, the University of New Mexico, has convened an SVID workshop in Dearborn, Michigan, and conducted various meetings to bring together automobile manufacturers, representatives of state and federal government, institutes of higher education and non-governmental organizations. The ATR Institute is well-positioned to serve as the hub to bring together the additional, diverse partners required to prove the institutional principle. The ATR Institute should work with the Surface Transportation Policy Project (STPP) toward this purpose. STPP has helped refine the SET concept since its inception. This team, combined with the leadership of RSPA Administrator David Sharma and his fine staff, can demonstrate the benefit of a systems approach.

DEVELOPMENT OF A PROOF OF PRINCIPLE

The Benefit from a Proof of Principle

The SET Test Facility is a response to urgent national need; but, there must be a clear demonstration of the team's ability to develop such a facility, and feasibility of the approach to meet the need. An important problem for consideration as the proof of principle is to analyze and begin to improve highway vehicle and pavement performance. A proof of principle requires agreement between the interested federal agency and the partnership. The agreement required is on the level of funding, term of the proof of principle, and if successful, the anticipated level of implementation funding.

The sponsor and partnership must agree on what is, and what is not, a successful proof of concept. With agreement on how success is defined, an initial investment can be made to prove the concept. If unsuccessful, there is no further funding. If successful, funding is provided.

Utilizing a proof of principle to initiate significant research such as the SET Test Facility is beneficial in several regards. A proof of principle reduces the funding risk. It also focuses on metrics of success, which is helpful in the transition from scientifically significant research to useful research products. Finally, a proof of principle initiates constructive communication between the sponsoring agency and the research partnership. This builds trust both in conduct of the proof of principle and in assessment of general capabilities that may be employed in other efforts.

Elements of A Successful Proof of Principle

Elements of success for the proposed proof of principle are similar to proven elements of successful research utilizing the national laboratories and strong, diverse transportation partners. (Elements of Success: TRANSIMS, New Mexico State Highway and Transportation Department, March 1997) However, because the subject is the system rather than subsystem or specific technology or technologies, the elements of a successful proof of principle for the SET Test Facility are slightly different and perhaps more challenging.

The five elements of success for the SET Test Facility proof of principle are: 1) base research in need; 2) address need from underlying science; 3) define both technical and program success; 4) build research partnership; and 5) build an effective team. These elements of a successful proof of principle are described below.

1) Base Research in Need

Brilliant minds do not necessarily address the most pressing questions. Innovative technologies do not necessarily solve immediate and most critical needs. Research must be in response to well-framed questions and well-defined, challenging needs. We cannot afford our best researchers and best research capabilities addressing the wrong problems, or providing nominal solutions that induce incremental subsystem improvement. Fundamental research with the potential to significantly enhance the transportation system and its associated products and services must be based in enduring, challenging and urgent need. This is descriptive of transportation as well as other sectors of our society in which the nation's science and technology base may be meaningfully employed.

It is for this reason the SET Test Facility partnership includes exceptional technical competencies combined with exceptional experience in public and private teamwork. Other public and private organizations may well be added to the team; but necessarily for specific strengths added to help meet the need, rather than for expediency.

The need must be understood before technical competencies can be meaningfully employed. Understanding the need is necessary, but not sufficient. In the absence of exceptional technical competencies to resolve issues in an innovative and impartial manner, institutional barriers, intransigence and cynicism tend to constrict research, development and constructive change.

The principle must be proven in response to significant transportation need. The principle must be proven in relation to the feasibility and desirability of implementing the response.

2) Address Need from Underlying Science

Fundamental research is important to address the enduring challenges in transportation. The nation's science and technology base can and should address national needs from the underlying science. The proof of principle should not only propose to address a need; the proof of principle should identify the scientific challenges raised in attempting to address the need.

The SET Test Facility will present scientific challenges. One set of challenges relates to considering transportation as a system rather than collection of subsystems. This will require the design and development of new processes and tools. Meeting the challenges associated with systems engineering may well identify another set of challenges to information science.

Other scientific challenges will be associated with the specific problem addressed in the proof of principle. Highway vehicle and pavement design for improved performance was suggested as an example. The selected problem, as well as its associated scientific challenges, should be identified cooperatively by RSPA and the proposed partnership.

The general systems and information science challenges, however, will be associated with any selected problem for the proof of principle. They are briefly described below.

Systems Science

Systems Engineering for Transportation (SET) will provide a conceptual framework to represent the transportation system. In this, SET is concerned with systems science. From the SET framework, processes and tools are proposed to improve transportation analysis and design. The framework, boundary interface for the defined system, and relationship between the framework, processes and tools will require innovative theoretical work.

Systems engineering is a discipline initially developed by the government of the United States to engineer large, complex, and multidisciplinary systems. Once a system has been defined, such as transportation, and a framework developed, systems engineering is a process by which elements of the framework may be designed or improved. The SET framework will require thoughtful processes and tools for integrated transportation analysis and design. This system framework and these tools do not now exist, and their feasibility must be part of the underlying science demonstrated in the proof of principle.

Information Science

Transportation data are extensive, complex and changing. The SET framework will be required to integrate extensive and complex data, if the data are to serve as useful information in decision making. Transportation data needs change as new questions are asked about the system and new metrics are suggested to indicate system performance. The nature of transportation base data will present a challenge in data representation. This challenge is, in part, one of graphic integrity. It is also a challenge in rendering complex data accessible to individuals from diverse backgrounds. With development of innovative processes and tools, issues of information integrity and clarity will likely emerge. The SET Test Facility, whether used for design (SVID) or analysis (SVIA), will present difficult challenges to information science.

3) Define both Technical and Program Success

Technical Success

Technical success for the proof of principle should include demonstration of the facility, with some specific problem addressed. A compelling example is highway vehicle and pavement interface. The facility could permit the simultaneous design of vehicle suspension, tire characteristics, and pavement design and maintenance procedures. With limited funds for highway construction and maintenance, it is imperative that roads be designed and built to last longer. The proposed test facility could allow the interactions of vehicle, tire, pavement and environment to be examined, understood, and performance specifications improved.

The proposed highway vehicle and pavement interface example would require involvement of vehicle manufacturers, pavement designers, public and private construction companies, and a variety of other concerned organizations. This example would also serve to demonstrate public involvement in the process. A highly efficient interaction between vehicle and pavement must also be acceptable to the public in

regard to noise and cost. The assessment of noise and impact on neighborhoods also helps describe the importance of placing the innovative work in the context of systems engineering. Any potential solutions to improve pavement performance must be assessed in relation to the environment; tracing the current design and proposed solution from extraction to recycling.

A successful technical proof of principle should address the SET conceptual framework, and processes and tools for transportation design and analysis. A formidable technical challenge will be to advance the science and engineering of transportation and to do so in a way that is understandable to and involves the public. This should be established as a criterion for technical success.

Program Success

Program success follows technical success. If the SET Test Facility can be built, whether or not it will be used will largely define whether or not the program is a success. Program success is public, private and non-governmental organization interest in participating in the process and providing or using resulting products and services.

The potential value of the SET conceptual framework must also be the proven value of the SET Test Facility. An idea to change and hopefully improve some aspect of transportation must be placed in context of the system as a whole, and refined as a result. The recommended demonstration in the proof of principle is concerned with subsystem performance. The need is in the highway mode, and within this mode vehicle and pavement interface.

The SET framework, and its design application, SVID, would permit alternative vehicle and pavement designs to be assessed in relation to system impact. Alternative investment and implementation strategies could be assessed within highway transportation, and could be assessed as well among modal strategies.

The SET Test Facility would integrate vehicle and pavement tests to model improvement in design. Alternative improvements would be assessed in context of the how they would affect the transportation system. The impact on the user, as an individual and in community, on vehicle and infrastructure would be assessed. Technical success is the ability to make the assessment. Program success is the ability to implement the assessment.

4) Build Research Partnership

National laboratories have the technology and personnel to lead in providing tools and processes for systems engineering in transportation design and analysis. The national laboratories can lead; however, their leadership will produce useful tools only to the extent their capabilities are guided through meaningful partnership.

Universities are critically important to provide the connection to public and private organizations. An institute of higher education will be essential to serve as a hub for communication; and, other universities will be needed to work with the laboratories, improve the tools, and help apply the tools in cooperation with other public agencies and the private sector.

The private sector is essential to the proof of principle. First, private companies involved in vehicles and infrastructure must be involved in developing the tools and processes for there to be technical success. The private sector defines program success in implementing the tools and moving toward system-supporting products and services.

The SET Test Facility must include the public as a partner in research. The transportation system attempts to accommodate people in their interest to move themselves, their ideas and objects from one point to another. Diverse individuals, not just organizations representing groups of individuals, should have an opportunity to understand and advise the results. Each individual will be the most knowledgeable expert about how a change to the transportation system will affect them, their experience of mobility and access. Individuals form the public that public agencies intend to serve; and they form the market that private companies intend to serve. How broad-based, diverse individuals have an opportunity to interact with the SET Test Facility process and results during the proof of principle may well define how diverse individual insight is gained should the principle be proven, the facility built and operated.

5) Build an Effective Team

In research projects, team building is concerned primarily with sustaining the technical team at a peak level of performance throughout the project. In a proof of principle, the concern is to bring the right persons together to prove, or disprove, the principle within the agreed upon time line.

Sandia National Laboratories and the Idaho National Engineering and Environmental Laboratory have the capability to assemble the right technical team. In addi-

tion to working on the SET framework, transport within the US Department of Energy, the laboratories also share responsibility for a systems approach to hazardous waste.

From the beginning, the Alliance for Transportation Research Institute, the University of New Mexico, supported this work. The ATR Institute developed and maintains a website specifically for dialogue on simultaneous vehicle and infrastructure design. Combined with its commitment to and experience in public involvement in transportation research, the ATR Institute can be an important part of the team. The Surface Transportation Policy Project (STPP) has worked with the ATR Institute on several national transportation research projects. In addition, Hank Dittmar and Don Chen of STPP made substantive contributions to the SET framework and potential implementation.

Working with RSPA, with these organizations at the core, other organizational interests can be attracted to and meaningfully engaged to help demonstrate the proof of principle. Together, there is the potential to address the need from the underlying science, and to successfully produce technical and program results.

CONCLUSION

The value of the proposed SET Test Facility extends to all transportation modes. Each mode has user, vehicle and infrastructure issues that may be assessed within such an environment. The value of the facility holds potential for research, providing an invaluable tool for assessing the system impact of proposed modal change.

Because the proposed SET Test Facility is a system performance capability, the proposed proof of principle should be coordinated by the Research and Special Projects Administration (RSPA). RSPA has responsibility for system level assessment and improvement of transportation. RSPA also helps integrate the work of critically important research partners in such an effort: federal laboratories and institutes of higher education.

A sense of responsibility for system performance can be addressed by regarding transportation as a system, but the present fracture of transportation interests presents a formidable implementation issue. Fracture will only be overcome if public, private and non-governmental organizations recognize the potential benefit from a systems approach so significantly outweighs potential cost that historic resistance, resentment and mistrust can be set aside.

There are several references that may provide helpful background. Introductory comments on simultaneous design were documented in a presentation, "Simultaneous Vehicle and Infrastructure Design," Los Alamos National Laboratory, Los Alamos, New Mexico, October 1995. Discussion of simultaneous design with vehicle manufacturers, government agencies, and non-governmental organizations was documented in, "Transportation Opportunities and High Purposes: The Right Persons. Compelling Problems and Appropriate Resources," Proceedings of the First Invitational Workshop on Simultaneous Vehicle and Infrastructure Design, Dearborn, Michigan, published by the Alliance for Transportation Research Institute, Albuquerque, New Mexico, March 1996. Steve Roehrig outlined his concept of an innovative, virtual test facility in a presentation, "SVID Test Facility," briefing document, Sandia National Laboratories, Albuquerque, New Mexico, January 1997. Finally, in April 1997, I presented a colloquium on "Systems Engineering for Transportation," which is available through Sandia National Laboratories. The colloquium paper describes potential SET framework, SVID and SVIA processes and tools. It also proposes a proof of principle to implement the concept and address the national need.

The nation has a Research and Special Projects Administration charged with and affirming responsibility for transportation systems level understanding and improvement. There is a concept that has the potential to significantly enhance this effort, Systems Engineering for Transportation Test Facility. There is a team that can work with the Administration to realize the concept and build the facility. The next step is a proof of principle. There is now the opportunity to refine the concept, build the tools, and prove the principle.

Thank you.

TRANSIT-RELATED TESTIMONY

PREPARED STATEMENT OF THE AMERICAN PUBLIC TRANSIT ASSOCIATION

INTRODUCTION

The American Public Transit Association (APTA) appreciates the opportunity to testify on the fiscal year 1998 Transportation Appropriations and Related Agencies

bill. This testimony complements our April 10, 1997 statement before the Subcommittee on reauthorization of the Intermodal Surface Transportation Efficiency Act (ISTEA). Because Congress is likely to pass the fiscal year 1998 Transportation Appropriations Act before it finishes action on legislation to reauthorize ISTEA, we felt that it was important to comment on development of these bills separately.

As we mentioned in previous testimony, APTA strongly supports ISTEA. We supported its enactment in 1991 and our experience over the last six years leads us to conclude that the new law is an effective way to address transportation needs. As a result, APTA has adopted a comprehensive ISTEA reauthorization working proposal that would preserve and build on the ISTEA and transit program structures, and expand opportunities for flexible funding.

We welcome the acknowledgment—clearly demonstrated by transit funding increases in fiscal year 1997—that even though it is important to control federal spending, it is also vital to increase investment in the nation's transportation infrastructure. An efficient transportation system is the foundation on which we build economic growth. For fiscal year 1998, APTA urges the Subcommittee to provide the maximum funding possible for the federal transit program.

CAPITAL FUNDING NEEDS

The U.S. Department of Transportation (DOT), APTA, and the American Association of State Highway and Transportation Officials (AASHTO) all agree that total capital funding needs are at least $13 billion annually. Based on an APTA study of the transit industry, these capital needs over the next decade include:

—$38 billion for new vehicles, including 67,800 buses and 51,400 vans;
—$25 billion for new bus facilities including parking lots for bus passengers;
—$13 billion to modernize bus facilities and equipment;
—$23 billion to modernize and rehabilitate existing fixed guideway rail and bus routes, stations, and maintenance facilities;
—$46 billion for additional fixed guideway services that respond to new customer demands; and
—$5 billion to rehabilitate more than 14,900 buses, rail cars, and other vehicles to extend their useful lives.

FISCAL YEAR 1998 TRANSIT FUNDING

In light of these critical needs, we urge you to approve the maximum possible funding for the federal transit program. APTA urges the Subcommittee, in developing its fiscal year 1998 bill, to consider the following priorities:

—Increase funding for the federal transit program and all surface transportation programs authorized under current law;
—Retain operating assistance at no less than the current level if the Subcommittee proceeds under current law;
—Maintain balance within the federal transit program by funding formula and discretionary programs in a manner consistent with ISTEA authorization levels and relative funding shares, including the 40:40:20 ratio among the Major Capital Investment program's New Start, Fixed Guideway Modernization, and Bus/Bus Facility components;
—Fully use Mass Transit Account resources for their dedicated transportation purposes;
—Increase funding for the transit capital program and support authorizing changes that permit a broader definition for the use of formula funds for preventative maintenance activities, as is currently allowed for highway activities under the Federal Highway Administration (FHWA) program. We understand that, as the FHWA program's eligibility extended beyond construction to include maintenance, its outlay curve has hardly changed, and we expect the same result on the transit side. Indeed, we understand that FTA outlay rates have not increased even as the eligible definition of capital has expanded over the past few years;
—Support APTA's authorizing recommendations that maximize spending on transit capital and minimize reliance on federal operating aid. Small urbanized areas (UZA's) should be given the flexibility to use federal funding for operating or capital, as is permitted in non-urbanized areas; and
—Help transit systems fully implement service associated with the Americans with Disabilities Act (ADA) without compromising existing services.

