INTERMODALISM

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BEFORE THE

SUBCOMMITTEE ON
HIGHWAYS, TRANSIT AND PIPELINES

OF THE

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TRANSPORTATION AND
INFRASTRUCTURE
HOUSE OF REPRESENTATIVES

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INTERMODALISM

Thursday, June 15, 2006

HOUSE OF REPRESENTATIVES, COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE, SUBCOMMITTEE ON HIGHWAYS, TRANSIT AND PIPELINES, WASHINGTON, D.C.

The subcommittee met, pursuant to call, at 10:00 a.m., in room 2167, Rayburn House Office Building, Hon. Thomas E. Petri [Chairman of the committee] presiding.

Mr. PETRI. Good morning. This Subcommittee hearing will come to order. I would like to welcome all of our members and witnesses to today's hearing on Intermodalism.

The purpose of the hearing is to provide members of the Committee with information regarding the concept of intermodalism and how intermodalism can be used to solve transportation problems, such as congestion and freight delay.

The term "intermodalism" is generally considered to be the movement of a person or of freight using multiple transportation modes. Intermodal connections link the various transportation modes: highway, rail, air, and maritime facilities.

Economists and transportation planners have long agreed that productivity and efficiency gains can be achieved by improving these intermodal connections.

Our Nation's transportation system faces ever growing demands. About 5 trillion passenger-miles of travel occurred in 2002. Annual vehicle-miles of travel in the United States rose by nearly 30 percent between 1989 and 1999 to almost 2.7 trillion miles. More importantly, passenger travel and freight transportation are expected to continue to increase.

Current Department of Transportation estimates show that between 2000 and 2010, passenger vehicle travel on public roads will grow by about 25 percent; and freight movement by truck, rail, and water will increase by 43 percent.

Over the past few decades, Congress has increased the focus on intermodal transportation significantly through major Federal highway legislation, such as the recently enacted SAFETEA-LU, TEA–21 in 1998, and ISTEA in 1991. These laws not only allowed, but encouraged, States, regions, and local communities to consider intermodal transportation issues as part of their transportation planning process.

The role of States, regions, and local communities is significant, as the Department of Transportation has a limited role in managing how funds are to be locally allocated. The Department's ability to set and enforce strong policies on intermodal transportation is

also affected by the sources of funding involved in the project and requirements set by the other entities.

We have invited three panels of witnesses to discuss their views on intermodalism. Our first, really, speaker, not panel, will be Mr. Jeffrey Shane, Under Secretary of Transportation for Policy, who will discuss the Department of Transportation's efforts to utilize intermodalism in transportation policy and projects. The second panel consists of witnesses who will address how intermodalism can improve passenger transportation. And the third panel will discuss how intermodalism is essential to freight transportation.

Now I will yield to Mr. DeFazio for any opening statement he would care to make.

Mr. DEFAZIO. Thank you, Mr. Chairman. Mr. Chairman, it has been a decade and a half since Congress passed the Intermodal Surface Transportation Efficiency Act. I participated in that, and at the time it was considered to be somewhat visionary, particularly for the Federal Government. You know, some States were ahead of us in terms of planning and looking at intermodalism, but this was a good and a new focus for the Federal Government.

Unfortunately, I don't believe we have fully delivered on the promise of ISTEA, nor the mandates in the subsequent TEA bills, to move more toward a truly what I would describe as a least cost transportation system. That is, we want to look at the most efficient system possible which is provided at the least cost. Least cost not meaning just cheapest, but meaning that which mitigates the most congestion, that which is most efficient for the movement of freight. Yes, we want it to be cost effective also, but there are other factors that should come into this.

And I am hoping that the new commission that apparently met a couple weeks ago, while we were meeting on another subject, that was mandated by SAFETEA-LU will look at a future which has a real focus on efficient least cost planning, because we have created too many artificial barriers, and part of it is the fault of Congress. We fund programs separately. You know, the Federal Highway Administration gets a pot of funds here and the transit folks get a pot of funds here.

We, in part, are guilty of perpetuating this inefficiency, and we need to begin to break down those barriers, particularly in light of what I think is going to be a permanent condition of extraordinarily expensive fuel costs. Fuel efficiency in terms of meeting our goals of moving the American people and our commerce need to be incorporated into this least cost planning also.

So I look forward to hearing from the panel today.

Just one caveat, Mr. Chairman. I do have time to speak on the rule on the so-called Iraq resolution, so probably I will have to step out for a while to do that, and hopefully we will be able to get someone to fill my place, perhaps Mr. Oberstar, who asked for this hearing.

Thank you, Mr. Chairman.

Mr. PETRI. Thank you.

Any other opening statements? If not, we will turn things over to the Under Secretary of Transportation for Policy, Mr. Jeffrey Shane.

TESTIMONY OF HONORABLE JEFFREY SHANE, UNDER SECRETARY OF TRANSPORTATION FOR POLICY, U.S. DEPARTMENT OF TRANSPORTATION

Mr. SHANE. Thank you, Mr. Chairman. Thank you for holding this hearing. It is an opportunity for us to engage in dialog about some fundamental issues at the Department of Transportation relating to intermodal transportation.

Mr. Chairman, I have a prepared statement that I would ask be admitted to the record, and what I would like to do is perhaps sum it up in the time that I have this morning.

And I thought I would break my opening remarks into two major sections, the first being just a brief history of the Office of Intermodalism, and then to tell you what the Office of Intermodalism is doing.

I also want to make clear that speaking about the Office of Intermodalism is talking about only one narrow aspect of intermodalism at the Department of Transportation. We will get into this in some greater detail, I hope, during the give and take, but the principal point that I want to make this morning is that quite apart from the specific activities of the Office of Intermodalism, which I am certainly prepared to discuss, intermodal thinking and intermodalism has embedded itself in the fabric and in the culture of the Department of Transportation over the years.

Mr. DeFazio, I go back to the Department of Transportation Act of 1966—not just a decade, it has been almost 40 years. Well, it is 40 years, 1966, when the Congress, in creating the Department of Transportation, insisted, in a provision that is still enshrined in Title 49, that the Department ensure the coordinated and effective administration of the transportation programs of the United States Government. That is the first section of the Department of Transportation Act as it is codified, and that continues to be the lynchpin of what the Department of Transportation is all about.

ISTEA, the Intermodal Surface Transportation Efficiency Act of 1996, was a visionary piece of legislation. Secretary Mineta, whom I am delighted to represent this morning, had a lot to do with that, as did many members of the Congress today; and it did put a brand new focus on the importance of intermodal thinking at the Department of Transportation, a recognition that the vision enshrined in the Department of Transportation Act itself, back in 1966, had not been sufficiently realized by successive administrations over time. So the Office of Intermodalism was created in the Office of the Secretary of Transportation by statute.

I worked for the Department of Transportation in that administration and recall that we decided that the Director of the Office of Intermodalism would be double-hatted. Secretary Skinner, I believe it was, asked that the Associate Deputy Secretary of Transportation be double-hatted as the Director of the Office of Intermodalism in response to the statutory mandate contained in ISTEA.

Before I get to 2002, I will say that the staff of the Office of Intermodalism, as it was comprised at that time, was drawn from different modal administrations within the Department of Transportation, thereby attempting to give real meaning to the concept of the office as it was spelled out in the Act, and some important

strides forward, I think, were made over the years by the very fact of that office.

The Marine Transportation Security Act of 2002 created the office that I now hold, an office of the Under Secretary of Transportation for Policy. That legislation abolished the Associate Deputy Secretary, and so abolished the office that had been double-hatted as the Director of the Office of Intermodalism. At that point it fell to us to decide what would happen with the office, and we decided to put it in the Office of Transportation Policy.

When Congress enacted the Norman Y. Mineta Research and Special Programs Improvement Act, that legislation transferred the Office of Intermodalism to the brand new Research and Innovative Technology Administration. The creation of RITA, as we call it, including the Office of Intermodalism, is one of the most profound changes in the structure of the Department of Transportation that any of us have seen since the very inception of the Department. It helps to enshrine not only the Office of Intermodalism, but an intermodal approach to research and technology, and to the collection and analysis of transportation statistics in a far more intermodal way than we have ever seen before. So the Office of Intermodalism is in the right home today, where it is having a profound effect on the way we do business at DOT.

We do everything differently as a result of the Office of Intermodalism and as a result of intermodalism being targeted by the Congress in the way it has been targeted. The way we do authorization proposals to the Congress is intermodal. We bring together different elements of the Department under the aegis of our Policy Office, under the aegis of the Office of Intermodalism to ensure that the proposals that we make to Congress reflect intermodal thinking in a way that has never been seen before. You saw that in the Administration's proposal on SAFETEA, you saw it in the Administration's proposal on aviation reauthorization a few years ago.

We have done a freight policy framework that is intermodal in its very inception. The Secretary has launched a transformational initiative, an initiative to reduce congestion on America's transportation network, which is inherently intermodal and reflects the importance of the Office of Intermodalism and its impact on the way the Department thinks.

There are any number of other activities that I could list at some length, but I am already out of time, and so perhaps the best thing for me to do would be to be quiet at this point and to look forward to any questions that the Subcommittee may have. Thank you very much for the opportunity to be here.

Mr. PETRI. Thank you.

Mr. DeFazio, any questions?

Mr. DEFAZIO. Thank you, Mr. Chairman.

Well, I don't know, Mr. Shane, if you had a chance to review some of the testimony we will get today, and hopefully either you or—I know you are very busy—perhaps some of your staff can stay and listen to the subsequent panels. Because I think what you will hear from them is that it isn't working out there in America, that people who have intermodal ideas still have trouble dealing with conflicting bureaucracies within DOT, and sometimes outside of

DOT. I think their testimony points to the need for, you know, sort of a real focus and strong leadership at the top, and I think what you are telling us is that demoting the Office of Intermodalism to this new bureaucracy of RITA and out of the Secretary's office is going to enhance its clout and authority.

I don't know. It sounds to me kind of like when we put FEMA in the Department of Homeland Security bureaucracy, and, you know, they couldn't get their calls returned and a disaster resulted. So just tell me a little bit more about how putting the Office of Intermodalism in RITA—I don't know, I mean, I have never worked in the bureaucracy, but it just seems to me if something is in the Secretary's office, that is pretty much near the top; they get access to the Secretary just like FEMA was cabinet level and they reported to the President.

Then, suddenly, FEMA is subsumed into a bureaucracy reporting to the head of the bureaucracy, who then theoretically communicates with the President. It seems to me we have done the same thing with the Office of Intermodalism. There they were, able to communicate with the Secretary and speak with the voice of the Secretary; now they are over here in this new bureaucracy, RITA, and they will, you know, communicate to whoever is the head of RITA, who will communicate to some junior deputy assistant secretary, who might communicate to the Transportation Secretary or not.

So how is this enhancement of its role and how are we going to begin to meaningfully break down these bureaucratic walls to move toward a coordinated least-cost effective system of intermodal transportation?

Mr. SHANE. Well, thanks very much for the question. First of all, we are still a stovepiped agency, and there is no getting away from that, and we do not have the wherewithal at the Department of Transportation to change that; those are statutory organizations and it was ever thus. I expect that they will be around for a long time to come.

Mr. DEFAZIO. Well, we would welcome suggestions on how to break down some of the statutory barriers.

Mr. SHANE. Yes. Well, that is an interesting thought, and we may bring you some of those. But each of the modal administrations does have its champions, both in the Congress and in the industry, and not to digress, but there are things that still are mode-specific that we must do. There is no question about that. The Federal Motor Carrier Safety Administration is about the safety of motor carriers, and while there may be some cross-fertilization, we do need specialists for specific modes of transportation, even though those specific modes are operating in an interconnected network and hopefully a more and more interconnected network.

But to get to your question, I mean, it is reasonable to think that it is a "demotion" just by looking at the chart. What is important to understand, I think, is that when the Secretary decided that he would propose to the Congress the creation of this new research and innovative technology administration, it was his intention that he not merely create another modal administration, as we call them. It is not a modal administration, it is a very special intermodal administration which is in a very significant way—and more

than any other of the operating administrations within the Department—a direct adjunct to the Office of the Secretary. I like to think of it as the Secretary's own operating administration.

I am in charge of the policy administration within the Office of the Secretary, and I see RITA as being a tool that we use in the Policy Office in order to enhance our ability to address these issues in a far more coherent and comprehensive and intermodal way. That is why we don't treat it as a demotion.

I think because—it is early days, Congressman DeFazio, to be sure, and RITA is still something of an embryonic organization. So I am not suggesting we have achieved this vision by any means. But the vision seems to me one that actually will work. It will mainstream the intermodal thinking of the Department in a way we have not seen before. It can't be predicated on anything but an intermodal approach to information-gathering, the analysis of actual statistics, and certainly an intermodal approach to technology within the Department. That is what RITA was created to do.

So when I say that the Office of Intermodalism has found the right home, that is what I am talking about. I am talking about RITA being a very special animal within the complex of agencies that comprise the Department of Transportation.

Mr. DEFAZIO. Right. And as I understand that, since its primary focus is research, and the way you just described it is that I guess what you are saying is they will propose new ways that someone who has the authority to act—that is, either you or the Secretary—will be better informed as to how you might coordinate across or punch holes through some of these stovepipes so that there is a little cross ventilation or something like that. I am still a bit puzzled, but perhaps in further questions from the Chairman and others—because my time has expired—we will understand.

But I also would say I am sincerely interested. And I don't want to speak for the Chairman, but I think others of this Committee would be interested in where you see statutory barriers that are unnecessarily inhibiting a movement toward a more coordinated and more efficient intermodal system would be welcome. Thank you.

Mr. PETRI. Mr. Coble.

Mr. COBLE. Thank you, Mr. Chairman.

Mr. Shane, what are the source or sources of the funds to facilitate intermodal transportation? Where are those monies coming from?

Mr. SHANE. They come from the various appropriations act that respond to authorization legislation coming out of this Committee, for the most part, and the other committees of jurisdiction. We have some funds that are made available—not very many—for specific intermodal projects, but those, by and large, tend to be earmarked projects specific intermodal facilities, as opposed to being able to fund a lot of intermodal activities from some of the organic programs.

There is, predictably,—and this comes back to what Congressman DeFazio was saying—real jealousy about the use of highway trust fund monies for other than highways; real jealousy about the use of airport and airways trust fund monies for other than airports. When somebody builds a ramp off of a highway that is essen-

tially to serve an airport, we get into a big controversy over whether that should be funded from the highway trust fund or from the aviation trust fund. And so those are struggles that continue, and perhaps it is in those areas that legislation is perhaps most needed.

For the most part, specific intermodal facilities that are constructed pursuant to Federal grants are specifically earmarked in the appropriations process, Congressman.

Mr. COBLE. What, Mr. Shane, do you think are the impediments to improving intermodal freight transportation?

Mr. SHANE. The intermodal freight system is an interesting collection of both private sector and some publicly funded entities. The ports, for the most part, do not have Federal money and infrastructure. We have the Corps of Engineers working on the water side to dredge and ensure that we have the appropriate depth of the channels, but on the land side, by and large, the ports are not federally supported.

The Administration has considered a number of ideas for priming the pump with some Federal money but, for the most part, particularly in the current budgetary environment, it hasn't been possible to come up with any bright ideas about how to create a new infrastructure program for ports. Ports generally have pretty good access to capital through the bonding process at the municipal level, and that is tax-exempt funding, for the most part.

Similarly, the railroads do not have very much Federal contribution at this point; they are all private companies and they invest private capital in the hope of making a return on that capital.

The impediments, I guess, are to see whether or not there are more robust legislative proposals that would facilitate the funding of intermodal facilities more readily, particularly through a discretionary funding process, as opposed to looking at specific intermodal facilities. This is the thing that I find, frankly, more frustrating than anything else in my effort to advise the Secretary on what we should be doing.

We have, in this current fiscal year, zero intermodal—zero discretionary funding to think about intermodal facilities in the whole complex of offices that comprise our policy shop in the Office of the Secretary of Transportation. And if I were to make one recommendation, it would be to ensure that as the appropriations process goes forward, I am not asking for more money than the President has requested, to be sure.

But I am saying if some of that money can be left to the discretion of the Department in order to respond to what it is that people at the State and local level are telling us they need, we might be in a much better position to either find ways of funding that at the Federal level or contributing matching funds at the Federal level, or, failing that, coming back to the Congress with some suggestions for new legislation that would make that funding more readily available.

Mr. COBLE. I got you. Thank you, Mr. Shane.

I yield back, Mr. Chairman.

Mr. PETRI. Thank you.

Let's see, Ms. Berkley or Mr. Taylor, would you like to ask any questions? Why don't you begin?

Ms. BERKLEY. OK.

I am sorry that I missed your presentation; I was otherwise occupied. But I am a great advocate of intermodality. I represent Las Vegas, which is the fastest growing community in the United States, and we are moving forward on all sorts of transportation systems in a community that was supposed to be built out for 400,000 people and now has 1.6 million residents and 40 million visitors a year.

So we are working on our monorail, our bus system, potential light rail, improving the highway system. So this is important to me, and I work very closely with my local people on my Regional Transportation Commission, my NDOT, to make sure that we have adequate funding.

Could I ask you to address the level of assistance and consultation that the Department makes available to local communities that are trying to increase intermodal options? I want to make sure that our local officials have as much help as possible from the feds. Could you give me some idea of what your opinion is and what the Department is doing?

Mr. SHANE. Sure. Thank you for the question. The Department, first of all, is trying to use a bully pulpit to the greatest possible extent. As I explained in my answer to Congressman Coble, there is not a huge pile of money available for intermodal facilities as such.

On the other hand, we work very closely with State departments of transportation and with local departments of transportation in an effort to ensure that we can help instill intermodal thinking, help with the planning process, try to make sure that people are taking advantage of current thinking; and, by and large, I think that has been a fairly successful enterprise.

Ms. BERKLEY. What happens if you represent a committee that is already thinking and needs resources?

Mr. SHANE. The resources are available, obviously, in formula grants under our Federal surface transportation programs; airport construction is supported, of course, by the Airport and Airways Trust Fund and our AIP Program, the Airport Improvement Program, which is run by the FAA within the Department of Transportation; and there is an increasing effort, as I have said, to try to do the planning of those grants, in concert with our local client communities, in a way that brings these different projects together in an interconnected way.

Ms. BERKLEY. I came in at the tail end of your testimony. Did I hear you right when you said you thought that the Secretary should have a discretionary fund?

Mr. SHANE. By and large, the amount of discretionary funds available to the Secretary has been very small to zero in various cycles and in this cycle.

Ms. BERKLEY. That is small.

Mr. SHANE. My office runs a program called the Transportation Research and Development Program, TPR&D. The funding for that, which would be available for a lot of what you are asking about, is entirely earmarked, there is not a dime available for discretionary spending in response to what communities want.

So to the extent that members have identified those needs and responded to them through the earmarking process, that is fine; I

am not complaining about that. I would enjoy some give and take, some more give and take than we currently have in that process to ensure that if in fact those funds are going to be earmarked, at least they are earmarked for things that we would all agree are the appropriate activities for the Department to be supporting. That is not happening to a sufficient extent today, I would say.

Ms. BERKLEY. Thank you, Mr. Chairman.

Mr. PETRI. Thank you.

Mr. Mica.

Mr. MICA. Thank you, Mr. Chairman, and thank you for calling this hearing in regard to our need to focus on intermodalism.

Mr. Shane, you said you don't have a specific fund or a discretionary fund to sort of promote intermodalism, but you do have the ability in approving projects and also directing funds, even those appropriated to projects, by giving priority to projects that are truly intermodal. That is your policy and that is what you are doing now, I take it?

Mr. SHANE. Yes.

Mr. MICA. OK. One of the things that I was asking a question, I saw in some testimony from one of the witnesses that they referred to Florida, and I guess maybe Massachusetts, may have a State comprehensive plan that deals with intermodalism. I remember talking to Governor Bush some time ago, when they came in asking for more money, and I said show me your plans, and they didn't have plans. I think they do now have plans.

But this brings me to my question, which is should that be a requirement? Should all States have developed a comprehensive intermodal plan that we have sort of on file, that we know what the major projects are, the intermodal efforts are? Should that be a requirement?

Mr. SHANE. Yes, Congressman Mica. Our major funding programs do require continuous comprehensive planning. The surface transportation programs, for example, require, as a condition for receipt of any funding, that projects that are proposed be part of a continuous and comprehensive planning process. There has to be an approved plan for an airport before AIP funds are made available and——

Mr. MICA. I know, but the intermodal elements that are so important——

Mr. SHANE. That is where the room for improvement can be found, I think.

Mr. MICA. But I hate to ask a yes or no. Should we require that every State have a comprehensive intermodal development plan?

Mr. SHANE. Absolutely.

Mr. MICA. OK. I have had some experience with some of the projects over the past 14 years; some successes, but some difficulties in getting people to either be part of it. I will give you a couple of examples. In the northeast corridor we brought intermodal the airport, Newark Airport into the northeast corridor, but we couldn't get Amtrak to stop. Now, since that they have stopped and we have service; it is a great success. That is a problem getting even a quasi-governmental, Soviet-style run Amtrak to cooperate. That is one problem I point out.

I will give you another example. We are building a small intermodal facility in one of my smaller counties, but I noticed left out of the element, and this is to get around a region or a small area, one of the elements left out was the only long distance service we have, and it does make a profit and stay in business as profitable, is Greyhound. They move people; they actually get paid; they make money. But I notice Greyhound wasn't part of that.

So I have folks who are trying to get around the community, around the region, and then long distance, and I saw that Greyhound is left out of the equation. Even here, I mean, Greyhound is down the street, but Greyhound should be interconnected to our rail service and a bus service and any other links.

What do we do for getting the rest of the folks into the picture?

Mr. SHANE. Well, all I can say is it would be an eligible project if a community wanted a truly interconnected intermodal facility of that kind——

Mr. MICA. I know, but, see, you said if a community. And I will tell you the first thing, when I proposed Greyhound come into a bus center that we are building, they said we don't want those kind of people around the neighborhood. So we do have problems in getting communities on board or States on board to develop a plan and truly have all of the elements of transportation services coming together.

Mr. SHANE. It is difficult. We don't, by and large, like to mandate specific solutions for our communities. The need for greater interconnectedness and intermodalism is palpable. I have seen other examples where airports don't want intercity buses on their property because it discourages parking revenues and it hurts rental concessions; and that is where a lot of revenue to airports comes. So it may well be that some additional mandate at the Federal level, as a condition for making Federal funds available, would enhance the intermodalism that we see at that level.

Mr. MICA. My time is up, but just one quick. In an interesting phenomenon, I don't know if you focused on this, but we spent years working on developing an intermodal system at the San Francisco Airport, the Bay Area Transit and all coming together, and I thought this was an interesting phenomenon. I think we put $2.2 billion into that stop, intermodal and MIC and all of that, and then because of the higher rates—and they have to increase the cost for people using that—a lot of the service and discount service went over to Oakland, so they had a 30 percent drop.

But that is just an interesting phenomenon. The cost of doing an intermodal, say, a MIC, like we are going to do in Miami, drives your cost, but it drives passengers away. Just something we have to think about for the future.

Mr. PETRI. Thank you.

Mr. MICA. I yield back.

Mr. PETRI. Thank you.

Mr. Oberstar?

Mr. OBERSTAR. Would you please go to other members?

Mr. PETRI. Sure.

Mr. Honda?

Mr. HONDA. Yes. Thank you, Mr. Chairman.

Two quick questions. It appears that we are moving more into the intermodal structure, if you will. I am a school teacher, and I know that in instruction we have compartmentalized instructions in chemistry, math, social science, and it appears that the DOT is pretty much set up that way and we are looking at a new concept or a new paradigm. Structurally, how is DOT changing in order to address intermodalism?

And then the second question I have is, I haven't seen anything as of yet in the written testimony addressing the greater need of security and how we address security in the context of intermodal movement of goods and services.

Mr. SHANE. Thanks, Congressman Honda.

The first answer is that the most profound change in the structure of the Department of Transportation that we have seen since the Department's inception is the creation of the Research and Innovative Technology Administration. It is not a modal administration the way we think of the other organic elements of the Department of Transportation; it is an intermodal administration. And it is in many ways, perhaps, for the Secretary's purposes the most important of our operating administrations because it is a direct adjunct to the Office of the Secretary and to the Secretary's policy apparatus.

I am in charge of the Policy Office in the Office of the Secretary of Transportation, and we don't have a huge research and technology capability within the Office of the Secretary. We need to have more robust coordination, and not just coordination, but a driving of research and technology throughout the Department in ways that are going to enhance intermodalism.

That is what RITA was created to do. The collection and assembly and analysis of statistics has got to be done in a way that looks at the transportation system as the network that it is and facilitates our policy making and our planning based on intermodal considerations. That is what RITA does. The Office of Intermodalism is now part of RITA.

So when I say that the creation of RITA is the most profound change to take place in the structure, I am looking at its impact on intermodal thinking, and I think while it is still essentially an embryonic organization—it has been around for about a year—it is beginning to have that cultural impact on the Department of Transportation that Secretary Mineta envisioned when he proposed the structure to the Congress.

On the security front, the Office of Intermodalism is working on a variety of exercises in concert with the Department of Homeland Security. There is a national strategy for transportation security that is in the works, and it is our Office of Intermodalism that is supporting DHS, representing the entire Department of Transportation on that.

There is a National Infrastructure Protection Plan which the Office of Intermodalism is working on. We have a Transportation Sector-Specific Plan which DHS and the Homeland Security Council have been working on. Again, the Office of Intermodalism is front and center in connection with that exercise.

And then, finally, there is a Transportation Security Operation Plan. Transportation security, needless to say, has been the subject

of an awful lot of administration attention, and the Office of Intermodalism is the portal for much of that work into the Department of Transportation, working together, to be sure, with our Office of Intelligence and Security, but it is the Office of Intermodalism that is bringing the modal and the intermodal themes to that discussion.

Mr. HONDA. Through the Chair, with the various players you have in this whole security picture, who drives the plan, who executes the plan, who is responsible for the ultimate—who has the ultimate responsibility for the implementation of the plan, and by when?

Mr. SHANE. The Transportation Security Administration within the Department of Homeland Security, of course, has the primary jurisdiction and the primary responsibility for securing the transportation network, and a lot of progress has been made, first in aviation and now looking more at the surface modes and the maritime and intermodal systems. I am not sure when you say "by when" what that question means. There is not a specific deadline. The mandate is to ensure the maximum security as quickly as possible, and enormous strides have been made in the securing of our transportation network by the work of the TSA.

Mr. HONDA. Well, I understand that, but when I say by when, I suspect you must have a plan with benchmarks out there so that you have some way of creating a pace by which you will attain some sense of established security process. Perhaps that might be a subject for the Subcommittee to address and have report back on, since there are so many people playing in this field and there are so many people out there in the community that expects that security is something that is paramount on our my minds, and I am not sure that people understand how many players there are in this whole intermodal security system.

Mr. SHANE. If I may, Congressman, perhaps I could take that question back and supply an answer for the record based on the National Infrastructure Protection Plan and the Transportation Sector-Specific Plan. There is a plan, and I will give you a more specific answer to the timing question than I have been able to do here.

Mr. HONDA. Thank you.

Thank you, Mr. Chairman.

Mr. PETRI. Thank you.

Mrs. Kelly, any questions?

Mrs. KELLY. Thank you, Mr. Chairman.

Mr. Shane, in the transportation authorization law that Congress passed last year, there was an authorization that is of particular interest to the people in the district that I represent, it is the authorization for the development of a rail link at Stewart International Airport in Orange County, New York. It would have tremendous benefit to the intermodal freight service in the Hudson Valley.

You may not be aware of the position of Stewart Airport.

Mr. SHANE. I am, Congresswoman.

Mrs. KELLY. It is the largest BRAC'd out former Air Force base in the United States. It has the heaviest heavy-duty runway, the longest heavy-duty runway on the eastern seaboard, next to Cape

Canaveral. It is a landing site, an alternate landing site for the Space Shuttle. It has, right there, next to the campus, a perfect interstate and throughway cross of roads, both north and south and east and west.

We are looking for the rail link. That rail link has been in this authorization for almost a year. The President signed the SAFETEA-LU into law, and we are still waiting for direction from Washington for the next step. We need to start planning so that we can get this rail link in.

I am hopeful that you are going to proactively collaborate with the people that I have brought to the table on this. The Port Authority of New York and New Jersey is involved; the State Department of Transportation is involved; Metro North is involved; the airport's management is involved.

What is missing is a direction and a discussion with the Department of Transportation here in Washington, D.C. on how we get going. And I want to know if you can provide today some assurance that the DOT is going to make the development of that rail link at Stewart a reality. Perhaps you would come or someone would come up to the district and meet with all of these stakeholders. They are ready to go and they are waiting for you.

You said in your testimony that shippers are indifferent about how a product is delivered through a supply chain so long as there is reliability and speed. We can provide reliability and speed out of Stewart Airport. We need two and a half miles of rail, that is all. We need to have someone come. Can someone come and sit down with these stakeholders and work this out so we can get going? We need a plan.

Mr. SHANE. I commit to you, Congresswoman, that someone will come, and maybe that someone will be yours truly. I look forward to hearing a lot more about this project. I wasn't aware of the specific line item in the authorization, but I look forward to hearing a lot more about it

Mrs. KELLY. I would hope that you would do more than hear. I would hope that you would help us plan.

The other thing that I haven't mentioned is that within two and a half miles of Stewart also is the Hudson River, with a natural deepwater port and piers that can already handle cargo. So you have a perfect intermodal facility with water, roads, air, and rail right there. New York needs another major airport in some capacity. This is a perfect intermodal position for the Federal Government to be looking at. I would hope that you would come and help us get started on some kind of a coherent plan. Can I assume that you will?

Mr. SHANE. I will. And let me say, as you describe it, it sounds like something we should be spending a lot of time thinking about. The system is experiencing bottlenecks throughout. We need to take advantage of every opportunity that we have for providing relief for shippers, for transportation providers of all kinds. So I am anxious to hear more about this and to participate perhaps in some meetings with your constituents, and perhaps we can get something on the road.

Mrs. KELLY. Well, New York City, the State of New York, the County of Orange County, and the people who manage the airport

are all waiting anxiously to have someone talk with them. I hope you will make that visit soon. Thank you, sir.

I yield back.

Mr. PETRI. Thank you.

Let's see, Mr. Cummings? Mr. Oberstar?

Mr. OBERSTAR. Do you have any others on your side?

Mr. PETRI. Sure.

Mr. Marchant? No? Ms. Schmidt?

Mr. OBERSTAR. OK, I am ready.

Mr. PETRI. You are ready. I haven't asked either, but should I go ahead?

Mr. OBERSTAR. No, no, why don't you, please. You were here before me.

Mr. PETRI. Well, I was here before you, but I didn't want to waste time. We have another two panels. But maybe one or two kind of comments.

I understand from a lot of people who are active in the transportation industry that we, as a Country, have had a generation of becoming more efficient in transportation, and now those trend lines are actually leveling off and dropping down, and transportation costs are starting to eat up a greater percentage of our national effort, which is a very bad thing in terms of our standard of living and our competitiveness if it were to continue.

So while it is not immediate and short-term in the sense that there is a crisis staring us in the face that has to be dealt with tomorrow, if we don't adopt long-term programs to try to figure out how to keep the system operating and increase its efficiency, we are going to be paying a long-term cost. In that connection, I guess we all look to the area of intermodalism is one that will provide greater opportunities for efficiency.

Private industry is equipped because of the way a lot of these people who do shipping, whether it is packages at UPS or FedEx, or goods over the road by Schneider or Hahn Trucking or these other companies. They think more and more intermodally, so they are tending to start driving States and the Federal Government in an intermodal direction.

But is there anyone really driving us in that direction on the passenger side of things? I mean, I think of what is happening in Germany and Europe with their passenger intermodalism, and we see it regionally. San Francisco Bay was talked about and Chicago has a subway-bus-airline hub. The airports are the passenger hubs. The planes can't go anywhere but to the airport, but everything else can go to the airports.

So maybe we should be doing more to encourage planning and also helping to direct more funding to making, on the passenger side of things, airports more efficient. It might mean people would not have to use the roads as much if they could use buses and trains and planes. Efficiency in a Country of our size, people are not going to just use trains to go across the Country, they are going to want to use planes.

But if the trains did run to the airports, they would, on a regional basis, for a couple hundred miles, then switch, and the same thing with buses. So we could have a system that would perhaps be more efficient. And, you know, obviously it is somewhat the

same thing in a little different way applies for water, harbor, and freight rail intermodalism.

Do you have any comment on that?

Mr. SHANE. Yes.

Mr. PETRI. Are there some things—a number of people have asked about what we can be doing to encourage breakdown barriers or change laws, which I guess is our role, to try to encourage States and communities and local stakeholders to actually look at this and do it.

Mr. SHANE. Thank you, Mr. Chairman. Yes. I am extremely proud of what the Department of Transportation is doing currently under Secretary Mineta's leadership, particularly in the context of a brand new initiative that was just rolled out a few weeks ago that I referred to in my opening remarks, an initiative to reduce congestion on America's transportation network. I mentioned earlier that I thought it was transformational.

And when I say it is transformational, I mean that, in a sense, the Department of Transportation should always be about congestion. There is nothing exciting about that, but we have never identified congestion in the transportation system as the fundamental impediment to economic growth that it represents.

That is what this initiative is an attempt to do, it is an attempt to—forgive the word—market the importance of addressing these bottlenecks as a fundamental tool in the development of our economy going forward in ways that we have never done before. And it is not just a question of finding more money to throw at the system. We have to use technology much more intelligently. We have to use pricing strategies of all kinds in order to calibrate the use of the system and to make sure the revenues are available that respond to the actual demand for these facilities.

We are developing a whole variety of ideas and programs through this initiative that I think will enable us to address these problems, first of all, in an intermodal way, to be sure, but hopefully in a much more effective way. Among the things I am proudest of is what we are doing on the aviation side. The Next Generation Air Transportation System Initiative, which Secretary Mineta launched about two and a half years ago, is nothing less than an effort to overhaul the way we handle air traffic, recognizing that we will have three times the number of operations in the sky in 20 years, and we simply cannot handle all of that traffic using the tools that we have today. Even if technology gets to be a little better, the model needs to be changed, the operations concept needs to be changed, and that is what the Next Generation program is doing.

So you take that, we have a freight policy framework which has received enormous support from the private sector, from the providers of transportation and, more importantly, from the users of transportation, recognizing the importance of breaking down the bottlenecks that impede the flow of goods in our system.

I have never seen quite as much attention being paid to some of these issues as before, and I am hopeful and even optimistic that by talking across the Country about these issues, working with communities at all levels, we are going to get these issues on the national policy agenda in a way that we have never seen before,

and we are going to be addressing them with more effective tools than we have ever seen before.

Mr. PETRI. I think the public is clearly interested, concerned and looking for leadership in this area. Just one example, 10, 15 percent of our Country is California, and the Governor there has started to increase his focus on infrastructure and transportation issues dramatically in the last year or so. And, of course, California has had a lot of pressures and problems, but they are not unique, they are experienced to one level or another in many other areas of our Country.

Mr. SHANE. People treat congestion, particularly as you were just speaking of, passengers, in the passenger are as though it were the weather, that congestion is just part of life and there is nothing we can do about it. We can do something about it. It is absolutely wrong not think that there is nothing we can do about it.

And people do not appreciate, except as the most personal level, the extent to which congestion is affecting the quality of life in this Country. In some cases it is destroying the fabric of family life because so much time is spent getting to and from the workplace. We have a fundamental obligation to address these issues for the sake of our people and for the sake of the quality of life that they enjoy.

Mr. PETRI. Mr. Oberstar.

Mr. OBERSTAR. Thank you very much, Mr. Chairman. I compliment you on scheduling this hearing and bringing together such a wide array of authorities on the subject matter at hand, especially our lead witness today, Jeff Shane, for whom I have the greatest respect. He is one of the real thinkers who served in not only the Department of Transportation, but also State Department. His career has bridged many activities in transportation, international trade, aviation trade negotiations and, most significantly, in the aftermath of ISTEA, being the first intermodalist.

I recall a conversation shortly after implementation of ISTEA in about mid–1992, about June or so we had a conversation and Mr. Shane said ISTEA really forced us all to think for the first time about relating each of the transportation modes to the other. We had never done that, and he said I brought this group together—Federal Highway, railway, Federal Transit, FAA, Maritime Administration—and they had never sat in the same room and talked with each other before. We realized that this legislation was forcing us to think intermodally.

That was a very good thing and it warmed my heart because in 1987, after two years of hearings that I conducted in the Investigations and Oversight Subcommittee with my then partner, Mr. Gingrich, and later Mr. Klinger, drafted and introduced a bill to create an assistant secretariate for intermodalism in the Department of Transportation, and here it was working itself out. We had actually included in ISTEA the authority for an intermodalism office, but it was to be in the Office of the Secretary, it was to be at a policy level.

And so Mr. Shane, Mr. Chairman, has had a very long history of understanding the importance of this issue, this idea, this initiative of bringing the modes together to extract the best for the best and greatest public good.

Unfortunately, over time,—and let me parenthetically observe that the principal co-author of that bill and driving force behind it, a gentleman who sat in the Chairman's chair, is now the Secretary, Mr. Mineta, who is very keen on including the term "intermodalism," as was our then—Chairman of the full Committee, Mr. Roe. And Mr. Mineta has continued to be a strong advocate for intermodalism.