CONTINUING CHALLENGES

The transit industry's future success requires a concerted effort to support economic development while protecting the quality of life in communities of all sizes.

The availability of transit services will also have a significant impact on the success of welfare reform. At the same time, transit must comply with a variety of federal mandates.

Metropolitan Mobility and Economic Growth

Transit is an effective tool for economic development. It returns three times its cost in business revenue to the communities it serves, according to a recent APTA study, and each $10 million invested in transit creates or maintains 550 full-time jobs. When cities add bus routes or build rail stations, they stimulate private investment around the new transit service in the form of housing, retail and other privately-financed, tax-generating development. In the Washington, D.C. area for example, the Washington Metropolitan Area Transit Authority has generated at least $15 billion in surrounding private development. A KMPG Peat Marwick study found that the Commonwealth of Virginia is expected to benefit from $2.1 billion in state tax revenue attributable to Metrorail between 1978–2010, a healthy return on a projected state investment of $940 million.

The more people use transit, the less crowded urban and suburban roadways are. A full bus removes 40 cars from the road, and a full rail car removes 125 cars. Fewer cars on the road mean that commercial vehicles can move more efficiently, reducing transportation costs for business and minimizing need for additional highway construction that is often prohibitively expensive. Transit accounts for 20–50 percent of work trips in many of the nation's largest cities, including 54 percent in New York; 34 percent in San Francisco; 30 percent in Chicago; and 20 percent in Atlanta.

Sufficient funding for transit promotes efficient use of all transportation dollars by subjecting every proposed project to alternatives. From fiscal year 1992 through 1996, local officials chose to use almost $3 billion in flexible federal funding for their communities' transit needs. It is estimated that American businesses will lose $24.5 billion annually over the next 20 years because of traffic congestion. If the federal government fails to invest adequately in transit, gridlock and the corresponding losses in economic productivity will worsen.

Small Town and Rural Transit

In the nation's small urbanized areas—those with fewer than 200,000 people—and rural counties, the availability of transit service provides essential mobility and access to jobs, social and health services, church, and stores. An estimated 30 million non-drivers in rural America depend on transit; in some cases its availability allows the elderly to stay in the homes they cherish and out of more expensive nursing homes. APTA supports proposals to increase small UZA and rural transit funding. It is our position that all federal assistance to these areas should be available for capital or operating needs, so that transit operators in these communities will have the maximum flexibility to meet local needs.

Environmental Benefits

Transit is also an effective tool in the fight against air pollution. Vehicle traffic is responsible for 40 percent to 60 percent of pollution that produces ozone and 70 percent to 80 percent of carbon monoxide emissions. Air pollution has enormous costs and is a major factor in a community's quality of life. A person using public transit for a year instead of driving an automobile, reduces hydrocarbon emissions by nearly 90 percent and carbon monoxide by more than 75 percent.

Access to Jobs

Transit is vital to the success of welfare reform. The cost of commuting to and from work by transit can be as low as 10 percent of the annual cost to own and operate an automobile. That can make a critical difference in an entry-level worker's budget.

The American public understands that many welfare recipients do not own cars and must rely on public transit to get to work. In a recent nationwide public opinion survey, an overwhelming 83 percent of those asked agreed that the availability of public transit is very important to a welfare recipient who wants to get a job. Another 12 percent said that it is somewhat important, with only three percent saying that the availability of transit is unimportant.

Because most new jobs are in the suburbs, transit operators must provide special "reverse commute" and suburb-to-suburb bus, rail and van services to match center city residents with suburban jobs. Since 1989, JOB-RIDE, a reverse commute program in Wisconsin, has provided access to more than 3,500 suburban jobs and reduced the welfare and unemployment rolls. In cities like Philadelphia and Chicago, transit agencies use special buses, vans and other employer-supported programs to serve workers who live in one suburb and work in another. Coordination of transit

service with other government functions can save tax dollars at all levels of government.

Federal Mandates

APTA supports the goals of the Americans with Disabilities Act, the Clean Air Act, federal drug and alcohol testing laws, and the Clean Water Act. However, the costs of these goals add at least $1.5 billion each year to transit capital and operating costs—nearly four times the $400 million allocated for transit operating assistance in fiscal year 1997. Absent sufficient federal funds to cover these costs, many transit systems are forced to sacrifice some existing services.

Transit agencies met the January 27, 1997 compliance deadline to make paratransit service comparable to fixed-route service, but their ADA capital and operating costs may be $1.4 billion annually for the next several years. The demand for ADA paratransit service is expected to grow, and complementary paratransit service will still be required even after all fixed-route service is fully accessible. The noble vision of ADA must be fulfilled with the support of our entire society. The costs of compliance should not be placed disproportionately on transit riders, yet that is what happens if service is reduced, or fares are raised, or plans for expanded service are canceled, if ADA-related costs should lead to cutbacks in other parts of a transit agency's budget.

THE ADMINISTRATION'S FISCAL YEAR 1998 TRANSIT BUDGET

While APTA is pleased that the Administration proposes to retain the ISTEA program generally, those of us who serve millions of transit customers each day are disappointed that the Administration has not sought higher funding for transit, highway, and rail programs in fiscal year 1998.

Capital Funds

The Administration proposal to permit the use of capital funds for maintenance activities is a positive step, as is the provision to allow transit agencies in small UZA's (those with fewer than 200,000 people) to use all federal funds for capital or operating assistance. This proposal, which is similar to APTA's reauthorization proposal, would make it easier to preserve the value of federal capital investments in transit. Also, it is consistent with FHWA policy, which allows the expenditure of federal capital funds on maintenance of capital investments in highway projects.

Transit Program Structure Changes

Within the transit program, the Administration has proposed significant shifts in funding. We support the ISTEA-authorized major capital investments program with its 40:40:20 funding ratio among the New Start, Fixed Guideway Modernization, and Bus/Bus Facility programs. We are very concerned about the Administration's proposal to reduce New Start and Fixed Guideway Modernization funds by 17 percent, so that each program would receive only $634 million in fiscal year 1998, compared to $760 million each in fiscal year 1997. In contrast, we note with pleasure that the Administration's NEXTEA authorization proposal call for $800 million in fiscal year 1998 for the New Start program and $800 million for Fixed Guideway Modernization, with funding increases in subsequent years. We believe that each of these programs address specific investment needs, that funding for each program should be retained and increased.

The discretionary bus/bus facilities program is needed to address bus capital requirements that are not easily addressed through the formula program. The existing program structure is right for the transit industry and our customers. Small bus properties would be hard pressed to make substantial investment in bus and bus facilities if Section 3 bus funding is eliminated with the current prohibition on banking federal funds under the three year "use it or lose it" rule. In addition, we are concerned that the elimination of the discretionary bus/bus facilities program and the movement of this $380 million program into the formula program will result in the shift of about one-third of the funds (the amount that goes only to rail properties under the formula program) from bus needs to rail needs.

We also question the Administration's claim that its NEXTEA proposal would increase transit formula funding when these structural changes are analyzed. APTA has a long-standing policy to preserve the ISTEA-enacted funding relationship of $1.36 in formula funding for every $1 in major capital discretionary funding.

Finally for rural transit providers the NEXTEA proposal reduces authorized funding and places service to customers at risk. The Non-urban program (formerly section 18) would receive 3.75 percent of an expanded formula program—a lower percentage than the current 5.5 percent of the combined total for urban and rural formula funds. Additionally, rural formula funding would be reduced because 4 percent

of the total would go to the Rural Transportation Assistance Program, which is now funded through the Research program. The elimination of the Bus Discretionary Program would also take away a guaranteed 5.5 percent share of that program for rural communities.

Access to Jobs and Training Initiative

The proposed new Access to Jobs and Training Initiative recognizes that transit providers can help address a critical need. APTA believes, however, that this important new initiative should be funded with new resources and not supported with a takedown of the existing formula program as proposed in NEXTEA.

CONCLUSION

APTA strongly supports a continued federal role in funding surface transportation. ISTEA has worked well and must be continued. While we recognize the need to control spending and reduce the deficit, increased investment in the transportation infrastructure is needed to facilitate economic growth, international competitiveness, successful welfare reform, and other national goals. Putting off necessary investment will only increase federal costs in the long run. We urge this Subcommittee to fund the federal transit program at the highest possible level in fiscal year 1998.

PREPARED STATEMENT OF BOB DREWEL, CHAIR OF THE BOARD, CENTRAL PUGET SOUND REGIONAL TRANSIT AUTHORITY

Mr. Chairman and Members of the Subcommittee, as the Executive of Snohomish County in Washington State and the Chair of the Board of the Central Puget Sound Regional Transit Authority (RTA), I appreciate the opportunity to submit testimony about our Sound Move plan to improve mobility for the central Puget Sound region and the assistance we need from the federal government in fiscal year 1998 to expeditiously advance this plan.

On November 5, the voters of our region approved our Sound Move proposal by a majority of 56.5 percent. Sound Move will increase the capacity of the region's transportation system through a mix of light rail, commuter rail, High Occupancy Vehicle Expressways, regional express bus routes and "community connections" such as park-and-ride lots and transit centers. Transit customers will be able to travel by local bus, regional bus, light rail and commuter rail under a single ticket.

Our region's voters agreed to pay for most of this plan through a 4/10 of one percent increase in the local sales tax and a 3/10 of one percent increase in the motor vehicle excise tax. These tax revenues will provide a stable, dependable, dedicated source of local revenue for building, maintaining and operating the system.

The RTA needs federal financial help, however, to successfully implement the light rail and commuter rail portions of this plan:

Our light rail plan includes a 25-mile line with 26 stations between the University District of Seattle and the City of Sea-Tac via downtown Seattle and Sea-Tac Airport. If sufficient funding is available, we want to extend that line north from the University District to the Northgate region of Seattle. One of the most significant investment required for this line, the downtown Seattle transit tunnel and its five stations, is already in place. Our plan also calls for a 1.6 mile light rail line between downtown Tacoma and the Tacoma Dome train station. Last year, Congress appropriated $3 million to begin preliminary engineering and environmental work on our light rail system.

Our commuter rail plan calls for an 81-mile line between Everett and Lakewood, via Seattle and Tacoma, with at least 14 stations. The commuter trains will run on existing freight track. RTA funds, supplemented by funds from our public and private partners including the railroads, will help pay for track and signal improvements on this line in order to secure the speed and reliability necessary for quality commuter passenger service on this line. We have obligated $1.88 million in federal funds for the environmental work on the Seattle-Tacoma segment of this line and $1 million for the "Tryrail" Demonstration Project in 1995. We expect to obligate an additional $1.3 million very shortly for the environmental work on the Everett-Seattle and Tacoma-Lakewood segments of this line.

We will be seeking an authorization for federal funding for our light rail and commuter rail projects, in the bill reauthorizing the Intermodal Surface Transportation Efficiency Act (ISTEA), as the elements of a program of inter-related projects.

For fiscal year 1998, we are seeking $22.7 million for our light rail project and $21.9 million for our commuter rail project:

1) The light rail funds would be used for the capital costs of our preliminary engineering and environmental impact study work on the entire line between Northgate and the City of Sea-Tac. These tasks will include:

—data collection on rights-of-way requirements;
—environmental and geotechnical issues;
—systems specifications for the procurements of vehicles, electrification equipment, training signaling and communications systems;
—a project management plan;
—a systems operation plan;
—siting and design of the light rail transit maintenance base;
—alignment and station design;
—a Definition of Alternatives report; and
—refined cost estimates.

2) The commuter rail funds would be used for the capital costs of:

—our environmental assessments/environmental impact statements on the Everett-Seattle and Tacoma-Lakewood segments;
—design and engineering of a vehicle yard and shop facility and vehicle layover locations, possibly in coordination with Amtrak and the Washington State Department of Transportation;
—engineering and construction of railroad track, signal and capacity improvements;
—property acquisition;
—station design for 14 stations, with special emphasis on the major terminals in Everett, Seattle and Tacoma; and
—the development of vehicle specifications.

We are very pleased by the very broad support we have received for Sound Move from business, environmental and community leaders and especially the citizens of our region. We believe that Sound Move will help maintain the economic vitality and quality of life of the central Puget Sound region and all of Washington State. Because Washington State is the most trade-oriented state in the country, this investment in regional mobility will benefit the entire nation.

We are convinced that any analysis of our project will conclude that it is a cost-effective investment. We anticipate strong ridership numbers and we expect our local match rate to be one of the highest in the nation for new start projects.

This subcommittee can help us put our plans into action as promptly and efficiently as possible. We appreciate your consideration of this request and we look forward to working closely with you during the coming years. Thank you.

PREPARED STATEMENT OF THE ELECTRIC TRANSPORTATION COALITION

I. INTRODUCTION

This statement is submitted by the Electric Transportation Coalition (Coalition), an organization of public and private groups joined together to advocate the use of electricity as a transportation fuel. A membership list is attached. A principal activity of the Coalition is to encourage the adoption of policies and programs to support the development and use of electricity as a "fuel" in the transportation sector.

This statement addresses the fiscal year 1998 budget for the Department of Transportation. Since this year's transportation appropriations process will coincide with reauthorization of the Intermodal Surface Transportation Efficiency Act (ISTEA), the Coalition has included in this written statement recommendations for policy objectives and programs that we recommend be included in that legislation.

II. THE ROLE OF ELECTRICITY IN THE NATIONAL TRANSPORTATION SYSTEM

The Coalition believes that electricity should be a principal fuel for the future to power the national transportation system. Electricity offers significant advantages in transportation applications. From an energy security standpoint, electric transportation presents our nation with an important means for reducing our dependency on foreign petroleum and increasing the diversity of fuels in the transportation sector. A wide variety of transportation modes—individual passenger and light-duty vehicles; heavy-duty vehicles, like buses and trolleys; light rail; commuter rail; high speed rail; and heavy rail services—can be powered by an abundant, domestically produced energy resource generated from a variety of sources. That domestically produced energy resource is electricity.

In addition to diversifying sources of transportation "fuels," air quality considerations are requiring municipal transit operators to consider the use of alternative fuel technologies as a means to reduce emissions and achieve air quality goals. For

many urban areas, electric transportation may be a particularly important means to substantially reduce emissions of mobile source pollutants, including volatile organic compounds and oxides of nitrogen, that are the precursors of smog.

Electric vehicles (EV's) and electric buses, for example, are truly "zero emission" vehicles in operation. They produce no tailpipe emissions and generate insignificant operation emissions. Also, unlike other vehicles, EV's are not subject to emission system deterioration over time and there is no danger of tampering with emissions controls.

III. ELECTRIC BUS DEPLOYMENT AND EVALUATION PROGRAM

In order to focus government and public attention on the exciting possibilities that electric transportation holds, including a cleaner environment and economic growth and jobs creation, the Coalition is advocating the creation of an Electric Bus Deployment and Evaluation Program in this year's reauthorization of ISTEA. Specifically, the Coalition supports the enactment of a new five-year $50 million program to deploy and test various applications of electric bus technology in 10 sites across the country. The members of the Coalition believe this program will assist the electric bus technologies—currently built by hand, at low volume—to reach commercialization and allow the American public to realize the full extent of benefits electric buses can offer. The Coalition urges the Transportation Appropriations Subcommittee to support the creation and initial funding for this program in fiscal year 1998.

Today, much of the Nation's public transportation system depends on the use of buses in public transit, school and shuttle applications. Diesel powered buses produce noise and emit tailpipe emissions. In stark contrast, electric and hybrid-electric buses are both clean and quiet. Studies in California have concluded that electric buses are 90–97 percent cleaner than diesel powered buses even when power plant emissions are considered. Furthermore, electric transportation technology is well suited for bus applications because buses typically operate over limited distances and the driving range achieved with the current generation of batteries is acceptable. Moreover, electric buses are centrally garaged, which allows for central charging, or quick change-out of the batteries, or "opportunity charging" (charging for 10–15 minutes), all of which are techniques of conveniently "refueling" an electric vehicle.

Currently, electric shuttle buses are being operated across the country. For example, 30-foot electric shuttle buses have become operational for daily use in Santa Barbara, California and Chattanooga, Tennessee. In addition to the 30-foot battery shuttle buses, hybrid-electric technologies have been used in 40-foot transit bus applications. Several different "fueling" options (batteries, hybrid-electric systems, and fuel cells) are under development and available for different bus transportation applications (transit, shuttle or school bus applications). These examples highlight the potential for the use of electricity in bus-related applications to effectively and efficiently meet transportation needs while enhancing air quality, promoting energy security, and helping to create domestic jobs.

Despite the potential benefits from electric buses, barriers exist to their expanded use and must be removed. Specifically, while electric buses currently in operation have demonstrated the opportunities and benefits from electric bus utilization, they also have illustrated that additional information and testing are required before the state-of-the-art electric bus technology reaches commercialization. Further, because of the limited range associated with current and near term battery technology, additional costs are incurred to maximize the use of the bus in a transit application. These costs include spare battery packs for battery exchanges and/or fast charging devices. Greater use of these buses are expected to resolve some of these problems, bring down costs and further advance the technology.

The new technology must be evaluated and deployed widely enough to give potential users an adequate set of experiences (including, for example, climatic and regional diversity) by which to make decisions regarding widespread utilization. Information must be collected and disseminated regarding training for this new transportation technology and systems integration issues regarding the vehicles and the supporting infrastructure must be resolved.

As Congress considers the transportation needs of the country through the reauthorization of ISTEA, an opportunity exists for the federal government, in partnership with industry, and state and local governments, to work towards establishing a program and process which will ensure that the barriers to electrified bus transportation are overcome.

Through the reauthorization of ISTEA, the Coalition seeks to enact a program for a federal government/industry cost-shared deployment program of electric and hybrid-electric bus technologies. The purpose of the program would be to promote the

deployment and evaluation of buses and the infrastructure associated with the use of such buses. The program would be administered by the Department of Transportation, allowing for a consultative role for the Departments of Energy, Commerce, and Defense as well as the Environmental Protection Agency.

As currently envisioned, at least ten (10) electric bus deployment projects would be selected to participate in the program. The proposals would represent a diversity of regional and climatic settings, as well as a variety of customer applications (including transit, shuttle, and school transport). Further, this program would be designed as an industry/government cost-shared endeavor. Cost-sharing will reduce the financial burden of the program for the federal government and ensure community participation and commitment to the success of the program. We would suggest that project costs also include the increased, or incremental, costs associated with the maintenance and operation of these buses.

Finally, we would suggest that projects be selected on a competitive basis and that project participants produce reports on operation, performance, and maintenance. The program should also require project participants to host a limited number of presentations or visits for representatives of other communities. Participants would also be required to submit a post-program plan for continuing use of electric buses.

IV. ISTEA REAUTHORIZATION

In 1991, Congress approved a six-year $151 billion surface transportation authorization bill, commonly known as ISTEA. On September 30, 1997, the authorization for ISTEA will expire. The Coalition realizes that the Appropriations Committee does not maintain jurisdiction over the reauthorization process of ISTEA. However, the Subcommittee on Transportation Appropriations plays a critical role in the implementation of transportation policy, and since the fiscal year 1998 appropriations process and the ISTEA reauthorization process coincide this year, it is critical for Congress to support, through authorization and appropriations, the innovative tenets of ISTEA.

ISTEA fundamentally restructured the manner in which transportation officials, and the public at large, think about transportation planning and operation. No longer is transportation development considered solely along modal lines; instead, intermodal planning is the reasonable approach now employed. In addition to connections between modes, today's transportation policy connects national goals through transportation policy as well. Enhancing air quality, promoting public safety, and improving land-use planning are all objectives of ISTEA.

A. ISTEA Should Continue To Pursue A Multi-Modal Strategy and Multiple National Goals

The Coalition strongly urges the Subcommittee to support a reauthorized ISTEA that promotes a multi-modal system and multiple national goals. It is vital that these connections among modes and to other national policies, especially the Clean Air Act, be supported and maintained. The Coalition supports expanding transportation development beyond a focus of traditional highway projects to include innovative transportation technologies, as well as to link transportation policy with other national goals such as energy security and efficiency.

The Coalition also believes that federal efforts to link transportation development with improved community planning should be continued and that deployment of innovative transportation modes and infrastructure such as electric transportation should be encouraged. The Coalition supports the efforts of the Federal Transit Administration under the "Livable Communities" program to make communities more livable through improved transportation planning.

The reauthorization of ISTEA also should continue to support such programs that encourage communities to consider, or integrate, multiple factors and goals into their development plans so as to create the most desirable and "livable" areas. Such factors include: clean, convenient, efficient and safe transportation development; energy efficiency; environmental conservation; and economic growth. For the transportation sector, this effort should focus on long-term solutions rather than quick-fix alternatives. Innovative, 21st century transportation technologies and infrastructure—such as electric transportation—should be showcased in this program.

B. The Congestion Mitigation and Air Quality Improvement Program (CMAQ)

The Congestion Mitigation and Air Quality Improvement Program (CMAQ) is one such innovative program in that it promotes both greater efficiency and reduced pollution from the transportation sector. The Coalition supports continuation of CMAQ with increased focus on advanced transportation technologies.

To obtain the greatest benefit from limited program funds, the Coalition urges the Subcommittee to consider a CMAQ project selection system which evaluates and competes projects of a similar nature but would not consider (and compete) dissimilar projects, e.g., projects which promote future, long-term benefits versus projects supplying more immediate returns; e.g., alternative fuel fleet conversions should not be ranked against HOV lane projects.

The Coalition also supports a process whereby eligible CMAQ projects, which receive a portion of private funding, would be favored over projects funded only with public sector funds. Such a provision would not damage the quality of the program but would encourage private/industry support for community projects and stretch limited public resources. We also believe that non-attainment areas, redesignated as maintenance areas, should remain eligible for CMAQ funds. However, we believe those funds should be focused on projects that continue to address air quality concerns.

C. The Surface Transportation Program

The Coalition supports continuing the funding flexibility established through the Surface Transportation Program. We urge the Subcommittee to support this important program and expand the project eligibility for STP funds to include fueling stations and supporting infrastructure for alternative fuel transportation technologies.

D. Federal Transit Administration Funding

The Coalition also urges the Subcommittee to ensure that federal transit funds are adequately and fairly maintained. When transportation programs are considered for federal funding cuts, we urge the Subcommittee to make sure that transit programs do not receive a disproportionate share of those cuts. The Coalition also urges the Subcommittee to support the 20 percent allocation of the gas tax collected for transportation programs and all congressional efforts to focus these gas tax funds on capital projects.

Furthermore, as ISTEA is currently written, the law provides a higher federal cost share for mass transit projects involving the acquisition of vehicle-related equipment required by the Clean Air Act. The standard federal cost share for mass transit projects is 80 percent, but if the funds are required to purchase alternative fueled buses in order to comply with the Clean Air Act then the federal match increases to 90 percent. The Coalition supports this higher federal cost-share and urges the Subcommittee to support the link between federal transit programs and obtaining Clean Air Act goals by maintaining or increasing the federal match for mass transit projects required by the Clean Air Act.

E. Access to High Occupancy Vehicle Lanes

We encourage the Committee to support efforts to seek, though the reauthorization of ISTEA, enactment of a provision to grant states the authority to provide non-fleet alternative fuel vehicles (AFV's)—including electric vehicles—access to high occupancy vehicle (HOV) lanes without regard to number of vehicle occupants.

Such an amendment would provide a budget-neutral incentive for purchasing and using AFV's and would provide sates with increased ability and authority to address Clean Air Act mandates through the promotion of AFV's, including electric vehicles which produce zero tail-pipe emissions.

F. Emissions Reduction Credits

The Coalition urges the Subcommittee to encourage the consideration of innovative techniques that will facilitate the deployment of new electric transportation technologies. One such option is mobile emissions reduction credits (ERC's). This program would allow for the sale and trade of emission credits from the deployment of low or zero emission vehicles in a manner similar to the stationary emissions credit trading program. ERC's would allow market forces to encourage the attainment of cleaner air through deployment of low or zero emission electric transportation technologies.

G. Decrease Bus Size Requirements

Many transit organizations currently follow a policy that only a 40-foot bus will meet transit needs. However, data collected in Santa Barbara, California and Chattanooga, Tennessee, where smaller buses represent a majority of the transit fleet—prove that smaller electric buses can meet—and even surpass, the needs of a community. In Santa Barbara, for example, ridership has increased with the introduction of electric buses to existing and new service routes. Furthermore, the quieter buses have allowed transit officials to maximize capacity and operate satellite routes into neighborhoods thereby permitting more efficient and convenient transit service. For these reasons, we urge the Subcommittee to encourage transit officials to adopt

a definition of transit buses which includes buses smaller than 40-feet. This seemingly insignificant step is vital to promoting innovative thought and technology into 21st century transportation policy and planning.

V. OTHER PUBLIC TRANSPORTATION OPPORTUNITIES FUELED BY ELECTRICITY

A. Electrification of Airports

Airports are often one of the major sources of air pollution and noise in urban areas. The frequent idling and accelerating of diesel and gasoline powered off-road, airport and airline service vehicles contribute to the airport pollution problem. Airport electrification could provide for the replacement of conventional, fossil-fueled vehicles now used for air-side baggage handling and airplane service, as well as a majority of the land-side shuttle vehicles, with electric, zero emission counterparts. The characteristics of airport vehicle use are well suited to electric transportation technology.

B. Electric Station Cars

Some urban communities are considering the emissions reduction benefits from the operation of so-called station cars. Station cars are non-polluting, battery powered vehicles linked to public transit service. They are used by transit riders between transit stations and the riders' destinations. As the concept is developed, the cars could be available for short trips during the day, evenings and weekends. Multi-passenger station cars can lead to significant vehicle congestion mitigation around stations. Station cars also will allow transit agencies to extend beyond station-to-station service to provide door-to-door service. The expanded service, coupled with the electric vehicle technology, will greatly assist efforts to increase the accessibility of transit and to reduce urban emissions.

C. Electrified High Speed Rail

Electric high speed rail (up to 185 mph) is a proven technology used in much of Europe, Japan, and Taiwan. This technology is being developed in the United States in various locations, including the Northeast Corridor and Florida. Operation of electric high speed rail systems offers a clean, efficient, and safe transportation alternative. In addition, this transportation mode offers several benefits for the nation including: domestic job creation in the areas of civil engineering, construction, and operation; emissions reduction (compared to airlines, electric high speed rail systems can reduce pollution emissions by as much as 98 percent); and traffic congestion alleviation on highways and at airports.

D. Electrified Rail

In the heavy rail sector, imposition of NO_X emissions limitations on rail sources could require significant emissions reductions. Currently available compliance strategies for rail operators include additional emissions controls or operating modifications. An attractive alternative, particularly in areas with significant air quality problems, is likely to be rail electrification.

VI. CONCLUSION

The Coalition appreciates this opportunity to make its concerns known to the Subcommittee and to submit for the record its funding priorities for the upcoming fiscal year. We look forward to working with the Subcommittee and the Congress to achieve these worthwhile goals.

PREPARED STATEMENT OF FATHER WILLIAM L. GEORGE AND FATHER T. BYRON COLLINS, SPECIAL ASSISTANTS TO THE PRESIDENT, GEORGETOWN UNIVERSITY

Mr. Chairman and Members of the Committee: We are Father William L. George, S.J., and Father T. Byron Collins, S.J., Special Assistants to the President of Georgetown University, the Reverend Leo J. O'Donovan, S.J. We appreciate this opportunity to testify before the Subcommittee on the 40-Foot, Fuel Cell Powered Transit Bus Commercialization Program.

The Federal Transit Administration continues to support the Fuel Cell Transit Bus Commercialization Program within its existing Research and Development budget. Previous funding provided by this subcommittee, coupled with the money supplied by the Department of Defense, has allowed us to demonstrate that liquid-fueled Fuel Cell buses are practical and the technology is truly ready to be designed and tested in industry. These buses are the herald of clean, efficient power for the transportation industry. We would like to thank the Committee for their continuing

support of the Fuel Cell bus program as a means to a cleaner environment and as a way to reduce this country's dependence on petroleum fuels.

In fiscal year 1998, we identify an absolutely necessary requirement of $8 million to demonstrate that fuel cell powered transit buses can be integrated into mass transit fleets. A portion of this $8 million will maintain a basic program to develop two such buses and the remainder will provide for the inclusion of additional buses which are necessary to further the pre-commercialization process. Furthermore, we recommend that the FTA Research and Development budget should be supplemented by that amount to ensure that necessary resources will remain available for the Fuel Cell Transit Bus Commercialization Program within constraints of other priorities in the FTA budget. We are asking the Committee on Banking to authorize funds for this fiscal year and ensuing fiscal years in the amount of $27 million for the continuation of the development of these buses and to supply FTA with the necessary funds. Specifically, we are seeking $8 million in fiscal year 1998. $10 million in fiscal year 1999. and $9 million in fiscal year 2000.

When Georgetown embarked on the development of Fuel Cell powered transit buses, that technology was little known outside of the space community. It took great imagination by this Committee among others to envision the vast benefits to be reaped by applying this clean, quiet power source to transportation. Now we see a world-wide effort to capitalize on the potential of Fuel Cells for automotive applications. Europe and Japan are pouring major resources to bring the technology to the marketplace. Those efforts are being matched by this country. Even so, the only successful liquid-fueled, Fuel Cell powered vehicles that have ever been demonstrated anywhere are the three, 30-foot Test Bed Buses built within this program and now being tested at locations across the country Georgetown has consistently stressed liquid fuel as the only energy source that can provide the range and refueling convenience necessary for commercialization in the foreseeable future. We are on the threshold of seeing a commercial version rolling off the assembly line this year.

What has been accomplished with the funding provided by this subcommittee over the past year? We have scaled a commercially available, 40,000 pound, 200 kW utility Fuel Cell power plant to a 100 kW version that weighs about 3,800 pounds and fits in the back of a bus. Equally significant, the reliability of that unit should exceed 25,000 hours rivaling that of the electrical utility model fuel cell. The bus to house the Fuel Cell has been designed and is being fabricated as we speak. By this fall, a commercial version of a 40-foot Fuel Cell powered transit bus will be on the road. And we are not sitting still. Another 100 kW Fuel Cell of a newer variety is under development and will be available for installation into a transit bus by year's end. This will afford the opportunity to evaluate potential operational advantages of two candidate fuel cell power systems. All the elements are in place for a paradigm in propulsion systems for transportation.

Georgetown is confident that the technology is truly ready for commercialization. However, it is not feasible to commercialize a product with only one of each type of vehicle. We must get transit buses into the hands of the operators to permit them to see the advantages of the technology and identify any necessary improvements. Short of this, we would have spent considerable resources and effort to simply demonstrate a technical curiosity. Multiple vehicles are absolutely essential to prove technology readiness.

A key element of commercializing Fuel Cell powered transit buses is the establishment of a National Depository Fuel Cell Facility. It serves two purposes: (1) prototype monitoring and maintenance services for Fuel Cell powered transit buses, and (2) a Fuel Cell information depository for evaluation and transfer of Fuel Cell technology for transportation. Strategically located at Georgetown, this facility would be a national exemplar serving the needs of the nation to advance the introduction of fuel cells first into the transit industry and then to meet the general energy needs of the country. We are also asking the Committee on Banking to authorize $10 million for the facility in fiscal year 1998 and to authorize $7 million in fiscal year 1999 for a total of $17 million.

PREPARED STATEMENT OF THE METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY

EXECUTIVE SUMMARY

Metropolitan Atlanta is the fastest growing major metropolitan area in the nation, with a population that now exceeds 3.5 million. In order to provide transit service to this fast-growing region, the Metropolitan Atlanta Rapid Transit Authority (MARTA) is requesting Federal financial support for two major undertakings in fis-

cal year 1998. These programs consist of the continued development of the North Line heavy rail extension to North Springs, and the purchase of alternative-fueled buses.