But subsequently, over time, the intermodal idea has been eroded. It was sidetracked in the National Highway System authorization in 1995. We just took it out of, well, changed, it was a requirement that there be intermodal consideration of management plans, and that was changed to an optional role in the National Highway System authorization.

And then the office was moved subsequently in TEA–21, and then further in the Norman Y. Mineta Research Project Act that created RITA. Then it sort of began slipping. It was in the Office of the Secretary, then we had the assistant secretary, then we had a requirement, and now it has been changed to this Office of Innovative and Technical Studies.

How can it possibly have a policy effect, except that you personally, Mr. Shane, take an interest in it? And I heard—and I listened with great interest when Mr. Mica said, well, why should we not have an inter—why should we not require intermodal management plans, and you said yes, we should. But if it is buried down there in this little office of RITA—which was a hurricane last year, but——

[Laughter.]

Mr. OBERSTAR.—it is certainly not going to be a hurricane in this Department—who is going to listen except you and the Secretary? And if we leave it there and that Secretary is there and you are gone at some future time, there will be nobody listening and paying attention. Structure means something in government. So shouldn't it then, like creme, rise to the top?

Mr. SHANE. Thank you, Congressman Oberstar. First of all, thank you for the kind words, and let me just say that——

Mr. OBERSTAR. They are not kind, they are honest.

Mr. SHANE.—our continuing dialog over these issues over the years has been one of the hallmarks of my professional career. I have enjoyed them enormously and I hope they go on for a long time, and I appreciate the knowledge that you bring to all of these issues.

But having said that, I have to disagree with you in this one respect. The Department of Transportation looks and feels dramatically different from the way it looked when the Congress passed ISTEA. Intermodal thinking has embedded itself in the very fabric and in the culture of the Department in a way that would amaze you if you spent time in our inner sanctums and in our inner councils.

When we prepared SAFETEA, the Administration's package, which eventually became SAFETEA-LU, we had people from all of the modal administrations sitting around the table making contributions to our thinking and we, as a result, served up a whole variety of proposals that would have been surprising a decade before. They were intermodal. Not all of them saw the light of day

in the Act that finally got enacted, but I am sure that they will in the longer term. Many of them did. And it is that kind of thinking that informed our proposals on aviation authorization a couple of years before that.

These are—when I said, back in a decade ago that, you know, these people had sat around the room for the first time, now they sit around the room together all the time. They talk to each other all the time. The kinds of tensions that compromised our ability to do things intermodally in the Department are no longer a problem. The administrators of the different modal administrations look forward to working together with each other, they seek opportunities to do that; they like each other.

And the culture of the Department now—and make no mistake, this is thanks to the Congress of the United States and the underscoring of intermodalism throughout the years—they are working with each other more effectively than ever before. And sometimes it is about a facility, sometimes it is about just looking at an issue: human factors in the drivers of conveyances, medical certification for a barge operator versus somebody who is behind the wheel of an 18-wheeler.

These are the kinds of things that we are doing together in a way that is just a fundamental part of the culture in a way we have never seen before. That is the number one point I wanted to make.

Mr. OBERSTAR. That is a very encouraging development. I am delighted to hear you say that, because you are so right, there was a time 15 years ago, when these folks passed each other in the hallway and wouldn't recognize one another.

Mr. SHANE. The Department of Transportation Act in 1966 called for the coordinated and effective management of the U.S. Government's transportation program, so the very theme of the Department of Transportation was supposed to be intermodalism. We didn't see much movement in that direction until ISTEA and until the Office of Intermodalism was created.

What I guess I would like to just share with you as my final point is that the creation of RITA—and forgive me for repeating myself—is the most profound change in the structure of the Department that we have seen since the inception of the Department, more profound than the creation of the Office of Intermodalism itself.

RITA is an arm of the Office of the Secretary. It is not a modal administration, it is an intermodal entity which the Office of the Secretary is treating as a special entity, augmenting the ability of our Policy Office in the Office of the Secretary to make intelligent decisions about what our proposals ought to be to the Congress, what we should be doing in the administration of our programs, and so forth.

If you are not looking at the transportation data in an intermodal way, if you are not driving your research program in an intermodal way, then how are you going to support the policy-making process in an intermodal way? That is what RITA does.

Mr. OBERSTAR. Let me interrupt you at that point. That is good to know, and with this under secretary and with this secretary will that structure survive a personnel change? That is, will the subse-

quent secretary and under secretary have the same relationship with RITA?

Mr. SHANE. That is an excellent question, and this Secretary is determined to enshrine the cultural shift that I am talking about that was embodied in the creation of RITA in the culture of the Department so that the answer to that question will be yes.

Mr. OBERSTAR. Thank you. Let me——

Mr. SHANE. Have we achieved it yet? No. But we are striving for that. We have a couple of years left, and——

Mr. OBERSTAR. Mr. Chairman, if I may pursue just one other issue here, and I will not belabor it.

But there is the matter that Mr. Mica raised, that you responded to, should intermodal management plans be required of the States and of the departments. And there is a great resistance to mandates. We would all like to, in a perfect world, not in a supposititious world, like to believe that things would work as intended, without a forcing mechanism. But if an intermodal management approach were required, can we do it in such a way that it doesn't become another layer of time consumption in development of transportation initiatives?

For example, an airport wants to extend a runway to 12,500 feet to serve cargo operations. Good idea, very important. Cargo is the fastest growing sector of aviation, 9 percent a year; it is very profitable. But it also has a noise impact.

Shouldn't FAA be required to get together with Federal Highway Administration and the Federal Railway Administration, along with the Airport Authority and State Highway Department and considering is this the best way to extend that runway to have cargo, have an increased impact on the noise footprint of the airport? Is there another location? Is there another city that could accommodate that freight operation?

Have you looked at all the alternatives? Do we need to have more freight carriage out of O'Hare? Could you put it at Gary? Do we need to have more freight at MSP? Could you put it at St. Cloud? What would be the impacts of more trucks on the road going to St. Cloud? What would be the impact on the air quality of the airport at O'Hare, at MSP of more trucks, more air pollution, shifting it out someplace else? Would that create more opportunity for international service, long-haul service for passenger that would be more valuable?

Shouldn't someone be at least required to think those things through?

Mr. SHANE. Absolutely, Congressman.

Mr. OBERSTAR. Without unnecessarily extending the time frame within which those decisions have to be made. I think that can be done.

Mr. SHANE. Yes. I was not in government and I am not really sure what the history was of the National Highway System Designation Act of 1995. That is the one that repealed the mandatory requirement for intermodal management plans at the State Transportation Department level. And I don't know whether there was a problem with that mandate which led Congress to take it out.

But there is no question that you can't do these major projects today without looking at the intermodal implications. It is not

going to be very helpful to have a lot of cargo coming into an airport if there is no way to move it to its ultimate destination. Nobody wants cargo at the airport, they want it someplace else. So we need an intermodal system to get——

Mr. OBERSTAR. Or shouldn't we extend the light rail into the airport, instead of having more cars, more parking areas, and more congestion?

Mr. SHANE. Again, what I am pleased to report you, without really fully answering the question of whether we could do with more Federal requirements in this regard, is that more and more communities are in fact bringing these very interesting, very intermodal concepts to us. You have just heard Congresswoman Kelly talking about the complex of projects they are trying to design for Stewart Airport. And it is those kinds of projects that are coming to us more and more frequently. We have Southern California looking at a whole complex of transportation facilities to continue to move freight through that largest of our port complexes.

The Department of Transportation is reaching out to those communities, in fact, stationing our people right there at the site in order to become one-stop shopping offices for their assistance. And there is no question that this is the direction that we have to take in the future.

Mr. OBERSTAR. Thank you very much. We are not here to shape legislation, but we are here to shape the ideas that will shape legislation.

And let us continue the dialog, Mr. Chairman.

And, Mr. Shane, thank you very much.

Mr. PETRI. Mr. Taylor.

Mr. TAYLOR. Mr. Secretary, I do appreciate your sticking around this long and giving me the opportunity to ask you something that I know affects at least two of the federally funded ports in South Mississippi is something the railroads jokingly refer to as captive shipper.

The Port of Gulfport, I know, and the Port of Port Bienville are both only served by one railroad. In the case of Port of Gulfport, there is a second railroad line, as the crow flies, less than a half mile away that is not even connected to the Port of Gulfport. In the case of Port Bienville, there is a railroad line approximately 15 miles away that is not served. And we call it short-term in that both of these ports had no rail access for approximately five months after Hurricane Katrina, because the one line that served both of them lost bridges and, therefore, you couldn't go east to west. But had we, again, not been victims of captive shipper, they would have had other opportunities.

My question is, in your whole concept of intermodalism, have you looked at, as a Nation, making an investment to give the opportunity to some of these ports that are more or less the captive of one railroad the opportunity to do business with another? Because what I have experienced when the one in Port Bienville came to me and said, look, we are down for six months, we have heavy manufacturing that desperately needs rail access, and there is another line just 15 miles away all through government property, all we need is some money to run that line.

The other railroad, you would think, would want to jump in there and get the business, but they didn't. And in my visit with their lobbyist, he actually let the words captive shipper slip. And I am sure he will go to his grave swearing it didn't happen, and I had never even heard the term before, but I know what it means now.

So my hunch is, with a wink and a nod, these guys aren't competing. They will never say it and they are certainly not going to say it before a court of law. But, so, if they are not going to jump in and provide real competition, in our spirit of intermodalism, why don't we, as a Nation, look at spending a little money to provide real competition? Because the winners are going to be these publicly owned ports, in this instance. And I think that would be money well spent.

The other thing is that we are encountering, again, towards intermodalism, a lot of the smaller communities in South Mississippi have been left behind as a result of NAFTA. The manufacturing plants that used to go to rural Mississippi, in truth, looking for low-cost labor, have relocated to Mexico and other places. The ones that stayed behind are desperately dependent on their rail lines. There are very few of them. They are usually short lines.

And when these short lines start having major construction costs, I have noticed in one instance the guy is just walking away from it. So now we have got a couple of industries that need about $50 million rail improvement. The guy who owns it isn't getting that kind of revenue, and what happens is the few businesses that have remained in rural Mississippi are now threatening to relocate elsewhere if we can't come up with rail service for them.

What, if anything, has your agency looked into doing to help those guys?

Mr. SHANE. I will acknowledge, Congressman, that this is a real conundrum. We do not have, as you know, a program for making major infrastructure investments into the railroad system in this Country, with the exception of passenger rail, as you know. We do have a loan guarantee program, the RRIF program, which is as much as we have been able to do legislatively. The Service Transportation Board probably treats the captive shipper issue as one of its most complex and difficult issues. There is not, quite honestly, a program for Federal assistance that assists shippers specifically when they are——

Mr. TAYLOR. Well, again, my point exactly. If we are looking at intermodalism, which is several opportunities to move your product and inter-move your product, wouldn't you think that would be a natural, that we ought to be looking at this? Because the private sector is not going to step in there and voluntarily create more competition. That is completely contrary to what they want. So if they are not going to do it, and it benefits our ports, then maybe we, as a Nation, ought to be looking at it.

In the second instance, I am very much opposed to spending Federal money to improve a private rail line and, in effect, benefit one guy, the owner of that rail line. I have absolutely no problem if we were to come up with a program that says this line serves five rural counties; they desperately need it. If those five rural counties want to pool together and have a rail authority, we will loan you

some money, because then it becomes public money going to a public purpose. And I think it is really necessary.

I think what is happening in Mississippi is not unique to Mississippi; I beg you, it is happening in rural America. And we have got to do something to keep the remaining industries that are still here from leaving. And that is one of the things that I think we ought to be doing.

Mr. SHANE. Well, I appreciate the magnitude of the problem and I appreciate your bringing it up. It is something that I think we ought to discuss more. You will appreciate that I am not authorized, in this budgetary environment, to advocate a new funding program for any mode of transportation other than what has already been done. But these are issues that we haven't addressed fully, and the private sector seems not to be coming up with solutions, so it may be that some further discussion is warranted, and maybe some other ideas can emerge.

Mr. TAYLOR. Well, we just spent quite a few billion dollars yesterday on that transportation bill, so it is not like, as a Nation, we are not getting involved in transportation. Maybe we are just not getting involved in all of the right things. And I hope I have given you a couple of things that I hope you will look into.

Mr. SHANE. Yes. Thank you.

Mr. TAYLOR. Thank you, sir.

Mr. SHANE. Thank you, Mr. Chairman.

Mr. PETRI. Thank you for your testimony.

And we will now turn to the second panel, which consists of Mr. Daniel A. Grabauskas, who is the General Manager of Massachusetts Bay Transportation Authority; Peter McLaughlin, Chair of the Hennepin County Regional Rail Authority and of the Metro Transitways Development Board in Hennepin County, Minnesota; Patrick Sherry, Professor and Director, National Center for Intermodal Transportation at University of Denver, Colorado; Ms. Katherine Siggerud, Director of Physical Infrastructure Issues, U.S. Government Accountability Office.

Thank you for being here today. We appreciate your prepared statements, and we look forward to your summary, beginning with Mr. Grabauskas.

TESTIMONY OF DANIEL A. GRABAUSKAS, GENERAL MANAGER, MASSACHUSETTS BAY TRANSPORTATION AUTHORITY; PETER MCLAUGHLIN, CHAIR OF THE HENNEPIN COUNTY REGIONAL RAILROAD AUTHORITY, CHAIR OF THE METRO TRANSITWAYS DEVELOPMENT BOARD, HENNEPIN COUNTY, MINNESOTA; PATRICK SHERRY, PROFESSOR AND DIRECTOR, NATIONAL CENTER FOR INTERMODAL TRANSPORTATION, UNIVERSITY OF DENVER; KATHERINE SIGGERUD, DIRECTOR OF PHYSICAL INFRASTRUCTURE ISSUES, UNITED STATES GOVERNMENT ACCOUNTABILITY OFFICE

Mr. GRABAUSKAS. Thank you, Chairman Petri, Ranking Member Oberstar, and members of the Committee, for the opportunity to appear before you today to talk about our South Station Intermodal Transportation Center in Boston, Massachusetts. I would also like to thank the Committee for your interest in this important area.

At the Massachusetts Bay Transportation Authority, or MBTA, where I serve as General Manager, we appreciate the value of a strong intermodal network. Intermodalism means providing more connections to transit riders to get where they want to go, thereby delivering more choices and hopefully increasing ridership as a result.

South Station has a rich history in Boston. It opened January 1st of 1899 as the largest train station in the world. By 1913, more passengers were using South Station annually than New York's Grand Central. And by 1945 South Station made history when 135,000 visitors passed through it each day, probably driven by returning GIS.

However, by 1970 the Boston Redevelopment Authority was planning to demolish the building and remove the tracks. A group of concerned citizens succeeded in having it placed on the National Register of Historic Places and the catalyst was therefore put in place for the renewal of this intermodal facility. And in 1978 the Boston Redevelopment Authority sold the facility to the MBTA, and we embarked on a project to restore the former glory of South Station at a cost of about $195 million.

The rehabilitation of the station included restoration of the headhouse, reconstruction of 11 tracks to accommodate the growing commuter rail service, and the construction of a new bus terminal and parking garage over the tracks. And that project was completed in 1996.

South Station for us is now, once again, the hub of transportation activity in Boston and serves, we believe, as a real model for intermodalism. Today, more than 152,000 passengers pass through South Station daily and six different transit modes of transportation interconnect there. You will find our subway, the Red Line; you will find the MBTA public bus service, multi-carrier private bus service; it is the terminus for 10 commuter rail lines; Amtrak and the Acela high-speed trains terminate there at the end of the northeast corridor; and the newest service for the MBTA, the Silver Line Phase II, which is Boston's first rapid transit system, opened in December of 2004. The facility is also easily accessible by automobile and, lastly, we have a multitude of bike racks and work very hard to make it pedestrian friendly.

The new Silver Line Phase II service means that for the first time transit riders in Boston actually have direct service and a one-seat ride to Logan's International Airport terminals. As you mentioned earlier, this is the first time in Boston we had had direct connection, Mr. Chairman, between Logan Airport and the main core of our subway system. We expect about 14,000 riders to hit that number in about three years; in 18 months we have actually exceeded 15,100 daily riders.

And I would like to take the opportunity to recognize and thank Congressman Capuano, this Committee, the Federal Transit Administration for all of your support through the New Starts funding, which allowed this project to take place.

Further, the Silver Line now connects the financial district of Boston to the South Boston waterfront, and the connection into South Boston opens up a potential 30 million square feet of devel-

opment that has traditionally been restricted by State and Federal permitting authorities due to parking limitations.

Also, the intercity bus terminal has been a major success. Private bus carriers indicate that their ridership is up significantly; furthermore, that those riders make a significant contribution to Boston's economy. For instance, in 2000, Greyhound Lines did a survey of just 3 of the 11 carriers serving that terminal, and it was determined that the direct annual spending values were over $132 million a year.

Now, despite the activity at South Station, there are certain limitations that we are currently working to address. The new intercity bus terminal that we built is not directly connected to South Station, and the platforms for the commuter rail lines leave our commuters out in the elements. We need to make further improvements, but as is the case with most transit agencies across the Country, financial constraints are a reality. But I am happy to report that, like Rumpelstiltskin was able to spin straw into gold, the MBTA is turning air into cash.

Recently, we struck a deal at South Station with Hines Development Corporation, who is interested in utilizing air rights over the station to build a major development downtown. In exchange for the $26 million in development rights, Hines Development Corporation, as a part of their overall development project, are going to build a new weather-protected bus terminal connection, design and build a bus terminal expansion which will nearly double the number of bus gates provided for intercity private carrier service, provide new ventilation, new track and signal modifications, upgrades to our power system, as well as improvements to our bus rotunda. And in addition, as part of the deal, Hines will make a number of payments that will increase the total value to the MBTA to about $45 million in exchange for the $26 million estimated value to upgrade the facility.

South Station air rights project is a perfect example also of transit-oriented development. The benefits, which I will mention briefly, are a direct result of our rich intermodal mix at South Station. We are soon to embark on an $800 million mixed use project over those air rights; $1.8 million square feet of office, residential and hotel space, which is expected to generate about 2500 construction jobs, 5,000 permanent jobs, $12 million in new property taxes to the City of Boston, and $10 million in linkage payments to the city as well.

So I am happy to report that intermodalism is alive and well in Boston, as it has been for about the last 150 years, the Nation's oldest subway authority. We have been moving with bus, subway, commuter boats since 1897. And I would just like to thank the Committee for their attention to this matter, and I invite members of the Committee to come to South Station at any time to show it off. Thank you.

Mr. PETRI. So when Charlie gets off the MTA, it will be at South Station.

[Laughter.]

Mr. PETRI. Mr. McLaughlin.

Mr. MCLAUGHLIN. Thank you, Mr. Chairman and members. Let me first begin by thanking the House Transportation Infrastruc-

ture Committee, with special thanks to Mr. Oberstar, for your faith in our vision for our twenty-first century transit system in the Twin Cities. We thank you very much.

We are a Nation of people on the move, and intermodalism is one of those things that often goes unnoticed, like our shoes being tied, and that should be our goal: easy, seamless, connectivity in movement. I am happy to report that the Hiawatha LRT line has been a tremendous success. It opened early and on budget. It has exceeded forecast ridership since the full line opened in December 2004. In 2005 ridership was 58 percent above preconstruction estimates, and success continues in 2006. Weekdays we are averaging more riders than projected for the year 2020.

In a recent survey, 93 percent of LRT riders agreed or strongly agreed with the statement: "I am satisfied with Metro Transit Service." People are riding and they like it. In fact, my wife and I took the LRT to the hospital when we had our baby in January, and it was terrific; it was perfect. I could pay more attention to her in the train than I could have in the car.

Now, the role of intermodalism in this line was important. Years ago, faced with a traditional single-mode freeway proposal, residents of the Highway 55 corridor offered a multi-modal alternative before the term had even been invented. In the end, the Hiawatha corridor incorporated many intermodal features, including bus connections with free transfers; bicycle amenities, including bike racks on every LRT vehicle, bike lockers and bike racks at most stations, and multiple bicycle trail connections, including a major link to the Midtown Greenway, which this Committee has supported; luggage racks; full ADA accessibility to major park-and-rides with over 1,600 spaces and plans for 900 more because of the heavy usages; seamless transfer from the Hiawatha Line to the planned Northstar Commuter Rail Line and the Cedar Avenue busway; recently an HOURCAR proposal similar to the Zip Car operation here in Washington, D.C. was installed at one of the stations; and, finally, strong integration of the LRT line at the airport.

There are several lessons of intermodalism which we are inventing locally:

One is connectivity is at the heart of successful intermodalism. It allows us all to take maximum advantage of our infrastructure investments and it is the answer to the charge that LRT can't get you everywhere you want to go.

Two, it takes hard work, hard work at both the local and Federal levels to achieve effective intermodalism. Locally, we generated a spirit of teamwork and cooperation among MnDOT, Metropolitan Council, Hennepin County, and the Airport Commission, as well as the Cities of Minneapolis and Bloomington.

federally, while the Federal Transit Administration and FAA are both in the Transportation Department, they often speak a different language, from our experience, they have different cultures and procedures and their own lawyers to enforce them. The addition of heightened security concerns and another Federal bureaucracy only added to the complexity and of costs. Strong, consistent leadership across agencies, both local and Federal, is essential if we are to achieve effective intermodalism.

Number three, integration of rail design into the airport master plan is critically important. My suggestion would be that all airport renovation plans fully incorporate robust intermodal transit connections even if no major investments are anticipated in the next few years. It is essential to keep open the possibility for these critical connections.

And, finally, intermodalism is part of a broader set of policies affecting the pace and placement and type of development that occur in our region. A robust intermodalism can reinforce the economic goals of the community and allow for more intense and a more efficient use of existing infrastructure. Transportation and growth strategies must be tied together.

We learned a few lessons out of the Hiawatha Line:

One, organizationally, control of LRT construction by the Airport Commission—that construction on airport property—gave MAC sufficient confidence to proceed. It assured the MAC of no downtime on any of its operations and control of the details of a complex construction project on its grounds.

The MAC's financial contribution to the Line produced real benefits for the airport. Over $1 million annually in savings on internal airport travel alone. It also avoided the twin threats of a non-airport agency under-designing elements critical to the success of the airport or, conversely, of the MAC gold-plating its request because it had no financial responsibility for the request.

Just as the FTA's firm budgetary number for the overall project imposed needed discipline, so too did the MAC's financial contribution to the LRT project. Splitting of construction contracts is not without its problems, but, on balance, this arrangement proved effective on the Hiawatha Line.

Security was yet another issue where control by the MAC created significant advantages because of the fuller integration with its other security responsibilities.

In summary, the key lesson for us is that effective intermodalism will require seamless transition among agencies, local and Federal, to the same degree that the physical systems provide seamless transitions among the modes.

Mr. Chairman, I would be happy to answer questions later, and we appreciate the opportunity to be here today.

Mr. PETRI. Thank you.

Mr. Sherry.

Mr. SHERRY. Good morning, Chairman Petri, Congressman Oberstar. Thank you for the opportunity to address the Committee on this very important topic relevant to the health of our Nation's transportation system.

Congestion, competition, capacity, and conservation are the major challenges facing the U.S. transportation system today. These can only be met by adopting a serious commitment to connectivity through intermodalism. Increased congestion on our highways, railways, and ports, coupled with increasing fuel costs, security threats, and competition in the global marketplace will seriously test our ingenuity and creativity. However, I believe that the best hope for the future of the transportation in this Country will come from the adoption of a truly intermodal system that ensures the seamless and cost-effective transport of people and goods.

I think we should take a minute to talk about what intermodal transportation truly is. Many people first think of the freight industry, with containers on flat cars and water-to-land transfer materials. The definition that we use at the University of Denver is "the seamless interconnection of two or more modes of transportation to create an efficient and ethical system of transportation."

As I recently explained to a student of mine, intermodalism is about connectivity. The only way to get to Denver International Airport, for example, is to take a car or a taxi. You can take a bus from the park-and-ride.

DIA could have been a truly intermodal airport as a rail line runs right through the middle of the airport terminal and connects all of the concourses. However, rail access from the city to the airport is missing. The rail right-of-way runs right along the airport, but there is no connecting service. A truly intermodal system would have provided a seamless interconnection between the two modes, with resulting capital and operating efficiencies.

Faced with these challenges, faculty and researchers at the University surveyed the extent to which State DOTs engaged in intermodalism and intermodal planning. We surveyed several States and over 325 respondents. Here are a few of our key results:

In reviewing comprehensive State transportation plans, we found that there was an increase in attention to intermodal issues. In terms of looking at organizational structures, DOT organizational structures have changed to change expanding roles, with about 60 percent of them having a State office devoted specifically to intermodal planning. DOT staffs are primarily made up of highway engineers and many State agencies are still primarily highway focused. We found little support for an interest in providing training to develop an intermodal perspective.

As a side note, other nations have begun to look more seriously at intermodal transportation systems. We were asked by the Asian Pacific Economic Cooperation, APEC, to help determine whether their 21-member nation economies had the needed skills and available training programs to support an intermodal transportation system. We identified significant gaps between training and education opportunities, and were subsequently asked by APEC to help them develop curriculum that could be used throughout the region.

In general, our study found few examples of intermodal best practices. When we did, most of them involved highway construction. In terms of funding, our study showed that there was a lack of funding for intermodal projects. Most funding and financing decisions, including prioritization, are based on local communities' needs and are largely mode-specific.

Traffic congestion, however, in places like L.A. and Chicago may be the result of influx of vehicles from other areas of the Country. Thus, intermodal projects should be supported by a national transportation policy, and the funding may need to come from national sources, as well. Currently, much funding is tied to specific modes, which perpetuates a narrow modal approach to investment. Financing of projects should not be mode-based but, instead, based on prioritization of traffic volume, congestion, and economic impact.

Summarizing the results, we identified capacity and congestion as key components, as well as conservation of limited resources. As one of the Congressmen mentioned earlier, rising fuel costs are anticipated to increase in their magnitude. And while the intermodal systems demand the most cost-effective and fuel-efficient mode be selected, it became painfully aware that during 9/11 all modes of transportation were not interconnected. And even if you could book a ticket or a train or a bus, you had few options because the train was probably 30 miles away.

All of this will require a significant paradigm shift away from a multi-modal approach to the development of a customer-driven and user-focused approach in which the best or most efficient mode is selected. By focusing on the performance of the mode, customers obtain the most cost-effective choices.

The other focus of our study was on competition. We found that the transportation infrastructure has significantly contributed to our national economic competitiveness. I recently attended a meeting of the Asia Pacific Economic Cooperation Working Group in Hanoi, Viet Name, a country that has seen steady growth to almost 8 percent GDP in the last 10 years. Government officials at that meeting were very interested in gaining skills in intermodal planning and transportation.

In conclusion, I would recommend that we increase connectivity solutions be adopted. We recommend also that there be research on additional funding mechanisms and establishment of an under secretary for intermodal policy and reformation of the Federal role on a more user-focused service, and the creation of improved incentives for collaboration and coordination at the local, regional, and State levels; finally, the development of a more effective workforce through education and training programs focusing on intermodal solutions and thinking.

Thank you very much. I would be happy to answer any additional questions.

Mr. PETRI. Thank you.

Ms. Siggerud.

Ms. SIGGERUD. Mr. Chairman and Ranking Member Oberstar, thank you for the invitation to testify today about intermodal solutions to the Nation's mobility and congestion challenges. We are all aware that anticipated increases in passenger and freight travel have challenged the capacity on all modes of our Nation's already strained transportation system.

My testimony today draws on a series of reports GAO has issued about intermodalism, by which we mean both facilities that efficiently move passengers and freight from one mode to another, and the ability for State and local planners to select projects and modes that are the most appropriate mobility solutions.

I will discuss, first, the challenges associated with developing and using intermodal capabilities and, second, strategies for enhancing these capabilities. I will be drawing on examples from our July 2005 report on intermodal projects for ground access at airports.

In looking at these and other projects, our work has shown that the development of intermodal capabilities can provide a range of benefits. These include: potentially reducing travel times and cost

for travelers and freight by making alternative transportation options available, reducing road congestion and a potentially associated vehicle emissions, and eliminating freight bottlenecks.

We found that most U.S. airports have some kind of intermodal ground connections to either local transportation systems or nationwide bus and rail networks. Sixty-four of the 72 airports that we surveyed reported having connections to one or more local transportation systems and 27 airports had a connection to a local rail system such as the light rail, commuter rail, or subway.

With regard to intercity travel, 20 airports reported having connections to a nationwide bus service or a nationwide passenger rail. Fourteen of these have access to airport, but 13 rely on shuttles to transport passengers to the stations, which may not be convenient. One airport, Newark International, provides access to Amtrak by an automated people mover. As a result, Continental Airlines established a code share agreement with Amtrak whereby passengers can purchase one ticket for a journey that includes travel by both air and rail.

Development of intermodal capabilities in our transportation system faces challenges that stem from the lack of a specific national goal or funding program devoted to that purpose. In addition, Federal funding is often tied to a single transportation mode. As a result, it may be difficult to finance projects, such as intermodal projects, that do not have a source of dedicated funding. Similarly, restrictions on the use of Federal funds at airport revenues and charges to passengers challenge the development of alternative transportation projects to improve airport access.

Nevertheless, turning now to projects to provide transit access to airports, we found that some local planners were able to put together projects for a variety of Federal sources. For example, the Hiawatha Line, which we have just discussed, used the Federal New Starts program that funds skyway transit. The rail extension to Portland, Oregon's airport was financed in part through passenger facility charges. The Amtrak station at Milwaukee's airport received direct Federal appropriations. Finally, we also saw projects that used the TIFIA program and two Federal aid highway categories: the Congestion Mitigation Air Quality Program and the Surface Transportation Program.

State and local planners interested in developing such projects face other challenges that include:

First, the rigorous process established for airport and surface transportation planning that yields publicly acceptable projects but at some cost in terms of complexity and time.

Second, the physical constraints near an airport or other major transportation hub offer few alternatives for expansion or new project development, particularly in densely populated urban areas. But it is these same areas where such facilities are likely to generate benefits that will justify the costs.

Third, multi-jurisdictional transportation corridors present special challenges in coordinating investment decisions.

And, finally, the success of facilities such as transit connections to airports depends on providing a service that is convenient, cost-effective, and reliable enough to overcome preferences for private vehicles.

In looking at such challenges to intermodal solutions, we have identified a framework that could guide Congress in developing strategies to encourage these types of projects and capabilities. These include, first, setting national goals that define the key Federal interests in improving transportation; second, clearly defining the Federal role relative to the roles of State and local agencies and to the private sector to ensure the appropriate balance of public investment when the benefits flow in part to the private sector; third, determining which funding approaches and incentives will maximize the impact of any Federal investment and achieve the goals I just mentioned; and, finally, evaluating performance periodically to determine if the anticipated benefits from federally funded projects are accruing as expected.

In implementing this framework, Congress will need to decide whether to retain the role of the Federal Government in a funding and oversight role, but with increased flexibility for the use of Federal funds. This strategy would preserve the current practice that transportation projects are largely determined at the State and local level. Or, if there are transportation problems and goals that are so pressing that they need an increased Federal role to assure they are accomplished, the Federal Government may need to take a more active role to achieve that vision.

Mr. Chairman, that concludes my statement. I would be happy to take any questions.

Mr. PETRI. Thank you.

We have a few minutes. Those bells mean that there is a vote on the rule, I think just one vote, so we will have to recess shortly, but, Mr. Oberstar.

Mr. OBERSTAR. Thank you, Mr. Chairman. Again, this panel is very instructive and very thoughtful.

Ms. Siggerud, that has got to be a good Norwegian name, no?

Ms. SIGGERUD. Absolutely.

[Laughter.]

Mr. OBERSTAR. Must be an escapee from Northern Minnesota.

Ms. SIGGERUD. Yes. I grew up there.

Mr. OBERSTAR. You did? Oh, all right.

[Laughter.]

Ms. SIGGERUD. How did you guess?

Mr. OBERSTAR. All right. Very, very thorough, in GAO's typical fashion of examining the issues in-depth and making very constructive suggestions. I like your flowchart of movement of persons from home to destination and back. I think that is exactly the kind of thinking we need to have.

And Peter McLaughlin, Mr. Chairman, I have known for 25 years. He was in the vanguard of proposing light rail at a time when folks could hardly think past the ox cart. And, unfortunately, he was ahead of his time and people weren't ready for Peter McLaughlin except for me. I was. We couldn't get enough others to do the right thing. But now that dream of light rail is in place, and you have rightly outlined how it should work.

The airport at Minneapolis-St. Paul should not be the largest parking facility in the State of Minnesota. There is parking for nearly 16,000 vehicles. Why do we need that? Why can't we have effective light rail with bus connections and others to get people off

the roadways and arriving in a sensible fashion, with a good frame of mind to fly to their next destination?

Mr. MCLAUGHLIN. Mr. Chairman, Mr. Oberstar, I am afraid that cow got out of the barn during that period when we couldn't get enough other people to support the plan. But the airport is now facing real restrictions on space, additional space that they have available. They have embraced the presence of rail in the airport and with the help of the Northstar corridor, which will connect directly to Hiawatha, the central corridor, which we are hoping to be in preliminary engineering this year, which will connect St. Paul and take people right to the airport. We think that a mode change is in the works.

Mr. OBERSTAR. And the Rush Line corridor, which will go up north——

Mr. MCLAUGHLIN. Yes, sir.

Mr. OBERSTAR.—into Wabasha County, the fastest population growth corridor in the Midwest, and get more people off the roadways, instead of having that traffic jam that extends 50 miles from downtown Minneapolis.

I have one question, Mr. Chairman, for the panel.

You listened to the exchanges we had with Mr. Shane. You heard him say that RITA, organizationally, is the best place for the intermodal activity. Do you agree with that? And let me put the question another way. Wouldn't it be more effective if policy were directed from the Office of the Secretary, the premier policy formation center of power in the Department?

Ms. SIGGERUD. Mr. Oberstar, I will take a crack at that. In our view, attention to intermodalism at the Secretary's level is in fact appropriate. We have not looked at the effect of the movement of the Office of Intermodalism into RITA. I do want to mention we have some ongoing work looking at the RITA organization to be reporting out this August that I hope will maybe shed some light on this issue.

Mr. OBERSTAR. Thank you.

Mr. Sherry?

Mr. SHERRY. I agree. I am confused about what is going on with the Office of Intermodalism. Even over the last year or so their budget is sort of nonexistent. If intermodalism is so important to RITA, why isn't the Department head of RITA here at the hearing, I guess would be one question. There seems to be some concern there. I am concerned that intermodal is not even mentioned in the new framework that is being put out as the freight policy. So I would like to see it at a much higher level directing and coordinating policy. Thank you.

Mr. OBERSTAR. Mr. McLaughlin, you talk about different culture, different language, different time lines. And when the agencies get together, they don't even understand each other. What do you think?

Mr. MCLAUGHLIN. Mr. Chairman and Mr. Oberstar, it takes an enormous amount of energy to get the Federal agencies to work together. And while there may be agreement at the upper levels, as the earlier witness from the Department of Transportation indicated, when it gets out to the people with whom we are really dealing on a day-to-day basis, it takes enormous energy on our part,

on the part of our congressional allies, others in State government to make these things come together.

So we do need a better emphasis. I don't know what the particular blueprint ought to be at the Federal level, but it needs to be at the highest levels of the organization that intermodalism is embraced, and then it can be carried out so that the energy that we have to put in to get people to cooperate at the local level doesn't have to be so great. I mean, that is their problem.

Mr. OBERSTAR. Thank you.

Mr. GRABAUSKAS. I can actually perhaps address it with the same challenge we had in Massachusetts. Two years ago our legislature and Governor Romney worked together partly out of the same kind of frustration, for the lack of communication amongst agencies, authorities, and the alphabet soup of transportation players, and passing pretty significant legislation which gave directly to the Secretary or Transportation in Massachusetts greater coordinating powers, including positions or seats on various authority boards, in some cases as chairs of those boards, and knit together, for the first time really in Massachusetts, we are modeling as a true DOT.

And I can tell you that even over the last couple of years intermodalism, multimodal thinking, whether from bike-ped through transit, water transportation, and obviously—as we will discuss, I guess, at the next panel—freight, and so on, is, I think for the first time in Massachusetts actively being discussed, and there is no question that the fact that it is operated directly out of the Office of the Secretary and a new Office of Transportation Planning, which is spoken to in the legislation as it must be multimodal in its thinking, has been a great benefit for us.

Mr. OBERSTAR. So the higher the level of policy involvement and oversight, the better the outcome.

Mr. McLaughlin?

Mr. MCLAUGHLIN. Mr. Chairman, Mr. Oberstar, I just wanted to add the military presence at airports, at many airports, adds a whole additional level of complexity. That should be noted in our testimony today.

Mr. OBERSTAR. Thank you.

Mr. PETRI. Well, we have about a minute and 29 seconds to get over and vote, so we will recess. But let me just leave you with a question to think about for the panel, and we will get back. And I know you probably have lunch plans, but we will try to recommence right at noon.

And that is that we are talking about trying to change the infrastructure to promote intermodalism in the bureaucracy, to promote intermodalism. What about channels of communication so the public can demand intermodalism more easily? I can't buy a ticket very easily on the Web or from a travel agent on an airline and on a bus and on a train. There are a lot of structural barriers in terms of communication and linkups. When you go to Europe, it is all one ticket, it goes to Frankfurt and then it goes to Cologne or whatever.