MARTA respectfully requests the Appropriations Committees of the 105th United States Congress to earmark $60,000,000 in fiscal year 1998 FTA New Fixed Guideway and Extension funds for the continued development of the North Line Extension Project. This project was authorized in ISTEA and is the subject of a Full Funding Grant Agreement between FTA and MARTA. These funds will be utilized for the continued development of the heavy rail extension to the Sandy Springs and North Springs Stations.

MARTA's North Line rail service will consist of over 9 miles of heavy rail transit and 5 stations upon completion in December 2000. Currently, there are 7 miles of track and three stations that opened for passenger service in June 1996. The opening of these initial North Line stations increased MARTA's total operating rail system to 46 miles of track and 36 stations.

Additionally, MARTA has significant capital funding needs in support of our Bus program. As part of an effort to improve air quality in the Atlanta region, MARTA is committed to converting up to one-third of its bus fleet to compressed natural gas (CNG) operation by the year 2000. Accordingly, we respectfully request the Appropriations Committees of the 105th Congress to earmark $12,300,000 in fiscal year 1998 FTA Section 3 Bus and Bus Related funds for the purchase of 56 CNG-fueled buses.

The justification, rationale, and background supporting these requests are set forth in the following pages.

OVERVIEW OF THE ATLANTA REGION

Metropolitan Atlanta is the fastest growing major metropolitan area in the nation. The metro area's growth rate from 1990–1996 was 19.7 percent—the growth leader of all metro areas over two million people. Metro Atlanta has added over 575,000 people since the 1990 census and now has a population of over 3,540,000. By the year 2020, the population of the Atlanta MSA should approach 5 million.

Atlanta has become a major metropolitan area of international importance. Always a primary transportation hub, Atlanta is served by Hartsfield International Airport—the second busiest airport in the World. Atlanta currently ranks 10th among U.S. cities in the number of national corporate headquarters. The area's robust economic growth is expected to continue with recent forecasts calling for the addition of 374,000 jobs in the 10-county region between 1995 and 2005.

The area to be served by the North Line Extension Project is the fastest growing segment of the Atlanta region. The Atlanta Regional Commission projects that this corridor alone will have grown by 144 percent between 1980 and 2005. Employment will grow even faster: up 422 percent from 53,000 to 277,000 over the same time period. As the geographic center of the region migrates north, there is a visible need to improve access between the burgeoning north Atlanta suburbs and the central city and international airport to the south.

Not surprising, given the growth in population and employment, the Atlanta region has a serious air quality problem. Atlanta is a non-attainment area for ground level ozone and has not met the 1996 deadline for air quality goals. The region is currently facing the very real possibility of having its road-building program frozen because of the inability to reduce ground level ozone levels.

The region's air quality problem is directly tied to the elevated level of automobile exhaust emissions. Registered vehicles in the 13-county area have increased 32 percent in the years 1986–1995.

Vehicle miles traveled (VMT) in Metro Atlanta have increased 65 percent over the last decade, due in part to the booming growth north of the City. Traffic congestion has reached crisis proportions, particularly in the northern suburbs to be served by the MARTA North Line Extension. Clearly, viable alternatives to single occupant vehicle travel must be implemented if the region is to continue to prosper. The provisions of both the Clean Air Act Amendments (CAAA) and ISTEA point to rail transit service as the solution to mobility problems in this major development corridor.

Current projections indicate sustained growth north of the city, and MARTA transit services will be critical to meet the growing public transportation requirements. Atlanta's pressing transportation needs did not end with the 1996 Olympics. As the region goes forward into the new millennium, the mobility challenges are enormous. MARTA is ready to be the vehicle carrying metro Atlanta's citizens into the future.

OVERWEW OF MARTA

In March 1965, the Georgia General Assembly, by a vote of 205 to 12, passed the Metropolitan Atlanta Rapid Transit Authority Act, thereby creating MARTA. The sole purpose was to plan, build, and operate a public mass transportation system serving the metropolitan area, including the city of Atlanta and its five surrounding counties. The local referenda ratifying participation in the Authority succeeded in the city of Atlanta and all but one of the five counties. The following six years were devoted to technical studies, reports, forums and public hearings to confirm the need for a long range regional transportation plan.

Voters in the City of Atlanta, Fulton, and DeKalb Counties approved the Rapid Transit Contract and Assistance Agreement (RTCM) in November 1971. The RTCAA described in detail the planned service improvements for bus and rail, and authorized the local governments to impose a one-cent MARTA sales tax.

Additionally, MARTA bought and overhauled the Atlanta Transit System. New equipment, new maintenance and operating garages, passenger shelters, new bus routes, increased frequency of service, extended operating hours and improved customer information systems were vital improvements to the ailing bus system.

MARTA currently operates a state-of-the art, intermodal regional transit system which fully integrates rapid rail, fixed route bus and paratransit service. At present, the combined bus-rail system carries 67 million passengers annually over 53 million vehicle miles of service area. MARTA currently operates heavy rail service over 46 miles of track to 36 passenger stations, and bus service over 1,550 route miles using 156 routes. MARTA continues its progress toward the expanded RTCAA plan configuration.

MARTA, in cooperation with the Federal Transit Administration (FTA), has served as a role model for others to follow.

—Atlanta's modern transit system (MARTA) was a key factor in the selection of the city for the 1996 Olympic Games and Paralympic Games.
—MARTA was designated as the Official Provider of Public Transportation for the 1996 Olympic Games. For the first time in Olympic history, public transit and Olympic venue transportation were combined and included in event admission.
—MARTA accelerated the opening of 7 miles of the North Line in time for the Olympic Games in 1996.
—MARTA's early compliance with the Americans with Disabilities Act (ADA) was a factor in the selection of the city for the 1996 Paralympic Games.
—Atlanta and MARTA were a showcase for American technology during the summer of 1996 with the extensive deployment of Intelligent Transportation Systems (ITS) infrastructure.
—A new era has been ushered in with the advent of a public/private partnership in which MARTA, Atlanta Gas Light Company and the State of Georgia are jointly proceeding with, and funding the use of, compressed natural gas (CNG) fueled buses.
—MARTA is the best solution for compliance with ISTEA and Clean Air Act Amendment requirements for the metro area's congestion and air quality problems.
—MARTA operates one of the most cost-effective heavy rail transit systems in the country.

UPDATE OF THE MARTA RAPID TRANSIT RAIL PROGRAM

The current MARTA rail system consists of 46 miles, 36 stations, and 238 rail cars. At present, the network includes two (2) main trunk lines (North/South and East/West) that intersect in the Atlanta Central Business District, and two (2) branches (Northeast and Proctor Creek) (see map at Enclosure 1). The last three stations placed in revenue service—Buckhead, Medical Center and Dunwoody—were completed in June 1996 as the initial phase of the new MARTA North Line. Through the completion of these North Line stations, the Federal share of MARTA's rapid rail development program has been 54 percent of the total $2.8 billion invested. MARTA has been fortunate to obtain Federal funding to build one of the country's premier transit systems.

Focus has now turned to the North Line Extension currently under development.

North Line Extension

The central portion of the Atlanta northern corridor has become a dense urban center that rivals downtown Atlanta. It is the largest of the six edge cities in the metropolitan area. More than 20 million square feet of mixed use space exists now or is under development. Just north of this core, another 30 million square feet of commercial space either exists or is planned for development. This explosive growth

has led to significant automobile traffic congestion and delays. Traffic counts on the GA 400 expressway serving the corridor already exceed those predicted for the year 2010. Additionally, the demand for public transit to transport workers from the central city to jobs in the corridor is increasing.

Based on the existing and projected high rate of growth in this area, in the late 1980's local officials in the Atlanta region—after receiving extensive community input—determined that MARTA heavy rail was the preferred transportation alternative for the corridor. Following the completion of the environmental review process in 1991, the North Line Extension project was authorized in ISTEA. ETA subsequently entered into a Full Funding Grant Agreement with MARTA for the development of the 1.9 mile portion of the extension beyond Dunwoody Station through and including the Sandy Springs and North Springs stations, including the purchase of additional rail passenger cars.

The new MARTA North Line begins at the junction with the Northeast Line 0.8 mile north of the Lindbergh Center Station. The initial portion of the new North Line was constructed in the median of Georgia State Highway 400 ("GA 400"), a six-lane toll road built to interstate standards connecting I–85 with the pre-existing GA 400 freeway north of the Perimeter (I–285). This segment of 7.5 miles and three stations (Buckhead, Medical Center and Dunwoody) opened ahead of schedule in June 1996. This segment was financed with 26 percent Federal funds and 74 percent local funds. Now, MARTA requests $60 million in fiscal year 1998 Federal funds to continue the North Line Extension Project beyond Dunwoody Station.

The Dunwoody Station, which opened in June 1996, serves the large retail centers and office developments in the Perimeter Mall area and a number of upscale hotels nearby. (See Major Developments in North Atlanta map at Enclosure 2.) This station is located immediately north of the I–285 perimeter freeway. The North Line Extension for which funding is now requested begins at the end of the Dunwoody Station tail track and proceeds 0.9 mile northwest in subway to the Sandy Springs Station. (An aerial photograph of the Extension can be found at Enclosure 3.) From Sandy Springs Station, the line extends one mile north on the east side of GA 400 freeway to the North Springs Station.

The Sandy Springs Station will be located at the hub of the extensive development of corporate office complexes and full service hotels north of the Perimeter Center area. The station, located one mile north of the Dunwoody Station, will also serve the local area with bus service as well as significant park/ride capacity (1,100 spaces). This will be an underground station with provisions for direct connections to the major transit oriented development planned for the immediate vicinity. According to year 2005 projections, Sandy Springs Station will be used by 11,332 patrons daily, including 2,692 during peak hours.

The North Springs Station will be built adjacent to the Georgia 400 freeway, thereby providing easy access for bus feeder routes as well as automobile commuters bound for intown destinations. This end-of-line station will include a 2,530 space park/ride facility divided into two areas: a six-level deck (2,230 spaces) for those coming in from GA 400 and a 300-space surface lot for local neighborhood residents. North Springs Station will serve as an intermodal node and will alleviate the heavy traffic congestion on GA 400. One of the unique characteristics of the station is the exclusive entrance ramp from GA 400 directly into the station parking deck. According to year 2005 projections, North Springs Station will be used by 24,979 patrons daily, including 3,464 during peak hours.

The Sandy Springs and North Springs stations will be built in full compliance with the Americans with Disabilities Act (ADA): each station will include a visual public address system, tactile warning edge strips, accessible ramps, Braille and high contrast signage, and glass-enclosed elevators. Both stations will open for revenue service in December 2000.

The MARTA North Line Extension will result in significant long-term economic benefits to both individuals and businesses. This extension will encourage reverse commuting from areas of high unemployment in the central city to job-rich suburban employment centers. Several major international corporations are headquartered in the project area, including United Parcel Service (UPS), Holiday Inn Worldwide, and the Southern Company. Also, the regional offices of several high tech firms, including Hewlett Packard and MCI, are located in the North Line corridor.

This extension will significantly improve mobility between this burgeoning growth area and major points of origin/destination to the south. The estimated economic benefit resulting from reduced congestion is projected to be $377 million, with an estimated benefit of $216 million in travel time savings. The extension will provide a direct rapid rail connection to Hartsfield International Airport (24 miles to the south), which has a MARTA station inside the main terminal. Travelers' boarding

the train at North Springs during rush hour will be at the Airport within 42 minutes.

Project Status

The project is progressing on schedule towards the targeted December 2000 revenue service date. Final Design of the Sandy Springs Station is complete. Construction of the line section and station shell began in October 1996, and construction of the station interior work will start in January 1999. Final design of the North Springs Station is nearing completion, and initial earthwork construction activities are now underway at the station site. During CY 1997, two other facility construction contracts will begin—North Springs Line Section, and North Springs Station and Parking Deck. Detail design of systemwide work began in July 1996. All necessary right-of-way and real estate acquisition is nearing completion with prior year appropriated funds.

MARTA's recent reevaluation of expanded customer service demands and estimated patronage growth in this rapidly growing area resulted in a decision to increase the number of rail cars to be acquired for this extension. The planned rail car requirement has been increased from 28 to 54 passenger vehicles, a net increase of 26 cars. A Request for Proposals (RFP) was issued in December 1996 for the manufacture of 28 rail cars under a base buy, with options to include an additional 26 vehicles to reach the total of 54 cars needed for operation between North Springs and the Airport.

Appropriations requested for fiscal year 1998 will primarily pay for the next year of construction activity at Sandy Springs (station and line segment) and initial construction activities at North Springs.

Financial Status

The initial phase of the North Line through Dunwoody Station has been constructed at a cost of $362.3 million, with a federal share of only $92.5 million (26 percent). The balance of the North Line (North Line Extension) is budgeted at a cost of $487.7 million and is expected to be financed with 80 percent Federal ($390.2 million) and 20 percent local ($97.5 million) funds. Included in this cost estimate is the acquisition of 54 additional rail cars required to provide service on this extension.

Taken together, the entire North Line—from the junction south of Buckhead through North Springs—is programmed at a total cost of $850 million, of which $368 million, or 43 percent, will be locally funded. This sizable local contribution demonstrates the Atlanta region's significant commitment to this vital transportation improvement.

Upon completion in December 2000, MARTA's North Line rail service will extend 9.4 miles in length, with five stations (Buckhead, Medical Center, Dunwoody, Sandy Springs and North Springs) and 5,188 park and ride spaces.

UPDATE OF THE MARTA BUS PLAN

MARTA's fixed-route bus fleet consists of 704 transit buses. There are 156 bus routes that cover 1,550 miles and, on a daily basis, MARTA buses travel 97,131 vehicle miles. Our buses operate a total of 30.3 million annual vehicle revenue miles. During 1996, MARTA experienced an average daily bus ridership of 242,000.

MARTA strives for safety in the operation of buses and successfully competes with other comparable systems for safety recognition. Recently, MARTA received the 1995 William T. Coleman Silver Award for bus safety from the American Public Transit Association.

MARTA has committed to provide 100 percent accessibility of the bus fleet. Currently, the fleet is 80 percent wheelchair accessible, and all future bus purchases will meet ADA guidelines for accessibility.

Due to the serious air quality problems in the Atlanta region, MARTA has embarked upon a program to convert up to one-third of our bus fleet to CNG operation by the end of the decade. Through the combined assistance of the Congress, the Federal Transit Administration, the State of Georgia and the Atlanta Gas Light Company, MARTA recently acquired 118 accessible low-floor, CNG-fueled buses. This was our initial procurement of compressed natural gas (CNG) buses with the ultimate goal of acquiring 200 CNG buses before the year 2000.

These new buses will fully meet the emission requirements of the Clean Air Act Amendments. MARTA is introducing CNG-fueled buses to the Atlanta region through a significant partnership with the Atlanta Gas Light Company. A new $28 million CNG bus maintenance and refueling facility, paid for with private and MARTA funds, recently began operation. Cleaner fueled buses will help the Atlanta region meet its ambient air quality goals for 1997 and beyond.

FISCAL YEAR 1998 FEDERAL FUNDING REQUEST

MARTA respectfully requests the Appropriations Committees of the 105th United States Congress to earmark fiscal year 1998 ETA Section 3 funds to address two specific transit needs: (i) $60,000,000 in New Fixed Guideway Systems and Extension funds to continue the North Line Extension Project; and (ii) $12,300,000 in Bus and Bus Related funds for the purchase of approximately 56 replacement CNG-fueled buses.

Section 3 New Fixed Guideway and Extension Funds

The North Line Extension above Dunwoody, through Sandy Springs to North Springs Station, is estimated to cost $487.7 million. This estimate is based on completion of the project in the year 2000 and includes $152.6 million for the design and purchase of 54 additional rail car vehicles. This estimate is $106.4 million higher than the cost estimate submitted to Congress last year. The increase in the estimated cost of the project is due to the following factors: (i) an increase (from 28 to 54) in the number of rail cars required to meet heightened customer demand; (ii) scope enhancements, including the substitution of a parking deck structure at North Springs Station in place of a surface lot; (iii) added customer safety, security and convenience features (e.g., see-thru glass elevator enclosures in station facilities); and (iv) cost impacts resulting from Georgia DOT's proposed modifications to the adjacent GA 400 expressway. With the exception of the projected impacts from the GA 400 alterations, these changes were primarily made as the result of a comprehensive reevaluation of customer service demands and expectations, particularly in light of MARTA's role and experience during the 1996 Olympic Games. Other factors—such as increased development potential—led to the decision to change the parking at North Springs Station from a surface lot to a deck structure. While this change will result in an increased capital cost of $22.3 million, building a parking deck instead of a lot makes available a 10-acre site for future transit oriented development. Moreover, placing a surface lot on the current site would not accommodate initial projected demand and leave sufficient room for future expansion.

MARTA is requesting $60 million in fiscal year 1998 FTA New Fixed Guideway and Extension funds. This level of funding will allow MARTA to undertake the following activities: complete construction of the subway section north of Dunwoody Station through Sandy Springs, including Stage I of the Sandy Springs Station; and proceed with construction of the North Springs line segment and station. Total MARTA contractual obligations for the construction of these segments through October 1, 1998, are estimated to be $371.5 million. Thus, there is a clear justification for continued Federal funding during the upcoming period.

Of the total proposed Federal contribution, $153.7 million has been secured to date either through previous Congressional appropriations or FTA reobligations to the Project MARTA expects to request total additional Federal appropriations of $236.5 million for the North Line Extension Project. This amount, when added to the $153.7 million appropriated and reobligated from previous years, will total $390.2 million, or 80 percent of the cost of the Project.

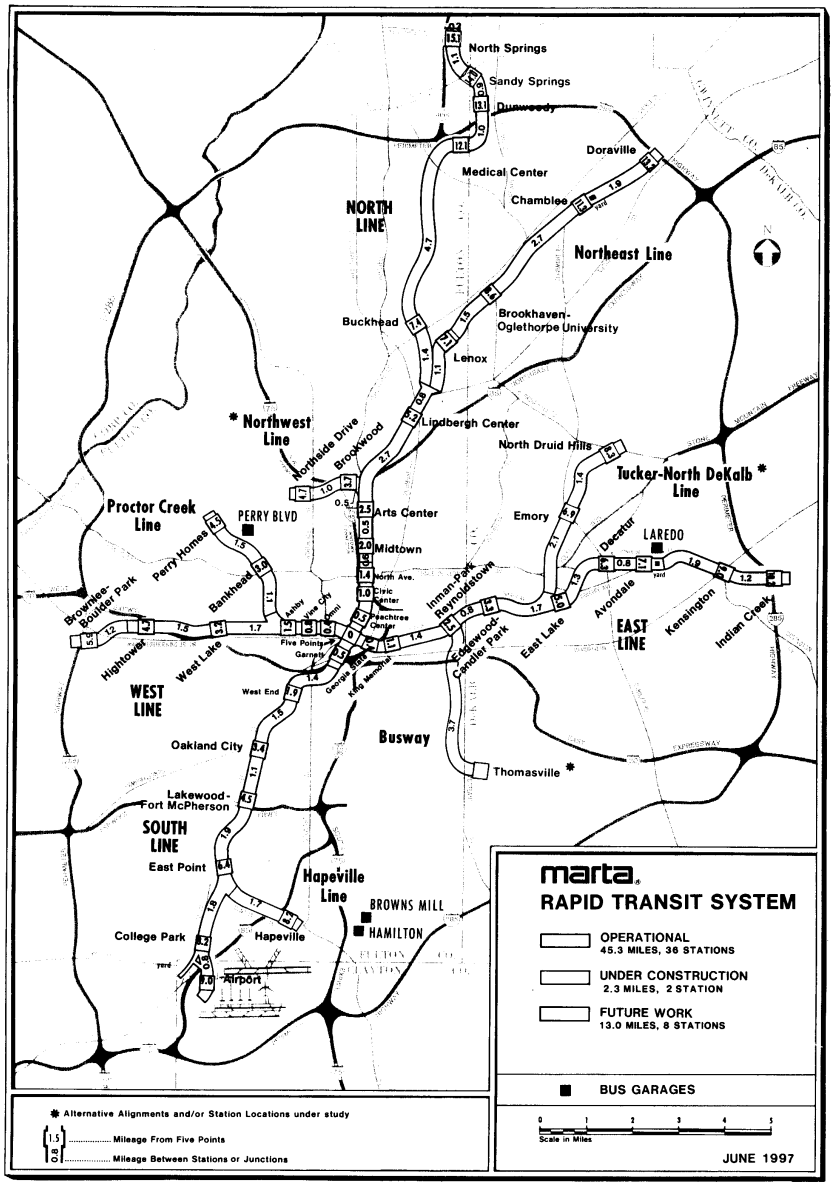
The balance of the proposed Federal contribution remaining to be funded in future years, assuming the appropriation of the full amount requested, will be $176.5 million [$390.2 million − $153.7 million (past years) − $60 million (this year)=$176.5 million]. These out-year funds will be needed to complete construction activities and procure the 54 additional rail cars required for this extension.

Section 3 Bus and Bus Related Funds

The requested $12.3 million in fiscal year 1998 Section 3 Bus Capital funds is required as the Federal share to purchase 56 new CNG-fueled buses to replace aging, non-wheelchair accessible buses. This level of funding will enable MARTA to achieve our goal of placing 200 CNG buses in operation by the end of the century.

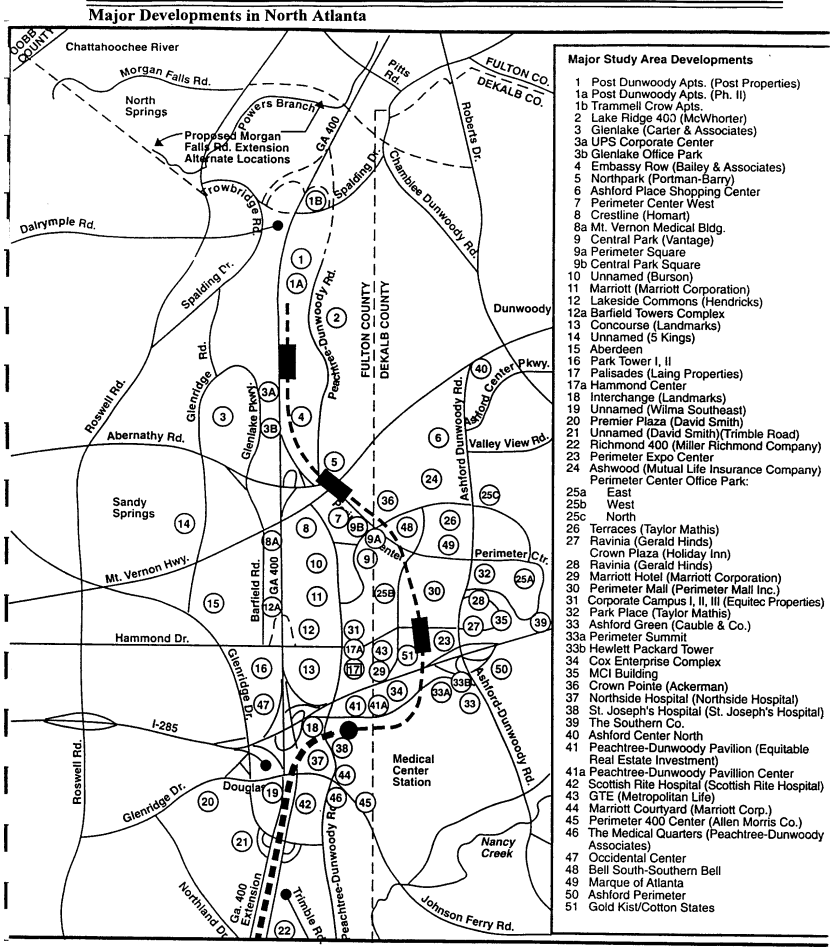
All buses being replaced will exceed the minimum FTA replacement criteria of 12 years or 500,000 miles of accumulated service, and are not wheelchair accessible. The new buses will fully meet the requirements of the Americans with Disabilities Act (ADA), as well as, the Clean Air Act Amendments (CAAA). Efforts to bring the bus fleet into full compliance with these two statutes are crucial to meeting the mobility, accessibility and air quality goals of the Atlanta region.

The continued support of the Congress is critical if MARTA is to realize the promise of ISTEA, comply with the Clean Air Act Amendments and meet the future transportation challenges facing the Atlanta Metropolitan Region.


North Springs
Sandy Springs
Dunwoody
Doraville
Medical Center
Chamblee
NORTH LINE
Northeast Line
Buckhead
Brookhaven-Oglethorpe University
Lenox
Lindbergh Center
* Northwest Line
Northside Drive
Brookwood
North Druid Hills
Tucker-North DeKalb *
Line
Proctor Creek Line
PERRY BLVD
Arts Center
Emory
Decatur
LAREDO
Midtown
Perry Homes
Bankhead
Inman Park
Reynoldstown
Brownlee-Boulder Park
Ashby
Vine City
Civic Center
Peachtree Center
Avondale
Kensington
Indian Creek
EAST LINE
Hightower
West Lake
Five Points
Garnett
Edgewood-Candler Park
East Lake
WEST LINE
West End
Georgia Dome
King Memorial
Busway
Oakland City
Thomasville *
Lakewood-Fort McPherson
SOUTH LINE
East Point
Hapeville Line
BROWNS MILL
HAMILTON
College Park
Hapeville
Airport
marta
RAPID TRANSIT SYSTEM
OPERATIONAL
45.3 MILES, 36 STATIONS
UNDER CONSTRUCTION
2.3 MILES, 2 STATION
FUTURE WORK
13.0 MILES, 8 STATIONS
BUS GARAGES
Scale in Miles
JUNE 1997
* Alternative Alignments and/or Station Locations under study
Mileage From Five Points
Mileage Between Stations or Junctions

Enclosure 1

Major Developments in North Atlanta



Enclosure 2

[CLERK'S NOTE.—The aerial photo does not appear in the hearing record but is available for review in the subcommittee's files.]

PREPARED STATEMENT OF ALEX PENELAS, MAYOR, METROPOLITAN DADE COUNTY, FL

Mr. Chairman and members of the Transportation Appropriations Subcommittee: I am Alex Penelas, Mayor of Metropolitan Dade County, Florida. I thank you for the opportunity to present a summary of our community's requests for 1998 Federal transit funds.

Last year, we reported to this subcommittee that Dade County has been aggressively pursuing and creating innovative financing opportunities to reduce our dependence on Federal transit monies. While we continue to pursue such opportunities, despite our noteworthy successes through joint development, public/private ventures, capital leasing, and tax-increment financing, we still require a nominal level of Federal support for our much needed and ambitious transportation projects.

In brief, our requests for 1998 Federal transit funds include $24.3 million in discretionary bus and bus related funds to accomplish several specific projects that will substantially improve the efficiency, safety, and service quality of our existing bus

system. Additionally, we are requesting $55.3 million in discretionary new start funds to continue our steady progress in three fixed guideway projects. One of these projects is nearing the end of the final design phase and the other two are finishing preliminary engineering and entering the right-of-way and final design phases.

Over the past several years, we have reported to this subcommittee about the expected growth in both the economy and population of the south Florida region and Metropolitan Dade County, in particular. Those projections are becoming reality. Our phenomenal rate of growth is significantly impacting the mobility of our citizenry in the country's fourth most congested urban area.

The prestigious Texas Transportation Institute annually ranks urban traffic congestion. For the third year in a row, the urbanized area of Dade County has achieved the dubious distinction of being ranked the fourth most congested urban area in the Nation. While we continue to be ranked just behind San Francisco, we are steadily narrowing the gap separating us from third place. Speaking on behalf of the people of Metropolitan Dade County, I can assure you that we would prefer not to achieve this distinction.

Although our transit system is performing adequately, its capacity is being strained and expansion is now critical. During the past few years, the Metro-Dade Transit Agency has moved from the eighteenth largest to the thirteenth largest agency in the Nation, as measured by ridership—all while keeping our bus operating recovery ratio well in excess of forty percent. To accelerate this growth we are moving forward with a public transit initiative to reconfigure our service and expand our capacity to attract and serve new riders. One of my mayoral objectives is to expand our number of buses on the road to 800 per day from its present level of 563.

Earlier this year, we opened a 8.5-mile exclusive busway linking our Metrorail line with the south Dade area along U.S. 1. you may recall that this is the area most heavily damaged by Hurricane Andrew in 1992. It is still undergoing economic recovery and we are counting on the busway to accelerate that recovery. Early statistics indicate that transit ridership in the busway corridor has already increased by over 30 percent.

As part of the busway inauguration, Metro-Dade Transit concurrently introduced several new neighborhood circulator services with minibuses that feed to and from the busway and its Metrorail link. We are planning to expand this concept to other areas of Metropolitan Dade County, with municipal and community minibus circulators feeding reconfigured larger bus, mainline service. The additional minibuses will contribute to my expansion goal.

This somewhat radical change in our historic service characteristics is a result of much public input and extensive travel demand pattern analysis. We strongly believe that this concept will not only serve to increase ridership, along with its concomitant mitigation of traffic congestion, but will also motivate our commission to introduce much-needed reforms in land use policy to further increase our utilization of public transit.

But, as you well know, before we can persuade drivers to curtail their auto-dependence and switch to transit—the transit service must be there first. This is why Federal funding programs are so vital to our community. We need Federal assistance to acquire vehicles and facilities to implement additional transit service.

You have heard, and probably have been involved in, discussions about donor State status, as it relates to returns of contributions to the highway trust fund. Although the methods of calculation and the level of computed "donation" ratios may differ among the discussing parties, there is no argument that Florida is indeed a donor State.

Essentially all of the discussions and calculations about return on contributions have centered on the highway portion of the trust fund and few participants have looked at the corresponding transit donation status. Regardless of whose calculations are used, Florida is a larger donor of transit monies than it is for highway monies.

The highway fund apportionment formula is at the heart of the issue in that its application fundamentally disfavors growth States—like Florida. such is not the case for Federal transit funds. The formulas used to distribute a portion of the transit funds are not being challenged. However, because nearly 30 percent of the transit funds distributed to States or transit properties are distributed by earmarking, this subcommittee has significant control over who ends up as donors or donees for transit funds.

Although, during the life of ISTEA, this subcommittee has, with our sincere appreciation, granted discretionary transit funds to Dade County and other Florida communities, the results have not corrected the donor status of our State with respect to transit funds. By our calculation, even with the earmarks that have gone

to any part of the State, Florida still receives less than 70¢ of the gas tax dollar it pays into the mass transit account. Typically, Florida contributes approximately 5 percent of the Federal gas tax revenues, yet the State gets back only 3 percent to 3.5 percent of the transit appropriation proceeds. Florida's contribution to the trust fund is larger than that of New York and is exceeded only by California and Texas.

By assisting us with our bus and rail expansion programs, this subcommittee can simultaneously help improve our equitable return on trust fund contributions. Toward this end, the following is our fiscal year 1998 program:

BUS AND BUS-RELATED PROGRAM FUNDING REQUESTS

For 1998, Dade County is requesting $24.3 million in discretionary bus and bus related program funds to finance a set of projects designed to improve our existing bus system in several service quality categories. Most of these projects are carryover from last year's request

Replacement buses

The first two projects in the bus related package are for the purchase of buses. The first of these two requests is $5 million for replacement buses. As you may recall, we have requested discretionary funds from this subcommittee for this purpose for the past several years as installments for the replacement of a 260-vehicle subfleet which reached its regulatory retirement age in 1992. Monies that we have been granted in the past have been obligated to purchase these replacement buses but not enough to maintain the preferred replacement schedule. Although we have replaced most of the vehicles that we had targeted, the extended funding has delayed the actual replacement so that it has now overlapped into the retirement period of another subfleet of buses. This next group of buses is smaller than the previous group—187 coaches—and the requested funds are supplementary to the use of formula funds for replacement buses. A designation of $5 million in discretionary transit bus funds is requested for an additional 25 of these replacement vehicles.