Should we be thinking about the barriers that exist beyond our little envelope and out in the real world? If those were broken down, wouldn't the public demand a lot more intermodalism?

We will recess and come back if you have any thoughts in that regard.

[Recess.]

Mr. PETRI. Several of my colleagues are on their way, but they have agreed, since it was my question and I am here, that you can answer it, if you would care to respond. Who would like to start?

Mr. GRABAUSKAS. You mentioned Charlie on the MTA, Mr. Chairman. Our new automatic fare collection system, which is a smart card technology that we are introducing in Boston, by next January we will eliminate the token as a currency of the system. We are not only utilizing this new smart card technology within the MBTA, but have actively reached out to other regional transit authorities throughout Massachusetts in sort of a co-branding.

So an individual in a city that is not served in one of the 175 communities that the MBTA serves, but one of the dozen or so regional transit authorities that serves the rest of the Commonwealth of Massachusetts, we would actually have a Charlie card be a one passport item to allow for travel by bus, typically from one of the other regional transit authorities into the MBTA system and vice versa, and it would be utilized and recognized by both.

In addition, we have had conversations with some of the private bus carriers in the State who are also interested in having the Charlie card be an additional passport, if you will, or ability to pay. So we are looking for that. But I think several of us were talking about during the break there are a number of hurdles that, when you get beyond other modes and, ,for instance, the airports and things, that it is a challenge, and I don't think we have certainly come up with that answer yet in Boston.

Mr. MCLAUGHLIN. Mr. Chairman, I am happy to say I was the author of the provision and State law, when I was a legislator, that said that we would have the bus—if there were a train system, an LRT system created, it would be run by the same people who ran the bus station. So that creates the integration there. And we have got the total interoperability between those two operations. So I think that is a fundamental building block.

Number two, I have been promoting, trying to get cooperation between the airlines and the people who run the transit system to promote the train on the planes. People who are coming in, find a way to get a dollar off or a half price ticket into their hands as people are coming in or as they are leaving through the travel agents. We are trying to promote that. It has taken a little bit of work because, again, we have multiple agencies. And I am still fighting with the Airport Commission to get more signs, frankly, at the airport to direct people down to the train. So those are the sort of detail level things.

Structurally, I think you have got to create it and invent it right there at that level right now. There is not some sort of grand fix for it.

Mr. SHERRY. Thank you, Chairman Petri. I think being able to buy a ticket to go through multiple modes is a great idea. I don't have any specific suggestions about how to do that. I think the other piece of the equation, short of the buying of the ticket—and I am understanding that there are some impediments to being able

to do that in terms of the cost-sharing between the different agencies.

Short of that, I think being able to go and get information and plan a trip would be an important intermediate step. I was just in New York, and I was able to log on to HopStop and plan a trip to Secaucus using a bus and a train and the Metro all on one Web site. And that, to me, is something that could be further encouraged and incentives could be created for agencies and public organizations to provide that information more specifically.

And the final point I would make is I think we should not stop at just buying tickets for people. But what about our baggage? I was saying at the break that I was in Vienna recently, and I walked out of the hotel room, across the street, I checked in for my flight to Dubai at the counter in Vienna and was able to check my bag all the way through and get on the train all in one place. So I would like to encourage us to think even broader still, to be able to take care of bags and people and get them to where we are going. Thank you.

Ms. SIGGERUD. Mr. Petri, you asked about a comparison with Europe and the ability to move freely and purchase tickets in comparison with the United States, and I would point out that we know of only one instance in the United States where it is possible to code share, and that is at Newark Airport, between Amtrak and Continental Airlines.

We did look at the European example in our work, and I think there are two differences that are important to point out.

First is that the intermodal capability at airports and other facilities has come as a result of a conscious EU and government investment in those capabilities in Europe, as well as the capital support to build those facilities from EU and from the member governments.

The second is that the EU did put together a EU-wide task force to look at connectivity issues at airports and rail, and it made a number of recommendations, including in the area of ticketing, which you mentioned, trying to make it easier to do either code shares or simply movement from one mode to another. It also made recommendations with regard to some of the security challenges in having these intermodal connections. And, finally, it made some recommendations with regard to handling baggage more effectively to make it more convenient for passengers. That may be something we want to look at here.

Mr. PETRI. Thank you. I have flown to O'Hare and gotten to it on the subway and taken a bus from O'Hare up to Mitchell Field in Milwaukee or over to Madison. They have a wonderful intermodal center, but I don't think the average passenger on an airplane is even aware of it; it is sort of hidden away and there are not many signs directing you to it, and it seems to be more for people who don't have cars and lower-income people. At least that is who I have observed as I have used it, even though it is a wonderful facility.

So somehow we need to figure out how we can increase consciousness throughout the traveling public of the options that even already do exist, because if they are more widely used, that will

foster interconnective thinking. If people say, well, we do it and no one uses it, then why should we bother doing it?

I think there are various people like Greyhound stopping at train stations and airports, and even if it is just for a few minutes, there are a lot of restrictions on what kind of vehicles are able to achieve access to these facilities. So we talk intermodalism and we plan intermodalism, but people who want to be intermodal are prohibited from providing these services in many instances. So I think we probably should be a little more aware of that and figure out ways of at least removing barriers to existing intermodal opportunities that don't cost any Federal money.

Mr. MCLAUGHLIN. Mr. Chairman, I think your comments are right on point. I think the citizenry is ahead of us in some measure. In our example, it was the citizen advisory committee that said we want bike racks on the train. Now, the train professionals, the engineers, they weren't really—they knew all the problems that come along with bike racks on trains and they are thinking Minnesota. You are from Wisconsin, you know how cold it is.

But I will tell you virtually every time I am on the train, even in the winter, there is somebody with a bicycle on there, and it has really increased the reach that the train can have, because people can ride from their home to the train and then off to where they go.

So I think we need to be listening to people, because if they get—there is an excitement about this and we are creating a new way of moving about after a period where the car was the only way. We are creating the new way of thinking and moving in this Country, and we need to be listening to people who are there on the ground, because they have got some great ideas.

Mr. PETRI. Very good. We thank you very much. We appreciate your written statements.

And we will now turn to the third panel, which has been very patient. We apologize for the delay. It consists of Mr. J. Robert Bray, Executive Director of Virginia Port Authority; Tim Lynch, Senior Vice President, Federation Relations and Strategic Planning of the ATA, American Trucking Association; David Roberts, Senior Vice President, Advanced Technologies Group; Rick Richmond, Chief Executive Officer, Alameda Corridor-East Construction Authority; and Mr. Arthur Scheunemann, who is Senior Vice President for Business Development of NW Container Services, Inc.

As with the previous panel, we thank you for your prepared statements, and we invite you to summarize those comments in about five minutes, beginning with Mr. Bray.

TESTIMONY OF J. ROBERT BRAY, EXECUTIVE DIRECTOR, VIRGINIA PORT AUTHORITY; TIM LYNCH, SENIOR VICE PRESIDENT, FEDERATION RELATIONS AND STRATEGIC PLANNING, AMERICAN TRUCKING ASSOCIATIONS; DAVE ROBERTS, SENIOR VICE PRESIDENT, ADVANCED TECHNOLOGIES GROUP; RICK RICHMOND, CHIEF EXECUTIVE OFFICER, ALAMEDA CORRIDOR-EAST CONSTRUCTION AUTHORITY; ARTHUR SCHEUNEMANN, SENIOR VICE PRESIDENT FOR BUSINESS DEVELOPMENT, NW CONTAINER SERVICES, INC.

Mr. BRAY. Thank you very much, Mr. Chairman. We are honored to be here today and think this is a very important time for America.

Let me talk a little bit about what is going on in the containerized shipping world.

If you look at what has happened in America over the last 10 years, it has been absolutely phenomenal. We in Virginia have seen air cargo double in that period of time. The West Coast, the cargo moving through there, of course, is legendary.

Now, what happened somewhat recently was that in 2002 there was a work stoppage on the West Coast. A lot of the Wal-Marts and Home Depots of the world said they were going to wait it out. Some other ship lines began to come through the all water Panama Canal to the East Coast, and when they adjusted their schedules by a couple of days, they found it was just as efficient and just as cost-effective as it was shipping through the West Coast.

Now, that shifted a lot of Far East cargo to the East Coast, and about 80 percent of that cargo has stayed. That has, of course, exacerbated the problems we have with the intermodal part of the transportation chain.

Congress did something most recently with the SAFETEA-LU legislation that created corridors of national significance, one of which is the Heartland Corridor, which will serve Ohio, West Virginia, and Virginia. Congress appropriated nearly half of the funding for that corridor, and together with Norfolk Southern, the States of Virginia, West Virginia, and Ohio have found the rest of the money. Construction will start momentarily on that corridor, and, when it is completed, it cuts the transit time from the Port of Virginia into the Midwest by a day and a half and saves some 230 miles. That will help us move more cargo by rail, which obviously has got to be some part of what we are going to do to mitigate the congestion that containerized cargo brings.

But let me say this. One of the major factors in our growth in Virginia has been the location of distribution centers. We have distribution centers, some 72 in number, and some of the major companies are Wal-Mart, Home Depot, Target, Cost Plus, Dollar Tree, and others. Those facilities, in general, are located within 30 miles of the port. That means that all of that cargo will move by truck.

One of the things that the Heartland Corridor will do is Norfolk Southern has worked with the States—again, Ohio, West Virginia, and Virginia-to locate intermodal yards within those States but, generally speaking, in areas close enough to the port that they have not in the past been served by rail. Because, as most of you know, rail only is probably effective if the cargo is moving about 500 miles. Norfolk Southern has a new slant on this, and we hope

they are successful, because it will help the Commonwealth greatly.

The last thing I want to say to you is that we in Virginia have interstate connections at all of our ports save one, and, unfortunately, that is the largest. That facility has a dual access road that was built by the State that connects the Interstate 64 system, but they are the kinds of connections that we need to look at nationwide when it comes to servicing ports. We are a Nation of consumers, unfortunately at the moment. About 90 percent of what we handle in this Country moved through 10 major maritime gateways, and we begin to need to look at this thing as a piece of a puzzle that serves the entire Country.

Thank you very much, Mr. Chairman. I would be glad to answer any questions you all might have.

Mr. PETRI. Thank you very much for a very good summary.

Mr. Lynch.

Mr. LYNCH. Thank you. Good afternoon, Mr. Chairman, Congressman Higgins, Congressman Carnahan, and the other members of the Subcommittee. My name is Tim Lynch, and I am a Senior Vice President with the American Trucking Associations.

ATA is the national trade association for the trucking industry, representing more than 37,000 motor carriers through our federation of State associations and industry segment conferences. In that regard, I am also appearing today on behalf of one of those organizations, the Intermodal Motor Carriers Conference, which represents companies that are specifically engaged in intermodal transportation or related motor carrier support services.

We appreciate the opportunity to present our views on this very important subject. Congestion throughout our Nation's infrastructure is quickly becoming one of the most important public policy issues facing Federal, State, and local governments. This hearing on intermodalism is one of a series of hearings held by the Subcommittee to address those concerns. We commend you for focusing attention on these issues and certainly the subject of today's hearing, the role that intermodalism can serve in relieving congestion and contributing to an efficient freight delivery system.

The trucking industry supports intermodalism and encourages policies that promote increased movement of containers and trailers by rail. In fact, trucking companies were among the early innovators and users of intermodalism in this Country. Package companies like UPS, less than truckload companies like Yellow, and truckload companies like J.B. Hunt were pioneers in seeing the value of partnering with the Nation's railroads to efficiently and productively move freight.

In 2005, 11.7 million trailers and containers moved in rail intermodal service. The Association of American Railroads recently reported that intermodal traffic is now the industry's highest revenue business segment, surpassing coal for the first time in 2003. And while that is certainly a positive development for our transportation network, it is important to understand both the potential for and limitations of intermodal growth going forward.

Today, rail intermodal comprises just 1.3 percent of the total freight market. This compares to a 68 percent market share for truck-only services. Global Insight, an economic consulting firm,

projects that rail intermodal tonnage will increase nearly 80 percent from 2004 through 2016.

Yet, even with that impressive growth number, rail intermodal will only account for under 2 percent of the domestic freight market at the end of that period. Why? Part of the answer is the very nature of our transportation and supply chain system. A large percentage of freight is simply not transferrable to the rail network. To be profitable, rail intermodal requires large volumes of freight and a significantly long length of haul. Those types of markets are limited. Only 8.6 percent of freight tonnage moves more than 750 miles in this Country, and even freight movements over 500 miles comprise less than 14 percent of the freight market.

Another factor is the split of intermodal freight between domestic trailers and international containers. The rail industry has put a significant portion of their investment eggs in the international container business basket. That means port facilities. At the same time, the rails have reduced the number of interchange points for trailer transfer. Take, for example, freight that might be moving from Chicago to the East Coast. It makes little sense for a customer in Western Pennsylvania to ship their trailers east to the Port of Philadelphia to get on a rail to go to Chicago and then come back east another 150 miles to a customer in Indiana.

I won't belabor the well documented service challenges faced by the rail network. Suffice to say the trucking companies operate on a very tight service deadline with their customers and, thus, cannot wholly rely on a transportation partner that does not. Many trucking companies today are offering guaranteed service to their customers and cannot afford, literally cannot afford no payment on a trailer or a loss of a customer.

I would now like to move and address the issue of freight corridors, and specifically the portion of SAFETEA-LU dealing with projects of national and regional significance. We strongly support a focus on freight corridors and a PNRS framework.

While some of the projects funded under the PNRS program are meritorious, the most critical needs have not been addressed. A 2004 analysis by Cambridge Systematics for the American Highway Users Alliance identified the top highway bottlenecks in the Country. A similar report was prepared by FHWA. None of the bottlenecks on either of those lists received funding under the PNRS program.

Going forward, we would suggest that a greater share of Federal funds be dedicated to these freight corridor projects and that more planning be undertaken on the needs of freight movements. In order for this program to be as effective as we think it can be, we also would suggest a more rigorous selection process.

The explosive growth in global container trade moving through our maritime port system comprises the largest growth component in domestic intermodal transportation. Unfortunately, in addition to the almost universal challenges of limited funding, land resources, and environmental impacts that confront most transportation expansion and improvement projects, systemwide institutional operational inefficiencies affect port continue to restrain much needed cost-effective freight capacity improvements.

Having said that, we want to thank the members of this Subcommittee for their efforts in addressing many of those problems in their consideration of SAFETEA-LU. Establishing clear Federal requirements regarding the overall safety, the Roadability issue of the 750,000-plus container carrying chassis that move on America's highways has long been a critical concern of the intermodal motor carrier industry. Much progress has been made, but we would ask that the Congress continue to prod FMCSA to move the internal development and improvement process.

Finally, ATA and its intermodal conference would like to publicly thank officials at the Port of Virginia, Virginia Port Authority for their leadership role in establishing port-wide efficiency movements which have greatly streamlined and improved container intermodal interchange operations. Virginia Port officials included the motor carrier community in their planning and, as a result, this all-inclusive approach to port management changes implemented by Virginia now serve as an industry benchmark.

And I would have said that even if Mr. Bray was not sitting directly next to me.

[Laughter.]

Mr. Chairman, that concludes my statement, and thank you very much for giving us the opportunity to present our testimony.

Mr. PETRI. Thank you.

Mr. Roberts.

Mr. ROBERTS. Mr. Chairman, members, thank you for inviting me. I am Dave Roberts, Senior Vice President of General Atomics, a San Diego company.

We are leading a team that, under contract to the Port of Los Angeles, is exploring the benefits that magnetically levitated, or Maglev, transportation systems might bring to easing congestion and reducing pollution in the movement of freight shipping containers from the port to intermodal transfer stations.

Maglev, which this Committee has supported for many years, as you know, utilizes vehicles that are both levitated and propelled by the use of electromagnetic forces. As a result, they are very quiet, but, most importantly, they emit no local pollution. Systems of this type are in operation in both China and Japan, and are being developed worldwide.

As the members of this Committee are well aware, some 43 percent of the goods entering the United States pass through the Ports of Los Angeles and Long Beach. This is a freight container equivalent throughput of more than 8 million containers, technically known as 14 million TEU per year. The port exports this to double by the year 2020.

The port obviously has an important national function, but it is also a vitally important part of the economy of Southern California. However, the movement of this growing number of containers through the dense urban areas that surround the Los Angeles Basin impose serious burdens of congestion and air pollution. Diesel particulate emissions in particular are viewed as an increasingly serious threat. The challenge for the port, therefore, is to handle this increasing throughput without adversely affecting surrounding communities.

One major facility to accomplish this is, of course, the Alameda Rail Corridor, with which this Committee is well familiar. And the port has created and is planning to create more intermodal transfer facilities to allow transfer to trains using the corridor, as well as to long-distance trucks. However, the intermodal facilities are about five miles away from the port itself. To move containers from the port to these facilities by road would involve more than one million truck trips per year in this very small area, a major added burden to both highway congestion and air pollution, and a source of great concern to local residents.

Because of this, the port is exploring alternative systems for the container transfer. One of those is what we might consider a magnetically levitated conveyor belt, which is what we are examining.

Our system has been under development for several years, and a full-scale test track is in operation at our San Diego facility. In fact, Congressman Oberstar had the opportunity to see it some time ago. The program is funded by the Federal Transit Administration, the Pennsylvania Department of Transportation, and industry. The levitation system we use is unique and uses permanent magnets, which makes it a much simpler system. It is a technology that was originally developed at the Department of Energy's Lawrence Livermore Labs and has been licensed by GA. And, as I noted earlier, the use of magnetic levitation makes systems quiet and non-polluting. The system also embodies a number of engineering features that create great safety.

The port asked us to study the feasibility of using a Maglev system of this kind to transport 5,000 containers a day between the port and the intermodal facilities at the Alameda Corridor. We have recently completed the study and have concluded that our system can transport containers at the required rate safely, quietly, efficiently, and, very importantly, with no emissions, and what appear to be attractive operating economics. The automated system will feature two parallel guideways, would transport containers, each on an individual carriage, at speeds up to 90 miles an hour at 20-second headways. The onloading and offloading would be accomplished by bridge cranes.

While more engineering is needed to flesh out the details of this system, we are encouraged that a system of this kind will be able to make important contributions to overcoming some of the barriers that occur, in this case, to the efficient utilization of the intermodal facilities.

Mr. Chairman, that concludes my testimony. And because it is magnetically levitated, it is 30 seconds early.

[Laughter.]

Mr. PETRI. Thank you.

Mr. Richmond.

Mr. RICHMOND. First, I want to add our thanks to everyone else for the Committee's work on SAFETEA-LU bill and specifically inclusion of our ACE Project as one of the projects of national-regional significance. And I particularly want to thank you, Chairman Petri, and also Ranking Member Oberstar for taking the time to visit our area and seeing firsthand the problems that we have to deal with, as Mr. Roberts has given good introduction to, with the movement of freight in and around the L.A.-Long Beach ports.

I also want to thank Mr. Oberstar for inviting us to testify and present some material today.

Next slide.

Obviously, our freight problems start and finish at the Ports of L.A. and Long Beach. They are number one and number two in the Nation for containerized traffic combined; they are number five in the world.

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As has been mentioned, they account for about 40 percent of all containerized traffic coming in or leaving the United States. As has also been mentioned, if the system were allowed to work on its own, about half these containers would leave the ports on truck and half would leave on rail, as determined by the distance that they would need to travel.

Next slide.

On the rail side, we have a 300-mile mainline railroad network saved by two Class I railroads. This area, the rail network in the metropolitan area covers a four-county area in the Los Angeles Metro area. You see the Alameda Corridor coming up from the ports, and then to the east is the two mainline distribution systems to the east. The area that I work and represent is actually the area shaded in the green portion in Los Angeles County.

Next slide.

While 50 percent of the traffic should end up on trains, frankly, it doesn't, and one of the reasons, as shown here, as you can see, operating a rail terminal at ports is very land-intensive and, frankly, the land just isn't available for the volume of traffic that needs to be handled at the location on rail. So, as a result, about 10 to 20 percent of these containers have to move out of the ports on truck.

Next slide.

And this is what we get. This is the southern end of the Long Beach Freeway. It is, as you can see, heavily, congested; 37,000 truck trips a day on this section of freeway. We have had, in addition to, obviously, the congestion problems, the mix of automobile and truck traffic creates safety problems, and we have had about a 17 percent increase in truck-related accidents over the last three years.

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Rail is an obvious answer, and that was the impetus behind the investment in the Alameda Corridor. The good news for us today is that over 30 percent of the containers moving in and out of the ports are carried on the Alameda Corridor. That is actually an increase in the number of trains in the last year of 17 percent and an increase in the number of containers on those trains by 34 percent. We are getting more trains and longer trains on the Corridor. The Corridor represents about 7,000 container moves a day, which basically translates into 7,000 truck trips that don't have to go onto the Freeway.

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Unfortunately, the problem doesn't stop with the Alameda Corridor. As you probably know, not much was done at the outpoint of the Alameda Corridor's inception to deal with the network east of its terminus. Ninety percent of the trains that operate on the Al-

ameda Corridor come from or end up on the rail lines heading east, because those are the connections to the national system.

We, in our area, started about five or six years ago to try to deal with it and we have adopted a program that is described on this slide, which basically is a combination of grade separations, trying to apply advanced technology to the movement of traffic, where we are not going to be separating roads, and also safety improvements. It is budgeted at about $950 million, the first half of which was funded. Forty percent of that funding came from the T–21 program, which got us started.

Next slide.

The first thing we did was to get to the safety problems. We have completed, a couple years ago, safety improvements at 39 crossings.

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I mentioned the traffic diversion program. This is a combination of traffic signal and train prediction technologies which will hopefully give us the ability to move traffic around blocked crossings whenever it makes sense. It is a fairly sophisticated application. We are doing a test application right now in the City of Pomona, and we hope by this summer to be able to expand the use of this to other locations in our area.

Next slide.

A significant part of the program is grade separations. As I mentioned, we have 21 in the program, 11 in the first half of the program, which is funded; 10 in the second. One is completed.

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Five more are in construction, and they will be completed in the next 12 to 18 months.

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Two more are out to bid and two more are designed and ready to go to construction with additional funding.

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Just to briefly conclude, as I mentioned, we still are deficient in the second half funding for the project. Our goal, frankly, is to work at both the Federal and State level. We think very strongly that some form of a permanent and dedicated funding program to the issues of goods movement infrastructure, particularly in major ports areas, is not only needed, but well justified.

And the reason we feel that way is that it is an activity that, frankly, generates a tremendous amount of revenue; it generates revenue on both the public and the private side. It generates revenue at all three levels of the public side: it generates Federal revenue through customs, it generates State revenue through income tax and business taxes, and it generates income, as mentioned, at the ports areas.

So we believe this endeavor lends itself to a better way of funding it, which would have the side benefit of removing these rather massive requirements for funding from the general competition and presumably free up the general revenues for transportation to other less specific transportation investments.

With that, I would conclude and thank you very much.

Mr. PETRI. Thank you.

Mr. Scheunemann.

Mr. SCHEUNEMANN. Chairman Petri, I am Art Scheunemann, NW Container Services, Seattle, Washington, Portland, Oregon. Members of the Subcommittee, I want to thank you for the opportunity to be here today to share a little bit of our insights on improving freight and goods movement through intermodalism.

I would also like to recognize and thank Mr. DeFazio for his tireless efforts and support in improving freight and goods movement in the Pacific Northwest, and also Mr. Oberstar for taking time last year to come to the PNW and tour our facilities and see firsthand how short-haul intermodal rail operations actually can improve freight and goods movement.

NW Container has been in business since 1985, providing containerized short-haul intermodal rail logistics services. Our mission is to improve freight mobility in the Pacific Northwest, California, other parts of the Country a our business grows, by providing intermodal or multimodal transportation solutions to customers utilizing rail, truck, and barge. The business model is built on a network of privately owned intermodal facilities capable of building and deploying unit trains for short-haul rail service, typically 300 miles or less.

We have also entered into some public-private partnerships with ports and public entities that share this mission and embrace this type of operation. We currently operate five intermodal facilities in Washington State and Oregon, ,linking the major West Coast ports of Seattle, Tacoma, and Portland to ports and cities and facilities in the east and Washington and Oregon.

Next year we plan on opening a facility in Eugene, Oregon to connect that important agricultural and wood products export area with the ports that I mentioned above, and we are in discussions with the Port of Oakland at this time to establish an intermodal short-haul rail corridor that would service the San Joaquin Valley of California.

We are primarily a hook-and-haul intermodal rail operation, but we are not a railroad. We contract for dedicated line haul capacity and engine power with the Union Pacific Railroad or the Burlington Northern Santa Fe Railroad. We own our own equipment and facility assets, including a fleet of 40 custom-built double-stack container cars, a fleet of 100 Drey trucks capable of moving 250 containers each direction on the trains daily between our facilities.

In 2005, we moved 85,000 intermodal loaded containers via our system. That figure represents about 6.2 percent of the total volume that moved through the ports of Seattle and Tacoma, and the majority of the cargo moved on the Seattle-Tacoma-Portland I–5 corridor. Viewed another way, it represents 85,000 truck trips that were shifted to rail, freeing up valuable highway capacity for people movement and other freight and goods movement.

NW Container believes that there is great opportunity to take this business model and expand the footprint into other regions of the Country. As I mentioned, we are working with the Port of Oakland to develop a service between Oakland and the lower San Joaquin Valley. This is a perfect area because of the tremendous volumes of food and agricultural exports, and, at the same time, major U.S. import retailers have located mega-distribution centers in

those areas to service their retail trade or reposition containers for movement on long-haul eastbound trains.

Unfortunately, the majority of the San Joaquin agricultural exports are trucked in and out of Los Angeles, the Ports of L.A. and Long Beach. A better model would be for retail shippers to move loaded containers from steamship carriers, calling on the Port of Oakland as an alternative, to their distribution centers in the San Joaquin Valley via short-haul rail. There, agricultural shippers could utilize the equipment to move loaded export containers back out. In this case, the Port of Oakland provides a competitive alternative because it is not faced with the capacity and the congestion issues experienced at the Ports of L.A. and Long Beach.

This is just one example of how the model can work in other parts of the Country. However, a critical element is the future viability and the willingness of the major railroads to provide short-haul service and short line service at reasonable rates. We think that we share the same concerns that many in the intermodal transportation industry have expressed in recent months. Real questions continue to be raised about the major railroads industry's obligation to serve its customers and the Nation's transportation needs. NW Container and our short-haul intermodal rail service, like many short lines around the Country, is completely dependent upon Class I railroad service and capacity.

We recognize that the Class I railroads represent a private sector network and, therefore, need to be profitable to their shareholders. However, we also suggest that there needs to be viable inter-state and inter-region infrastructure and service to meet the needs of shippers where the only alternative is to truck cargo or close business.

We believe that serious attention needs to be focused on how inter-state and inter-region service can be maintained and enhanced. The significant investment that States and other public entities make in improving infrastructure—overpasses, grade separations, port infrastructure, etc.—which contribute to the railroads' increased efficiency and velocity must have a measure of inter-state and inter-regional return.

As noted above, we believe our intermodal model has great hope for the future and can be duplicated nationally, and we believe the future of inter-state and inter-region transportation efficiency is dependent on competitive innovation such as short-haul rail service. Thank you.

Mr. PETRI. Thank you.

Mr. Carnahan, any questions?

Mr. CARNAHAN. Thank you, Mr. Chairman.

I appreciate your remarks, all of you. In particular, I wanted to get your reaction to the GAO recent report on intermodal transportation, and there are two summary findings, I guess, that came out of that. One was that we really needed to increase flexibility to develop intermodal funding, and also to shift the Federal transportation policy maybe away from the emphasis on State and local planning and involve the Federal Government more in planning and funding. And those are some substantial changes in the way we have gone about transportation policy in the past, and wanted

to get your thoughts about that in general, but also how it may affect your particular industries.

Mr. LYNCH. I will take a shot at that one.

Congressman, I think the issue of the Federal-State-local relationship is one that is probably undergoing a lot of analysis right now and review. You look at my office is on the Beltway, and I look out my window and I see the Woodrow Wilson Bridge coming to at least part completion. The funding for that was forever looked at as basically a localized project. The delegations in Virginia, Maryland, and D.C. were the ones principally involved in pushing for it, and yet it carries a tremendous volume of traffic up and down the East Coast on I–95.

We sort of have to get away, and to the extent that the GAO report gets into this, we have to get away from this kind of mentality of just localized congestion points and understand that those congestion points, those bottlenecks, are typically part of a corridor that runs through many States. So whether that should be a more regional approach, you know,—I mean, I think it sort of has to be looked at almost by project by project, corridor by corridor. But clearly I think we have to start looking at that in a much, much different light than we have in the past.

Mr. RICHMOND. I can just add a little bit. Again, our focus is not on intermodalism across the board, but we are primarily concerned with the issues of freight movement. And I can say that there would be real benefits from more flexibility in the funding. We are really locked into trying to compete basically, under the highway program, for the work that we do, which has huge demands and tends to largely be directed jurisdictionally. State highway departments are often typically responsible for certain elements of the system and the funding usually ends up in those elements, and if you don't happen to be in that group, that club, sometimes you don't get as much attention as I think maybe you would deserve on a pure basis of the degree of problem and the value of the solution type thing.

So increased flexibility in funding and a focus on intermodal, particularly as it pertains to freight, would be valuable to us.

Mr. BRAY. I would like to echo that. If you look at what we have accomplished with the Congress in the Heartland Corridor, that is a great start. It involved three States. But if you come back to just the Port of Virginia by itself, 55 percent of what we handle ends up in the Midwest. So it is truly regional. And I would encourage you to think about this in terms of a nationwide issue, and not strictly a regional issue, because these ports move cargo for all Americans. And if somehow or another the bureaucracy focuses on just what is good for Virginia, that misses the point entirely.

So based on what Congress has started to do with the SAFETEA-LU legislation, I think it probably is a good thing, but we need to be very careful how we approach it.

Mr. SCHEUNEMANN. Mr. Chairman, I would like to expand on that. And I think this Committee should be commended, as well, for taking a long view on this last year, when you developed and passed and put forth the short-haul intermodal pilot program that Mr. DeFazio and Mr. Oberstar supported as well.

I think, from our perspective, there has to be a national foundation. I spend as much of my time on the road consulting other parts of the Country, private sector entities, public entities, ports, local jurisdictions on how an intermodal short-haul rail system can work, when typically it is not a business model that is duplicated in many places. It is a region-by-region effort, but it has to be, I think, supported by a national policy that, as the gentleman to my right said, the goods that move in this Country move everywhere, not just east and west, not just north and south; it is a complete system. And I think we have to have a national intermodal policy that supports that.

Mr. ROBERTS. Congressman Carnahan, I am not an expert in the matter, so I would just make a very brief remark. It is my observation, my impression that in the case of the ports, for example, they have considerable ability to self-fund certain things, rebonding mechanisms, as was discussed earlier. But as was noted, they are performing a function on behalf of the whole Nation, and I am sure there are many circumstances in which Federal supplementation of what they can do is highly desirable.

Mr. PETRI. Mr. Miller, any questions?

Mr. MILLER. Thank you, Mr. Chairman.

I represent part of Southern California. I was at the harbors two weeks ago and reviewing how that process occurs and facing the reality that within the next 14 years the traffic is going to double or triple from the harbors. As Mr. Petri is aware, we had, we thought, fought very successfully to bring about $900 million home for Alameda Corridor, which would include four counties—L.A., San Bernardino, Riverside, and Orange County—and a dispute with the Senate, as Mr. Petri is well aware of, in the last few days of that bill being passed, eliminated that $900 million down to $135 million.

Mr. Richmond, I know you are really, really acutely aware of the situation we face. For those of you who haven't been in California, in that area, it is not only train, it is truck. I mean, it is very, very obvious that we are the center for imports and exports for most of this Nation. When you drive on either the 91 Freeway, the 5 Freeway, the 60, the 10, especially the 210. When you get to 210 down near the harbor, it is just—it is stopped all the time with just trucks going in.

And they have changed that even to go 24 hours a day to allow trucks to come in and out to try to minimize some of the impacts that our freeways are facing and the at-grade crossings, the amount of time that individuals and commuters and the concept of being able to haul goods via truck spend sitting at these at-grade crossings is costing a tremendous amount of money and a tremendous amount of time. I know there is one at-grade crossing in Riverside that, in recent weeks, has been averaging stops up to two hours. People wait just to get through this one intersection because train traffic is so bad.

Rick, what do you think it is going to take in the immediate future to try to mitigate some of our problems that we face there? And by mitigating our problems, we help move goods to the rest of this Nation, so there is more of a benefit than just helping the people who are impacted by the trucks and by the trains, it is a

matter of getting those trucks and trains to their destination on time, and the cost associated with delays that they face in that process. What do you think it is going to cost in our region to resolve this problem?

Mr. RICHMOND. There has been working going on in the last six to twelve months to put a number around what we call a medium term program, which is sort of a ten-year time frame, and it ranges in the neighborhood of $10 billion to $15 billion. Now, a portion of that, probably a significant portion, has a potential for revenue financing. Some of it are improvements that can be made within the ports. And, as has been mentioned, they do have some capacity for raising revenue.

But a large portion of that is probably outside the current revenue-raising possibilities. Just the grade separation mitigation program alone, which, in our case, doesn't eliminate grade crossings, it just takes about half the worse and takes care of half, and, similarly, in the outlying areas. That is about a $2.5 billion program unto itself, and right now there is no provision for revenue financing.

I mentioned earlier that I think there is a compelling case that can be made for setting up some form of a program that is keyed to this problem, and it is not just in Los Angeles, obviously, it exists in other port of entry cities. And I think there are opportunities to provide incentives potentially from the Federal level to make a voluntary program that locales could opt in or opt out of if they were willing to come to the table with resources themselves.

We in California, as you know, have on the ballot for November a bond issue. It includes $2 billion specifically for goods movement and another $250 million for grade separations. We hope it passed, and we are going to work hard to see that. But I think there is a recognition that the State and the locals have a part to play in this, and my hope is that there is a partnership with the amount of commerce involved in this, the revenue that is generated, that there is a way to get it done and take it out of, again, the sort of crushing competition that goes on with all the other needs for general transportation investment, which are overwhelming, as you well know from your activity on the Committee.

Mr. MILLER. When people go to Wal-Mart to buy a TV or they buy a new refrigerator, or you go to the store to buy a new pair of tennis shoes, as that continues to grow from a consumer perspective, those goods are going to come in from the Pacific Rim, they are going to come in from the L.A.-Long Beach Harbor. And California realizes that is happening, and this Country faces many types of disasters. We faced Katrina; we continue to look at the hurricanes and wonder how that is going to impact our Country. California, in a fashion, is facing a transportation disaster in the next three to eight years, I would imagine, by the way the harbors are expanding.

You would have to be there, Chairman Petri, to realize. I know you have been there before, we have had you down. But when you sit on those freeways—I drive from LAX from Diamond Bar every week, and rarely—and I have to get up about 4:00 in the morning to do it to get here in time to vote—rarely do I not listen to the news and they talk about a truck accident on the 91 Freeway, or

the 710 or the 5. And those truck accidents, 90 percent of the time or greater, are associated with hauling goods from those harbors.

Like I said, I went down there the week before last. I was out at the Long Beach Harbor, and it took me from the 105 going down the 710, it took me 35 minutes on that one short stint, just to get down to the harbor, because trucks were backed up because they could not get in. And then it took me a good 20 minutes to get out because they were trying to get back out of the harbor. And that doesn't include the trains that are loaded and moved out.

And I think it is incumbent upon Congress, Chairman, that we really look at the impact that States like California and others with major harbors are going to face, realizing that we cannot afford to allow a transportation disaster to occur, because it is a tremendous hit on our economy. Consumers, when they want to go to the store and buy something, they expect it to be in the store. The only way that is ever going to happen is if we make sure that those goods are on trucks and delivered to their site, or on a train and delivered to their site.

So I thank you for having this hearing today. It is something that, whenever we do, I try to spend time here. Today has been a very bad day and it has been a bad week for all of us, but this is, in my opinion, in our region, probably the most significant issue that we are facing and going to have to face and deal with in the near future.

And, Mr. Richmond, I look forward to continue working with you in the future and trying to mitigate, as best we can, with a cooperative fashion from the Federal, State, and local government to mitigate the problems that we face in moving goods and the problems that our commuters face trying to just go about their daily lives.

I yield back. Thank you.

Mr. PETRI. Thank you. And it may be a regional problem, but it is a national problem as well, because the delays and the resultant inefficiencies in the movement of 40 percent of the Nation's goods, at least in that category, through that port result in higher costs for all Americans, and there is no getting around it.

We thank you all very much for your contribution, and we look forward to working with you not to lament the problems, but to solve them.

This hearing is adjourned.

[Whereupon, at 12:57 p.m., the subcommittee was adjourned.]

Rep. Shelley Berkley
Statement for T&I hearing on Intermodalism
June 15, 2006

Mr. Chairman, thank you for holding this hearing on "intermodalism," a concept being considered by many of our nation's communities to address the ever-increasing congestion that is choking our transportation system.

My district in Southern Nevada is one of the fastest growing areas in the country, with 5,000 people moving to Clark County each month. In addition, almost 40 million visitors came to Las Vegas last year. Business is good, but the byproduct is often unbearable traffic and other transportation headaches for residents and visitors alike that threaten our local economy.

To cite one example: I-15 in Las Vegas is already 69 percent over capacity, with 219,000 cars a day driving that stretch of interstate, which bisects the city. That number is projected to increase to 300,000 a day within 5 years. Numerous projects are underway to improve this and other roadways by adding lanes and improving interchanges (and I am grateful to this subcommittee for its help in obtaining federal assistance for some of these projects in

SAFETEA-LU last year), but such efforts can only get us so far.

Our Metropolitan Planning Organization, the Regional Transportation Commission of Southern Nevada, has its hands full trying to come up with innovative solutions to our traffic woes. They are in the process of designing an intermodal transportation system that will serve the entire Las Vegas Valley, featuring a regional fixed guideway system complimented by other existing modes of transit, including city buses and the Las Vegas Monorail.

I believe that Congress must continue to encourage states and local communities to consider intermodal solutions, and I look forward to hearing from our witnesses this morning about where we should go from here.

U.S. Seaports and the Importance of Intermodal Transportation

Testimony of:
J. Robert Bray
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600 World Trade Center
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Before the:
Highways, Transit, and Pipelines Subcommittee of the
House Transportation and Infrastructure Committee
June 15, 2006

Good morning Mr. Chairman and distinguished Members of the Subcommittee; my name is Bobby Bray. I have been working at the Port for the past 38 years and have been Executive Director of the Virginia Port Authority since 1978. It is my distinct honor and privilege to appear before you today to discuss the Virginia Port Authority's experience with intermodalism.

As you all know, America is the largest consuming nation in the world. You also probably know that containerization reshaped the global economy. In fact, we celebrated the 50th anniversary of containerization just a couple of months ago here in Washington, D.C.

Today, it is possible to ship large quantities of goods over great distances very economically. This economical transportation is made possible by the use of containers that can be transferred from one mode of transportation, such as a ship, to another, such as a rail car, very quickly and efficiently. Intermodal transportation is the backbone of the modern supply chain for consumer goods, and directly benefits the U.S. consumer.

Every major forecast prepared in the last five years indicates that containerized cargo moving through U. S. ports will more than double during the next ten to fifteen years. Over 90% of this cargo moves through ten major ports. The U.S. Chamber of Commerce study "Trade and Transportation, A Study of North American Port and Intermodal Systems, March 2003" forecasts that most major ports will reach capacity by 2010.

Every U.S. port is struggling to handle projected container volumes. We are in a race to expand our ports and our inland road and rail infrastructure. The success of these expansion plans will rely on intermodal transportation. Let me explain.

Please recall the West Coast labor lock out in 2002. This was a significant event to international shippers around the world who realized just how fragile the global supply chain was and the significant economic impact that would result from any disruption. As a result, shippers began to diversify trade routes and entire logistics systems. They

diverted cargo from the West Coast to the East Coast by all water routes and they have kept those services in place, even after the lockout cleared. No longer, will the majority of the Asian container cargo move through the ports of L.A. and Long Beach, but rather will be shipped via alternative routes that keep the cargo on the water until it is closer to its final destination or closer to a less congested transportation system.

Shippers continue to seek alternatives and we have seen this interest all along the eastern seaboard. As an example the South Carolina State Port Authority received letters of interest from 13 shippers to develop a private terminal that would have created a large port capable of handling a significant volume of containerized traffic destined for markets in the hinterland. Ultimately, South Carolina decided to retain the development as a public project.

Mobile, Alabama; Houston; Tampa; Jacksonville; Savannah; Southport, North Carolina; Baltimore – all have plans to expand or create new port capacity. These port expansion plans attempt to address our looming national shortfall in container cargo handling capacity. Perhaps the best indicator of this tremendous effort is the APM/Maersk's private investment of more than $450 million of its own money to build a 300-acre terminal in Portsmouth, Virginia. This is the first time that a shipping line has invested its own money to build a marine terminal from scratch in the United States.

When asked why Maersk would make such a large investment, the answer is simple. Shippers need:

- Large tracts of land to construct marine terminals,
- Access to deep water to accommodate the huge container ships, and
- Access to good road and rail networks to efficiently transfer goods from the seaport to the hinterland markets.

This investment will guarantee Maersk a place to move their cargo through one of America's greatest international gateways.

Over 55% of the containerized cargo moving over the docks at The Port of Virginia originates, or is destined for areas outside of Virginia – primarily to the Midwest. In fact, the Port of Virginia is a major international gateway to America's Heartland, a gateway that will continue to grow. This flow of cargo relies on an intricate network of road and rail that will become stressed as container volumes continue to increase.

Recently, Congress provided nearly 50% of the funding (through SAFETEA-LU) for the Heartland Corridor. With the seed money provided by Congress, the states of Virginia, West Virginia, and Ohio, along with private investment from Norfolk Southern provided the balance of the funding necessary to complete improvements to this important rail corridor to enable the route to handle double stack container trains. I believe more goods movement intermodal projects need to be funded to address the explosion of container cargo that has been forecast by so many.

To meet the growing container volumes, we must focus our attention on moving more cargo by rail. We have all read the stories of how our highway system is overstressed. The National Highway System was originally designed for the purpose of moving freight to accommodate our national defense mobilization efforts. The highway system was so

successful, that it also spurred great mobility of the American public. Now our highways are heavily congested with commuters in urban areas. We cannot simply build our way out of the highway congestion problem. Additional freight moving over the rail network will help us meet future needs. Increasing the use of rail to move containerized cargo will require more partnerships between the Federal, state, local and private partners.

One small example of partnerships between the public and private sectors is the chassis pool we recently created in Virginia. The U.S. is one of only a handful of countries where chassis to haul containers are provided by the ship lines. In most countries, the chassis is provided by the trucker. This system of trucker owned chassis creates a need to maintain a large inventory of chassis for each ship line. This existing system is wasteful. The Port of Virginia worked with our major ship lines to create a single chassis pool for all truckers. The chassis are more reliable, better maintained and there are fewer of them to take up valuable space at the waterfront. The chassis pool has been in operation for a year and has been very successful. We need these types of partnerships and forward thinking ideas on the National, state and local levels.

The Port of Virginia has 50-foot deep channels, and piers capable of handling the largest container ships envisioned. With the excellent road and rail connections that are available, the Port of Virginia has worked diligently over the last 20 years to be in a position to provide the intermodal services required to continue to meet trade demands of the U.S. market for years to come. Other ports have followed suite – Savannah continues to grow and look for opportunities to expand, Houston is moving forward with plans to add a new terminal, Charleston is looking to renovate the former Navy base, and even North Carolina plans to construct a new terminal in Southport.

These port plans are indeed required to meet the future container volumes; however, by themselves they are not enough. The U.S. will require additional port expansion and better utilization of our entire transportation system – rail and highway – to be able to swiftly move containers, and their products.

Thank you.

OPENING STATEMENT OF
THE HONORABLE RUSS CARNAHAN (MO-03)
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
SUBCOMMITTEE ON HIGHWAYS, TRANSIT AND PIPELINES
U.S. HOUSE OF REPRESENTATIVES

Hearing on
Intermodalism

Thursday, June 15, 2006, 10:00 AM
2167 Rayburn House Office Building

Mr. Chairman and Mr. Ranking Member, thank you for hosting this important hearing on intermodalism.

As different fragments of our society become more interdependent, we need to see our highways, sky, railroads, and waterways as pieces of a larger transportation grid that links the United States with the rest of the world. Contradictions in policy and redundancies in the system hamper both the growth of our economy and the safety of our infrastructure.

Connections between different modes of transit are the weakest parts of our transportation system and need to be strengthened. We all know firsthand how time-consuming travel can become when using multiple modes of transportation. Although we typically experience this frustration as a personal loss of time, every freight delay due to inefficiency equates to a loss in our pocketbooks that is just as personal. By removing barriers that impede the flow of goods and people, we can pass increased security, convenience, and financial benefits onto our constituents.

I'd like to thank all of you for your testimony today and am eager to learn what we can do to facilitate the needed changes in our transportation system.

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for the Record

COMMITTEE ON TRANSPORTATION & INFRASTRUCTURE
Subcommittee on Highways, Transit, and Pipelines

"Intermodalism"

June 15, 2006
10:00 p.m.
2167 Rayburn House Office Building

Opening Statement of Congressman Elijah E. Cummings

Mr. Chairman:

Today's hearing on intermodalism enables us to examine one of the most important questions in transportation policy – how we improve connections between the transportation modes in our national network.

The challenges we face in more seamlessly linking air service, rail service, maritime transportation, public transportation, and truck freight services are enormous. As studies on intermodalism developed by the Congressional

Research Service in 2003 and by the Government Accountability Office in 2005 detail, the discussion of how to expand intermodalism encompasses many of the most vexing policy questions in transportation today.

For example, the CRS report noted that while intermodal connections are needed to create a truly national system, the planning and construction of these connections falls to the responsibility of individual states – and the states are short of money.

Mr. Chairman, despite the massive federal investments made in transportation during the past 50 years, these dollars have not stretched as far as we might think. For example, according to a new study by the Transportation Research Board, investments made by the federal

government in highway transportation have accounted for only between 20% and 25% of total annual highway expenditures made by state and local governments between the 1960s and the present.

As dollars made available for investment in transportation have become increasingly scarce over the past few years, states have rightly directed the funding available to them to the maintenance of existing systems – leaving little money for any new construction.

Thus, the Federal Highway Administration reports that while 30% of all state expenditures on roadways made in 1981 were made on new construction, by 2001, expenditures on new construction had fallen to just 13% of total expenditures.

Before we can expand intermodal connections to link our transportation networks, this funding gap must be filled.

The CRS study to which I referred earlier also noted that we lack any form of significant national planning capacity for transportation.

Despite the extensive reach of our federal transportation system, planning remains centered on local entities, particularly Metropolitan Planning Organizations, which are responsible for prioritizing transportation investments in urban areas. As CRS noted, this planning system might be "more suitable to solving commuter concerns than . . . addressing interstate and international commerce concerns."

Thus, while we must ensure the principle of local control is not subverted, we need to put in place the systems that will look more comprehensively at our national transportation network and how it can effectively link every corner in our nation.

Finally, the 2005 GAO study I mentioned emphasizes that separate from the challenges of funding and planning, the establishment of intermodal connections is made is even more complicated by the fact that the systems that must be linked are managed or even, in the case of railroads, owned by very different entities – some public and some private. Each of these modes has been the subject of distinct federal and state policies that have frequently emphasized mode-specific goals.

To achieve true intermodalism, it will be necessary for federal transportation policy to support intermodal connections as distinct facets of our national transportation system and to then shape mode-specific policies that complement intermodal objectives.

As the federal government did when it spearheaded the development of the Interstate Highway System, it is time for the federal government to step forward and guide the development of the next revolutions in our national transportation system, including the development of connections that link and make more effective use of each of our modal networks.

I look forward to hearing from today's witnesses and I yield back.

Testimony before the Highways, Transit and Pipelines Subcommittee of the House Transportation and Infrastructure Committee

June 15, 2006

Respectfully Submitted:
Daniel A. Grabauskas
General Manager
Massachusetts Bay Transportation Authority

Thank you Chairman Petri, Ranking Members Oberstar and DeFazio and Members of the Committee for the opportunity to appear before the Subcommittee on Highways, Transit and Pipelines to speak about the South Station Intermodal Transportation Center in Boston, Massachusetts.

I would like to thank the Committee for your interest in this important area. At the Massachusetts Bay Transportation Authority (MBTA), we appreciate the value of a strong intermodal network. Intermodalism means providing more connections to transit riders to get to where they want to go – thereby delivering more choices and hopefully increasing ridership as a result.

South Station has a long, rich history in Boston. It opened on January 1, 1899 as the largest train station in the world. It was initially conceived when the five railway companies that served Boston realized it was no longer efficient for each to have their own depot. With the turn of the century fast approaching, Boston decided to build the newest, most efficient and architecturally grand station in the nation. And with an act of the state legislature and $14.5 million in bond funds, the project was realized.

By 1913, 38 million passengers were using South Station annually, more than New York City's Grand Central Station. By 1945, swollen by GI's returning from World War II, South Station made history when over 135,000 visitors passed through it each day. However, this unfortunately was to be the grand station's apex. Over the next 15 years, it began to deteriorate with shrinking train passengers, which was likely due to the growth of automobile use. In 1965, the Boston Redevelopment Authority (BRA) purchased the struggling property for $6.95 million. In 1970, the BRA decided to demolish the historic headhouse and began removing tracks. Outraged at the loss of such a landmark, a group of concerned citizens succeeded in having South Station placed on the National Register of Historic Places. Demolition was halted with most of the headhouse and grand waiting room still intact. Finally, in 1978, the BRA sold the facility to the MBTA for $6.1 million. Six years later, the MBTA embarked on a project to restore the former glory of South Station at a cost of $198 million. The rehabilitation of South Station included the restoration of the head house, reconstruction of 11 tracks to accommodate the growing commuter rail service, and the construction of a new bus terminal and parking garage over the tracks. That project was completed in 1996.

South Station is now once again the hub of transportation activity in Boston and serves as a model for intermodalism. More than 152,000 passengers pass through South Station daily, where six different modes of transportation inter-connect. There, you will find the subway's Red Line, MBTA public bus service, multi-carrier private bus service, the terminus for 10 commuter rail lines, AMTRAK and the ACELA high speed trains, and the newest service to the MBTA, the Silver Line Phase II, Boston's first Bus Rapid Transit system, which opened in December 2004. The facility, easily accessible by automobile with a direct connection to Interstate 93, also provides 200 parking spaces in the newly constructed garage as part of the intercity bus terminal.

Silver Line Phase II, the first new service added to the MBTA in decades, now connects the financial district of Boston to the South Boston waterfront and Logan International Airport. The connection into South Boston opens up a potential additional 30 million square feet of development that has traditionally been restricted by state and federal permitting authorities due to parking limitations. Because of the availability of public transportation throughout the area, these authorities will now allow further development to move forward.

Also, for the first time, transit riders in Boston can now arrive into South Station by their mode of choice and take a one-seat ride on Silver Line that will take them underground, beneath the city's congested streets, to each of Logan's Airport terminals. The ridership numbers on the new service to date have out-paced even our most optimistic projections. While still in the design phase, Silver Line was expected to have 14,000 daily riders after three years. Instead, the line, which has only been open for 18 months, already sees an average of 15,100 daily passengers. It has been an unqualified success. For that, I would like to take this opportunity to recognize and thank Congressman Capuano, this Subcommittee, the Transportation and Infrastructure Committee and the Federal Transit Administration for the extensive federal support the project received through "New Starts" funding.

Another integral part of the success of the South Station Transportation Center is the intercity bus terminal, opened in 1996, that offers vital transportation services by private bus carriers. The intercity bus terminal has 29 gates and 11 privately-owned intercity, regional and commuter bus companies which, in 2005, operated 170,000 trips in and out of the terminal, carrying 4.2 million passengers throughout New England and beyond. The terminal, which has its own food court and retail services, enables bus passengers to link with all the other modes located at South Station.

The intercity bus terminal has been a major success. The bus carriers indicate that their ridership is up significantly. Furthermore, those riders make a significant contribution to Boston's economy. In 2000, Greyhound Lines did a survey of the economic impact of bus passengers arriving on Greyhound, Peter Pan, and Vermont Transit bus service. The study found that the annual direct spending of those visitors in Boston was $132 million. And that spending represents just 3 of the 11 carriers serving the terminal.

Despite this activity, South Station has limitations that we are working to address. Currently, the new intercity bus terminal is not directly connected to South Station and the platforms for the commuter rail lines leave customers outside in the elements. We need to make further improvements, but, as is the case at most transit agencies across the country, financial constraints are a reality. Nevertheless, like Rumplestiltskin was able to spin straw into gold, the MBTA is turning air into cash.

In recently striking a unique deal that will realize further improvements to South Station, the MBTA has finalized a partnership with Hines Development Corp. who will lease the air rights over South Station for the development of offices, a hotel and residences. In

exchange for this $26 million in development rights, Hines Development will fund the following improvements:

- Design and build a weather protected Bus Terminal connection. This initiative is already underway and is expected to be completed this summer;
- Design and build Bus Terminal expansion, which will nearly double the number of bus gates provided for intercity private carrier service while also adding 700 new parking spaces;
- Provide new rail yard ventilation for both facilities;
- Make significant track and signal modifications;
- Provide a full upgrade of the power center; and
- Make significant improvements to the Bus Terminal rotunda.

In addition, as part of the deal, Hines will pay to MBTA the following:

- an annual payment of $100,000 commencing upon the effective date of the Development Agreement and ending on the earlier of the conveyance of the MBTA Air Space to the BRA or the termination of the Development Agreement.
- a $1,000,000 cash payment upon lease up of 85% of the office portion of the 40 story tower;
- reimbursement of the MBTA's costs associated with the pre-development activities and oversight of the Project such as engineering review, legal, real estate appraisal and consulting expenses; and
- guarantees of the existing net revenue levels of the MBTA from the existing Bus Terminal and Parking Garage during construction.

While the MBTA's appraisal of the air rights was $26 million, the MBTA was able to leverage $45 million in improvements to the entire complex, thus securing an additional $19 million that is being used to further upgrade the facility.

Pending financing and final permitting by local authorities, Hines Development Corp. expects to begin construction in 2007. The MBTA's improvements will be completed within 36 months. The total projected will be phased with the office tower and expanded parking garage being completed shortly after completion of the expanded bus terminal.

The South Station air rights project is a perfect example of transit-oriented development and the MBTA's continuing effort to leverage its assets to help offset our budgetary pressures. The $800 million dollar mixed-use project includes over 1.8 million square

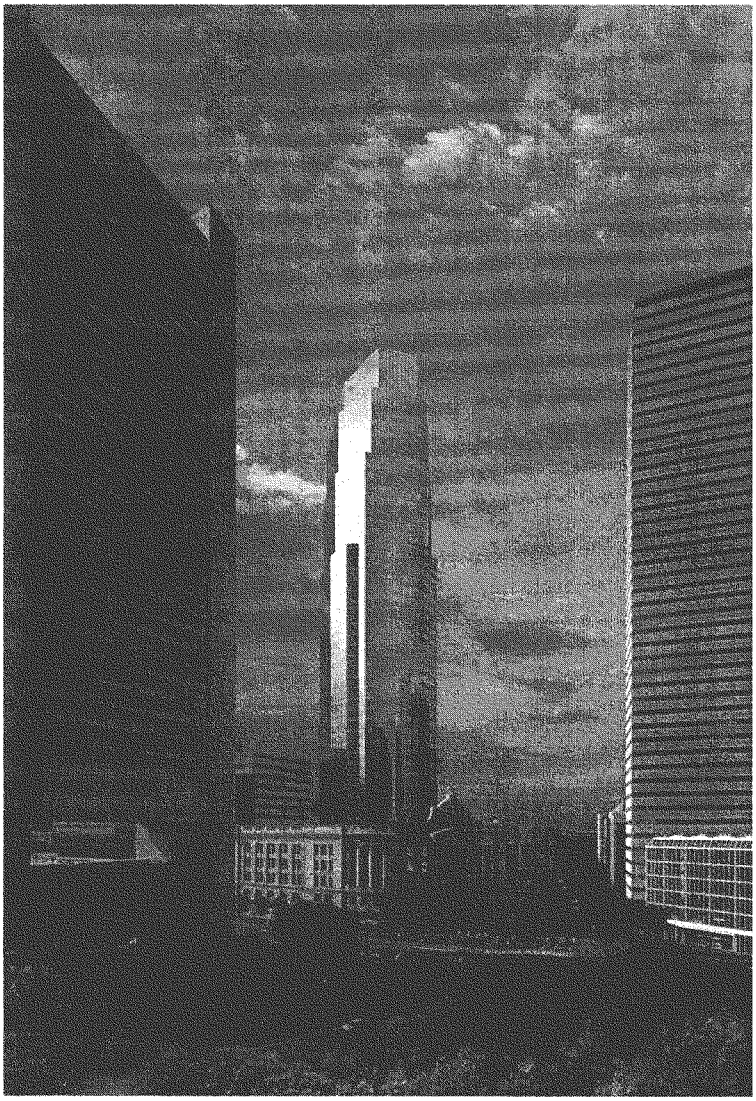
feet of office, residential, and hotel space. It is expected to generate 2500 construction jobs, 5000 permanent jobs, $12 million dollars in new property taxes, and $10 million dollars in linkage payments to the City of Boston. These benefits are a direct result of our rich intermodal mix at South Station.

In addition, the MBTA is working with the adjacent landowner, the United States Postal Service, on an initiative to add four additional commuter rail tracks to South Station to accommodate new service and increasing ridership.

Intermodalism has been alive and well in Boston for over a hundred and fifty years. As the Nation's oldest subway authority we have been moving people by way of subway, commuter boats and trains since 1897. Our South Station Intermodal Transportation Center is where this rich history is meeting our promising future. I invite the members of the Committee and staff to visit Boston and to tour the facility that this Committee and the Federal Transit Authority helped us build, restore, enhance and operate.

I thank you for your support and this opportunity to speak with you today.

ATTACHMENT A



Rendering of new development above South Station.

Statement of

Timothy Lynch
Sr. Vice President of Federation Relations & Strategic Planning
American Trucking Associations

Before the

Subcommittee on Highways, Transit and Pipelines
Of the
Committee on Transportation and Infrastructure

On

Intermodalism

June 15, 2006

American Trucking Associations, Inc.
2200 Mill Road
Alexandria, Virginia 22314-4677

Mr. Chairman and members of the Subcommittee, my name is Timothy Lynch and I am Senior Vice President, Federation Relations and Strategic Planning for the American Trucking Associations (ATA). ATA is the largest national trade association for the trucking industry and, through a federation of industry-related conferences and 50 affiliated state trucking associations, represents more than 37,000 members covering every type of motor carrier in the United States. I am also appearing today on behalf of one of our conferences, the Intermodal Motor Carriers Conference (IMCC), which represents ATA members who are specifically engaged in intermodal transportation or related motor carrier support services.

I am pleased to appear here today to discuss intermodalism and its important role in America's freight distribution system. As all of us are aware, transportation "bottlenecks" and their resulting traffic congestion are having a negative impact on the driving public, consumers, and our economy. Texas Transportation Institute's latest urban mobility report found that as of 2003, congestion caused 3.7 billion hours of travel delay and 2.3 billion gallons of wasted fuel, costing more than $63 billion. Therefore, it is most appropriate that the Subcommittee is holding a series of hearings to examine all aspects of today's freight transportation network, including the role that intermodalism can serve in relieving congestion and contributing to an efficient freight delivery system.

ATA's members support intermodalism and encourage policies that promote increased movement of containers by rail. In fact, trucking companies were some of the first pioneers in the promotion and use of intermodalism in this country. Intermodal transportation can help alleviate the driver shortage the trucking industry is currently experiencing and which is expected to continue in the coming years. It also combines the best of rail and truck transportation – the just-in-time delivery standard of trucks, with the long-distance economy of rail.

In 2005, 11.7 million trailers and containers moved in rail intermodal service. About half of the volume consists of international freight. The Association of American Railroads (AAR) recently reported that intermodal traffic is now the rail industry's highest revenue business segment, surpassing coal for the first time in 2003. For intermodal to continue to grow, however, the railroads will need to be able to meet their service schedules on a consistent basis. The single largest impediment to intermodal growth is inconsistent rail service.

Intermodal Issues

Rail as an Alternative to Trucks

At the outset, it is important to understand both the potential for, and limitations of, intermodal growth. Rail intermodal comprises just 1.3% of the total freight market today, compared to 68% for truck-only deliveries (see attachment 1). Global Insight, an economic consulting firm, projects that rail intermodal tonnage will increase nearly 80% from 2004 through 2016. Yet, intermodal will still only account for only 2% of the

domestic freight market. (see attachment 2). The reason is that only a relatively small portion of traffic moving over the nation's highways is conducive to intermodal delivery. To be profitable for the railroads, intermodal requires large quantities of freight moving between origin and destination areas. Those types of markets are limited. To be economical, intermodal transportation also requires a significant length of haul of 500 to 750 miles, but only 8.6% of freight tonnage moves more than 750 miles, and even freight movements over 500 miles comprise only 13.8% of the market. Rail is also more competitive for traffic that is moving to an intermediate terminal or distribution center, since freight can then be delivered by truck on a just-in-time basis. Most shippers, however, try to keep inventory to a minimum to reduce costs, which works against the use of rail transportation.

Even if rail intermodal were able to draw freight from trucks, this might actually exacerbate rather than alleviate highway congestion and its attendant problems. Rail intermodal movements begin and end with a truck movement. Almost always, these truck movements occur in an urban area. Therefore, the truck travel that is eliminated in a rail intermodal movement is that which occurs on rural Interstate highways, where congestion, safety and environmental impacts are negligible. Nor should the impact of the rail trip on congestion and safety at railroad grade crossings or the noise and air pollution associated with diesel locomotives be ignored – it could be substantial.

Various studies show that even with massive public subsidies of freight rail, the most that can be achieved is a ***slight*** reduction in the ***growth*** of truck traffic, and not the existing truck traffic. Freight rail investment ***cannot actually reduce*** the number of trucks on the road.

For example, the I-95 Corridor Coalition conducted a study (called MAROps) to determine the potential impacts of a $6.2 billion rail investment on truck traffic. For a $6.2 billion investment, the ***growth*** in truck tonnage will only be cut to 66 percent instead of 72 percent without the investment. Likewise, the ***growth*** in ton-miles will be 72 percent instead of 88 percent. The ***growth*** in loaded units will be only 6 percentage points less (69 percent vs 75 percent) and the ***increase*** in vehicle miles traveled will come in at 73 percent compared to 87 percent. There are benefits from the rail investment, but they are relatively small for a rather large investment and, even with it, there will still be huge increases in truck traffic. (See attachment 3)

Another study conducted for the Virginia Department of Rail and Public Transportation[1] looked at the impacts of truck traffic on I-81 in Virginia resulting from a hypothetical $8 billion rail investment in 13 states along the Interstate 81 corridor. It found that 30% of future truck trips could be diverted to rail over the long term. However, because I-81 truck trips are expected to double by 2020, even with this hypothetical investment, there would still be 40% more truck trips on I-81 in 2020 than there are today.

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1 *The Northeast-Southeast-Midwest Corridor Marketing Study, Examining the Potential to Divert Highway Traffic from Interstate81 to Rail Intermodal Movement;* Prepared for the VA Dept of Rail and Public Transportation, December 2003.

Further, an analysis conducted for the Ohio Department of Transportation determined that a 10% reduction in rail operating costs along a Northeast U.S. to Great Lakes region corridor would reduce truck traffic in northern Ohio by just 2.2%. Since the number of truck trips in the corridor is expected to increase at about the same annual rate, any impacts resulting from this modal shift will quickly disappear.

The Alameda Corridor is perhaps the most well-known and most expensive public-private freight rail project to date. So far, however, the project has failed to live up to its supporters' promises. Following construction of the $2.5 billion rail corridor, railroads today carry just over one-third of the Los Angeles – Long Beach port's container traffic[2], about the same share that the railroads carried before the project's completion; trucks move the majority of it—about 65%. Despite tremendous growth at the port, the Alameda Corridor is operating at about 50% capacity.[3] While some public benefit has been achieved through elimination of rail grade crossings on local roads, the project's primary goal – improved movement of freight into and out of the ports -- has not been realized. The project was initially conceived as a rail-highway project, but the highway portion of the project was dropped.

Intermodal Connectors

In a report to Congress in 2000[4], the U.S. Department of Transportation (DOT) found that highway connectors to ports were found to have twice the percentage of mileage with pavement deficiencies when compared to similar secondary roads that do not serve ports (i.e., non-Interstate National Highway System routes). Furthermore, DOT found significant physical and geometric deficiencies that made it difficult for trucks to move safely and efficiently between the NHS and intermodal terminals. In short, these intermodal connectors are being used for purposes other than for which they were designed, and they are not being maintained. DOT identified 616 intermodal freight terminals in the United States. This includes 253 truck-and-port terminals, 203 truck-and-rail terminals, and 99 truck-and-air terminals.

Efficient intermodal connections are important to the viability of intermodal transportation. The product manufacturer or producer is generally the party that decides how to ship the freight, based on many factors, including just-in-time delivery requirements, reliability of delivery times, security, freight value-to-weight ratios, cost, and the inherent virtues of each mode of transportation. The only way shippers can take advantage of the efficiencies and value of intermodal transportation is if the interfacing mechanisms that join the different freight modes are adequate. Many times, this is not the case.

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2 *Consolidation Activity in the Southern California Area;* Prepared by BST Associates for the Alameda Corridor Transportation Authority, March 2004.
3 *Alameda Corridor Transportation Authority*
4 *NHS Intermodal Freight Connectors, A Report to Congress*; Prepared by the U.S. Department of Transportation, July 2000.

Improving intermodal connections also benefits communities, surrounding ports, rail yards, other intermodal transfer facilities, and the trucking community that services them. In many situations, improving connectors will separate commercial vehicles from surface traffic that passes through congested neighborhoods. Often, these neighborhoods are in clean-air non-attainment areas, and improved intermodal connectors would likely produce more efficient trucking operations, which will in turn result in fewer emissions and cleaner air.

ATA encourages Congress to set aside funding for improvement of intermodal connectors. During consideration of SAFETEA-LU, ATA, along with the members of the Freight Stakeholders Coalition, sought this funding, which was initially granted by both House and Senate bills, but disappeared during conference committee proceedings. Surging trade will place additional stress on connectors in the future. Increased efficiencies in ports, rail yards, and other intermodal transfer facilities will be for naught if the secondary roads that connect them to the National Highway System continue to deteriorate. ATA urges Congress to address this problem before gridlock around our nation's ports and other intermodal facilities becomes a further detriment to the nation's economic health.

The planning processes used by metropolitan planning organizations (MPOs) to address intermodal connectors in their transportation improvement plans also need to be improved. As the Government Accountability Office (GAO) has found in its work on this subject, the planning time frames for the private and public sectors are significantly different, making coordination difficult. The private sector needs to respond to market conditions and opportunities quickly, while MPOs often need 3 to 5 years to build local improvements to intermodal connectors into their plans. In order for the public and private sectors to coordinate effectively, the public sector needs to be able to act more quickly.

Projects of National and Regional Significance

ATA supports the concept of the Projects of National and Regional Significance (PNRS) program. We agree that the federal government should focus significant resources on improving those parts of the highway system that, from a regional or national perspective, have the greatest economic impact. We also believe that a much greater share of federal funds should be dedicated to these projects and that more attention should be paid to the needs of freight. In order for this program to be effective, and to ensure that limited resources realize their maximum economic potential, the project selection process must be extremely rigorous. While some of the projects funded under the PNRS program in SAFETEA-LU are meritorious, the most critical needs have not been addressed. A 2004 analysis by Cambridge Systematics for the American Highway Users Alliance entitled *Unclogging America's Arteries: Effective Relief for Highway Bottlenecks* identified the top highway bottlenecks in the country. A follow-up report for the Federal Highway Administration listed the top bottlenecks specifically for trucks. None of the bottlenecks on either list received funding under the PNRS program.

Ideally, an effective PNRS program would identify the most economically significant highway corridors from a regional or national perspective, determine which parts of the corridor need improvement, and dedicate sufficient funding to the project. However, during consideration of SAFTEA-LU, all of the money for the program was simply earmarked. ATA looks forward to working with this Committee, as well as with the entire Congress, to establish a merit-based process for PNRS project selection.

Intermodal Trucking-Maritime Container Transportation

The explosive volume in global container trade moving through our maritime ports system comprises the largest growth component in domestic intermodal transportation. Unfortunately, in addition to the almost universal challenges of limited funding, land resources and environmental impacts that confront most transportation expansion and improvement projects, system-wide institutional operational inefficiencies affecting port intermodal trucking traffic continue to restrain much needed, cost effective freight capacity improvements. Moreover, these unnecessary operational inefficiencies serve to misallocate scarce driver resources which are obviously necessary to move ever increasing freight volumes.

Because intermodal stakeholders, i.e., trucking companies, railroads, port terminal operators and foreign-owned ocean carriers are of unequal size and economic influence, the truckers' larger "partners" very often dictate the business terms and procedures of truckers' day-to-day operational activities pursuant to the terms of the industry's standard interchange agreement (the Uniform Intermodal Interchange and Facilities Access Agreement-UIIA). The UIIA provides operational provisions for the non-commercial aspects of the marine, rail and motor carrier container and chassis interchange, leaving the commercial aspects (rates, per diem, free time, demurrage, equipment loss and repair, etc.) to individual contract addenda drafted by the marine and rail carriers and issued to participating motor carriers.

Given the size and economic disparity referenced above, these operating agreements are offered to motor carriers on a basically "take it or leave it" basis...do it our way or do no business! As a consequence, it is unfortunately common for the ocean carriers and railroads to make decisions that are beneficial to their respective operations but otherwise often add significant and unexpected time and financial costs to the trucker, as underscored by the recent, almost uniform increases in container related fees, per diem charges, fuel surcharges and reduction in container storage-free times, etc. that have been instituted across the nation's intermodal network. These operational edicts imposed by our intermodal "partners" adversely impact motor carrier financial performance and cause well documented scarce driver resources to be inefficiently deployed and often poorly paid. The fact that these often one-sided operational requirements are imposed by foreign owned ocean carriers and some terminal operators that operate under the protection of antitrust exemptions granted pursuant to the Shipping Act of 1984 also is a major concern of the intermodal trucking industry since we are prohibited from similarly meeting and discussing costs and operations that might otherwise serve to better balance the playing field.

ATA's Intermodal Motor Carriers Conference (IMCC) is working with industry groups and federal and state legislative and regulatory entities to identify and discuss these operational problems, and to, where necessary, rewrite the existing industry agreements to better define and more fairly balance the working relationships and responsibilities of the intermodal transportation stakeholder participants.

Intermodal Equipment Roadability

Establishing clear federal requirements regarding the overall safety, i.e. "Roadability" of the 750,000 plus container carrying chassis that move on America's highways, has long been a critical concern of the intermodal motor carrier industry. We are most grateful for the work and commitment of Chairman Young and many other members of this Committee which led to the inclusion of SAFETEA-LU Section 4118 – Roadability -- which finally addresses this most important safety and fairness issue.

Historically, the intermodal trucking industry's "chassis problem" centered on the fact that while this equipment is owned by the ocean carriers or railroads, these equipment providers and particularly ocean carriers do not systematically repair and maintain this vital equipment. They do, however, routinely require that truckers pay for chassis repairs even when the needed repairs are a function of normal wear and tear or the deferred maintenance practices of the equipment owners. However, once the expected Roadability regulations required by Section 4118 are issued by the Federal Motor Carrier Safety Administration to implement the new law, ocean carrier and other chassis-equipment providers will be legally responsible for systematically maintaining intermodal chassis. DOT will also have authority to inspect intermodal chassis and take out of service equipment which fails to comply with applicable safety regulations. Moreover, chassis deficiencies identified during highway-roadside inspections will now be charged to the equipment provider, not the truck driver as has historically been the practice.

On a cautionary note, given the safety and efficiency improvements that will clearly be generated by the promulgation of the Roadability regulations, ATA is concerned that FMCSA has just recently announced that release of the regulations has been delayed yet again until October, 2006 at the earliest. Considering that the congressional mandate was to have the proposed rules published in December, 2005, we believe Congress should urge the agency to redouble its efforts and move the internal development and approval process along with a much greater sense of urgency.

Port of Virginia Successes

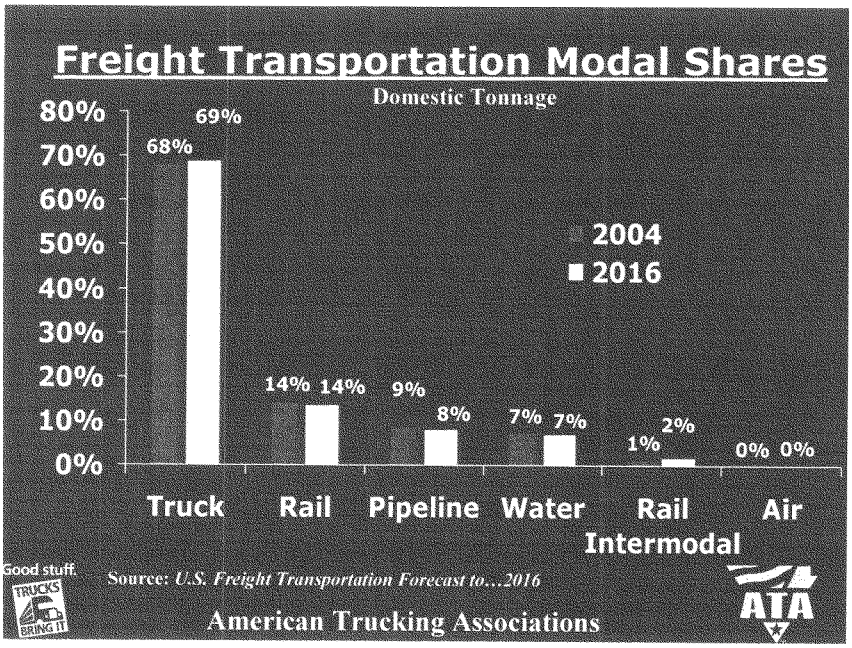
ATA and its intermodal conference would also like to take this opportunity to publicly thank officials at the Port of Virginia and the Virginia Port Authority for their leadership role in establishing port-wide efficiency improvements which have greatly streamlined and improved container intermodal interchange operations. The Hampton Roads Chassis Pool, which allows truckers to maximize their available hours-of-service time by using-keeping the same chassis for multiple container interchanges through out the entire port complex is now being studied and, at least in part, replicated by other port facilities and

container terminals around the country. Importantly, Virginia port officials included the motor carrier community in all of their initial planning processes and as a result went beyond direct equipment pooling issues to address many trucking interchange operational practices and procedures that have previously been ignored or neglected by the port and terminal industry. As a result of this "all inclusive" approach to port management, changes implemented at Port of Virginia facilities now serve as an industry benchmark because they have greatly improved overall system efficiencies for all intermodal stakeholders and significantly reduced the number of chassis needed to support port operations and provided motor carriers with safer, better maintained and much more reliable container hauling equipment. In an industry historically managed with the silo mentality of "what's good for my operations", Virginia's now proven inclusive approach will hopefully launch a new era in port management cooperation and provide the efficiency improvements needed to meet the growing demands of global trade upon which American consumers depend.