Expansion buses

The second bus purchase request is for expansion buses. As I mentioned earlier, through the Metro-Dade Transit Agency, Dade County is initiating a bus service expansion program, primarily utilizing less expensive small buses to operate municipal and neighborhood circulator service to augment its mainline operations. Both county officials and the general public feel that this type of service will offer more convenient transit service and lead to an increase in ridership and significant improvement to our traffic congestion situation.

In addition to a lesser capital acquisition cost, the smaller buses can be operated at a lesser cost per vehicle hour than the larger, conventional buses. Consequently, additional service can be provided at a much lower marginal cost. We propose to purchase 95 minibuses for the 95.7 million requested in this line item. This request is the first of three to expand the existing bus fleet to support a peak vehicle requirement of 800 buses, compared with the current fleet which supports a peak requirement of 563.

Central garage expansion

Another project included in our bus-related funding request involves the expansion and upgrading of bus servicing facilities. Recent reconfiguration of our bus service to accommodate changing ridership trends has necessitated garage reassignments of the bus fleet to minimize inefficient deadhead mileage. This reassignment has overburdened the agency's central operating and inspection garage. Using a capacity measure of assigned vehicles per maintenance bay, the central garage facility has a 40 percent higher ratio than the agency's other operating garages. This overcrowded condition requires central's buses to operate 7 hours longer between servicing which contributes significantly to in-service breakdowns and higher operating costs.

The central garage site is conducive to reasonably low-cost physical expansion that will relieve the overcrowded condition and reduce operating costs while improving service performance. Specific features of the proposed expansion program include adding three maintenance bays, expanding the parts storeroom facilities and relocating an employee parking lot. We request $3.0 million in Federal transit funds to accomplish this garage expansion effort.

Bus security system

Another bus related component project relates directly to improved safety and security for both bus riders and operators. Violent assaults and batteries on transit

operating staff and passengers demand improved personal security measures. Such demands have come from the passenger community, transit employee bargaining units and elected officials. A systemwide solution must include over 600 vehicles.

Utilization of security personnel is cost prohibitive for the whole fleet. The timing, however is conducive to implementing a security camera system in conjunction with the new federally funded 800 megahertz radio and automated vehicle locating system currently being installed fleetwide. The security monitoring technology is available to operate any of a number of taping schemes, e.g. continuous transmission, periodic snapshot and tape, periodic snapshot and transmit, driver activated continuous or instantaneous, etc. Any of these capabilities can be incorporated into the existing on-board communication technology. We request $3.6 million in Federal transit funds to implement such a system across the entire bus fleet.

Northeast Dade Transit Activity Center

A fifth proposed bus related project included in the requested package comes as a result of a federally funded area study just completed in the high-density northeast area of Dade County. The set of study recommendations serves to significantly improve the mobility characteristics of the residents of the area, increase public transit utilization and significantly involve the private sector in transit capital and operating support.

Implementation of the recommended passenger transfer activity centers focuses on the operation of arterial, trunk-line transit service through major transfer "hubs" which are served by neighborhood or community-based circulator services with smaller transit coaches. These "hubs" would be integrated with commercial facilities, either existing commercial sites or new sites created using joint public/private development concepts. Three transfer hubs, located with or within shopping or residential complexes, would contain environmentally compatible passenger shelter facilities, public phones, intelligent transit kiosks, seating and other passenger amenities. Real estate and facility maintenance, along with community meeting space and day-care or after school care facilities, could be provided by the private sector or jointly with local public partners.

We are requesting $4.0 million to implement a first phase of the transfer center concept, including bus facilities, furnishings and passenger amenities for at least one such center. State funds to provide operating assistance for the community-based circulator services have been requested.

Flagler Downtown Bus Station

The final component project in the block of requested bus funds focuses on the Miami central business district—the second largest employment center in the county. The Miami Downtown Development Authority has developed and is pursuing a project to revitalize the central downtown area of the city of Miami. An integral part of this project is the reconfiguration of the downtown bus transfer center into an integrated transportation center linking bus routes, a new Flagler trolley, Metrorail, Metromover and taxi service. The proposed facility will include thirteen bus bays, a taxi area, Flagler trolley depot, automated transportation kiosks, and a covered promenade to the Metrorail/Metromover Government Center Station complex. The requested transit portion of this downtown intermodal transfer center is $3 million.

Each of these bus related projects contributes in its own way to the substantial betterment of the existing bus system. Already at a 42 percent operating recovery ratio, the bus system is expected to experience a further reduction in subsidy requirements as a result of the implementation of these projects—either through reduced costs or by increased ridership due to the improvement of service quality.

NEW START FUNDING REQUESTS

Palmetto Extension of Metrorail

This project is a 1.4-mile extension of the existing 21.2-mile Metrorail system. The project extends Metrorail westward from its existing north terminus to intersect with the Palmetto Expressway. When completed, the extension will provide more accessible park-and-ride service to commuters from northwest Dade County and southwest Broward County. These two of the fastest growing residential areas in south Florida were not developed when the Metrorail line was constructed, but have grown substantially since then. The growth has substantially increased traffic congestion during commute periods with residents from these areas traveling to and from areas served by existing Metrorail. Natural barriers and limited-access roadways prevent easy access to the existing end-of-line station from these areas.

The extension project is currently funded in-part with congestion mitigation and air quality improvement (CMAQ) funds and in-part with transit new start funds.

The bulk of the transit new start funds being used for this project are project savings from funds previously appropriated for the Metromover extension project.

In 1992, when it was first forecast that the Metromover extension project would be completed under budget, Congress authorized Dade County to use up to $25 million in savings for the Palmetto extension project. The funding package for that project was developed with a $25 million transit contribution to an estimated $76 million total project cost (in 1992 dollars).

Now that the Metromover project has been completed and most of the post-construction expenses and claims have been resolved, the actual project savings to be realized will be approximately $17.6 million. Additionally, project costs have escalated slightly due to both increases in scope and inflation such that the revised estimated project cost is now $84.6 million. The combined effects of these two factors have resulted in a funding shortfall of $16 million, $5.4 million of which has been covered by additional State and local funds. The remaining $10.6 million is now being sought from new transit appropriations from the New Start Program over the next two years—$5.3 million in 1998 and $5.3 million in 1999—to complete the funding.

All project development and environmental work has been completed for the project. Final design is 60 percent complete and the right-of-way acquisition activities have already begun. This project is scheduled to begin operation in 2001 with minimal effect on total system operating costs.

North Corridor Transitway

One of the fixed guideway expansion projects that Congress has funded for the past two years is the Dade/Broward North Corridor Regional Transitway. This regional impact project has progressed, with previously appropriated Federal transit funds, through the alternatives analysis and selection of a locally-preferred alternative phases of a major investment study (MIS) and entered the preliminary engineering and environmental impact analysis phases. The estimated project implementation costs have been reduced from an initial estimate of $574 million to a current estimate of $457 million. project implementation remains programmed at a 30 percent non-Federal share level.

To further integrate this project into the Dade County program of interrelated projects, the final MIS activities for this project incrementally increased in scope. Additional analyses are being performed to evaluate the technical and economic feasibility of directly connecting this corridor with the proposed Miami Intermodal Center and with the Opa-Locka Airport, a reliever airport for Miami International Airport. Last year's appropriation of $1.0 million funded the final project development phases, including the expanded scope, the environmental impact statement and complete preliminary engineering.

These tasks are expected to be complete during the first quarter of 1998. At that time the final design and right-of-way acquisition phases of project implementation can begin. During the remainder of fiscal year 1997–98, the major project efforts will concentrate on advance acquisition of right-of-way. Therefore, we are requesting a fiscal year 1997–98 appropriations of $26.5 million for this right-of-way acquisition phase of the project.

East-West Multimodal Corridor

The third element of our 1997 New Start request is the centerpiece of Dade County's long-range program of interrelated transportation projects previously presented to this subcommittee. The East-West Corridor/Miami Intermodal Center project, on which we are now completing the major investment study developmental phase, has become a national showcase of inter-agency cooperation, at both the local and Federal levels.

This $3.5 billion combined roadway and transitway project, of which less than a third is proposed to come from Federal transit sources, involves private interests, six local agencies and every modal administration in USDOT, all operating under a common written cooperation agreement. The project development team has just completed the draft environmental impact statement (DEIS) phase of this project. Preliminary engineering has begun and it, along with the final EIS, is expected to be complete by the end of summer, 1997. Once a subsequent record-of-decision has been granted, expected sometime in the fall of 1997, final design and early right-of-way acquisition can be initiated.

Recent reconfiguration of the financing profile for the Miami Intermodal Center (MIC) component of this project has minimized Federal transit funding for this facility.

With no "New Start" funds needed for the MIC, transit funding can now be concentrated on the fixed guideway component of the project. Advance right-of-way ac-

quisition can reasonably be expected to begin during the fiscal year 1997–98 period. The transit right-of-way part of the project is estimated to cost $229.0 million and is expected to be spent over a multi-year period. The projected funding flow requires $23.5 million in Federal transit funds, being requested for 1997–1998.

In closing

The implementation schedules for these two New Start projects are intentionally staggered to preclude significant mutual competition for future Federal, State and local funding. The current funding requests will allow an orderly acquisition of right-of-way for both projects while maintaining the schedule stagger for the larger requirements of construction funds later in the implementation cycles of the projects.

Dade County is eager to implement all of these proposed projects for the benefit of its residents and visitors. We are grateful for the past support from this subcommittee and pledge to continue our good stewardship over the increasingly scarce Federal funds. I sincerely appreciate the opportunity to present our requests to this subcommittee and I am hopeful that the results of your upcoming deliberations will enable us to move ahead with our critical and worthy public mobility projects. Thank you.

PREPARED STATEMENT OF JOSE GARCIA-PEDROSA, CITY MANAGER, CITY OF MIAMI BEACH, FL

On September 16, 1996 the Transportation Appropriations Committee approved funding for phase I of the city of Miami Beach Electric Shuttle Park & Ride Demonstration Project. The funding appropriated by Congress has been received towards the purchase of a fleet of 22-passenger electric shuttle vehicles, the first seven (7) of which have already been acquired. The vehicles will serve a highly congested, urban-residential, and commercial historic district.

The city is now requesting funding for phase II of the project. Phase II will include the design and construction of a multi-modal center and as been estimated at a cost of $21,000,000. The multi-modal center will provide a vital transportation hub for the area. The center will also serve as a link for the future east west corridor, that will link together the Palmetto Expressway, State Road 836, the Miami Intermodal Center at Miami International Airport, downtown Miami, the seaport, and the island city of Miami Beach. The second phase will provide for a commuting/transportation center that will bring together commuters, parking, the electric shuttle system, local transit services, maintenance and charging facilities for the shuttle vehicles, and a commuter/visitor store where commuters can catch the shuttle to area destinations, purchase transit passes, and obtain information about the surrounding area.

The Miami Beach Transportation Management Association, the city's public private partnership has the financial support of the Florida Department of Transportation, the Dade County Metropolitan Planning Organization and Transit Agency, the Florida Environmental Trust, the Clean Cities Coalition, the Florida Department of Energy, the Florida Alliance for Clean Technologies, and the Florida Power and Light Company.

The objective of this project is to reduce demanding traffic on the already overcapacity roadway system of this island community by providing a comprehensive park & ride system. The project is totally supported by the Miami Beach City Commission and the Miami Beach community. Your support of phase II is critical to the implementation of this city wide park & ride program.

PREPARED STATEMENT OF MORRIS FISHER, CHAIRMAN, MONTEREY-SALINAS TRANSIT

BACKGROUND

Monterey-Salinas Transit (MST) serves a 110 square-mile area of Northern Monterey County and Southern Santa Cruz County on the Central Coast of California. MST provides fixed-route transit service on twenty-eight lines and carries 3.8 million passengers per year. MST also operates the RIDES Program which provides paratransit services to individuals with disabilities. MST offers convenient and reliable public transportation to residents and to the many tourists who visit our community.

Fort Ord lies in the middle of MST's service area. Fort Ord was established in 1917 and served as a training and staging facility for the United States Army until its closure in 1995. Fort Ord consists of 44 square miles, which is approximately

the same size as the City and County of San Francisco. Planning and implementing the reuse of Fort Ord is one of the biggest issues facing the region. The provision of transit services as reuse occurs is one of the most significant challenges MST must address.

PROJECTS TO BE IMPLEMENTED IN FISCAL YEAR 1998

In order to maintain transit services to the residents and visitors to Monterey County and to begin the implementation of the reuse of Fort Ord, MST requests that funding be provided for two major projects during fiscal year 1998:

—Replacement of 27 buses with Compressed Natural Gas Powered buses—$9.6 million.

—Development of the Marina/Ft. Ord Intermodal Transit Center—$2.5 million.

CRITICAL PROJECT NEED

MST is long overdue on bus replacement. MST's current bus roster is shown in the table below. All available capital funds from the federal, state, and local governments are being used to rebuild and replace the MST fleet, most of which is over 15 years old. Providing additional funds for fleet and capital replacement will allow MST to maintain existing transit services, meet high priority corridor transit needs, and continue to operate tourist shuttles.

MONTEREY-SALINAS TRANSIT BUS ROSTER

Fleet number/manufacturer	Number	Years of service	Average total miles per bus
1201–1215, Flxible	15	21	890,000
601–605, Flxible	5	20	624,000
301, 308, 309, 311, Flxible	4	18	636,000
501–521, Flxible	21	16	732,000
701–716, Gillig	16	8	254,000
801–808, Flxible	8	1	25,000
Total		69	

The traffic and funding situation Monterey County faces is critical. Traffic conditions now and projections based upon expected growth result in the need to widen four U.S. Highways—highway 1, 68, 101, and 156. Each of these roadways is on the National Highway System. At current rates of funding, such a widening program would require 56 years to accumulate funds assuming no inflation or project cost increases. All of the federal and state highway funds for the next 20 years will only pay for one-half of the Highway 101 Bypass and then funds are currently programmed. This is why MST and the Transportation Agency for Monterey County regard the institution of quality, frequent transit service to be a critical element of future mobility for residents, tourists, and goods.

The Fort Ord transit facilities have been strategically planned as part of a comprehensive county-wide planning effort so that transit will assist in reducing traffic congestion, air pollution and delays while encouraging reuse of Fort Ord. MST has requested the conveyance of land for the Marina/Fort Ord Intermodal Transit Center through the public benefit conveyance process. MST expects to receive the title to this property in Spring 1997. Funding is requested to allow MST to develop this property, which will serve as a catalyst for the reuse of Fort Ord.

The bus transit facilities on Fort Ord and the access they provide are critical to successful Fort Ord Reuse and to reducing traffic congestion. The military contribution to the local economy was approximately one-third of the total Monterey County economy. When the base closed in 1992, approximately 21,000 local jobs were lost. Following the closure of Fort Ord, local public agencies alone lost $188.6 million in tax revenues in 1992.[1] The loss of military expenditures and wages need to be replaced as soon as possible with successful reuse of the Fort. The development of the Marina/Ft. Ord Intermodal Transit Center is critical to avoiding the traffic congestion that may develop as Fort Ord reuse occurs.

[1] Department of the Army, "Environmental Impact Statement, Fort Ord Disposal and Reuse," Volume II, December 1992.

NATIONAL SIGNIFICANCE

Fort Ord Reuse is a national model of military base conversion to peacetime uses. The primary anchor for the reuse is the establishment of a Monterey Bay branch of the California State University which is in place and is expected to serve 25,000 students. The new campus currently contract with Monterey-Salinas Transit for bus service. As the campus grows along region, existing transit services must be maintained and expanded to provide critical transportation to students as well as the employees and residents who will make the reuse of Fort Ord a success. The implementation of alternative transportation programs will be an important component of the national reuse model that Fort Ord represents.