Summary

ATA wishes to thank the Subcommittee for the opportunity to present its views on intermodalism and the role it can play in America's freight distribution system. I would be happy to answer any questions you may have.

Attachment 1



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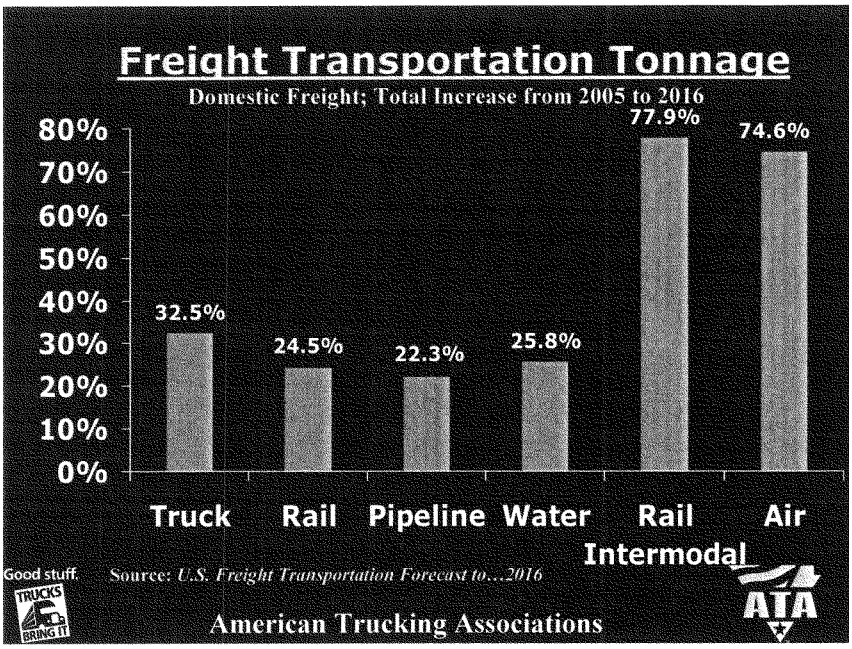

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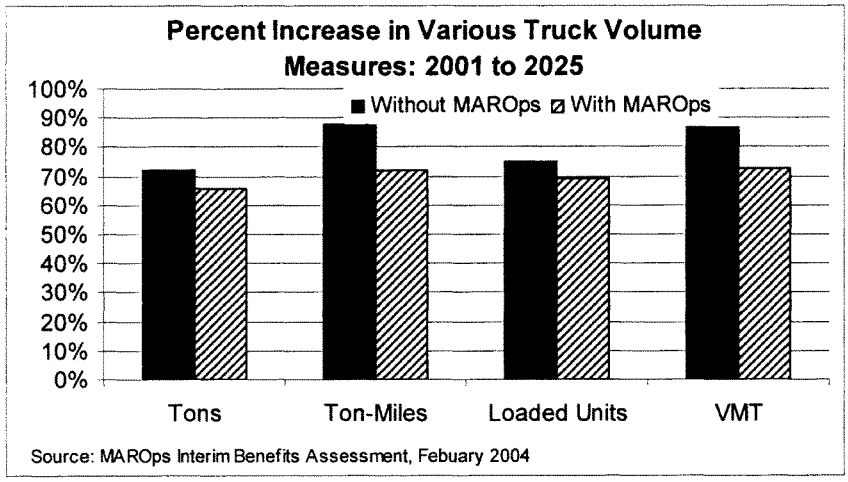


Intermodalism: Hiawatha Light Rail Transit Line and the Minneapolis-St. Paul International Airport

Presented to the Highways, Transit, and Pipelines Subcommittee of the House Transportation and Infrastructure Committee

U.S. House of Representatives

June 15, 2006

by

Peter McLaughlin
Commissioner, Hennepin County, Minnesota
Chair, Hennepin County Regional Railroad Authority
Chair, Metro Transitways Development Board

Introduction

The Hiawatha Light Rail Transit (LRT) line is Minnesota's first LRT line, and the first rail transit line in the state since 1954. Revenue service began June 26, 2004, linking downtown Minneapolis to the Fort Snelling park-and-ride lot. The line was completed December 4, 2004, when the section from Fort Snelling through the Minneapolis-St. Paul International Airport to Mall of America in Bloomington opened. The line is 11.8 miles and contains 17 stations and operates in the cities of Minneapolis and Bloomington and the Fort Snelling complex.

Hiawatha LRT is owned and operated by Metro Transit, an agency of the Metropolitan Council, a seven-county regional planning agency appointed by the Governor with responsibility for regional planning and operation of the metropolitan sewage treatment facilities and the regional transit system. Officially designated Route 55, the light rail line is part of Metro Transit's network of local, limited stop, and express buses. Connections to buses can be made at 13 of the line's 17 stations.

The Hiawatha Line has been a tremendous success both quantitatively and qualitatively. In less than two years of service, it has become Metro Transit's most heavily traveled route, now carrying over 10 percent of all Metro Transit riders. Ridership on the line has consistently and significantly exceeded official projections. Ridership in 2005 was 7.9 million, 58 percent above pre-construction estimates (Source: Metro Transit). Ridership has continued to greatly exceed projections in 2006. According to a recent survey, 52 percent of LRT riders are new to transit since Hiawatha opened (Source: Metro Transit Periscope Survey).

The qualitative response has been equally strong. In a recent survey of LRT riders, 93 percent agreed or strongly agreed with the statement: "I am satisfied with Metro Transit Service." In summary: People enjoy the ride; they enjoy the experience; and they want to know when additional lines will be built to allow them to travel to other parts of the region.

The follow chart summarizes the means by which LRT riders are getting to the train and makes a strong case that intermodalism is alive and well on the Hiawatha Line:

How LRT Riders Got to the Train	Percentage of Riders
Driving to Park-and-Ride	45%
Taking a Bus	23%
Walking	16%
"Hide & Ride"	9%
Dropped Off	4%
Bike	3%

Source: Metro Transit

My comments will concentrate on the intermodal aspects of the Hiawatha Line's service to Minneapolis-St. Paul International Airport, while also providing an overview of the Line's history from the perspective of policy, institutional relationships, funding sources, and construction challenges.

While this line is receiving much attention for its success to date, the true measure of success will be its ability to inspire residents, elected officials, the business community, and community organizations to embrace a fully intermodal vision for transportation in the Twin Cities metropolitan area.

The Role of Intermodalism in the Vision for the Hiawatha Line

The opening of the Hiawatha LRT Line was the culmination of a 40-plus-year struggle to bring a multimodal approach in the Highway 55 Corridor, arguably before the term had been invented. This effort by elected officials, policymakers, the business community, and, most significantly, citizen advocates, quickly became tied to an effort to restore rail transit in the Twin Cities.

By the mid-1990's, momentum was growing for a light rail line. Originally envisioned as a six-line freeway in a trench with four lanes of frontage road, the Highway 55 project had evolved into an at-grade, four-lane road with access and turns at some intersections, complemented by LRT. The highway was funded and under construction, but there was no viable plan to construct the parallel LRT line envisioned when residents shook hands on an agreement for the corridor with the State Department of Transportation in 1985.

I am pleased and proud of the leadership role that the Hennepin County Regional Railroad Authority took in advocating for LRT. Our partners included the business community of Minneapolis, Bloomington and St. Paul, which was instrumental in securing the initial state funding and commitment in 1998, during the administration of Governor Arne Carlson, and county railroad authorities from around the region. The subsequent state administration of Governor Jesse Ventura continued to provide support and funding. The Federal Transit Administration (FTA) entered into a full funding grant agreement for the project in 2001.

The primary arguments for the Hiawatha LRT Line were that the line would:

- Connect the four largest economic generators in the state: Downtown Minneapolis, University of Minnesota, Minneapolis-St. Paul International Airport, and Mall of America;
- Be the first rail transit line in the state and would be the catalyst for a comprehensive system of transitways in the metro area;
- Encourage economic development along the corridor;
- Provide the comfort and speed to encourage auto users to convert some of their auto trips to transit;
- Slow the growing traffic congestion and relieve pressure to build more lanes and parking facilities in the urban core;
- Improve air quality and save energy.

Intermodal connectivity was an important part of Hiawatha's design and success. While this report will concentrate on the connections at the airport, intermodalism has become a concept influencing all transportation projects proposed in the metro area. The following intermodal features of the Hiawatha Line provide insight into the possibilities for seamless connections throughout the region:

- Bus: Hiawatha LRT provides free transfers to buses operating in the region at 13 of the 17 stations. Many of the traditional routes serving south Minneapolis were re-routed to serve as feeders to the LRT. This sometimes necessitated a transfer not previously required, but in the vast majority of cases, it cut the total travel time and improved overall access. Numerous bus routes are also connected at the four stations in Downtown Minneapolis. Transit hubs at the 46th Street Station and Mall of America provide service radiating out into neighborhoods, bordering cities and the suburbs. The single biggest problem with use of the bus as a feeder is the lesser frequency of the buses compared to the trains, especially during rush hour. Seven-and-a-half minute rush hour headways on the LRT encourage ridership. Twenty- or thirty-minute headways for the buses that would take you from the train station to your home do not.

  Another continuing issue is the lack of support from the Metro Council for a circulator bus system in Downtown Minneapolis that had been promised during the design phase of the LRT. This addition to regular Metro Transit service would provide enhanced connectivity to key locations in Downtown Minneapolis.

  Finally, I'm proud to say that in my earlier life as a State Representative in the late 1980's I co-authored an amendment that required that Metro Transit operate any LRT line built in the region. This policy has reinforced the close operational linkage of the bus and rail systems and avoided unnecessary and unproductive conflicts. It is a cornerstone to successful intermodalism in the region.

- Biking: There are bike racks on every LRT vehicle, an innovation that came directly from the Line's citizen participation process. A bikeway runs parallel to Hiawatha

Avenue in Minneapolis, and popular east-west bikeways like the Midtown Greenway connect at the Lake Street/Midtown Station. The Minnehaha Creek Trail connects riders at the 50th Street/ Minnehaha Park Station to an array of bikes trials into Dakota and Ramsey Counties. Fifty-four bike lockers at nine Hiawatha LRT stations are available for rent, complemented by outdoor bike racks at many of the stations.

Creation of bike paths in and around the airport has been difficult because of the size and security issues associated with the airport. It is our hope that the recently funded federal pilot project lead by Transit for Livable Communities, Nonmotorized Transportation Pilot Project, will provide even great impetus for bicycle and pedestrian connectivity and a mode switch from the automobile to bikes and transit. We appreciate the leadership of the House Transportation Committee in making this possible.

- Luggage racks on every LRT vehicle, provided with the airport user in mind.

- ADA Accessibility: Though not always incorporated in the definition of intermodalism, accessibility beyond full compliance with the Americans with Disabilities Act (ADA) was a major success of the Line. This benefits not only those with disabilities but parents pushing baby strollers, seniors and others.

- Automobiles: There are two major park-and-ride lots with over 1,800 spaces serving the south end of the line and plans for 900 more due to the heavy usage since their opening. Also, a smaller park-and-ride facility of 250 spaces is available at the Lake Street/Midtown station, serving the busy Lake Street corridor in the city of Minneapolis. No overnight parking is allowed, and the lots are monitored by Metro Transit police on a daily basis. They are an important source of riders of the LRT.

  There are unintended consequences to being close to the LRT Line. Two major institutions with LRT stops, Mall of America and VA Medical Center, have experienced parking spaces taken up by LRT passengers. Both are close to official park-and-ride lots, and both actively discourage such parking.

Some neighborhoods in Minneapolis are dealing with a problem with another form of intermodality, "hide and ride," i.e., people driving as close to a station as possible and parking. During the planning of the Hiawatha Line, the City of Minneapolis decided to bar any park-and-ride lots in the city (the park-and-ride spaces at Lake Street utilize existing parking in cooperation with property owners). Large parking lots were contrary to the City's vision of transit-oriented development near the stations. Some homeowners are frustrated by the loss of parking on their street (though I am not among them despite having people park in front of my house every day). This is an aspect of multimodalism that needs to be managed in ways from parking enforcement, limitations on length of parking, permit parking, and construction of additional parking-and-ride facilities in conjunction with nearby developments.

- Walking: Hiawatha Avenue is wide. It is paralleled by an active freight line that historically served a number of large grain mills and elevators. Most of these are now inactive, but they remain a large, looming physical presence on much of the east side of the line. Thus, while many of the Hiawatha LRT stations are easily reached on foot, the historic environment is far from friendly to pedestrians.

  Efforts are ongoing in conjunction with neighborhood organizations, the cities of Minneapolis and Bloomington and business interests to improve the pedestrian environment. This is a major undertaking. A number of re-development plans are in the works. Hennepin County has provided station area planning grants to assist the neighborhoods in articulating their vision for the future, a vision that can now confidently incorporate the LRT line after literally 40 years of uncertainty about the nature of the transportation infrastructure. The County and City have also worked together to make investments in the pedestrian realm: lighting, signs, better sidewalks, etc. This is major undertaking. We are literally trying to move from an auto-oriented urban design to one inspired by transit and the other alternatives in an urban setting.

- Commuter Rail and other Transitways: Northstar Commuter Rail is planned to enter service in 2009, and the Hiawatha Line will be extended to meet these trains at a new multi-modal station. The Hiawatha Line will also provide a seamless connection to the planned Cedar Avenue Busway which will serve a fast-developing suburban area south of the Minnesota River and connect with the LRT at the Mall of America.

- Taxis: This remains a work in progress. It's fair to say that we are not a taxi-oriented community. Further work is needed to coordinate municipal regulation, particularly location of taxi stands, with stations.

- Airport: Finally, strong integration of Hiawatha LRT with the Minneapolis-St. Paul International Airport (MSP).

Institutional Relationships: the Partnerships Formed in Order to Design, Build, and Finance the Hiawatha LRT Line, Especially the Airport Component

Many agencies had a stake in Hiawatha LRT and in its success in providing multimodal connections with Minneapolis-St. Paul International Airport:

- Metropolitan Airports Commission (MAC), owner and operator of the MSP.
- Hiawatha Project Office (HPO): representatives from Metropolitan Council; Metro Transit; Minnesota Department of Transportation (MnDOT); Minnesota Transit Constructors, the engineering company awarded the design-build contract; and various engineering consultants;
- Metropolitan Council, the state agency responsible for transportation and planning in the 7-county metropolitan area;
- Metro Transit, the transit operator, which is an agency of the Metropolitan Council;
- Minnesota Department of Transportation (MnDOT);

- Federal Aviation Administration (FAA);
- Federal Transit Administration (FTA);
- Federal Transportation Security Administration (TSA); and
- Hennepin County.

The Hiawatha Project Office was created to bring representatives of all involved state agencies under one roof. The spirit of the office structure was to foster a seamless or "boundary-less" culture with everyone's focus on the success of the project. While the project office succeeded in establishing this cooperative spirit, people were physically removed from their home agencies. The challenge of maintaining professional relationships with peers and resolving conflicts when the project office and home agency disagreed were important issues at the time, and offered important lessons for future interagency projects.

Critical new working relationships needed to be developed and fostered elsewhere. MAC and HPO needed to assist each other in the LRT component at the airport. MAC insisted on responsibility for design and construction of the airport portion of the line, while assuring a timeline consistent with HPO's overall responsibility to FTA to open the line by December 2004.

Likewise, the FAA and FTA needed to develop new working relationships. Both are part of the U.S. Department of Transportation, but, in my experience on this project, they operated quite independently of each other. They had developed different cultures over the years, but now had to deal with a project affecting both of them. Some massaging was necessary to create common language and timelines. The lessons learned should benefit future projects, as intermodalism will require agencies to adopt institutional cultures which foster seamless connections, rather than barriers.

Financial Contributions: the Stakeholders who Funded the Hiawatha LRT Line

The interagency cooperation needed to build the Hiawatha Line is reflected by the number of agencies who contributed to the capital costs (dollar values are in millions):

• FTA New Starts	$334.3	46.7%
• FHWA and FTA Congestion Mitigation and Air Quality	49.8	7.0
• State of Minnesota Capital through Bonding Bill	100.0	14.0
• Minnesota Department of Transportation	20.1	2.8
• Metropolitan Airports Commission*	87.0	12.2
• Hennepin County Regional Railroad Authority	84.2	11.8
• FTA Formula Grant, MOA Property Donation, and Locally Funded Betterments	39.9	5.6
• Total	$715.3	100.0

(*The Metropolitan Airports Commission's share covered the cost of construction of the two stations and portion of the cost of the tunnel.)

Design and Construction Challenges of the Hiawatha LRT Line at the Airport

MAC insisted on control of the project at MSP due to the complexity of project, including building tunnels under two active runways, fear of disruption of airport operations, and a desire to fully integrate the project into the workings of the current airport and plans for the airport in the future.

MAC had a proven record and vast institutional experience in designing and constructing large infrastructure projects. MSP handled over 37,000,000 arriving and departing passengers in 2005 at two terminals; has four runways; contains a large maintenance facility for Northwest Airlines (NWA); provides facilities for the Minnesota Air National Guard; maintains large parking deck facilities; operates two tram systems to connect Lindbergh Terminal with parking and distant gates; and provides cargo facilities for carriers like FedEx and UPS.

Dialogue among the interested parties led to an agreement for a parallel effort where MAC would let its own contract and oversee LRT construction at the airport, while HPO awarded a contract for design and construction of the rest of the line.

MAC managed the acquisition of a tunnel boring machine from Europe. This machine bored two tubes, each 7,400 feet long. Cut-and-cover sections at the north and south portals make each tunnel 8,320 feet long, the longest tunnels in the state. The depth of the tunnels reaches 70 feet below grade, achieved for the site of the Lindbergh Terminal Station. The tunnels were bored and trains now operate under two active runways which handle the majority of the airport's takeoffs and landings. This approach eliminated surface transport conflicts with the LRT in and around the main terminal.

The Lindbergh LRT station is not directly under the terminal, a source of some controversy at the time of the decision. In the end, proximity to the terminal was balanced with cost, because of the expense that would been associated with moving a large concentration of existing utilities near the terminal. A convenient connection is provided to an internal airport tram that connects to the main entrance, the ground transportation hub, auxiliary Northwest Airlines check-in (including baggage) and other key elements of the airport. LRT passengers are as close to the terminal when arriving at the Lindbergh station as many people who arrive by car and park in an airport ramp. Moreover, three short escalator rides from the LRT station is an auxiliary Northwest Airlines check-in and security gate for passengers with only carry-on bags. I can say from personal experience, including my trip here last night, that for the business traveler or light traveler, it is extremely convenient.

As it turned out, the more remote location of the station, the depth of the tunnels, and the strength of materials used help protect the terminal and runways, and also enhanced the security of the airport, a heightened concern that arose part way into the design process.

Because security concerns were taken seriously from the outset, the line was able to proceed without major disruption.

The LRT connection at the airport's second terminal, the Humphrey Terminal, remains a work in progress, because of postponements to scheduled terminal improvements. Until those improvements are made, the above ground station will remain somewhat removed from the facility and require a "bit of a hike," as we say, some of which is outdoors. This is hardly a fatal drawback, but it does illustrate the complexity of keeping on track all the elements needed for intermodal success.

Hiawatha LRT: Ridership Figures and Trends

Overall, patronage of the Hiawatha Light Rail has exceeded forecasts since the full line opened in December 2004. In 2005, Hiawatha LRT carried 7.9 millions passengers, 58 percent above pre-construction estimates.

For the latest full month of operation, May 2006, the following figures were reported by Metro Transit:

Actual Ridership:	841,846
Forecast Ridership:	590,118

Actual ridership was 41 percent greater than forecast.

Long-term performance was even more encouraging. Average weekday ridership has consistently exceeded projections for the year 2020 and beyond.

Average Weekday (22 days):	29,307
Average Saturday (4 days):	25,739
Average Sunday/Holiday (5 days):	18,825

On an individual station basis, LRT passenger figures in August 2005 showed the Lindbergh Terminal station as the third-busiest on the line with 11.4 percent of the line's passengers boarding or disembarking there. This compares with the busiest station, Mall of America, at 13.6 percent, and second busiest, Nicollet Mall in downtown Minneapolis, at 13.5 percent. The average weekday patronage at the Lindbergh Terminal that month was 3,425.

Free rides between the two terminals, running 24 hours a day (the overall system runs 21 hours a day), have been a benefit to the airport, as the LRT service replaced a shuttle bus. The Metropolitan Airports Commission estimates the elimination of the shuttle bus saves it over $1 million annually and reduces road usage on airport property.

LRT passengers at the airport can be described as belonging in one of the following categories:

- Airport employees: airline employees; vendors; and Transportation Security Administration employees. Many operations occur around the clock, so the LRT's 21-hours-a-day scheduling is a benefit to many of these workers;
- Travelers: out-of-town visitors as well as Twin Cities residents are discovering the convenience and affordability of the LRT ($2 fare in rush hour to any stop on the line, and free transfer to other Metro Transit services, with riding privileges of 2.5 hours on one ticket). Shuttle buses and taxis are much more expensive. For example, the shuttle from MSP to downtown is $14 one way; a cab ride is $30. An issue which still needs to be addressed, in my estimation, is inadequate signage in the Lindbergh Terminal to inform arriving passengers of LRT service and directions to the station.
- Mall of America visitors: passengers with long layovers at the airport can make a trip to Mall of America for shopping or a meal within the 2.5- hour time limit of one LRT ticket. Travel time from Lindbergh Terminal to Mall of America is 11 minutes.
- Shuttle passengers between Lindbergh and Humphrey Terminals: some of these passengers are connecting between airlines, but most are airline or airport employees who park at the large parking facility adjacent to the Humphrey Terminal and ride the LRT to the Lindbergh Terminal.

A Case Study in Intermodalism: The Reflections Condominium Project at Bloomington Central Station

One of the visions Hiawatha LRT supporters embraced was the ability of the line to be a catalyst for economic development. A project that dramatically demonstrates this vision is the Reflections, a condominium complex under construction next to Bloomington Central Station, the first station south of the airport. From Bloomington Central, an LRT ride takes six minutes to Mall of America, six minutes to the Lindbergh Terminal, and 30 minutes to Nicollet Mall in the heart of downtown Minneapolis. Prior to Hiawatha's opening, there was no transit service in this part of the city of Bloomington.

Phase I of the Reflections development is a pair of 17-story glass tower condominiums. There are 275 units, with an average selling price of $250,000. The developer, McGough, has dramatic plans for a mixed-used, transit-oriented development that, in their own estimation, increased in scope by more than 30 percent because of the presence of the LRT line. To enhance the connectivity of its development, McGough invested $1 million of its funds in the LRT station and pathways leading to it. This is a dramatic testimonial to the power of the LRT to stimulate development supportive of intermodalism. It is an experience that is being repeated up and down the line.

Marketing of the Reflections condos emphasized directly the benefits of "the train at your front door" and the ease of traveling the Hiawatha Corridor. Sales to date reflect the importance of the Hiawatha Line, but it is the line and its connection to the airport that

has been the compelling factor for buyers. According to the marketing team at McGough, sales have been strong among three groups:

- Young professionals, ages 25-35, who travel often for business;
- Northwest Airlines pilots. While sales have been soft during the airline's bankruptcy and reorganization, this group has discovered the location to be ideal for airport access;
- Upper-income individuals and couples who want a residence in the Twin Cities while maintaining a residence elsewhere in the country.

McGough marketing people have expressed some surprise that the intermodal connection between LRT and the airport has been the driving force for so many of the sales, and that the development appeals to people across all age groups. The Reflections project has become a good case study of the positive power of intermodalism in the marketplace.

Four Key Lessons Regarding Intermodalism
at
Minneapolis-St. Paul International Airport

1. Connectivity is at the heart of successful intermodalism. It must be incorporated into all modes of transportation and other related areas of infrastructure investment if we are to take maximum advantage of our infrastructure investments.

2. It takes a lot of hard work at both the local and federal levels to achieve effective intermodalism. Locally we generated a spirit of teamwork and cooperation among MnDOT, Metropolitan Council, and Hennepin County and build relationships with (non-funding) the cities of Minneapolis and Bloomington. Federally, while the FTA and the FAA are both in the Transportation Department, they often speak different languages, have different cultures and procedures and their own lawyers to enforce them. The addition of heightened security concerns and another federal bureaucracy only adds to the complexity and the potential costs. Without strong, consistent leadership from the top across agencies, effective intermodalism will not be attained.

3. Integration of rail design into the airport master plan is critically important. My suggestion would be that airport renovation plans fully incorporate robust intermodal transit connections, even if no major investment is anticipated in the next few years. It is essential to keep open the possibility for these critical future connections. Just as we sometimes make sure a river crossing has sufficient capacity for future expansion or inclusion of rail, airports must do the same.

4. And finally, intermodalism is part of a broader set of policies affecting the pace, placement and type of development that occurs in a region. A robust intermodalism can reinforce the land use goals of the community and allow for

more intense and more efficient use of infrastructure. Transportation and growth strategies must be tied together. This strategy can produce big payoffs in avoided infrastructure costs and enhanced infrastructure effectiveness.

How the Key Lessons at the Airport Played Out on the Hiawatha LRT Line

1. Organizationally, control of LRT construction by the MAC on airport property gave MAC sufficient confidence to proceed. It assured the MAC of no down time for any of its operations and total control over the details of a complex construction project.

2. MAC's financial contribution to the Line produced real benefits to the airport, over a million dollars annually in savings on internal airport travel alone. It also avoided the twin threats of a non-airport agency under-designing elements critical to the success of the airport or, conversely, of the MAC gold-plating its request because it had no financial responsibility. Just as the FTA's firm budgetary number for the overall project imposed needed discipline, so too did the MAC's financial contribution. Splitting of contracts of this kind is not without its problems, but on balance, this arrangement proved very effective.

3. Security is yet another issue where control by MAC created significant advantages because of the fuller integration with its other security activities.

In summary, the lessons learned should benefit future projects. Effective intermodalism will require seamless transitions among agencies to the same degree that the physical systems provide seamless transitions among modes. Significant effort will be required to succeed but it will be well worth the price, now and into the future.

STATEMENT of Rep. JON PORTER (R-NV)
House Transportation and Infrastructure Committee
Subcommittee on Highways, Transit, and Pipelines
June 15, 2006

Mr. Chairman, I thank you for holding this hearing today on intermodalism.

Southern Nevada is one of the fastest growing regions in the country with 5,000 new residents a month. This unrivaled growth combined with the more than 45 million tourists that visit Las Vegas each year, presents a unique challenge when addressing the transportation needs of today and planning for the future.

Las Vegas is home to 17 of the worlds 20 largest hotels all within a five mile radius. Over 20 new high-rise condominiums and resorts are planed for completion in the next five years. Southern Nevada is also home to McCarran International Airport, which is the 11th busiest airport in the world and the 5th busiest in the United States with over 560,000 landings and takeoffs each year.

The state of Nevada has about 180,000 hotel and motel rooms and thousands more under construction. The Las Vegas resorts employ about 250,000 individuals who represent 50% of the employment in the Las Vegas Valley or 56 jobs per acre. This figure is projected to grow to 91 jobs per acre by the year 2020. In 2005 over 27 million vehicles entered Nevada through the interstate and state highway systems. Over 23,000 vehicles travel through the resort corridor everyday and by 2008 over 30,000 vehicles are expected. For each new hotel room, about 2.3 new auto trips per day occur on the I-15.

Intermodalism is an important aspect of transportation planning and as Southern Nevada addresses the increases in demand associated with rapid growth intermodalism will become an important part of the planning process. In order to develop transportation programs that meet the needs of a growing region it is imperative that local, state, and federal agencies work together and communicate during the decision making process. I look forward to reviewing intermodalism and its role in federal transportation policy.

I am extremely interested in hearing the comments from my fellow subcommittee members as well as the testimony from the witnesses. I yield back

Statement by Rick Richmond
Alameda Corridor-East Construction Authority
Before the House Transportation and Infrastructure Committee
Subcommittee on Highways, Transit and Pipelines
June 15, 2006

"Freight Movement and Intermodalism"

Thank you, Chairman Petri, Ranking Member DeFazio, and members of the Subcommittee. My name is Rick Richmond and I am the Chief Executive Officer of the Alameda Corridor-East Construction Authority (ACE).

I would like to begin by thanking the Members of this Committee for their leadership on the SAFETEA-LU legislation and your support for the ACE Project. We were very proud to be included as a Project of National or Regional Significance and all that distinction demonstrates. We believe that it was an appropriate action by the Committee as the ACE project truly addresses national and regional needs, as well as meets the criteria set forth by you in the bill.

Today, I want to provide the Subcommittee with a description of the solutions we have employed to address freight congestion, the intermodal approaches we have used, and what has been completed to date.

The ACE Project I oversee is located in the San Gabriel Valley section of Los Angeles County. Our valley includes 31 cities, about two million residents, 750,000 jobs and 66, 000 employers. We lie immediately to the east of the Alameda Corridor and the I-710 freeway which together carry virtually all of the container traffic going to and from the Ports of Los Angeles and Long Beach. The ACE Project is a link from the Ports of Los Angeles and Long Beach to the rest of the nation and was expanded in SAFETEA-LU to cover 282 miles of mainline and three adjacent counties (San Bernardino, Riverside and Orange).

Today, more than $200 billion in trade, or 40% of the nation's goods, make their way to or from the rest of the nation through our ports and metropolitan area. Economists have determined that two million jobs are created nationally (600,000 locally) by trade through these ports.

International trade and the movement of its goods is, by definition, intermodalism. Goods come and go through our ports on ships, the newest generation of which carries 5,000 containers. The preferred mode of landside transportation for these containers in our case is about evenly split between truck and rail as dictated by distance to their ultimate destination. Generally speaking, goods coming or going within about 500 miles are most efficiently moved by truck, the rest rail. However, far more than 50% of the containers start their trip from the piers by truck since there simply aren't enough on or near-dock facilities to make up trains at the ports, and some containers go through trans-loading before leaving the metropolitan area in any event. So the goods movement system, even working at its optimum

efficiency, is dependent on all components of the transportation system—roads, bridges, freeways, and rail.

International trade will no doubt continue to be debated here in Washington, but for us it is a fact of life. We both benefit and suffer from it. It has been the largest source of job growth in our regional economy--more than 600,000 jobs in Southern California. We, like the rest of the nation, benefit from access to the world's markets. But we are also experiencing worsening air pollution — especially in the immediate ports area and along major freight corridors—and freight related congestion spreads out from the ports north and east to the far reaches of the metropolitan area.

The productivity of rail for container transport is obvious. In our area, trains of up to 8,000 feet in length can be accommodated from the ports eastward. On a double stack train, that equates to about 250 trucks hauling containers. But there are practical problems in achieving the full productivity of rail. The transportation facility which bears the biggest brunt of influx of container traffic, and the most vulnerable link in our goods movement chain, is the southern half of the I-710 freeway. It is the prime route leaving the ports to connect to a series of east-west freeways and large rail classification yards. Not only should it handle the bulk of the 50% container traffic best moved by truck, it moves most of the overflow container traffic which can't be put on trains at the port but instead goes 20-60 miles for intermediate handling before leaving on rail. Currently, about 37,000 trucks a day crawl along the southern portion of the I-710 mixed in with about 125,000 cars. Truck accidents have increased 17% in three years due to the growth

in freight congestion. Increasing the efficiency and capacity of rail freight is a solution given high priority by southern California transportation agencies since a fully loaded freight train takes 250 trucks off the road.

The containers not trucked to their final destination are moved to the rest of the US by two competing railroads, over routes carrying 80-100 trains per day, predicted to increase to 160 trains per day by 2020. Experts predict there will be a tripling of containers moved from the ports to rest of the nation, even assuming that our sister west coast ports double their capacity.

The Alameda Corridor, which opened in 2002, is the first step toward the more efficient movement of freight through our region. It is a high performance, high capacity rail freight artery running 20 miles from the ports northward to three mainline rail routes heading eastward out of our metropolitan area. It is carrying about 30% of the import and export container traffic. The relative lack of on or near dock rail terminals and the need to move containers off the docks as quickly as possible diverts traffic to the highway, if only for a relatively short trip to a rail terminal. The logic and need for the increased use of the Alameda Corridor is being reflected in a 17% increase in train counts and a 34% increase containers on the Corridor in the past year. Without the Corridor, the bulk of the 7,000 containers it carries on a typical day would not have been moved to or from the ports on rail or, if so, at great disruption and environmental degradation as the trains meandered through the 180 some at grade crossings on the previous three rail routes to the ports. The 55 trains it carries on a typical day move the equivalent of more than 7,000 daily truck trips.

But diverting more traffic onto trains without addressing its impact on areas beyond the Alameda Corridor is no panacea either.

That is where the ACE Project comes in. Our agency combined forces with three other counties--San Bernardino, Riverside, and Orange-- to develop an improvement plan dedicated to the construction of the Alameda Corridor-East Project covering 282 miles of mainline freight intersecting with 130 major arterials delivering goods to market locally. Jointly, we worked together to reduce congestion, improve safety and air quality, and balance the movement of goods to markets nationwide with local economic viability.

The San Gabriel Valley project area that I oversee has 54 at grade crossings along 75 miles of mainline. We currently are experiencing as many as 80-90 trains a day. Some at-grade crossings have up to 30 minute delays now, which will only get worse. That is why the local elected officials in our area adopted a multi-faceted, constrained program to address the safety and congestion problems created by rapid freight train growth. It consists of three main elements:

- Safety improvements to 39 crossings (completed);
- Use of advanced technology to optimally route traffic around blockages (trial application in acceptance testing);
- 21 grade separations (one completed, seven in construction or out-to-bid).

We are appreciative that the Department of Transportation is developing a national freight system policy since foreign trade has increased to a $10 trillion commodity flow. Sustaining the movement of goods is key to securing the nation's economic future and maintaining our competitiveness in world markets. We are a founding member of the Coalition for America's Gateways and Trade Corridors whose goal is to work with your Committee to seek a permanent dedicated funding source for goods movement infrastructure in the re-authorization of SAFETEA-LU.

In California the need for goods movement investment by the State is also getting attention. The Governor and the State Legislature recently passed legislation to put a transportation bond issue before the voters in November which includes $2 billion for goods movement infrastructure investment and an additional $250 million for railroad grade separations.

On the positive side, the goods movement sector is primarily a private, for profit enterprise where business growth will generate increased revenues. Dedicating a portion of that revenue growth to the infrastructure it needs to prosper, or mitigate the impacts it is creating, ought to be possible. The Federal government is one of the beneficiaries of trade growth though increased Customs revenues. In the Los Angeles district this will amount to hundreds of millions of dollars over the coming years. These funds could be used as an incentive to local areas to raise matching funds from the other beneficiaries of growing trade (there are many) to make the investments necessary to accommodate goods movement without doing so at the expense of local residents and businesses.

In conclusion, completion of the ACE Project is vital to the $200 billion in trade going from the Southern California ports to their intended destinations across this country. I believe I have provided an update on projects completed to date and how we are employing intermodal applications to relieve freight congestion in our communities.

Thank you very much for inviting me to share our progress today. I want to thank the Committee for the interest and support you have shown.