ECONOMIC SIGNIFICANCE

Bus service throughout the Monterey Peninsula, Watsonville, and Salinas carries an average of 12,000 daily passengers, one-third of whom have no other alternative means of transportation. Monterey-Salinas Transit is among the top one-quarter of transit operators in California in on-time performance and cost effective service delivery. Our farebox recovery rate of 41 percent is among the highest in California.

The Monterey Bay Sanctuary, numerous federal parks, 17 golf courses, Monterey Bay Aquarium, historic Monterey adobes, and communities like Carmel all contribute to the $1 Billion Monterey County Tourist Industry. The maintenance of transit services is critical in maintaining this major facet of Monterey County's economy. Transit provides access to tourist-oriented employment and provides transportation for visitors.

Some of the buses purchased will operate in shuttle service on the Waterfront Area Visitor Express (The WAVE) route which connects downtown Monterey with Cannery Row, Fisherman's Wharf, and Pacific Grove. Each day it runs, The WAVE carries an average of 1,400 passengers at significantly less public cost than other alternatives that were studied. In addition, The WAVE service is valued by the business community which helps fund its operating costs. The business community now directly funds one-third of the cost of this service.

Exceeding the tourist industry as an employer and economic engine is the $2 Billion Monterey County Agricultural Industry where support infrastructure and services are needed to move both people and goods efficiently in order to minimize traffic congestion and travel delays for Central California Coast residents, tourists, businesses, and shippers. MST provides transportation for agri-business employees and reduces traffic congestion so that agricultural goods can move more efficiently to market.

PROVEN HIGH-TECHNOLOGY EQUIPMENT

The buses to be replaced are high technology, low pollution, state-of-the-art Compressed Natural Gas (CNG) buses, eight of which now operate in the MST fleet. CNG Fueling infrastructure will allow MST to efficiently fuel the new buses. This will result in lower operating costs and better service to existing residents and tourists.

The MST system is currently operating mostly diesel buses that are long past the FTA's useful service life goal of 12 years. The MST fleet is one of the oldest transit fleets in the State of California. The oldest buses in the fleet are remanufactured 1977 Flxible coaches which are 20 years old. Each of these buses has traveled almost one million miles.

MST plans to continue to purchase vehicles fueled by compressed natural gas. This new technology will allow MST to operate its service while producing significantly less air pollution than diesel buses. Each of the 27 CNG buses to be purchased will reduce air pollution by nearly a ton per year. The total CNG fleet to be purchased will reduce air pollution by nearly 23 tons per year.

CONCLUSION

The 27 buses and the CNG infrastructure will allow MST to continue to provide transit services to the residents of Monterey County and will support the reuse of Fort Ord. The federal funding requested for these buses is critical to MST's ability to support the economic vitality of our region and to maintain the quality of life of Monterey County residents.

The Marina/Fort Ord Intermodal Transit Center will serve as a focal point for the reuse of Fort Ord. This project sits at the heart of a new, mixed-use development. In addition to being a valuable and relatively modest investment, this facility will serve as part of a national model for the reuse of military bases.

PREPARED STATEMENT OF LORI HOLT PFEILER, CHAIRMAN, NORTH SAN DIEGO COUNTY TRANSIT DEVELOPMENT BOARD

As Chairman of the North San Diego County Transit Development Board (NSDCTDB), I am pleased to have the opportunity to provide written testimony to the Subcommittee regarding the Oceanside-Escondido Light Rail Project. NSDCTDB is requesting an appropriation for fiscal year 1998 of $13 million to proceed with final design and mitigation costs associated with the project.

INTRODUCTION

NSDCTDB serves a geographical area of 1,020 square miles extending from the northern boundary of San Diego County, south through the city of Del Mar and inland from the Pacific Coast to the city of Escondido and the unincorporated communities of Fallbrook and Ramona. As can be seen on the attached map, this service area includes Camp Joseph Pendleton Marine Corps Base (situated in extreme northern San Diego County adjacent to the Orange county line). The other cities in NSDCTDB's service area include the coastal cities of Oceanside, Carlsbad, Encinitas and Solana Beach and the inland cities of Vista and San Marcos. Total population of the service area is approximately 720,000. NSDCTDB's operating agency, North County Transit District (NCTD), provides fixed route and demand response bus service, ADA paratransit service and passenger rail services via the Coast Express Rail Service (COASTER).

The railroad right-of-way for the COASTER service and the proposed Oceanside-Escondido Light Rail Project was acquired from the Atchison, Topeka and Santa Fe Railway in 1993 by NSDCTDB and the San Diego Metropolitan Transit Development Board (MTDB), each agency owning the right-of-way in its service area. Shared-use agreements with Amtrak and Santa Fe provide revenues from these entities which are available to offset passenger rail operating costs, thereby reducing the amount of public operating subsidy required.

PROJECT DESCRIPTION

The Oceanside-Escondido Light Rail Project consists of the conversion of an existing twenty-two mile freight rail corridor into a light rail system running inland from the coastal city of Oceanside through the cities of Vista and San Marcos, to the city of Escondido. The project additionally includes a 1.7 mile realignment on new right-of-way to serve California State University San Marcos. Passenger rail service will be provided to a total of fifteen stations including four at existing transit centers. The western most terminus, the Oceanside Transit Center, already serves a variety of transportation modes and has developed into a truly regional and intercity transportation hub, serving Amtrak, Metrolink (Southern California Regional Rail), COASTER, NCTD bus service, Greyhound bus and taxi. Horizon year 2015 ridership for the Oceanside-Escondido Light Rail Project is projected to be 5,215,700.

This project will include track work, signal, other right-of-way improvements, a maintenance facility, station construction and the purchase of diesel multiple unit (DMU) vehicles.

The Oceanside-Escondido Light Rail Project was approved by the voters in San Diego County in 1987 through Proposition A, a local sales tax initiative. Proceeds from the proposition will fund 27 percent of the project. The remaining 18 percent of the local commitment will be funded with Proposition 108 and other state funds.

The Oceanside-Escondido Light Rail Project is supported by the San Diego Association of Governments (SANDAG) based on the following series of actions adopted by their Board of Directors. The project is contained in the Revenue Constrained Regional Transportation Plan (RTP), 1996–2020. Additionally, the project is programmed in the 1996–2003 Regional Transportation Improvement Program (RTIP). As part of the RTP and RTIP adoption process, the project has been certified as being in conformity with the planning requirements of the federal Clean Air Act.

ECONOMIC BENEFIT

Studies conducted by the SANDAG in 1987 determined that the light rail alternative using self contained diesel multiple unit (DMU) vehicles was found to be the most cost effective because it demonstrated the lowest operating cost of the three alternatives studied. Additionally, the DMU alternative proved to have the lower capital cost when compared with the cost of the electrical powered system. The light rail alternative studied using electrical power cost twice as much as the alternative using the DMU vehicles. The proposed Oceanside-Escondido Light Rail Project will be using the DMU vehicles.

This capital cost of the Oceanside-Escondido Light Rail Project, at $8.8 million per mile, compares extremely favorably to other Southern California rail projects. Comparative capital costs for other rail projects range from $31.7 million to $50 million per mile.

The Federal Transit Administration requires that annualized cost per new transit rider be used to measure cost effectiveness of proposed rail transit project alternatives. The cost effectiveness indicator for the Oceanside-Escondido Light Rail Project is $4.61 per new rider. This number is less than the $5.00 figure that is considered to be a very effective project threshold.

Projected subsidies for fiscal years 2001–2003 for the rail service range from $.59 to $.53 per passenger. The projected subsidies the fixed route bus service range from $2.03 per $2.14 for the same time period. As these comparisons indicate, the rail service in this corridor will be cost effective. Also, the fixed route bus service will eliminate one route that provides service in the same corridor and another route will be modified due to the reduced demand created by the service. The savings from these changes will be used to subsidize rail system operation.

The majority of funds used to operate the rail service will be from passenger revenues. The farebox recovery ratio beginning in the first year of operation is projected to be 59.6 percent increasing to 63.3 percent by the year 2003.

Other benefits include an increase in employment expected by both the construction of the project and the operation and the maintenance of the service. Because of the multiplier effect additional secondary jobs will be created as well.

REGIONAL SIGNIFICANCE

The Oceanside-Escondido Light Rail Project will be situated along the State Route 78 Corridor, which connects Interstate Highway 5 and 15, and is the principal east-west corridor in Northern San Diego County. The closest parallel expressway is State Route 76, located fifteen miles to the south. State Route 78 carries inter-regional, intra-regional, commuter and recreational travel. The corridor contains a diverse mixture of residential, local commercial, light industrial and educational land uses, generating increasing volumes of trips.

Existing major activity centers within the corridor include a regional shopping mall, two community colleges, a state university, a private university and two hospitals. Employment growth along the corridor is projected to increase progressively by a total of 58.6 percent from the 165,725 jobs in 1990 to a total of 262,869 jobs by 2015. This is over twice the rate of growth of the rest of the San Diego Region which is projected to increase by 25.8 percent during the same period. The majority of the increase in employment is expected to stem from lower-paying service and retail employment providing a growing market for this highly successful transit corridor.

The region's economic growth could be hindered by current and projected congestion on State Highway 78. Currently operating at moderate to heavy congestion, traffic on the highway is projected to reach a heavy congestion level by 2015. According to the California Department of Transportation, widening this freeway to eight lanes is not economically feasible due to right-of-way constraints and bridge reconstruction costs. The Oceanside-Escondido Rail project has been developed to help alleviate this projected congestion.

Regional land use policies recognize the importance of public transit to the region's quality of life and encourage an increase in the density of employment within walking distance of planned rail stations. Additionally encouraged is an increase in the density of single family and multiple family units around planned rail stations as well as mixed-use development.

The cities in the State Highway 78 corridor are taking action to implement these land use guidelines. The city of Oceanside is currently conducting a study to determine opportunities for pedestrian oriented, mixed-use intense development around the six rail stations in the city's jurisdiction. The city of Vista's redevelopment project, located immediately adjacent to the planned rail station in downtown Vista, also recognized the opportunities for economic development provided by the project. The city of San Marcos considers the construction of a rail station as one of the critical elements to their 60 acre redevelopment project. The newly constructed San Marcos City Hall is situated within the redevelopment project and directly adjacent to the planned rail station. Just south of the city of San Marcos redevelopment project lies California State University San Marcos, which opened in 1993, and is already a major regional activity and employment center. In addition, three hospitals are planned for developed at cities adjacent to the University. The city of Escondido is already served by a major transit center in the downtown area. The Oceanside-Escondido Rail Line will serve a station directly adjacent to the existing

transit center, making all of the downtown area, including the Escondido Center for the Arts, within walking distance or accessible by a short bus trip.

ENERGY EFFICIENCY, ENVIRONMENTAL BENEFITS AND CONGESTION MITIGATION

The Oceanside-Escondido Rail Project is expected to require a total energy demand of 43 billion Btu per year. This is a positive net effect compared to the No Action Alternative. If the project is implemented an annual reduction of 174 billion Btu could be achieved, relative to the No Action Alternative. The express bus alternative shows a comparable energy demand of 43.1 billion Btu annually.

In terms of environmental benefits, studies indicate that this project would incrementally decrease pollution to the region airshed and therefore result in a beneficial impact to air quality. Vehicle miles traveled would be reduced by 57,728 daily as a result of this project.

Mitigation of congestion will be realized by shifting the single occupant auto driver to the rail system. Primarily, the benefits will be to State Route 78 during commuter peak hour periods. Rail service would contribute indirectly to a reduction in commuter traffic along Interstate 5 and 15.

PROJECT STATUS

Between 1986–1992, a series of studies were conducted by SANDAG and the California Department of Transportation to determine the best way to accommodate current and future travel demands in the State Route 78 Corridor. The studies recommended a multimodal approach to optimize the existing State Route 78 facility that focuses on State highway improvements, sub regional arterial network improvements and the provision of a passenger rail system operating over the existing railway to achieve a balanced intermodal east-west corridor. The results of this Alternative Analysis led NSDCTDB proceed with an Environmental Impact Report (EIR) in compliance with California Environmental Quality Act (CEQA). The EIR was later supplemented to provide for an alignment directly serving CSUSM. The EIR and supplemental EIR were certified in 1990 and 1991 respectively.

In February, 1993, NSDCTDB acquired the right-of-way for this project from the Atchison, Topeka and Santa Fe Railway at a cost of $19.2 million, and to date, a total of $43.1 million of local and State funds have been invested in property acquisition for this project.

In August, 1994, a regional consultation meeting was held with representatives of FTA, FHWA, SANDAG, Caltrans, City of San Marcos and NCTD in attendance. As a result, the Oceanside-Escondido Passenger Rail Project was determined to be a "pipeline project" in that the alternative analysis had been completed at the regional level.

It was recognized that in order to qualify for federal funding, the project would have to undergo further environmental documentation in compliance with the National Environmental Policy Act (NEPA) ; however, NSDCTDB decided to defer further environmental work until the completion of an advanced planning study, which would provide refined capital cost estimates. Completed in December, 1995, the advanced planning study reviewed several operating scenarios, taking the basic system elements to as much as a 30 percent design level. This level of detail afforded the Board with confidence in the capital costs. The Board selected an operating scenario and directed staff to proceed with the NEPA process. A subsequent EIR was required under CEQA. A draft CEQA/NEPA document was completed in October, 1996. The NSDCTDB certified the CEQA document in February, 1997. NCTD is currently preparing the documentation required by FTA to issue a Finding of No Significant Impact (FONSI).

SUMMARY

The Oceanside-Escondido Rail Line is a cost effective project which enjoys significant local support and will have important benefits to the economic health of the region. The current financial plan calls for a federal investment of approximately $107 million which is 55 percent of the total cost of $194 million. This request for $13 million would be the first appropriation towards the $107 million. If this appropriation is approved, the funds will be used for final design and costs associated with mitigation.

The planned opening date of December, 2000 is driven by State mandate requiring projects funded by Proposition 108 (the state funds referenced above) be in service by fiscal year 2000. Design must proceed in fiscal year 1998 in order to comply with this state requirement.

The current Amtrak and Santa Fe shared-use agreements, a variety of lease agreements and the high farebox recovery have afforded NCTD the benefit of using

minimal local subsidies for its rail program. No federal operating assistance will be applied to NCTD's rail operations.

I urge the Subcommittee to give favorable consideration to the Oceanside-Escondido Light Rail Project. Thank you for the opportunity to present this important transportation project.

PREPARED STATEMENT OF PAUL P. SKOUTELAS, EXECUTIVE DIRECTOR, PORT AUTHORITY OF ALLEGHENY COUNTY

Chairman Shelby and members of the subcommittee, I am pleased to submit testimony on behalf of Port Authority of Allegheny County, the principal public transportation provider in the Pittsburgh urbanized area. Port authority provides 75 million public transportation trips annually within a 730 square mile area through a variety of services including bus, busway, light rail, incline, and the Nation's largest specialized paratransit system.

I am Paul Skoutelas, newly named Executive Director of Port Authority of Allegheny County. It is my privilege to present this testimony regarding Port Authority's, phase I airport busway/Wabash HOV facility. This intermodal project provides an excellent example of the Federal-State-local partnership that has been so successful in financing public transportation investments.

Port Authority is requesting $40 million for this project in fiscal year 1998. Port Authority is also requesting a "bus/bus facility" earmark of $12 million to be used to acquire approximately 55 buses in fiscal year 1998. Procurement of new buses will enable Port Authority to ensure reliable and comfortable service to its customers.