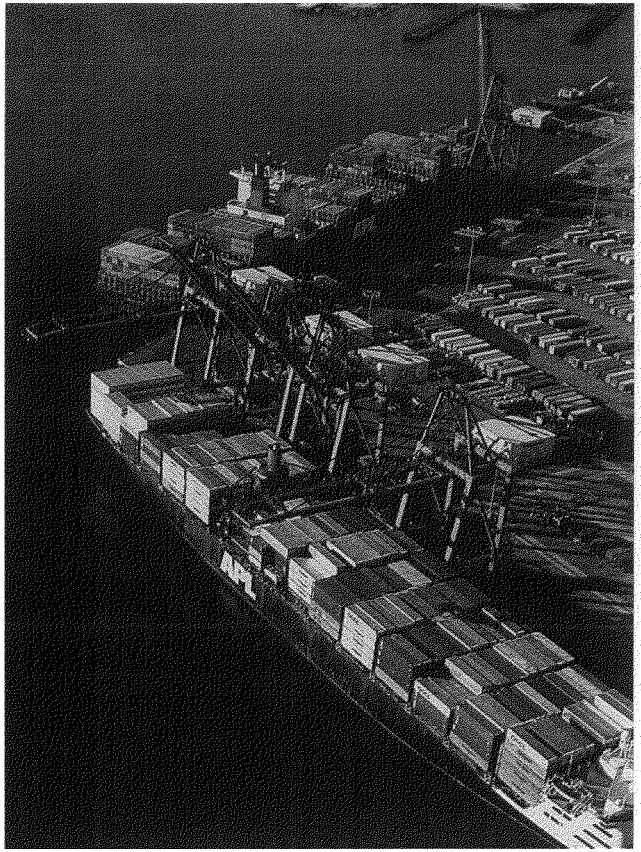
ACE Construction Authority

Highways, Transit, and Pipelines Subcommittee Hearing

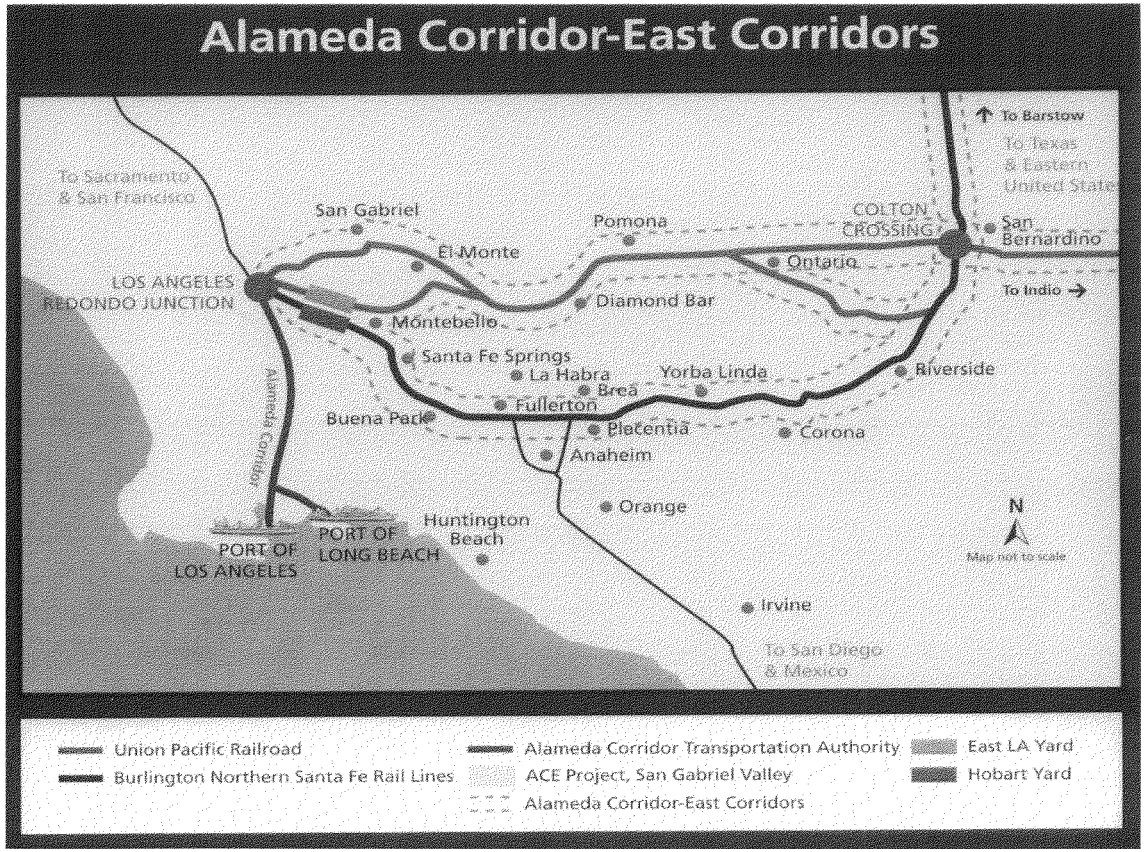
June 15, 2006

Long Beach

Los Angeles



Newest generation of container ship hold 5, 000 containers


Alameda Corridor-East Corridors
To Barstow
To Texas & Eastern United State
To Sacramento & San Francisco
San Gabriel
Pomona
COLTON CROSSING
San Bernardino
El Monte
Ontario
LOS ANGELES REDONDO JUNCTION
Diamond Bar
To Indio
Montebello
Santa Fe Springs
La Habra
Yorba Linda
Riverside
Brea
Fullerton
Buena Park
Placentia
Corona
Anaheim
Alameda Corridor
Orange
Huntington Beach
PORT OF LONG BEACH
PORT OF LOS ANGELES
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Irvine
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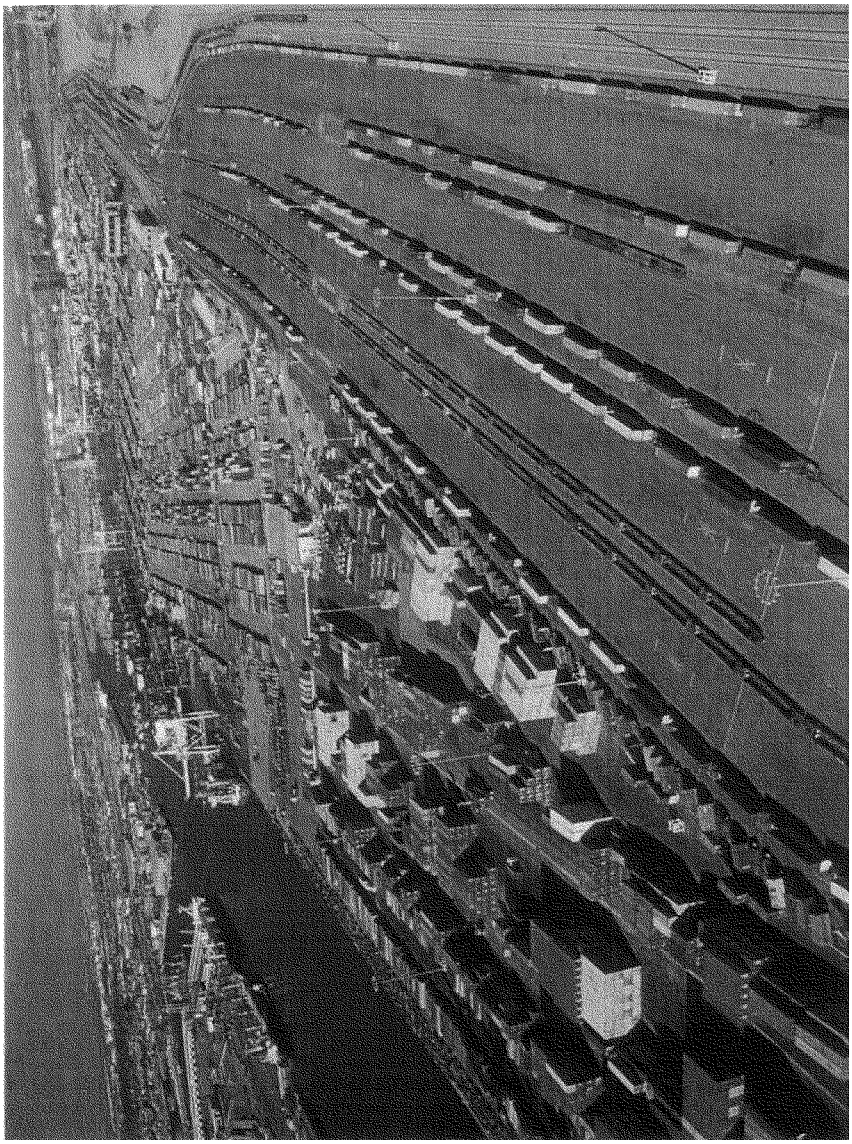
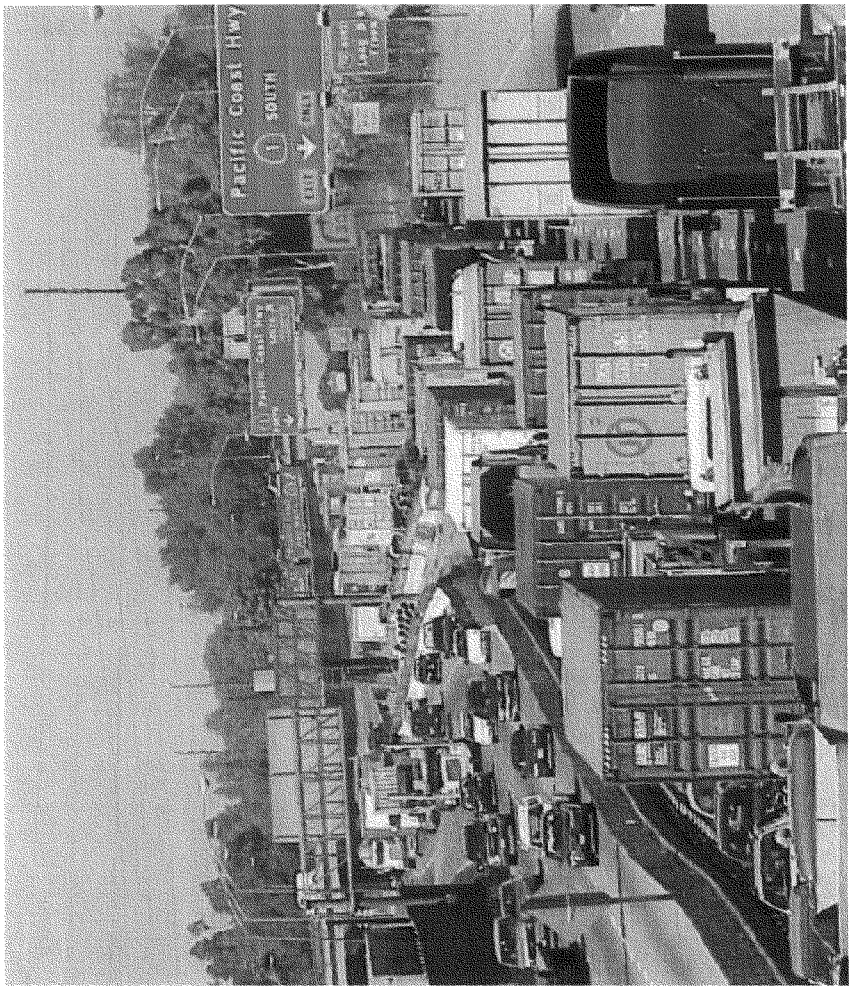
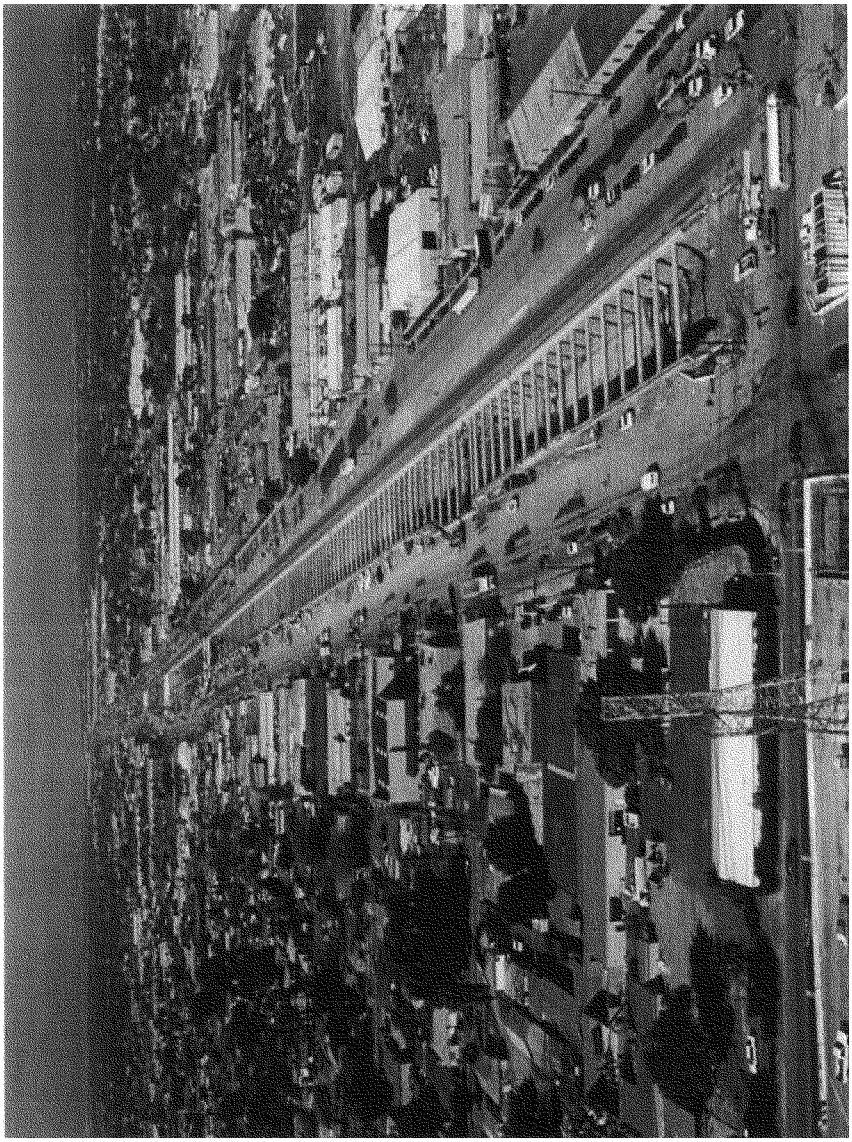
East LA Yard
Hobart Yard



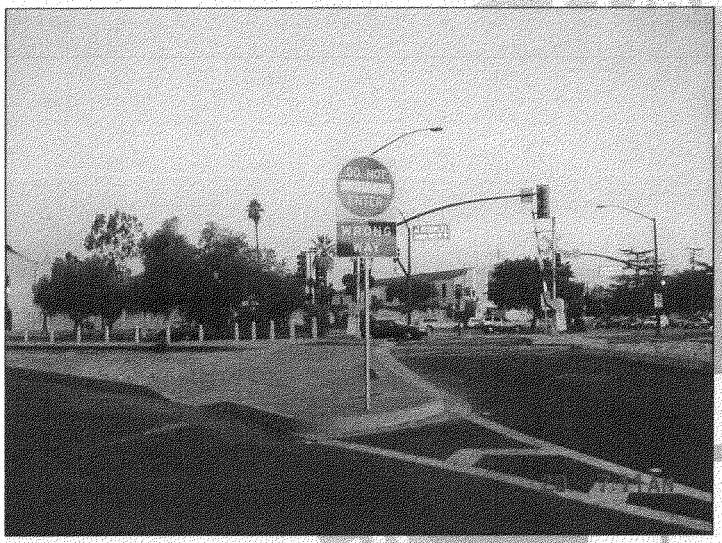

Pacific Coast Hwy
South
1
EXIT ONLY



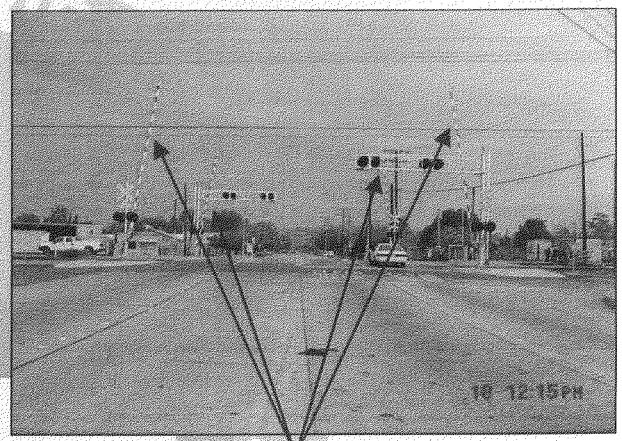
SAN GABRIEL VALLEY ACE PROJECT

- Twenty-one grade separations, safety improvements at 39 crossings, pilot signal synchronization program
- 75 route miles
- Serves area of 2 million residents
- $950 million project
- First half funded

JUMP START PROGRAM



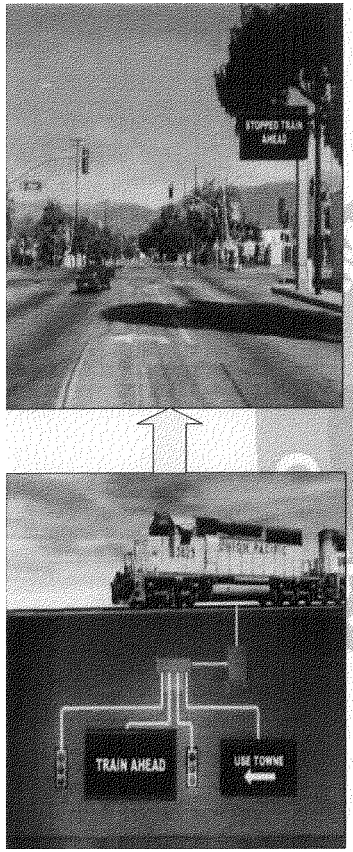
New sidewalks, realigned crossing and better signals improve safety



Quad gates prevent motorist drive-arounds

CONSTRUCTION COMPLETED

- Safety improvements completed at 39 crossings

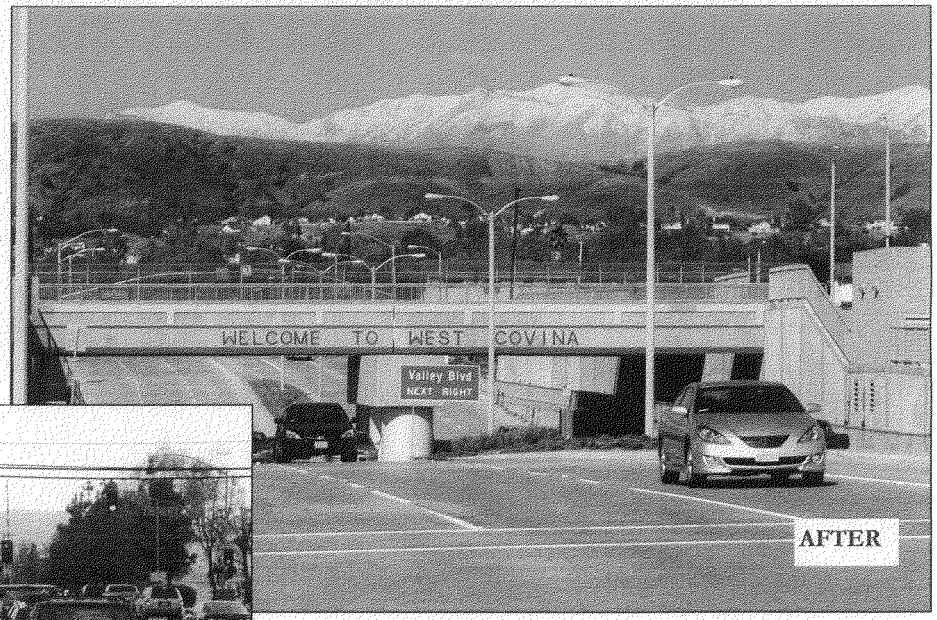


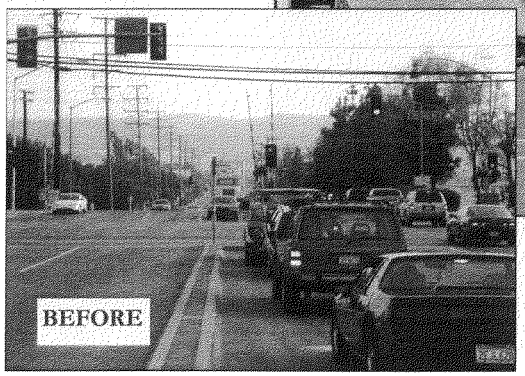
TRAFFIC DIVERSION PROGRAM

Intelligent Roadway/Rail Interface System
(IRRIS)

- Detects slow moving/long trains
- Determines whether rerouting traffic to adjacent grade separated crossings is warranted
- If so, activates variable message signs and adjusts traffic signal timing to facilitate rerouting
- Real time grade crossing information fed directly to emergency service dispatchers

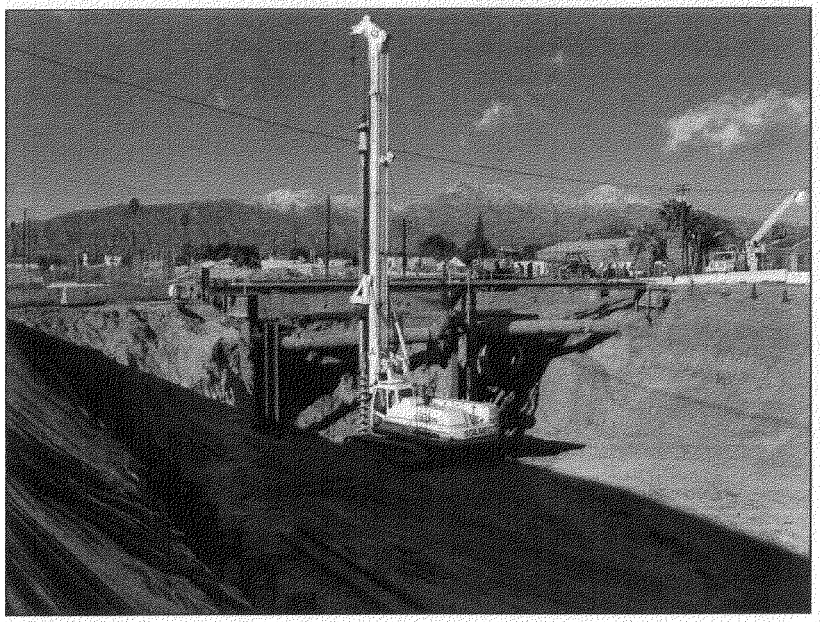
GRADE SEPARATIONS





COMPLETED: Nogales St./Valley Blvd. (West Covina/Industry)

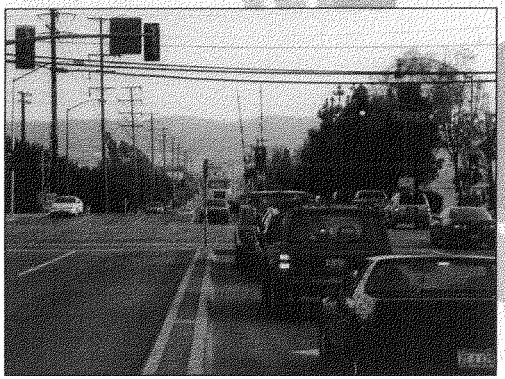
GRADE SEPARATIONS



UNDER CONSTRUCTION

- ✓ Reservoir St. (Pomona) 40% complete
- ✓ East End Ave. (Pomona) -- utility relocations proceeding
- ✓ Ramona Blvd. (El Monte) – 60% complete
- ✓ Temple Ave. Train Diversion (Pomona) – 40% complete
- ✓ Brea Canyon Rd. (Industry/Diamond Bar) – starting construction

ACE TRADE CORRIDOR BENEFITS



- Reduce congestion - - 13,000 daily vehicle hours of delay at 130 crossings
- Improve air quality
- Eliminate horn blowing at 130 crossings
- Preserves 400,000 jobs
- Grade crossing accidents eliminated

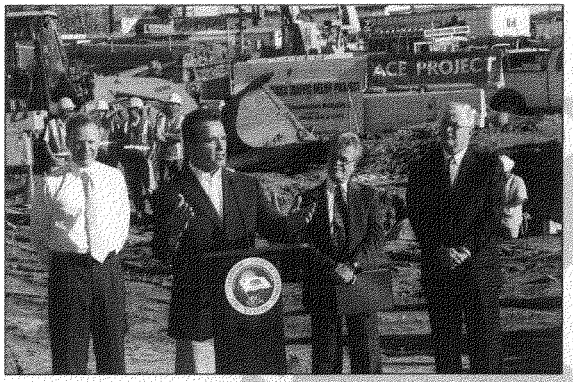
GRADE SEPARATIONS

OUT TO BID

- ✓ Sunset/Orange Aves. (Industry) -- utility relocations proceeding

DESIGN COMPLETED

- ✓ Baldwin Ave. (El Monte)
- ✓ Nogales St. (LA County)



NEXT STEPS

- Seek $463 M for Phase II projects by 2010
- Work with Congress to seek permanent 'dedicated' funding for goods movement intermodal projects
- Work with California legislators/business/other stakeholders re passage of $19 billion Transportation Infrastructure Bond (includes $2 billion for goods movement projects)

Testimony to

The Highways, Transit and Pipelines Subcommittee

Of the

House Transportation and Infrastructure Committee

Hearing on "Intermodalism"

June 15, 2006

Room 2167 Rayburn House Office Building

By David Roberts, Sr. Vice President, General Atomics

On

"Potential Role of Maglev in Intermodal Movement of Freight"

Mr. Chairman, Honorable Members, ladies and gentlemen, I am Dave Roberts, Senior Vice President at General Atomics and it is my honor to testify before you today on the contributions that transportation systems using Magnetic Levitation (Maglev), used in an intermodal manner, may bring to freight movement from ports. Your Committee has supported Maglev for many years and I believe that such systems can substantially reduce congestion and improve air quality while increasing the movement of goods through the densely populated urban areas that typically surround ports. Specifically, I am referring to all-electric systems that utilize electromagnetic components to provide propulsion, guidance and levitation. These systems would be built on elevated grade-separated fixed guide-way systems. They would be quiet, safe, efficient, and environmentally friendly.

General Atomics and a number of its affiliate companies are headquartered in San Diego, California. For over 50 years GA has been an industry leader in creating high technology systems with applications for defense, energy research and transportation. General Atomics' Aeronautical Systems affiliate produces the Predator family of Unmanned Aerial Vehicle systems, which has achieved remarkable success in the war against terror. GA is the sole source provider for developing electromagnetic aircraft launch and recovery systems, soon to be deployed on U.S. Navy aircraft carriers, and is at the forefront of developing magnetic levitation systems for cargo and passenger transportation.

As indicated above, sea ports are typically surrounded by major metropolitan areas, which require movement of the resulting container traffic through those areas which places unwelcome strains on the existing infrastructure. Cases in point are the Ports of Los Angeles and Long Beach (LA/LB), the nation's largest and most important ports through which almost half of all imports to our country pass (Aschemeyer, 2005).

Growth of the Ports of LA/LB is essential both to accommodate the increasing freight demand as well as to continue to provide jobs and economic benefit within the region. A recent study shows that newly created logistics jobs have, in fact, more than made up for manufacturing jobs lost due to industry moving from Southern California, and they are higher paying than manufacturing jobs requiring similar skills (Husing, 2005). Supplies for military sustainment have historically passed through the port, and military planners need to continue to be able to count on the port as a means of shipping supplies to military depots overseas. An increase in the physical size of the ports is becoming more difficult; there clearly is not enough room to expand. To meet the projected container volumes in the future which are expected to more than double by the year 2020, the ports throughput must be increased dramatically on similar sized footprints.

One of the greatest sources of congestion around the Ports of LA/LB is the high volume of truck traffic - currently, 80% of container traffic leaves the port by truck (the remaining 20% moves by on-dock rail), with significant increases projected for the future. 11 $Billion/year in productivity losses in Los Angeles and Orange counties, due to freeway congestion have been projected (Schrank, 2005). Adding more containers from the Ports of LA/LB year after year will exacerbate local congestion and its

associated pollution burdens. The Nation, the local communities and the Ports have, of course, made major investments in the Alameda Rail Corridor, as others, here, have testified. However it remains necessary to get more of the containers from the port to a point where this Corridor can be accessed via additional intermodal transfer facilities. Our preliminary studies suggest that providing such intermodal connection via a Maglev system should provide a container movement approach capable of high throughput but with a smaller footprint and a significantly lower pollution burden than alternatives.

With respect to pollution, many stationary sources, such as electrical power plants have made great strides in reducing air pollution, and automobiles have continued improving over the years; air quality for the Southern California region has markedly improved as a result. One pollutant, however, remains problematic: Diesel Particulate Emissions or DPE. This pollutant is different from gaseous pollutants in that it is localized to areas where diesel engines operate such as the port, truck/train intermodals, and along freeway and rail corridors. The effects of DPE are reported to be very serious. More than 30 human epidemiological studies have found that diesel exhaust increases cancer risks, and a 1999 California study found that diesel exhaust is responsible for 70 percent of the cancer risk from air pollution (Bailey, 2005). The danger of having homes and schools close to sources of DPE is increasingly recognized. Figure 1 shows an Air Quality Management District (AQMD) (MATES II, 2000) study of how DPE is concentrated around the port and transport paths. To alleviate the severity of the DPE problem for the entire community, a container movement approach should exploit fixed power sources that produce minimal pollution.

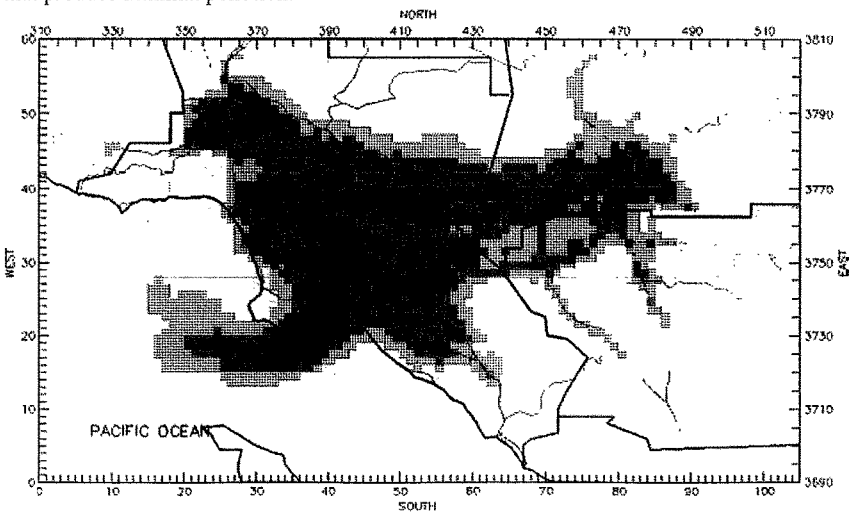
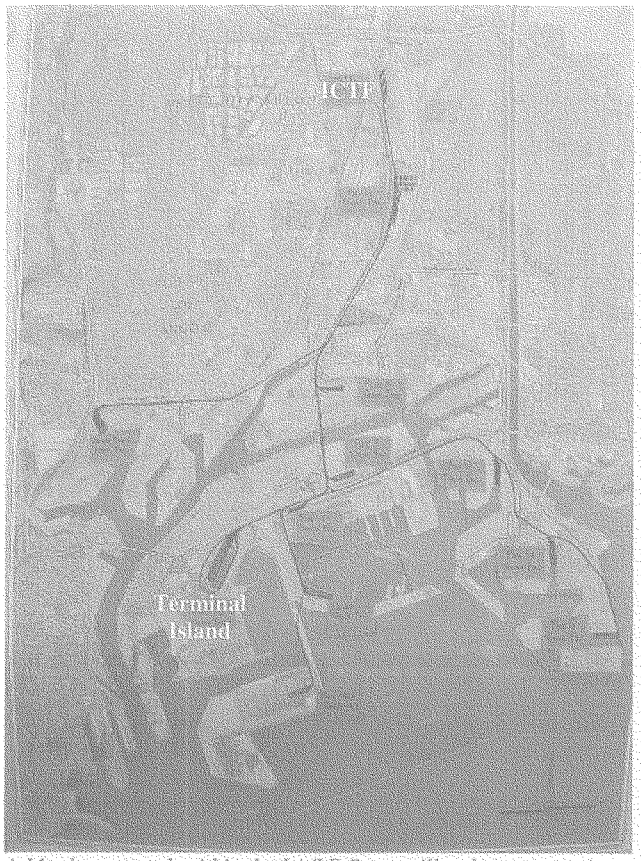


Figure 1 Concentration of DPE in Southern California

The aforementioned economic, congestion and pollution issues facing urban freight movement from the Port are producing conflicting constraints to balancing Southern California's economic future with the region's quality of life. The international trade industry (ships, trucks and trains) has been identified as a major source of pollution due to the heavy use of diesel power. As a result Port expansion plans have run into a community resistance. Responding to community pressures, some elected officials are discussing "caps" on port emissions, which would also serve to cap port growth. California state legislators have placed a number of bills aimed at regulating and changing the way goods are handled, workers are compensated, and pollution is curbed at California ports and transportation hubs. Several of these bills add constraints to operations while others add costs to the movement of containers both within and beyond the port region. From an economic perspective, these bills impact the economies of the ports and cargo movement and therefore affect costs of doing business. Maglev presents a "win-win" solution of moving containers in sufficient number and speed to allow continued economic growth, while alleviating congestion and pollution throughout the Southern California basin.

General Atomics and California State University Long Beach/CCDoTT have been evaluating the feasibility of a Maglev cargo system under a study contract with the Port of Los Angeles. The Maglev network envisioned by the Port, shown below, depicts a system which connects the main terminals with the International Cargo Transfer Facility (ICTF) at the terminus of the Alameda corridor. The ICTF is the distribution center for long distance trucking and also the gateway to the Alameda corridor which distributes cargo by rail from the port to locations within the country. A Maglev network operating within the Port, removes from the roads a projected 1 million truck trips per year, just between Terminal Island and the ICTF. In addition, a Maglev network at the port, when extended to an inland distribution facility, has the potential to remove up to 50% of truck traffic from local roads.



A Maglev network within the LA/LB Ports will reduce congestion, and pollution.

Maglev is not new; it has been developed over the past 30 years and has recently been deployed in passenger revenue service in both China and Japan. Even though freight transportation requirements, in terms of weight capacity and throughput, are different than those for passenger service, the components of Maglev technology can be readily adapted to handle freight. The many advantages of the Maglev system include:

- It provides dedicated movement of freight with a very high throughput which will greatly reduce traffic congestion,
- It will move freight safely and efficiently on grade-separated, elevated guide-way structure, greatly improving efficiency,
- Its all-electric propulsion eliminates local sources of emissions and reduces emissions overall,

- It operates quietly since it is contact-free which furthermore greatly reduces maintenance costs,
- It can accommodate steep grades in all-weather conditions allowing the guide-way to be routed where it best serves the need.
- It allows port throughput growth, supporting continued economic growth
- It will provide intermodal connection while relieving serious highway congestion.

One of the innovations being developed by the GA team is a totally passive permanent magnet, large-air-gap Maglev system, which results in lighter vehicles, reduced energy consumption and more-streamlined, less costly guide-way structures. This particular Americanized technology, which has been under development for several years under the sponsorship of the Federal Transit Administration, the Pennsylvania Department of Transportation and private industry, was originally invented by the Department of Energy's Lawrence Livermore National Laboratory (LLNL) and is being developed for deployment by GA under a license agreement with LLNL.

In September 2004, we completed development of a 400-foot long test track in San Diego, California. We are presently in the process of perfecting the system controls and optimizing components to improve performance and reduce costs. Examples of system optimization include: new hybrid guide-way with fiber reinforced concrete to reduce capital costs, optimizing magnetic arrangements and track improvements to reduce operating cost, and more. We have recently incorporated a 1 TEU cargo container unto our test chassis as shown below. This represents the world's first cargo Maglev test vehicle. We are currently evaluating its performance at speeds up to 22 mph, with plans to increase to 90 mph if implemented at the Port. We would welcome members and their staffs to come to our test facility in San Diego to witness a demonstration of this exciting technology.

Figure 2. The world's first cargo Maglev system – the "Electric Cargo Conveyor" or ECCO undergoing testing at the GA test track in San Diego, CA.

The capital cost for Maglev systems vary widely depending on the terrain and the required throughput. For equivalent routes and throughput requirements, Maglev will be very competitive with highway transportation while offering all-electric operation with many environmental and efficiency benefits. Another key advantage of the system over conventional wheeled systems is its quiet operation, eliminating the need to go underground for noise abatement. This benefit greatly reduces construction cost and schedule. Operation and maintenance costs are also greatly reduced since the system is levitated contact-free resulting in reduced maintenance and life-cycle cost.

With regard to a potential construction schedule, preliminary estimates indicate that an initial 5-mile long segment providing a vital link from the port to the ICTF would require about 3 years to construct. Future expansion could be accomplished at a much faster pace.

Overall, I believe that Maglev technology is a 21st Century solution that could help optimize the effectiveness of intermodal transfer facilities for ports to reduce pollution and congestion, and increase the capacity of ports to meet the projected growth of our nation in the 21st Century. Specifically, I would encourage you to include Maglev in future legislation actions as a viable technology for freight system improvements to enhance the ability to move goods.

Thank you for the opportunity to participate in these hearings and I welcome any questions you may have.

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House Committee on Transportation and Infrastructure
Highways, Transit and Pipelines Subcommittee

Hearing on Intermodalism
Thursday, June 15, 2006
Washington, D.C.

Testimony submitted by
Arthur C. Scheunemann
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Northwest Container Services
Seattle, WA

Northwest Container Services, a division of Waste Connections, Inc. (NWCS), is pleased to submit the following written testimony to the House Transportation Subcommittee on Highways, Transit and Pipelines. We are also grateful for the opportunity to appear before the Subcommittee and share our thoughts and ideas on how intermodalism, and its component parts - rail, truck and barge, may be utilized to improve freight and goods movement efficiency and contribute to economic development locally, regionally and nationally.

Background

NWCS has been providing containerized short-haul intermodal logistics services since 1985. The NWCS mission is to improve freight mobility in the Pacific Northwest, California and other regions of the country by providing intermodal or multimodal transportation solutions to customers utilizing rail, truck and barge. The NWCS business model is built on a network of privately owned intermodal facilities capable of building and deploying unit trains for short-haul rail service, typically 300 miles or less. Additionally, over the last several years, NWCS has entered into Public-Private Partnerships (PPP) with ports and public entities that embrace our mission of expanding transportation options for shippers. Currently, NWCS operates five intermodal facilities in Washington State and Oregon linking the major West Coast ports of Seattle, Tacoma and Portland with ports in Eastern Washington and Oregon.

NWCS is primarily a "hook and haul" intermodal rail operation. We contract for dedicated rail line-haul capacity and engine power with either the Union Pacific Railroad (UPRR) for the Seattle, Tacoma and Portland service, or, the Burlington Northern Santa Fe Railroad (BNSF) for the Quincy and Pasco service.* NWCS owns its equipment and facility assets, including a fleet of forty custom built double-stack container rail cars.

Plans are currently underway to develop the NWCS business model in California, with the Port of Oakland and private sector shipping interests in the San Joaquin Valley.

By the Numbers

By using dedicated direct trains (supported by truck and barge services) to transport international containers, NWCS is able to ensure timely, efficient, cost-effective delivery of cargo for importers and exporters.

NWCS's business model is built on a "load-load" strategy. The majority of the time our intermodal trains haul loaded containers, rather than empty containers. This load-load strategy not only optimizes our operational efficiency, but it also results in better and

* It is interesting to note that the original NWCS start-up service between Portland and Seattle/Tacoma, in 1985 served as the "test model" for the UPRR's experiment with a "two engineer" crew operating the intermodal train. The success of this test resulted in the UPRR switching to all two-person crews system-wide, resulting in significant economic savings in labor costs.

more efficient equipment utilization. It is always our objective to build trains moving in each direction to our facilities with loaded containers – imports in, exports out. An interesting fact regarding intermodal container movement – primarily truck movements, is that 50% of the time a container is moved by truck, it is empty. This high rate of movement of empty containers results from the need to reposition empty containers for exporters once the container has been unloaded of its imports.

In 2005, NWCS moved 85,000 intermodal containers via our short-haul intermodal rail system. This figure represents 6.2% of the total container volume moved through the ports of Seattle and Tacoma in 2005. The majority of this cargo was moved through the Seattle-Tacoma-Portland I-5 Corridor. Viewed another way, this represents 85,000 truck trips that were shifted to rail, freeing up valuable highway capacity for "people" movement and other freight and goods. Additionally, these intermodal rail movements saved road maintenance dollars, contributed to cleaner air, and relieved highway and port congestion. With unprecedented volume growth predicted for import and export container movement in the Pacific Northwest, the West Coast and nationally, NWCS is well positioned to expand on its current success and duplicate its business model in other areas of the Northwest and into other regions of the country that would benefit from improved utilization of an intermodal transportation network.

Opportunities

NWCS believes that there is great opportunity to expand its "footprint" into other regions of the country. As noted above, we are working with the Port of Oakland, steamship lines and shippers to establish an intermodal short-haul rail corridor that would service the San Joaquin Valley of California.

Areas such as this are a perfect fit for our business model because of the import-export volumes that move through the area. In the San Joaquin Valley, for example, there are tremendous volumes of food and agricultural exports, while at the same time major U.S. retail importers such as Target, Wal-Mart, Sears, IKEA, and VF Corp., to name a few, have located mega import distribution centers in the valley to service their regional retail stores, or reposition containers on east bound long-haul unit trains for Mid-West distribution. Unfortunately, the majority of the San Joaquin agriculture exports and the retail import volumes are trucked from the ports of Los Angeles and Long Beach. A better model would be for retail importers to move loaded containers from steamship carriers calling the Port of Oakland to their distribution centers in the San Joaquin Valley via short-haul rail. There, agricultural shippers could utilize the equipment to move loaded export containers back out. In this case, the Port of Oakland provides a competitive alternative because it is not faced with the capacity and congestion issues experienced at the ports of Los Angeles and Long Beach.

This is but one significant example of how a short-haul intermodal rail corridor would benefit shippers by providing a competitive alternative to trucking. There are other regional examples in the Pacific Northwest, Mid-West, and East Coast where the short-

haul rail intermodal business model is a viable alternative, and actually enhances the effectiveness of all intermodal transportation components. A critical element in the future viability of this model, however, is the willingness and ability of the major railroads to provide short-haul and short line service at reasonable rates. Assuring that U.S. regional rail infrastructure needs and service issues are addressed, should be a top priority of state and federal policy makers and regulators.

Future Issues and Concerns

NWCS shares the same concerns that many in the intermodal transportation industry have expressed in recent months. Real questions continue to be raised about the major railroad industry's obligation to serve its customers and the nation's transportation needs.

Against this backdrop, the undercurrent of rhetoric and actions is the same theme faced in virtually every state in the lower 48 faces: the Class I railroads own and control a majority of our Nation's major rail infrastructure, and in response to their shareholders, they have clearly determined that it is in their financial interest to dedicate a majority of their capacity for long-haul intermodal container movement and profitable bulk commodity movement, bypassing significant volumes of intra-state and intra-region cargo.

Yet, NWCS's short haul intermodal rail service, like many short lines, is completely dependent upon Class I railroad service and capacity. We recognize that the Class I railroads represent a private sector network, and need to be profitable for their shareholders. However, we also suggest that there needs to be viable intra-state and intra-region infrastructure and service to meet the needs of shippers where the only alternative is to truck cargo, or close the business.

We believe that serious attention needs to be focused on how intra-state and intra-region service can be maintained and enhanced. The significant investment that states and other public entities make in improving infrastructure – overpasses, grade separations, port infrastructure, etc., which contribute to the railroads increased efficiency and velocity, must have a measure of intra-state and intra-regional return. While we recognize and support the Class I railroads current business model which is focused on long-haul unit trains moving quickly from coastal ports to the Mid-West, it is contributing to the isolation of certain shippers and bypassing many short-haul opportunities.

As noted above, NWCS believes that our short-haul intermodal model is a model that can be duplicated nationally. We believe the future of intra-state and intra-region transportation efficiency is dependant on competitive innovation, such as short-haul intermodal rail service.

Statement of
The Honorable Jeffrey N. Shane
Under Secretary of Transportation for Policy

U.S. Department of Transportation

Before the
Subcommittee on Highways, Transit, and Pipelines
Committee on Transportation and Infrastructure
U.S. House of Representatives
June 15, 2006

Chairman Petri, Ranking Member DeFazio, and Members of the Subcommittee, it is my distinct pleasure today to represent Secretary Norman Y. Mineta to discuss with you the Department's efforts in the areas of freight and passenger intermodalism.

The Vision of ISTEA

In enacting the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), Congress identified the need for a more coherent approach to address the needs of the Nation's diverse surface transportation systems. Congress further recognized that planning and investment in transportation infrastructure were tied to separate funding sources and processes, each having their own constituencies. ISTEA's call for a new, systemic perspective in transportation policy and program development provided States and localities with more flexibility to achieve broader surface transportation objectives.

ISTEA also created the Office of Intermodalism within the Office of the Secretary at the U.S. Department of Transportation (DOT), with the responsibility to "... coordinate Federal policy on intermodal transportation and initiate policies to promote efficient intermodal transportation in the United States." In the years following enactment of ISTEA, the Office of Intermodalism played an important role in advising the Secretary of Transportation and in coordinating intermodal policies throughout the Department.

The Office of Intermodalism's activities immediately following ISTEA were primarily focused on policy formulation, program implementation, and project development. The Department realized that the structure of the Office would be most effective if it reflected the full spectrum of intermodal elements and the organization of DOT itself, and hired staff with expertise in passenger and freight operations from each of the operating administrations (FHWA, FTA, FRA, MARAD, and the FAA).

Intermodalism and TEA-21

The National Highway System Designation Act of 1995 included a provision that addressed a core mission of the Office of Intermodalism and ultimately reshaped it.

The provision eliminated the requirement that State DOTs develop an intermodal management system called for in ISTEA and instead made the system optional. The Intermodal Transportation Management System was intended to be a process that improved transportation for people and goods by integrating development of transportation facilities and systems. While some of the more populated States with larger urbanized areas were able to develop this management system approach and still employ it to this day, making the intermodal management system optional made transportation planning less consistent and implied that a systemic, intermodal vision for transportation might not be that important after all.

Similarly, the mission of the Office of Intermodalism was directly affected by a provision of TEA-21 that directed the Secretary to conduct a review of the National Highway System (NHS) freight connectors that serve seaports, airports, and major intermodal terminals, and report to Congress by June 9, 2000. The study found that these intermodal connectors -- the critical "last mile" that links freight facilities to the larger transportation system -- had significantly lower physical and operational characteristics, and appeared to be underfunded when compared with all NHS mileage.

The Office of Intermodalism recognized that NHS freight connectors were "orphans" in the traditional State and MPO planning processes. The lack of supporters to champion connector and other freight oriented initiatives, combined with the lack of understanding in the role these connectors play in the economic health of local communities and regions, made successful intermodal freight development a challenging task.

Setbacks with ISTEA's management systems and a lukewarm reception to the NHS Connectors report caused the Office of Intermodalism to shift its attention to research studies and operational tests that could document the benefits of intermodal operations and planning activities to transportation and the economy. State DOTs, MPOs, and the Department itself had become more multi-modal in their thinking, but more needed to be done in research and education to make the case for intermodal applications of data and technology. The move away from the Office's original operational focus was also made necessary by budget cutbacks that reduced the number of staff available to provide adequate coverage of the activities taking place in each of the ten Federal regions.

The Office of Intermodalism Immediately Following 9/11

The Office of Intermodalism was working on several data collection working groups and pilot tests of technologies with security applications on September 11, 2001. Securing our Nation's domestic transportation system and the international cargo that flows across our borders became the highest priority of the Department and the Office of Intermodalism. Working collaboratively with DOT's operating administrations and other Federal agencies, research was undertaken to identify how available and emerging technologies could better safeguard our citizens, infrastructure, and the economy from terrorist incidents.

Section 215 of Section 215 of the Maritime Transportation Security Act of 2002 (Pub. L. 107-295) created a new position, Under Secretary of Transportation for Policy, within the Department -- the position I now hold -- and eliminated the Associate Deputy Secretary position. This statute was carried out by integrating the Office of Intermodalism into the Office of Transportation Policy (OST/P), with the Assistant Secretary for Transportation Policy providing direct oversight of this office. Under OST/P, the Office of Intermodalism assumed leadership role over broad cross-modal initiatives, particularly in the areas of freight and goods movement, security, and inter-Departmental coordination.

While in OST-P, the Office of Intermodalism's primary mission was to play a coordinating role, combining OST resources with those in the operating administrations, foreign/state/local governments, other Federal agencies, universities, and when appropriate, the private sector. In almost every case, this included the development and implementation of intermodal solutions to highly complex problems.

For example, in the policy area of proposed Federal rulemaking activities, the Office of Intermodalism worked to ensure that major freight and passenger transportation service providers could achieve significant cost savings through integration of intermodal operations that were not compromised by inconsistent or incompatible modal regulations. Following the publication of an Advance Notice of Proposed Rulemaking announcing the Department's intent to consider upgraded inspection and maintenance procedures for intermodal container chassis, the Office of Intermodalism led a multi-modal DOT task force that met with over 400 industry representatives to identify challenges and a common strategy to address intermodal truck operations. As the Federal Motor Carrier Safety Administration pursues a rulemaking on this issue, the Office of Intermodalism continues to provide input to the process along with OST/P, FHWA, FRA, and the Maritime Administration (MARAD).

In the operations area, the Office provided OST support for critical transportation projects both in the field and within DOT headquarters. To relieve congestion through enhanced intermodal investments and operations in the Ports of Los Angeles/Long Beach, the Office proposed the creation of a field-based "Gateway Office and Ombudsman," supported by a multi-agency "Intermodal Gateway Group" here in Washington. Also, multi-modal Departmental task forces led by the Office of Intermodalism were formed to provide OST support for the nationally significant Alaska Way project in Seattle and intermodal improvements at the Port of Anchorage.

The Norman Y. Mineta Research and Special Programs Improvement Act

With passage of the Norman Y. Mineta Research and Special Programs Improvement Act (Pub. L. 108-426), the Office of Intermodalism was transferred to the newly created Research and Innovative Technology Administration (RITA). The transfer took effect in February 2005.

The establishment of RITA is enabling the Department to coordinate and manage its research portfolio more effectively and expedite implementation of crosscutting

innovative technologies. The statute moved the Office of Intermodalism to RITA when it was established because the crosscutting perspective and research focus of the newest of our operating administrations was fundamentally consistent with the mission of RITA. Unlike the other modally-focused operating administrations within the Department, RITA is uniquely intermodal in its perspective. RITA acts in partnership with the operating administrations and OST in addressing transportation initiatives, and the Office of Intermodalism plays a key role in identifying and transportation research priorities.

It has been suggested that moving the Office of Intermodalism from the Office of the Secretary into RITA has somehow downplayed the importance of the Office, and of intermodalism, within the Department. This is simply not the case. While the concept of intermodalism has been "mainstreamed" among all of the operating units within the Department, reductions in discretionary RD&T funds have made a more targeted and coordinated RD&T program even more critical for advancing the intermodal transportation network. In many cases, the Office of Intermodalism has been given the lead on RD&T program development and OST and the DOT operating administrations play subordinate roles. Given some of the successes and challenges I mentioned, the Department felt it was critical to solidify the intermodal research function under RITA, so that it could produce the research, data, and analysis needed to underpin any subsequent freight policy initiatives.

For example, as part of the implementation of SAFETEA-LU, the Office of Intermodalism is leading the Department's effort to develop a National Cooperative Freight Research Program (NCFRP). The NCFRP is an applied, contract research program with the objective of developing information that will be used to improve the efficiency, reliability, safety, and security of the Nation's freight transportation system. The NCFRP will carry out applied research and other technical activities in a variety of freight system-related areas, including policy, planning, operations, economics, administration, environment, safety, and security. RITA and the Office of Intermodalism have executed a Memorandum of Agreement with the Transportation Research Board (TRB) of the National Academies to manage the NCFRP, and with input from our freight industry stakeholders, the results from this research program will help shape our freight-related transportation polices and investments for years to come.

In its current research and technology development efforts, the Office works with other Federal agencies that are developing programs with implications for transportation operations and/or information systems. For example, while in OST/P, the Office of Intermodalism represented the Department on the Board of Directors for the International Trade Data System (ITDS) program being developed by the U.S. Customs and Border Protection Agency. This responsibility transitioned with the Office when it moved from OST to RITA. The Office continues to work with DOT's operating administrations to ensure the ITDS program meets both transportation and trade needs of the Nation.

When fully implemented, ITDS will be the electronic system of record for all international cargo movements and this information will be shared among the 79 Federal entities with responsibilities for clearing or recording these movements. The ITDS

program will enable the Department to better monitor the performance and use of our Nation's international gateways and domestic transportation network, and will be critical for assessing and responding to congestion, security breaches, and natural disasters.

The Office of Intermodalism is also working to identify solutions to the security challenges facing our transportation system, and serves as a principal advisor on intermodal transportation security research and development. Under RITA, the Office of Intermodalism is working closely with the White House Office of Science and Technology Policy, the Department of Homeland Security, and other agencies to develop and implement the National Critical Infrastructure Protection Research & Development Plan, as well as the R&D Chapter of the Transportation Sector Specific Plan and the National Strategy for Transportation Security. The Office of Intermodalism will continue to focus on coordinating research and development efforts in order to identify, develop and deploy technologies that address both safety and security concerns and enhance passenger and freight mobility.

Intermodalism Under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)

While the Office of Intermodalism is an important part of the Department's intermodal progress, it is just one piece of an overall effort to shift our thinking and approach to the country's surface transportation systems. In the area of freight transportation, it is increasingly clear that shippers are indifferent to how a product is delivered through the supply chain so long as reliability and speed can be assured. A broad deployment of information technologies in the trucking, rail and aviation sectors following deregulation has allowed the country's intermodal freight system to become the envy of the world. Several economists have cited the efficiency of this system in research conducted to explain the declining volatility of the U.S. economy.

Recognizing that growing public infrastructure failures represent a threat to this system, the Administration made intermodal freight transportation one of the centerpieces of our proposal to reauthorize the Transportation Equity Act for the 21st Century (TEA-21). Specifically, we focused on financial and planning obstacles to intermodal project development. Among other things, we proposed to expand the eligibility of Federal credit programs to specifically target these projects. We proposed an amendment to the Internal Revenue Code to allow rapidly proliferating inland rail-truck transfer facilities to benefit from the same tax exempt treatment that applies to similar facilities constructed at seaports and airports. We proposed to target two percent of National Highway System program funds, one of the largest funding sources administered by DOT, toward the "last-mile" highways that connect the National Highway System to important freight hubs. We proposed the creation of a freight transportation coordinator in every State to ensure that freight transportation needs are given adequate consideration in the transportation planning process.

On the passenger front, we proposed a deviation from a clear policy of discouraging the creation of new programs in only one area: intermodal passenger facilities. We asked

Congress to dedicate $85 million a year in funding for these facilities. Equally important, we continue to press for increased State and local flexibility in funding decisions. This flexibility has been critical to expanding intermodal passenger options.

While not all of the Department's legislative proposals were accepted, SAFETEA-LU did include programs that will provide substantial benefits to intermodal freight transportation. For example, SAFETEA-LU made important changes to the Transportation Infrastructure Finance and Innovation Act (TIFIA) when it lowered the project threshold to $50 million and made more intermodal surface freight facilities eligible. SAFETEA-LU also amended the Internal Revenue Code by creating $15 billion in tax-exempt private activity bond authority for qualified highway and surface freight transfer facilities. These two additional tools encourage more innovative financing solutions to freight challenges. As part of its work on the National Surface Transportation Policy and Revenue Study Commission, the Secretary, as Chair of the Commission, will call on the Department's freight modeling and analysis capabilities in support of the Commission's work.

The CREATE project in Chicago is another example of the Department's efforts to advance intermodal passenger and rail projects under SAFETEA-LU. CREATE is a proposed $1.5 billion public/private partnership, including the City of Chicago DOT, the State of Illinois DOT and the American Association of Railroads (AAR) representing six freight railroads and Chicago's commuter railroad, Metra. The program would create four streamlined freight rail corridors and a commuter rail corridor in the Chicago area. CREATE received $100M in funding from the Projects of National and Regional Significance program in SAFETEA-LU.

To support the CREATE projects, the Department has established a multimodal team including the Office of the Secretary (OST), the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and the Federal Railroad Administration (FRA) to work closely with the CREATE partners and serve on its major committees, including its stakeholder and management committees. The Department has a designated point of contact in Washington, DC to coordinate and oversee all CREATE-related activities, and FHWA has established a position in its Illinois Division Office to work on a daily basis with the city, the State, and the railroads.

In addition to the important changes made by SAFETEA-LU, the Department has undertaken a significant initiative to work with other governmental agencies and the private sector to improve the performance of the national freight system that includes intermodal cargo movements. These efforts have coalesced into a National Freight Policy Framework. The Framework began with the proposition that the Federal Government is but one of many players involved in the U.S. freight transportation system. Effective policy solutions will require coordinated and collaborative action by both public and private parties. The Framework lays out objectives to achieve a vision, and then details strategies and tactics that the Department and its partners – both public and private sector – can pursue to achieve those objectives. We have begun the process

of soliciting such input from all parties, and DOT looks forward to working with its partners to continue development of the framework over the coming months and years.

Closing Statement

The Department is working aggressively to develop RITA's technical and analytical capability to embark on intermodal research and to work with OST and the operating administrations to coordinate Departmentwide intermodal activities. We are also working with the State DOTs, MPOs, and the private sector to advance the programs and projects called for in SAFETEA-LU..

Thank you for the opportunity to speak today on the topic of intermodalism, and I will be happy to answer any questions that you may have.

Testimony

of

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University of Denver
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To the

House Committee on Transportation and Infrastructure

June 15, 2006

Contact: (303) 871-2495

Congestion, competition, capacity, and conservation are the major challenges facing the US transportation system that can be met with the adoption of a serious commitment to intermodalism. Increased congestion on our highways, railways, and ports, coupled with increasing fuel costs, security threats, and competition from developing countries, as well as an impending shortage of workers in the transportation industry and the ever tightening financial resources, will test our ingenuity and creativity. However, I believe that the best hope for the future of transportation in this country will come from the adoption of a truly intermodal transportation system that ensures the safe, secure, seamless, sustainable, and cost effective transport of people and goods.

What is intermodal transportation? Many people think first of the freight industry with containers on flatcars and the water to land transfer of materials. The definition that we use at the University of Denver and Mississippi State University is "the seamless interconnection of two or more modes of transportation to create an efficient, safe, secure, sustainable, and ethical system of transportation." This definition has guided our thinking and research at the Intermodal Transportation Institute (ITI) at the University of Denver and at the National Center for Intermodal Transportation (NCIT) for the last eight years. As I recently explained to a student of mine, we are talking about connectivity. For example, the only way to get to Denver International Airport (DIA) is via a car or a taxi. DIA could have been truly intermodal as a rail line runs right through the middle of the terminal and connects all of the concourses. However, rail access from the city is the lacking essential piece. The rail right-of-way runs along side the airport but there is no intersection and no passenger service. A truly intermodal system would have provided a *seamless connection between two or more modes.*

Perhaps some analogies will make this clearer. Think about how a letter gets to Denver. It moves unobstructed through several different modes of transportation. Sending this letter involves the use of planes, trains, and trucks. All that is required is a stamp and an

address for this letter to negotiate the transportation system. For passengers, however, the situation is more complex. Getting to this hearing this morning involved a car,, a plane, a taxi, an Amtrak train, and a subway train—all requiring separate tickets, except for my car.. None of these modes are truly integrated, and with the exception of the Metro line that took me fairly close to Reagan National Airport, none of the modes are fully interconnected.

Nature provides other examples of intermodal connections. The process of transferring oxygen to the various cells in the human body is very complex. Oxygen must enter the lungs through the airway, crossing through the lungs and into the blood stream and then into the cells of the various organs. That is a perfect description of intermodal interconnectivity, transferring essential products in a timely fashion. Another great example is the internet and the transfer of data in the form of digital data packets through a huge network of interconnected computers. These nodes in the internet are the ideal analogy to our vision of a truly intermodal transportation system where the different modes of transport interconnect to create a safe and efficient intermodal – interconnected system for the movement of people and goods.

Status of Intermodalism and DOTs

Faced with these challenges, researchers at the University of Denver and Mississippi State University proposed a small study to survey the extent to which state DOTs engaged in intermodalism and intermodal planning. Results of a study conducted in 2004, sponsored by NCIT, surveyed 8 states in the US and suggest that after the initial impetus of T-21 and ISTEA in the early 1990s, intermodalism and intermodal planning in the US improved, but may now be leveling off. [1] In this project, we interviewed key officials and obtained questionnaires from over 325 respondents. The following highlights a few of the key results:

- **Comprehensive Plans.** From our analysis of statewide comprehensive plans, we concluded that states are becoming more attuned to intermodal issues. Reviewing the plans from various states revealed that plans drafted more recently consider a variety of modes, rather than just focusing on highways.[2] Interestingly, the State of Washington's transportation plan identifies the need to include a "multimodal" perspective. In another example, Florida's Strategic Intermodal System (SIS)[3] Plan was adopted in January 2005 with the intention of integrating and connecting those transportation facilities services, modes of transportation (modes), and linkages into a single, integrated transportation network (system).

- **Organizational Structures.** DOTs have changed to reflect the expanding role of intermodalism. As of 2005, a listing of state DOTs, compiled by the State of Washington DOT showed that approximately 20 states did not have an office devoted to intermodal freight planning. Similarly, our NCIT study concluded that

[1] Goetz, et. al (2006).
[2] Goetz, et. al. (2006).
[3] Florida Strategic Plan, January 20, 2005.

institutional cultures and structures have not kept pace with these changes. In fact, from the 325 completed surveys we obtained, the average rating of whether intermodal planning was effectively incorporated into transportation planning was 2.68 on a scale of 1 to 5 where 3 was to some degree and 2 was to a little degree. In other words, somewhere between a little and some.

- **DOT Staffing.** DOTs remain staffed with a large cadre of highway engineers, and most funding is still directed to the highway mode. Thus, many state agencies are still largely highway-focused. Moreover, our results indicated that there was little support for training in the area of intermodal planning.

  Similarly, our study of needed skills and available training programs for intermodal transportation in the 21 member economies of the Asia Pacific Economic Cooperation identified a significant gap between needed skills and education programs.[4] As a result, APEC has commissioned us to help them develop curriculum and short training courses for their transportation ministries. We have delivered courses in several countries thus far.

  A later study of 360 transportation professionals employed in consulting, MPOs, local, regional, or state agencies, concluded that the education curriculum offered by major US universities provided no standard or uniform approach to transportation planning education.[5] The number of transportation planning courses offered and the content of such courses was seen as highly variable. Furthermore, their results also showed that multi-modal integration of transportation modes was either not covered (31%) or was only a minor portion of the course (39%). In addition, only 5.9% of respondents reported received a full course on the topic.

- **Best Practices.** In general, there were very few intermodal projects. Many of those under construction involve highways in some capacity.

  According to industry sources the "best" projects from the freight side include the Alameda Corridor, intermodal terminals such as the one in Rochelle Illinois, the Chicago CREATE Project, the Heartland Freight Corridor, and the Seattle FAST Corridor, which was designed to decrease highway congestion and increase speed and volume of intermodal freight movements though a pooling of public and private resources. The Freight Intermodal Distribution Pilot Grant Program, authorized under SAFETEA-LU (Sec. 1306), is a good first step. The criteria for awarding the grants, namely to facilitate and support intermodal freight transportation initiatives and to relieve congestion and improve safety, are

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[4] Jervell, J.J., Perl, A., Sherry, P., & Szyhowicz, J. (2000). Needed skills and available training programs in intermodal transportation. Transportation Law Journal, 20, 192-201

[5] Handy, S., Weston, L., & Song, J. (2001). The Education of Transportation Planning Professionals. A paper presented to the Transportation Research Board.

commendable. The recently proposed *ThruPort*[6] concept is also a project worthy of additional consideration and funding.

Our opinion, shared with many of the member industries, is that there is a need to prioritize and fund key projects that are "best practices" projects,, which clearly serve the national interest. The recent SAFETEA-LU legislation offers some encouragement butcurrently has little funding.

In terms of passenger intermodalism, there are beginning to be more and better examples of the interconnectivity of modes. Rail line access to major airports is increasing with projects such as the Metro line here at Washington National. Newark, Philadelphia, and San Francisco airports have existing good rail access. Unfortunately, the connectivity issue is highlighted even more when we realize that intercity bus service is available at only 35 out of 150 US airports. This lack of interconnectivity is highlighted even more by the realization that a passenger can not buy a ticket to their final destination. They must buy air, rail, or bus tickets separately.

- **Funding.** There is a lack of funding for intermodal projects. Respondents in our study rated investments for roads and safety fairly high (between "to some degree" and "to a great degree") but rated investment for transit, bicycle/pedestrian, and intermodal connectors much lower.

  Several issues relative to funding should be noted. Most funding and financing decisions, including prioritization, are based on local communities (ie. MPOs, cities, states, etc.). . However, freight transportation is increasingly influenced by global and national activity and while a local community may benefit, typically the local community serves as the through point for goods traveling elsewhere. Studies conducted by the California DOT, for example, estimate that freight traffic coming in to the Port of Long Beach by the year 2020 could more than triple, an increase of almost 350%. Much of this freight moves through the port and into the rest of the country. The demands on the infrastructure are thus created by national demands and not just those of the local community. Therefore, intermodal planning and projects should be supported by a national transportation policy, and the funding may need to come from national sources as well.

  The amount of freight activity flowing into and through Chicago is the result of activity at the Ports of Long Beach, Oakland, Seattle-Tacoma, and others. Consequently, the revenue sources for funding projects of regional and national significance will need to be re-evaluated. A mechanism to fund projects of regional and national significance and a policy to prioritize the funding on the basis of economic benefitneeds to be developed. The financing of projects should not be mode based, but instead should be based on a prioritization of traffic volume, congestion, and economic impact on the country as whole.

6

Currently, the funding is tied to the modes. Unfortunately, the DOT Office of Intermodalism limped along with no budget for several years and now has been relocated into RITA. I am not sure what the current status of the office is at this point.

- **Dominant Mindset**. Qualitative data from our respondents suggested that highway interests remain dominant in the state DOTs and that an intermodal mindset has not permeated the entire transportation policy community—state transportation commission, state legislature, state DOT leadership, state DOT staff—who are charged with transportation decision-making and planning.

- **Perception of Intermodal Planning.** Intermodal planning processes generally received only average scores, except for public involvement, which was rated more highly. Responses to questions about cooperation and coordination among agencies varied across the states.

Taken together the data can be organized under four general topics, Congestion, Conservation, Capacity, and Competition.

Congestion

Increased traffic congestion will continue to be a challenge. Population increases and increased consumption of goods from Asia will continue to create pressure on the system. Florida is one example of a state that, over the past ten years, has seen its population increase steadily. Projections for the next twenty years suggest a 40% increase in population and a 103% increase in transportation activity.[7] Despite indications of continued economic growth, it has been projected that there will be significant shortfalls in funding available for the expansion of transportation systems in order to meet the anticipated demands. Consequently, Florida has developed a Strategic Intermodal Transportation System to maximize interconnectedness and cost effectiveness of the various modes of transportation. Data provided by USDOT also predicts increases in the numbers of containers by as much as 350% into Southern California. US Transportation Secretary Norman Mineta announced in May 2006 that the Administration is making traffic congestion relief a top priority. Secretary Mineta noted that "congestion kills time, wastes fuel and costs money," and that America loses an estimated $200 billion a year due to freight bottlenecks and delayed deliveries. He added that consumers lose 3.7 billion hours and 2.3 billion gallons of fuel sitting in traffic jams while airline delays waste $9.4 billion a year. Consequently, with increases in both population and freight traffic, the existing system, which has been running smoothly over the past few years, would be considerably stressed. Furthermore, in the 10 most congested areas, each rush hour travelers "pay" an annual virtual "congestion tax" between $850 and $1,600 in lost time and fuel, and spend the equivalent of almost 8 work days each year stuck in traffic. A seamless transportation system will facilitate passenger and freight flows between and among modes, and into whatever mode that would get them to their destination most

[7] Building Florida's Future

efficiently and economically. The lack of choice, mandated by modal segregation enhances congestion, decreases productivity, increases resource consumption, and exacerbates pollution.

Conservation

Rising fuel costs have once again gotten the nation's attention. Former Federal Reserve Administrator Greenspan commented recently on the economy's resilience and ability to absorb the recent increases in price, yet warned that there was a limit and that these changes could be felt soon. Fuel prices are expected to continue to rise. The struggling airline industry is doing its best to manage rising fuel costs. Intermodal systems are based on the notion of the most cost effective mode for a particular problem. Accordingly, more emphasis on fuel efficient solutions, or selecting the most fuel efficient mode of transportation for the problem, is desired. Clearly, it is most advantageous to move cars or trucks off the road quickly in order to reduce fuel use. Policies that create incentives to connect buses and light rail to airports are clearly needed. When all airline traffic was grounded during 9/11, it became blatantly and painfully obvious that our modes of transportation were not interconnected and even if you could book a ticket on a train or a bus, you had few options available to get the to the train station or bus terminal often 10 to 30 miles away.

Intermodal connectivity would have reduced this problem. Intermodalism promotes the most efficient mode, driving the selection of solutions to transportation problems based on the performance of the mode as opposed to fitting the mode to the problem. This approach then is *customer driven and user focused,* with the best mode applied for the task at hand. By focusing on the performance of the mode, customers obtain the most cost effective choices and services, and for the same reasons increased connectivity is also achieved. An intermodal approach emphasizes a focus on the consumer and customer rather than the planner.

Capacity

A related concern is the capacity of the transportation system. Intermodal freight traffic is expected to rise about 6% per year. Steve Branscum, Group VP of Consumer Products Business Unit at BNSF recently commented that capacity can be managed with better management and operations. However, he challenged us at the NCIT to identify better techniques for managing intermodal terminals. Productivity at our container terminals needs to improve drastically. Singapore, Hong Kong, and Rotterdam are able to move well over 30 containers an hour while our best systems here in the US are only capable of about 2/3 that. Advances in technology and management techniques could narrow these gaps significantly. Similarly, Rodrigue, has argued that existing intermodal freight facilities and port operations could be greatly enhanced by using the *ThruPort* [8] system, which maximizes the speed of offloading containers onto railcars, drastically reducing the

[8] Rodrigue, J. (2006) The Thruport Concept. Reconciling Time and Flows in Rail Freight Distribution. http://people.hofstra.edu/faculty/Jean-paul_Rodrigue/downloads/JPR_Thruport1.pdf

number of moves that must be made to get a container out of an intermodal yard and onto a carrier. Improving productivity and operations would free up more capacity.

Competition

Our transportation infrastructure contributes to our national economic competitiveness. Costs of transportation to businesses dropped from 16% of GDP in 1980 to 10.1% in 2000.[9] I recently attended a meeting of the Asia Pacific Economic Cooperation Working Group in Hanoi, Viet Nam. Interestingly, the economies of our Asian neighbors are booming. Viet Nam has seen steady growth in GDP over the past ten years and is now looking at an 8% rate. Clearly, an efficient transportation system is needed to support economic growth and while low wages can offset the transportation infrastructure for a time, there is a limit. Government officials attending the meeting were very interested in attending seminars and gaining skills in intermodal planning and transportation. The lesson is clear, if a developing economy can create an intermodal system now, costs and benefits will accrue steadily over time. Thus, the US will face continued competition in maintaining a highly desirable and competitive business favorable infrastructure.

Recommendations

- **Research on alternative funding mechanisms are needed.** Transportation problems are created by larger systems and forces, yet funding is tied to local concerns. .

- **Create a single source of funding.** Financing of transportation projects should not be tied to mode specific funds. Transportation should be considered a total system throughout the nation. Defining a mechanism to pool funds and then to prioritize the funding of nationally important projects based on criteria that will decrease congestion and improve economic outcomes is the most desired approach.

- **Establish an Undersecretary for Intermodal Policy.** The USDOT established an Office of Intermodalism but it lacked appropriate resources and likely the political clout, to effect meaningful change. Currently, its address is under review. Intermodal connectivity and planning need to be a central focus of the DOTs strategic freight plan. Intermodal is not mentioned in the current *Framework.* DOT needs an Undersecretary for Intermodal Policy.

- **Reform the federal role.** The USDOT should be user-focused and service oriented rather than modally focused. Changing the perspective of the DOT from mode-focused to user-focused will decrease emphasis on individual modes and increase likelihood of selection and development of most efficient mode. Developing separate policy functions that address passenger and a freight issues would be a significant improvement.10

[9] Lockwood (2003). Intermodalism: Multimodal vs. Intermodal Transportation. Paper presented at the Transportation and Technology Forum. March 2003

- **Encourage public-private partnerships..** Encourage public-private partnerships that maximize the financial resources and collaboration between planners.

- **Research operational and managerial improvements.** There seems to be limited funding for development of best practices or demonstration projects. For example, the *ThruPort* concept could be very significant and lead to the creation of third generation intermodal terminals, but it needs more study.

- **Develop education and training programs.** Develop programs that provide the conceptual and analytical training needed to implement intermodal solutions. Few programs are available that provide comprehensive and systematic training for key decision makers. Most executives of public and private transportation companies and organizations come up through specific modes. ITI at the University of Denver offers a Master of Science in Intermodal Transportation Management, a graduate program designed to prepare the intermodal transportation leadership of the 21st century.

- **Create improved incentives for collaboration and coordination of planning at the local, regional, and state level.**

Shirley, Gilda

From: Lundquist, Tim
Sent: Wednesday, July 05, 2006 10:31 AM
To: Shirley, Gilda
Subj ct: FW: Final - Committee Letter

Attachments: Committee letter from Sr21 final _2_.pdf; Testimony_Intermodalism hearing_HTISH_Rodrigue.pdf; Testimony_Intermodalism_House_Sub_TIP_Rohter_IIT_IPRO_draf..pdf; Letter of Support_Dr. Mitra.pdf; 200605_Thruport_IPRO_iit.pdf

Committee letter from Sr21 fin... | Testimony_Intermodalism hearin... | Testimony_Intermodalism_House_... | Letter of Support_Dr. Mitra.pd. | 20060503ipro307brochure.pdf (3...

-----Original Message-----
From: Charlotte Ibitayo [mailto:CIbitayo@qsales.com]
Sent: Friday, June 30, 2006 5:32 PM
To: Lundquist, Tim
Cc: William Lanigan; Jack Lanigan Sr.; Eugene Larken; Peter Mirabella; Jean-Paul.Rodrigue@hofstra.edu; mita@calumet.purdue.edu; randall.guensler@ce.gatech.edu; psherry@du.edu; Rohter@iit.edu; Ray Tippit; John Zumerchik; Mike Lanigan; Jack Lanigan
Subject: FW: Final - Committee Letter

Mr. Tim Lundquist,

Please accept the attached documents toward the testimony delivered by Professor Patrick Sherry of the University of Denver to the House Committee on Transportation and Infrastructure on June 15, 2006. Please read the Committee Letter from Jack Lanigan, Sr. (See Committee letter from Sr21 final.pdf) as an overview to the attached letters of support provided by the following
universities:

Hofstra University, Dr. Jean-Paul Rodrigue, Department of Economics and Geography IIT, Laurence Rohter, P.E., Adjunct Professor Purdue University, Dr. Amlan Mitra, Ph.D., Associate Professor of Economics Georgia Tech University, Randall Guenslar, Professor of Civil and Environmental Engineering (document to follow Monday, July 3, 2006)

After reviewing documents, feel free to call Jack Lanigan, Sr. at (708) 331-0094 with any comments or questions and forward to the committee members.