With strong bipartisan support from this subcommittee, I am happy to report that the airport busway/Wabash HOV facility is now under construction and will be, when completed, a critical element of Allegheny County's busway system. The project will provide access to jobs through an essential transit link between downtown Pittsburgh and the new Pittsburgh International Airport. The airport busway/Wabash HOV facility will also cut travel time to the western suburbs bypassing traffic congestion at the Ft. Pitt Bridge and Tunnel, and along Parkway West (I–279). Accordingly, the project will provide a viable alternative to traffic gridlock anticipated during the upcoming reconstruction of the bridge and tunnel, a project to be undertaken by the Pennsylvania Department of Transportation.

Through fiscal year 1997, a total of $130.9 million in new start funding has been provided for the project. In addition $19 million in section 3 bus/bus facilities funding and $15.8 million of intermodal funding pursuant to section 1069 of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) has also been earmarked. An amount of $76.5 million in ISTEA flexible funds has also been obligated, and $9.6 million in contract authority has been made available pursuant to section 1108 of ISTEA. In addition, Pennsylvania State Act 223 of 1990 authorizes $70 million for the project.

At present approximately half of the length of the 8.1 mile intermodal project is under construction. By December, 1997 in excess of $271 million is scheduled to be encumbered. All funds obtained pursuant to the fiscal year 1998 appropriations bill will be encumbered in fiscal year 1998.

The Federal Transit Administration (FTA) has ranked the airport busway/Wabash HOV facility among the most cost-effective projects in the Nation. The FTA negotiated a full funding grant agreement (FFGA) with Port Authority on the basis of that evaluation. However, due to a number of factors unknown in October 1994 when the FFGA was formalized, project costs are now expected to be higher than the estimates included in the FFGA. Amendments to the FFGA are currently being discussed by Port Authority and FTA.

Port Authority is also requesting $12 million in the fiscal year 1998 transportation appropriations bill to be used toward the procurement of approximately 55 buses, some of which may be powered by alternative fuels. The new buses will replace buses which have completed their useful service lives and are eligible for retirement by virtue of age or mileage standards. The buses will be used in Port Authority's overall route network which serves 255,000 riders each day, or about 75 million annually.

I would now like to stress the importance of increasing the overall level of investment in transportation infrastructure. Traditionally, transportation has been a bipartisan program where both political parties have shared a belief in the national importance of infrastructure investment. The bipartisan work of this subcommittee has enabled undercapitalized and physically deteriorated public transportation systems in our great cities, suburban communities, and rural areas to be rejuvenated.

Further, this subcommittee has helped create an Interstate Highway System and airport network that is the envy of the world. Now, it is imperative that all levels of government continue to develop our transit and surface transportation networks.

Finally, I want to commend the subcommittee for including in recent transportation appropriations bills the provision allowing FTA to implement new guidelines for vehicle overhaul projects. This new initiative encourages maintenance and preservation of rolling stock while also helping mitigate the impact of cuts in Federal operating assistance. This offers a strategic direction to build on for the future of the Federal Transit Assistance Program. However, to take full advantage of this opportunity funds for the Urban Capital Grant Program (formerly section 9) must be increased.

I look forward to an active and ongoing dialogue with the subcommittee in the coming years. I would be pleased to submit any additional information at this time as would be useful to the subcommittee.

PREPARED STATEMENT OF DR. CARLOS I. PESQUERA, SECRETARY, PUERTO RICO DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS

Good afternoon, Mr. Chairman and Members of the Subcommittee. I am Carlos I. Pesquera, Secretary of Transportation and Public Works for the Commonwealth of Puerto Rico. I am honored to appear before you today to report on the progress of the transit system that we call "Tren Urbano." Since my last formal report to this subcommittee, we have entered a critically important and exciting phase of this project. Tren Urbano is under construction.

While the groundbreaking ceremony on August 2, 1996, symbolized the launch of the construction phase, the awarding of major construction contracts has made the project a reality. To date, $720.8 million in contracts have been awarded for the first four packages. The remaining $529.5 million in contracts will be awarded by June of this year for the final three segments. We have established an aggressive schedule for final design and construction. System testing is scheduled for the year 2000, with system opening scheduled for the summer of 2001.

Tren Urbano is evidence of our commitment to build a world-class transportation system. That commitment has also motivated our dramatically increased investments in highway construction rehabilitation, and maintenance over the past four years. By the end of 1996, the Government of Puerto Rico had invested $1.1 billion in transportation infrastructure, compared to $815 million during the previous four-year period, an increase of 32 percent. We have also significantly increased investments in existing modes of public transportation, to build a transit ridership base and to prepare for integrating these modes as feeder systems for Tren Urbano.

The Federal government has been our indispensable partner in our efforts to build a world-class transportation system. Back in 1993, the Federal Transit Administration chose Tren Urbano as one of four turnkey demonstration projects in the nation, and the only new start project among them. Aside from the technical merits of our project, the FTA has highlighted Tren Urbano's cost-effectiveness, which it estimates as 0.67 per net new rider.

The innovations in project management, financing, and procurement strategy developed for Tren Urbano are being closely followed and widely praised by the transportation industry. I believe that our vigorous and highly effective community participation program, the extraordinary measures we have taken to assure top-quality system design, and our search for ways to couple the project with urban redevelopment will one day present an instructive case study for transit planners, not only here in the mainland U.S. but around the world. In October of last year we cooperated with the Federal Transit Administration in hosting an international conference on turnkey transit systems and joint development. Over 150 representatives from 16 countries gathered to discuss trends and recent experiences. We used the occasion to highlight the innovative turnkey procurement process we have devised for Tren Urbano.

By the year 2010, the number of daily person trips by car within the San Juan Metropolitan Area is expected to increase by 45 percent. The high concentration of development and population in the metropolitan core precludes expanding existing roadway facilities without great cost, community disruption, and increased traffic congestion.

In light of these factors, there is a pressing need for a high-capacity rail system in the San Juan Metropolitan Area. To alleviate worsening gridlock and to avoid future inflationary cost, Tren Urbano is implementing a fast track, design/build procurement rather than the traditional method of procuring a public facility.

Congress has recognized the importance of Tren Urbano to maintaining economic growth in Puerto Rico. The FTA and Puerto Rico Highway and Transportation Authority have entered into a full Funding Grant Agreement providing for FTA capital program funds totaling $307.34 million. Congress approved an initial earmark of $5 million for federal fiscal year 1995 and an additional earmark of $7.4 million for federal fiscal year 1996. FLEA has approved a grant application for this $7.4 million for federal fiscal year 1996. In addition, Congress has approved a $4.35 million earmark for fiscal 1997. This earmark has been supplemented by an additional $1.3 million of discretionary moneys awarded by the FTA.

The financial analysis for Tren Urbano assumes that federal funds will be provided in accordance with the provisions of the Full Funding Grant Agreement which allocates federal funds over a six-year period, commencing in federal fiscal year 1996. Our Highway and Transportation Authority is also evaluating alternatives for the application of such FTA capital program funds in order to avail itself of the innovative financing techniques currently under consideration by FTA and DOT. In addition, during the Tren Urbano design and construction our Highway and Transportation Authority anticipates receiving $90 million in FTA urbanized area formula apportionments in accordance with the provisions of 49 USC 5307. These apportionments, in addition to the Full Funding Grant Agreement funds, will be devoted entirely to transit.

I wish to emphasize that in the financial plan for Phase I of Tren Urbano, the funds provided by the FTA's Full Funding Grant Agreement amount to approximately one-third of the total cost of the project. Puerto Rico will finance the other two-thirds using the Highway and Transportation Authority's revenue sources. Last week, we proposed that the Legislature of Puerto Rico enact a number of transportation financing enhancements that will provide the Highway and Transportation Authority with an additional $120 million per year. These enhancements include giving the HTA more of the vehicle licensing fees and more of the 8-cents-per-gallon tax on diesel fuel now being collected. In addition, we will raise the gasoline tax by 2-cents per liter, which is about 7.6-cents per gallon. This tax increase will add approximately $80 million per year to the pledged revenues received by the Highway and Transportation Authority.

We are here today to request that the Members of the Appropriations Subcommittee on Transportation continue their support for the Tren Urbano project by granting a fiscal year 1998 appropriation of $45 million. These funds will help pay for ongoing construction. I look forward to keeping Members of Congress apprised of our progress on Tren Urbano.

Thank you, Mr. Chairman and Members of the Committee for your time and consideration. And now, I welcome your questions.

PREPARED STATEMENT OF LEON WILLIAMS, CHAIRMAN, SAN DIEGO METROPOLITAN TRANSIT DEVELOPMENT BOARD

Mr. Chairman and members of the Subcommittee, we appreciate this opportunity to provide testimony on the critical and cost-effective Metropolitan Transit Improvement Project in San Diego. The San Diego Metropolitan Transit Development Board (MTDB) is seeking an appropriation of $31 million which would allow us to proceed with final design and right-of-way acquisition for the San Diego Metropolitan Light Rail Transit (LRT) Program. This LRT project consists of two elements, Mid-Coast (3.4 miles initial phase) and Mission Valley East (5.9 miles completes the Mission Valley line), which would extend the existing San Diego Trolley system to a total of 64 miles.

However, before I describe the project and its elements, let me offer some highlights of our record in San Diego:

1. "Intermodal" Works in San Diego!—We continue to be a model for intermodal efficiencies. Since introduction of LRT in 1981 we have had a "seamless" transit network of buses, commuter rail, and LRT. The integrated and unified fare structure allows easy interchange between modes, and the bus services have been fully tied in with the LRT network through strategically located transit centers that serve as "hubs."

2. Light Rail Transit (LRT) Economies Have a 16-Year Proven Record in San Diego!—The metropolitan bus-LRT system performs well, and has an enviable farebox recovery rate of 51 percent, with the LRT portion being about 70 percent.

3. Incremental System Development Works in San Diego!—Our LRT system has been developed incrementally in seven stages to date—which ensures relevancy of the system to the growing and changing needs of the metropolitan area.

4. Local Funding is the Foundation for LRT Development in San Diego!—Therefore, as we explain our request please be aware that we have largely built the LRT system that is in place or under construction today with local and state funds. Of the $813 million investment in the LRT system development to date, only 8.5 percent has come from federal funds. Thus, with a proposed federal share of $323 million of the total $409 million in costs for both elements of this project, the total federal participation in the overall San Diego Trolley LRT system would amount to only 32 percent!

Now, let me turn to the two elements of the San Diego Metropolitan LRT project and describe their primary features. First, they share some common characteristics:

—they would offer access to and connections between the four major employment areas in San Diego (centre city, Mission Valley, the "Golden Triangle," and Otay Mesa at the International Border),

—they would continue and expand upon the seamless network of transit services that have been developed, and complete a "gap" in the present LRT system, and

—they would offer a functional, attractive alternative mode to travelers in parallel, heavily traveled interstate freeways.

The Mid-Coast LRT Project is the first element of the appropriation requested today and would be used to undertake design for the Mid-Coast LRT Phase 1 to Balboa Avenue, which is a 3.4-mile segment of the corridor. This segment would be constructed on railroad right-of-way owned by MTDB, and establish a rail transit link with Mission Bay Park, the largest aquatic park in the United States. The Mid-Coast element has proceeded through the MIS and Draft Environmental Impact Statement with funding originally authorized in ISTEA, and the element is now in the Preliminary Engineering and Final Environmental Impact Statement (PE/FEIS) phase. The current schedule calls for completion of this phase in late 1997. Importantly, this element has received widespread community support.

The locally preferred alternative for the entire Mid-Coast corridor was selected by the Metropolitan Transit Development Board of Directors as a result of an alternatives analysis and Major Investment Study (MIS). Today's request for 3.4 miles in the Mid-Coast element runs north from the Mission Valley West LRT extension (now under construction and scheduled to be completed late this year), roughly paralleling Interstate 5 (I–5) to Balboa Avenue.

Our second element is in the Mission Valley East Corridor and is approximately 5.8 miles long paralleling Interstate 8 (I–8) from just east of Interstate 15 (I–15), terminating in the city of La Mesa. This LRT extension would complete the gap that will exist between the new LRT service starting this later this year, called the Mission Valley West extension, and the current East LRT Line. Thus, completion of this gap in the system will immediately allow travelers on the Mission Valley East extension to have rail transit access to the many activity centers in the area including major employment sites, San Diego State University (with a daytime population of approximately 35,000), and Qualcomm Stadium with a capacity of 70,000 seats and the host to year round events.

The Mission Valley East element is an FTA "pipeline" Major Investment Study, and MTDB is currently studying no-build, best bus, and LRT alternatives for meeting the needs of the corridor. The LRT alternative would extend the locally funded six-mile Mission Valley West LRT extension which, mentioned previously, is currently under construction between the Old Town Transit Center and I–15. The extension would run through the I–8 corridor to connect with the existing East Line LRT in the suburban city of La Mesa.

The Mission Valley East element is currently in the MIS and Draft Environmental Impact Statement (DEIS) process, with adoption of the locally preferred alternative scheduled in late 1997. The final environmental document and completion of preliminary engineering for the Mission Valley East element is scheduled for completion in fiscal year 1998.

A major objective of these two elements is to reduce further congestion of the north-south (I–5) and east-west (I–8) corridors. The Mid-Coast element parallels I–5 which carries from 151,000 to 227,000 vehicles per day. The Mission Valley East element parallels I–8 which handles between 185,000 to 302,000 vehicles on an average day. Interstate 8 is the most heavily congested freeway in the San Diego region. Existing bus service must contend with the same highway congestion as the private automobile. Other significant benefits include air quality improvements that would be continued in our region with the help of these elements, and land use integration at and around the station sites. Recognizing the importance of mass transit in dealing with congestion problems, the city of San Diego has adopted a transportation-land use policy that fosters transit oriented development.

To summarize our request on behalf of MTDB, I am asking the subcommittee to take into consideration MTDB's multi-year, successful LRT development program.

This program includes a total investment of $813 million dollars over the past 17 years, of which only 8.5 percent was from federal resources. Further, of the federal funds used, only $21.6 million were from the FTA discretionary program. MTDB's creativity in funding the system development is shown with the use of the following resources: state gas tax, state sales tax, local transportation sales tax, city hotel-motel room tax, sale-leaseback transactions, San Diego Unified Port District contributions, private developer right-of-way contributions, and city redevelopment funds. However, in order to get the system developed as soon as possible, using local and state resources, we have exhausted those resources. Now, we need your help to finish our system.

Our request for fiscal year 1998 appropriation of $31 million is the first of a multi-year request totaling $323 million. We believe that this amount for our two elements makes cost-effective sense. Even if we ultimately receive our full request of $323 million in federal funding (currently pending consideration for authorization by the Subcommittee on Surface Transportation of the Committee on Transportation and Infrastructure), the total federal share would remain below one-third of the cost of the overall San Diego Trolley system. I also ask that the subcommittee, in considering this request, take note of MTDB's past performance in delivering projects in a timely and cost-effective manner and, importantly, the operating performance of the system. We at MTDB are very proud of our record in ridership and farebox recovery. The San Diego Trolley carries an average of 50,000 riders per weekday and has gradually increased over its 15+ year history from an initial 11,000 daily riders in 1981.

In addition to being cost-effective, as the agency responsible for development and funding of all transit in the San Diego metropolitan area, MTDB has been forced to be innovative and resourceful in funding operations during several years of diminishing operating revenues. As part of our current LRT system investment, we used $48.2 million of our federal formula funds towards the cost of LRT extensions without constraining our local bus replacement and capital program. We were able to issue Certificates of Participation to provide for the capital leasing of 130 buses in 1990. Then, subsequently, we used revenues from sale/leaseback of light rail vehicles to provide for both operating and capital needs. These funds have been used to leverage both state and federal funds.

In conclusion, I would like to emphasize that the San Diego Trolley, under the policy direction of the Metropolitan Transit Development Board, has been an unqualified success, and the San Diego Metropolitan LRT Program, consisting of the Mid-Coast and Mission Valley East Corridor elements, would provide mobility to travel markets that rely upon public transit, offer a high capacity transportation alternative to two critically impacted corridors, and provide air quality benefits to residents in the San Diego region.

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