Thanks in advance for your time and consideration.

Jack Lanigan, Sr.
Chairman of the Board
Mi-Jack Products, Inc.

<<Committee letter from Sr21 final _2_.pdf>>
<<Testimony_Intermodalism hearing_HTISH_Rodrigue.pdf>>
<<Testimony_Intermodalism_House_Sub_TIP_Rohter_IIT_IPRO_draf....pdf>>
<<Letter of Support_Dr. Mitra.pdf>>
<<200605_Thruport_IPRO_iit.pdf>>

IPR0307

AUTOMATED SHIPPING CONTAINERS

Sponsors
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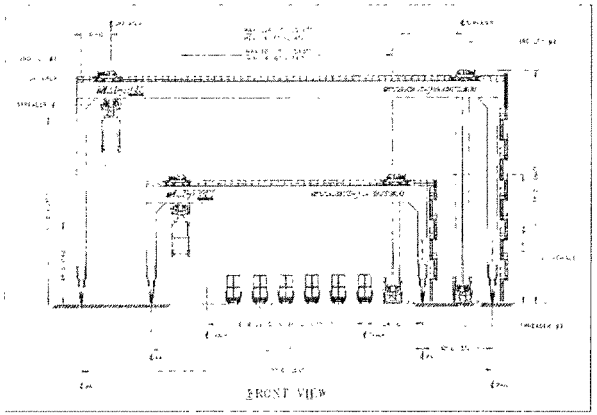
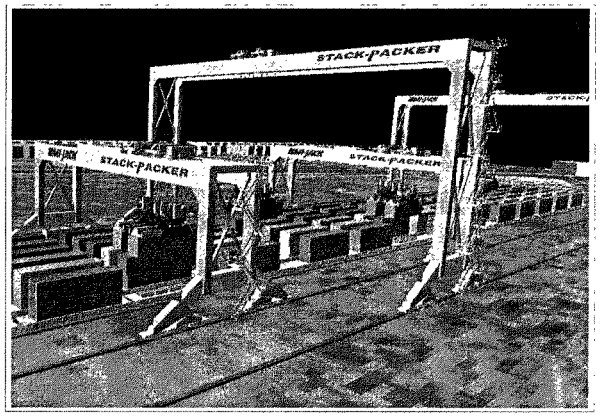
William Oppel
Jeffrey Ueeke
Steven Ueeke
Kenneth White
Adejoke Afon Ader Egbe
Mario Esposito

1. A Thruport Concept is... A Set of Hardware,



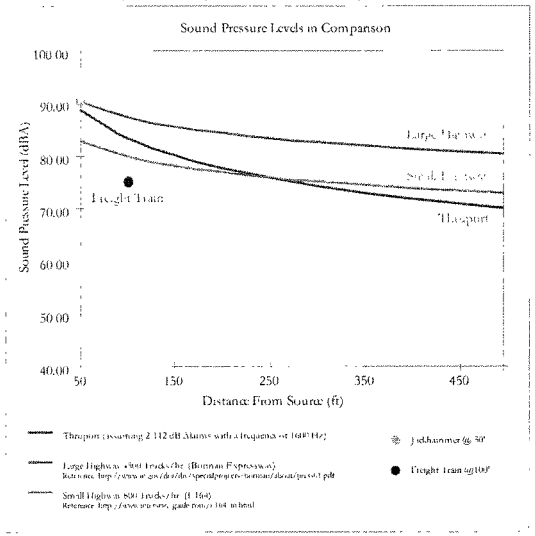
Mr Jack's Thruport system consists of a system of four cranes, two sizes. The smaller cranes (77 feet tall) will span across nine tracks while passing under two larger cranes (139 feet tall), which span over eleven tracks. Both cranes will be equipped with the capability of stacking three containers atop one another providing maximum efficiency in the transferring process. This procedure will eliminate the use of stripping trains of their containers and storing them in their yards. Estimated transfers per 24-hour day: 6,000.

...And an Operating Scheme.



The concept will implement a rail yard hub by organizing and shuffling similar geographical destined intermodal containers. The operating plan was chosen based on analyzing several corridors of travel through Illinois. After analyzing current rail capacity, intersections of all six major railways, and available land, an exact corridor has been established and more importantly a location for the 100ft x 9000ft site.

2. A Thruport Concept is... A "Good Neighbor" and "Environmentally Friendly."



Thruport only takes up about 17 acres while an intermodal facility like Calumet Terminal takes up 1200 acres.

There is not a lot of man-made ground covering. For example, the amount of pavement on the premises will be very small because all of the traffic will be on the tracks which do not require heavy and stable material.

The only access that Thruport needs to roadways would be for the 300 or so employees. As a result of this, that Thruport will not generate much more traffic in the area where it is placed.

Truck traffic at Thruport will be very low with most of the 20,000 containers coming along the tracks. There are no materials or trucks idling in and out of the facility. This gives the impression of being an industrious but non-dangerous. People will feel more comfortable seeing this facility than a traditional intermodal yard.

There will not be very much need to sound crossing and unloading alarms will be minimal. Most of the loud and annoying noise will come from the alarms on the cranes that give warning. Since these are point sources, the sound level drops off as 1/r2 where r is the distance away from the alarm. As compared to a large highway, the source level is comparable to the road or tracks, but since highway noise comes from several sources, the sound level drops off as 1/r which is much slower than at Thruport. (See attached figure)

Thruport will not have large amounts of equipment stored on the premises because of its mode of operation. This makes it appear to a much cleaner and more aesthetically pleasing location than even a traditional intermodal yard.

Thruport will need no grounding sand, 7000 cubic yards of concrete. Compared to traditional intermodal yards which may need more than 45,000 cubic yards just for containment, storage in a facility such as Global Chicago.

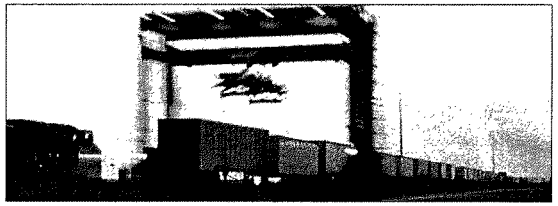
Thruport is very environmentally friendly when it comes to drainage also. Since most of the facility is just railroad tracks, the material that would cover most of the ground would be crushed limestone. This drains water very well, especially when compared with the massive areas of concrete or asphalt that are normally associated with intermodal yards. The drainage also depends on the excavation. But as far as environmental impact, Thruport would change things very little.

2. Compared to other Options, Thruport System is the most Efficient.

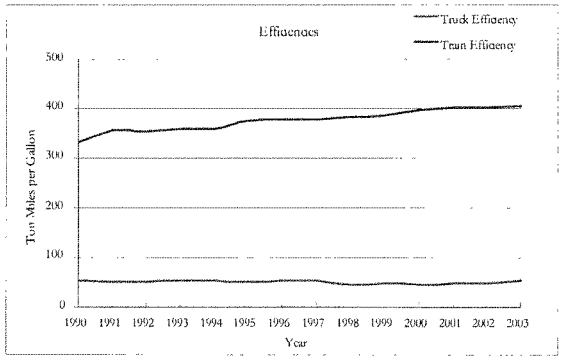
In terms of a national environmental impact for a ThruPort system, it would be appropriate to consider its comparison with other systems.

Trucking is a widely used mode of transportation in today's world. However, with the increased intermodal traffic expected in the next twenty years one must consider the atmospheric effects of this increase. The trucking industry, though popular in the world of business and transportation, is not as efficient as a railroad. From 2003 statistical numbers, semi trucks use one gallon of fuel to transport one ton of freight about 53 miles. This seems fairly decent until one considers these numbers in comparison to the rail industry.

The rail industry is unique because it uses one or two, sometimes more, engines to pull a large number of tons of freight. This is a definite advantage when it is compared to truck efficiency. A train is able to move one ton of freight about 405 miles using only one gallon of fuel again from 2003 statistical numbers. This is a huge advantage to those concerned with saving both costs and the environment with regard to fuel.

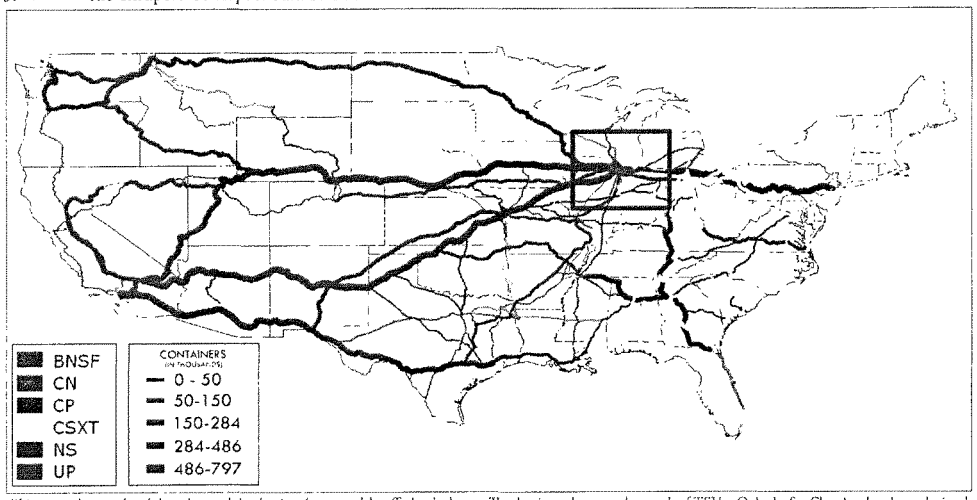


It seems as though from these numbers, the rail industry is more than seven times as efficient as the trucking industry. Also, with the ThruPort system, rail industry capability will be increased due to the fact that the faster travel rate of ThruPort will decrease the amount of standing time that is included in the ton mile per gallon.



There also...

3. The Thruport Concept should be on a Site...



This image shows railroads by colors and the density of intermodal traffic by thickness. The density is shown in thousands of TEUs Only the Six Class 1 railroads are depicted.

The data was extracted from images depicting the 1997 carload waybill sample The data was then matched up with existing GIS data (Rail2m) and entered accordingly The images were then created with Arcgis showing carloads by thickness and railroads by color

Preferably on the Big Blue Line.

IIT

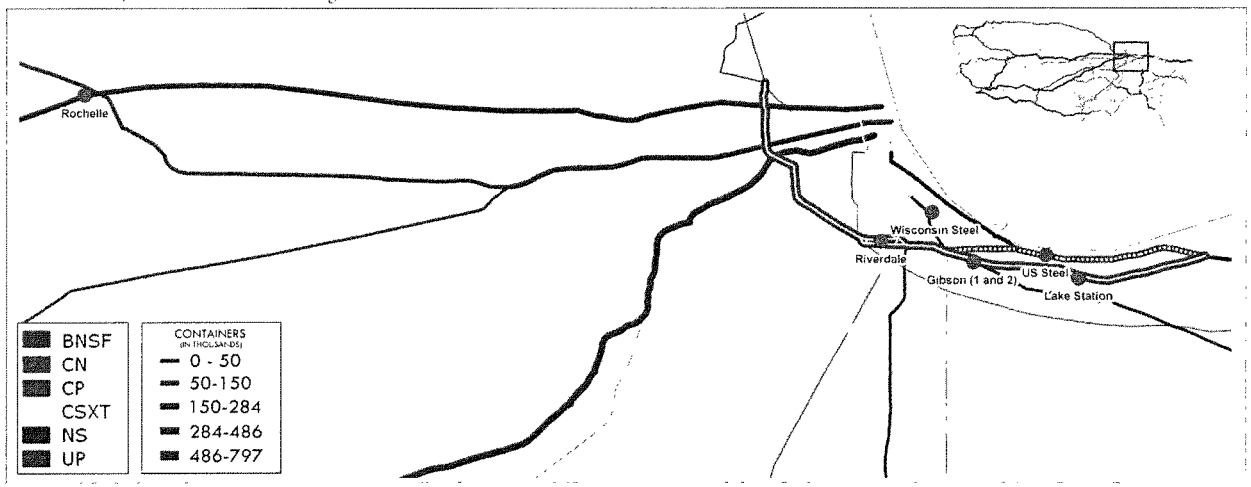
Comments

Description: Automated Shipping Containers in Chicago
Date May 5th, 2006
Client: Mr - Jack Products
Focus: Thruport Concept - Where?

5

The Big Blue Line

There are 6 Sites, and 4 of them lie on the Big Blue Line.

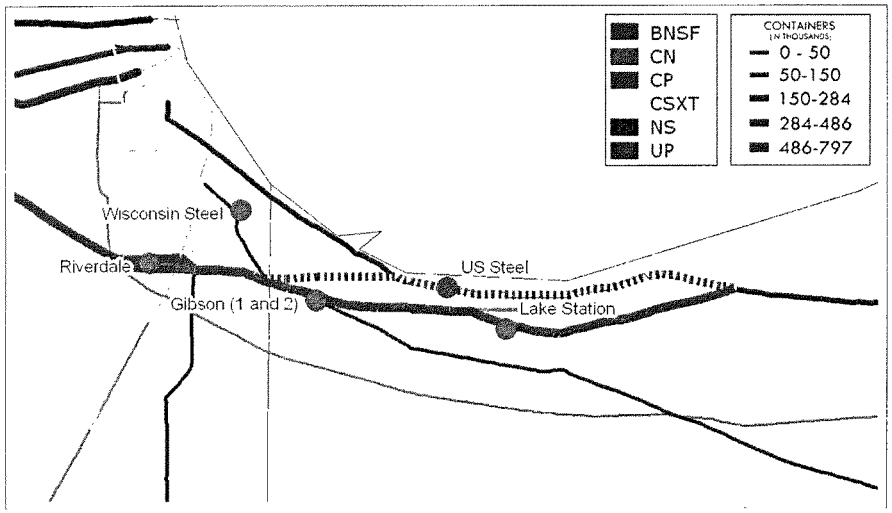


It is clear that all the major Intermodal traffic within Chicago comes in contact with the Big Blue Line. This major through-route is mainly comprised of what is known as the Indiana Harbor Belt, and is important for all of the United States' intermodal traffic. The Big Blue Line has direct connection to each of the investigated sites except Rochelle.

The data was extracted from images depicting the 1997 carload waybill sample. The data was then matched up with existing GIS data (Rail2m) and entered accordingly. The images were then created with Arcgis showing carloads by thickness and railroads by color.

The East - West Line

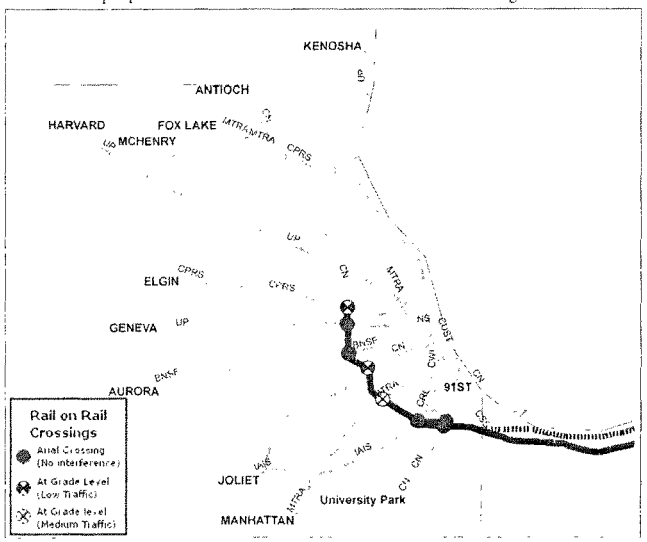
The Four Sites Lie on the East-West Line.



Which would also be helpful in reducing traffic.

Interference

There is a couple points with Metra and Road Interference on the Big Blue Line.



	Cross Road Intersection	Railroad Rails	Interference
1	CP Northland	CPR	55 TPD*
2	Cleveland Ave		[illegible] **
3	Central Ave		[illegible] AADT
4	CP Hill	UP	[illegible] PD
5	Shawmut Ave		[illegible] AADT
6	Lincoln Ave		[illegible] AADT
7	Stolp Ave		[illegible] AADT
8	W 47th St		[illegible] AADT
9	East Ave		[illegible] AADT
10	CP McCook	BNSF	[illegible] TPD
11	CP Cicero	WSOR	[illegible] TPD
12	CP Argo	BRC	[illegible] TPD
13	CP Ridge	NS	[illegible] PD
14	Central Ave		[illegible] AADT
15	W 127th St		[illegible] AADT
16	127th St		[illegible] AADT
17	CP Lincoln	CN	[illegible] TPD
18	Western Ave		[illegible] AADT
19	Stony Ave		[illegible] AADT
20	Nicholson Ave		[illegible] AADT
21	CP Dolton	UP	[illegible] TPD

Red: Major Road Interference
Blue: Railroad Crossings

* Metra Trains Per Day
** Annual Average Daily Traffic

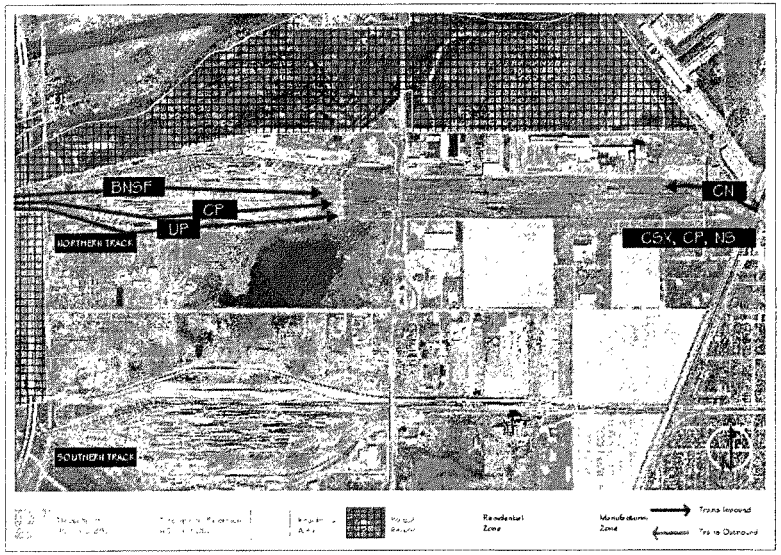
This image to the left demonstrates how Metra traffic will interfere with freight traffic along the Big Blue Line. The three grade level crossings are depicted using circles with X's and the Cross overs are depicted as circles. Each of the the yellow lines represents a line currently in use by the Metra passenger rail service.

The table above provides insight to how traffic along the Big Blue Line will interfere with automobile traffic. Red rows list the names of major roads intersecting the Big Blue Line, while blue rows indicate crossing railways. Metra Trains have priority and are therefore the biggest concern for interference along the Big Blue Line; Metra interference is minimal throughout the corridor peaking at the northern end.

This image was made using the ArcGIS GIS data with information obtained from google earth and railroad schedules obtained from Metrarail.com

The Sites: Riverdale Site

The Riverdale Yard would be a "Yard Revision" Project

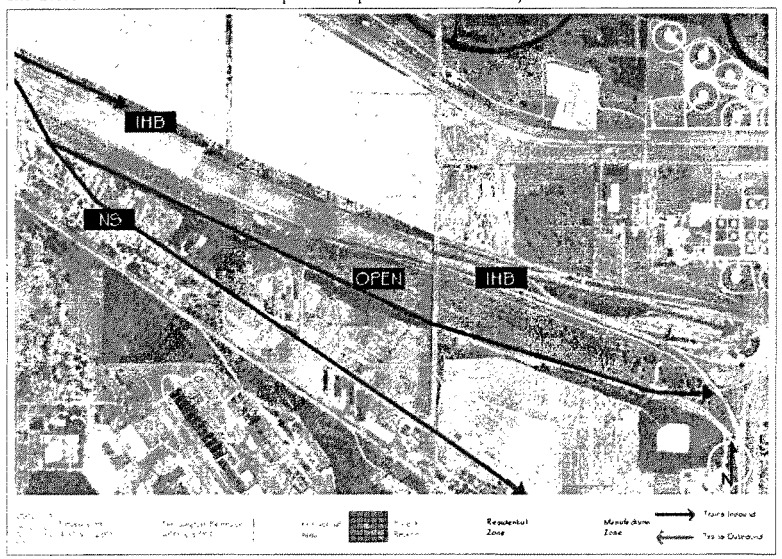


The chosen positioning of the Thruport system utilizes the longest available length of track with room for expansion. While the shuffling of containers focuses on the Northern Track, the Southern Track allows for trains bypassing the Thruport hub, leaving it less congested. Also, it allows the CN line easy acces to the Thruport system. Riverdale also has the most raillines crossing through it amongst our investigated sites, and therefore is the best example of how the Big Blue Line is beneficial when constructing a new Thruport system.

	Riverdale	Gibson-W	Gibson-E	Gary, IN	U.S. Steel
Thruport 400' x 5,280'	YES	YES	YES	YES	YES
Thruport 470' x 3,000'* * expansion demolishes	YES	limited	YES	YES	YES
Min. Distance to Residence	75'	50'	350'	60'	100'
Restricted Zones	Forest Region	N/A	N/A	Industrial Residential	Industrial
Rail lines involved	BNSF, CP, UP, CN, CSX, NS	HIB, NS	HIB, NS	CSX	CSS, SB CSX, NS
Major Highways with in 1 mile	N/A	N/A	N/A	I 90, I 94 I 80, I 65	I-90

The Sites: Gibson West Site

The Gibson Yard would be a "Yard Expansion Upon Contraction" Project

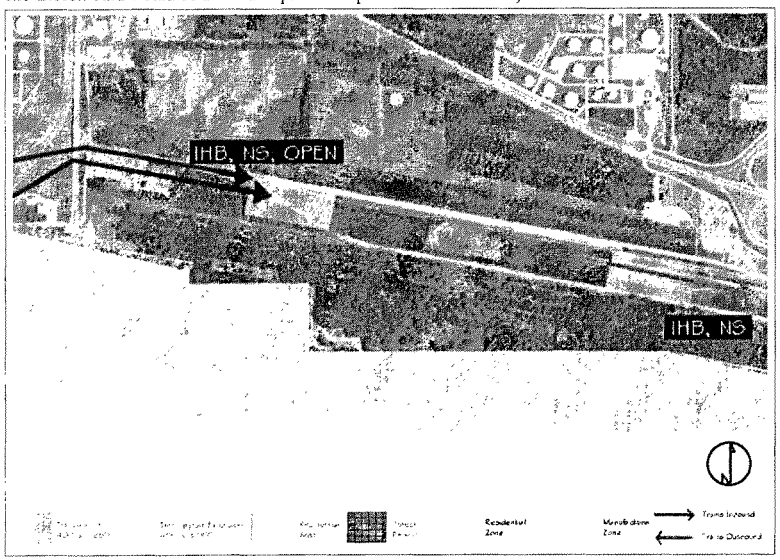


The Gibson West site is restricted by an overpass. Thus, Thruport cranes cannot travel underneath, which limits the facility to only one end of the Gibson West yard. One advantage is that residential housing only exists North of the Indiana Harbor Belt and also as an added benefit, neither the Gibson West, nor East site have any restricted zones by code that would interfere with Thruport construction. This site is also on the Indiana Harbor Belt, and thus lies directly on the Big Blue Line.

	Riverdale	Gibson-W	Gibson-E	Gary, IN	U.S Steel
Thruport 400' x 5,280'	YES	YES	YES	YES	YES
Thruport 400' x 3,000'* * expansion determinants	YES	limited	YES	YES	YES
Min Distance to Residence	75'	50'	150'	60'	100'
Restricted Zones	Forest Region	N/A	N/A	Industrial Residential	Industrial
Rail lines involved	BNSF, CP UP, CN, CSX, NS	IHB, NS	IHB, NS	CSX	CSX, SB CSX, NS
Major Highways with in 1 mile	N/A	N/A	N/A	I 90, I 94 I 80, I 65	I-90

The Sites: Gibson East Site

The Gibson Yard would be a "Yard Expansion Upon Contraction" Project

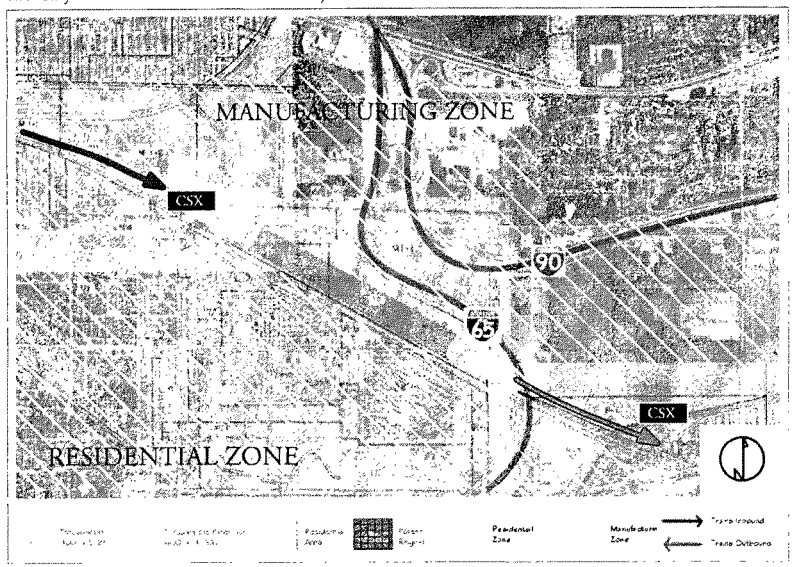


The Gibson Site meets all size requirements and has access to most of the major rail lines since it is on the Big Blue Line. Renovation costs are lower than other sites since it was formerly a rail yard, and there are no hazardous materials to be cleaned up. There are also no overhangs. The only downfalls of this site are its relative proximity to residential areas, and that vegetation would have to be cleaned up on the Gibson East site.

	Riverdale	Gibson-W	Gibson-E	Gary, IN	U.S. Steel
Thruport 400' x 5,280'	YES	YES	YES	YES	YES
Thruport 400' x 3,000'* * expansion dimensions	YES	limited	YES	YES	YES
Min. Distance to Residence	75'	50'	150'	60'	100'
Restricted Zones	Forest Region	N/A	N/A	Industrial Residential	Industrial
Rail lines involved	BNSF, CP, UP, CN, CSX, NS	IHB, NS	IHB, NS	CSX	CSX, SB CSX, NS
Major Highways with in 1 mile	N/A	N/A	N/A	I 90 I 94 I 80, I 65	I-90

The Sites: Gary Site

The Gary Yard would be a "Fresh Site" Project:

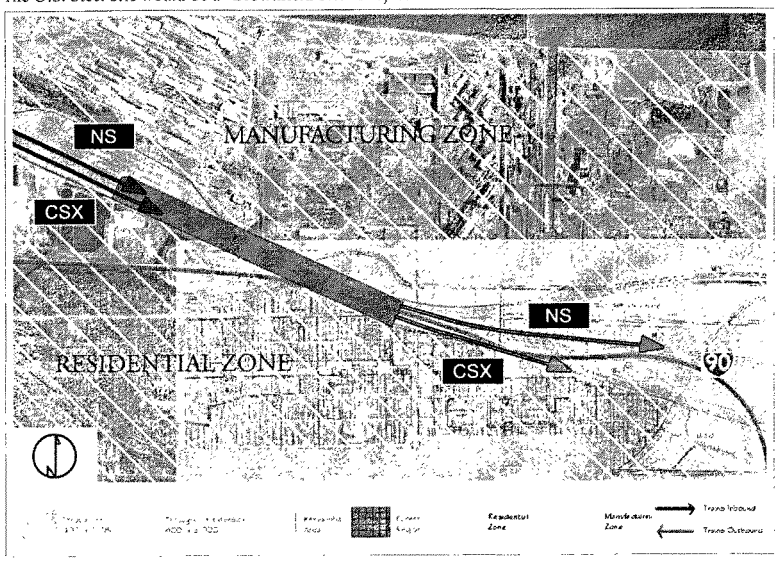


The largest benefit of the Gary Site would be that it is located along the Big Blue Line, and is also located within one mile of I-90, I-94, I-80, and I-65 highways. It is also a large Manufacturing zone, and thus additional footage is avaliable within the site and is expandable up until 400' x 9000'.

The only drawback is that if the site is expanded towards the northwest, an "underpass" would need to be built for Martin Luther King drive.

	Riverdale	Gibson-W	Gibson-E	Gary, IN	U.S. Steel
Thruport 400' x 5,280'	YES	YES	YES	YES	YES
Thruport 400' x 3,000'* * expansion dimensions	YES	limited	YES	YES	YES
Min. Distance to Residence	75'	50'	150'	60'	100'
Restricted Zones	Forest Region	N/A	N/A	Industrial Residential	Industrial
Rail lines involved	BNSF, CP, UP, CN, CSX, NS	IHB, NS	IHB, NS	CSX	CSS, SB CSX, NS
Major Highways with in 1 mile	N/A	N/A	N/A	I-90, I-94 I 80, I 65	I-90

The U.S. Steel Site would be a "Brownfield Site" Project:



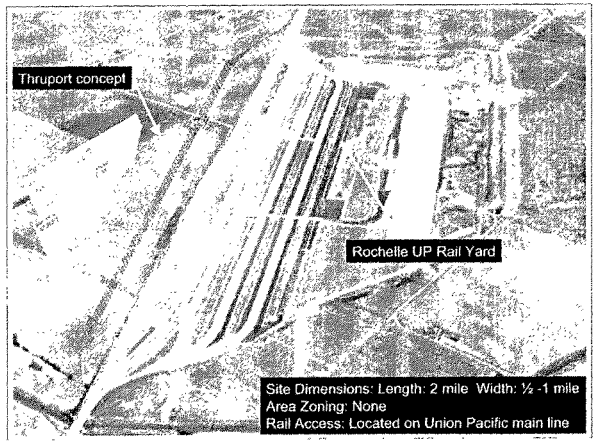
The U.S. Steel Site is conveniently located within a large manufacturing zone, and with the infrastructure already built on the site containing 6 railroad tracks, it is an ideal location for a new Thruport yard. It is also close to downtown Gary, Indiana, and the I-90 Highway, and therefore would be helpful in developing the nearby community. The site is also easily expandable to 400' x 9000' site since the site is large.

The only drawback to this site would be that the site detours slightly from the Big Blue Line.

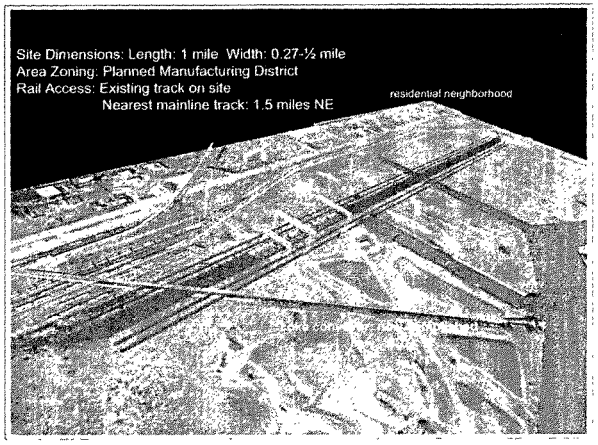
	Riverdale	Gibson-W	Gibson-E	Gary, IN	U.S. Steel
Thruport 400' x 5,280'	YES	YES	YES	YES	YES
Thruport 400' x 3,000'* *expansion possibilities	YES	limited	YES	YES	YES
Min. Distance to Residence	75'	50'	150'	60'	100'
Restricted Zones	Forest Reserve	N/A	N/A	Industrial Residential	Industrial
Rail lines involved	BNSF, C.P., UP, CN, CSX, NS	HIB, NS	HIB, NS	CSX	CSS, SB CSX, NS
Major Highways within 1 mile	N/A	N/A	N/A	I 90, I 94 I 80, I 65	I-90

Sites Not on the Blue Line

Rochelle

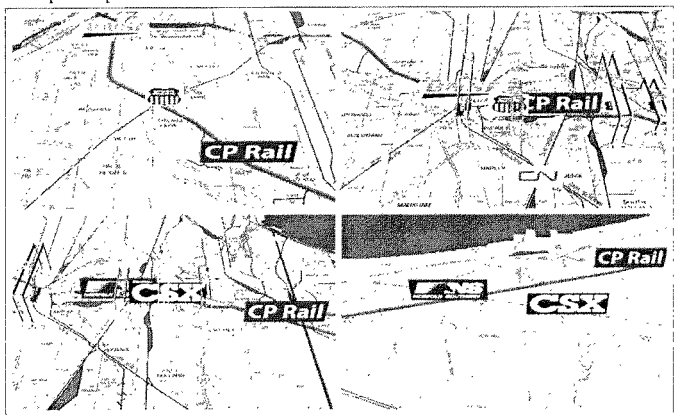


Wisconsin Steel



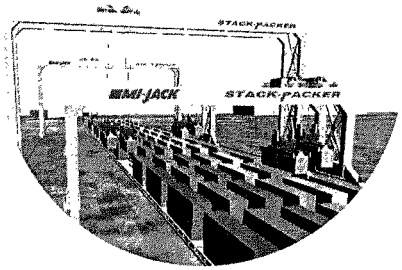
Computer Model
& Other Electronic Data

Conceptual Operation Plan in 3-D Video



The conceptual operation plan starts off with all rail lines beginning their routes. Instead of stopping at one of their own rail yards to drop off containers to be carried off by truck, to other rail lines, all the trains meet in a single yard. This yard will house the Thruport crane system which will then sort through the trains' containers, moving them amongst each other based on the final destination of each specific container. This process allows for the termination of truck transportation of the containers and containers being moved from a train to the ground and then to another train, causing delays and traffic on the roads. After the container arrangement has been implemented, the trains can continue on their routes.

Automated Shipping Containers
Interprofessional Projects at IIT #307
Movie and Data DVD



MI-JACK PRODUCTS

3111 W. 167th Street
Hazel Crest, IL 60429
(708) 596-5200
Fax: (708) 225-2312

Date, June 28, 2006

Dear Tim Lundquist,

I would like to introduce Mi-Jack Products, Inc., a privately owned company that has been in business for 53 years. Mi-Jack Products, Inc. is known as the industry's leader working with all of the major intermodal railroads assisting them in designing 98% of the railroad intermodal ramp operations. Mi-Jack Products, Inc. is the leader in design and manufacturer of intermodal equipment. We also service equipment and operate 72 intermodal rail terminals in the nation for the past 38 years. In 1960, Mi-Jack Products, Inc. introduced a rubber tire overhead gantry crane that is credited for taking piggyback (now called intermodal) and circus ramping out of the dark ages. The loading/unloading trailers took two to four hours each. Today, the Mi-Jack Products, Inc. gantry crane loads/unloads trailers and containers in one to two minutes. The savings in operating costs are 500% as compared to circus loading.

Mi-Jack Products, Inc. also introduced the 2-for-1 concept for ramp operations in the 1970's. Burlington Northern Santa Fe Railroad, Willow Springs Yard, is a good example of implementing the Mi-Jack crane in conjunction with the 2-for-1 designs. The Willow Spring's terminal has a reputation for being efficient, having fast turn around, low operating cost and a built-in expansion capability for handling additional volume.

For the last 20 years, we have developed a concept for clearing up the arteries of intermodal by concentrating on the interchange of freight from one corridor to another. Presently, it takes 24 hours or more to go cross-town by truck or 48 hours or more per container/trailer to be interchanged via steel wheel to a final destination corridor. The Thruport concept does the interchange to final destination in two to five minutes per trailer/container.

Though Mi-Jack Products, Inc.'s association with the intermodal industry, we became aware of the increased volume each year and planned a new way of operating a terminal. The Thruport will be the foundation to build new and needed infrastructure, such as rail overhead crossovers, major railroads will have six main lines on their right of way in lieu of the one or two present lines, high speed rails, radar in locomotive cab to prevent head on or rear collisions, state of the art switch mechanism, etc. When the Thruport and new infrastructure are in place, the first phase will be to remove 50 million tractor-trailers off the highways and onto rail intermodal. In addition to having a 21st century transportation system there will be additional benefits such as fuel conservation, reducing poisonous gases into the air, and reducing mass congestion on the highways.

After we finalized our preliminary Thruport design, we contacted five University/Colleges familiar with rail intermodal operations. Establishing a consortium based on each college's expertise, they evaluated the concept directly relating to operational, environmental, economical and technical phases of the Thruport.

The five colleges we selected that have added written testimony are:

- Illinois Institute of Technology, Lawrence Rohter, PE Adjunct Professor, email, Rohter@iit.edu
- Purdue University, Hammond, Amlan Mitra Ph.D., Associated Professor of Economics, mitra@calumet.purdue.edu
- Denver University, Pat Sherry, Ph.D., see testimony delivered to the House Committee on Transportation and Infrastructure, "Intermodalism: The Transportation Imperative for the 21st

Century" on 6/15/06 were he mentions "the Thruport concept is also a project worthy of additional consideration and funding".

- Hofstra University of New York, Jean Paul Rodrigue, Ph.D.Dept of Economics & Geography
- Georgia Tech University, Randall Guenslar, Ph.D.,

The beneficiary of the rail Thruport will be the truck line carriers, particularly the long distance freight carriers. The Thruport will reduce and in some instances eliminate the truck line carriers operating costs on the following items by using Rail Intermodal:

Traffic delays caused by highway repairs and congestion

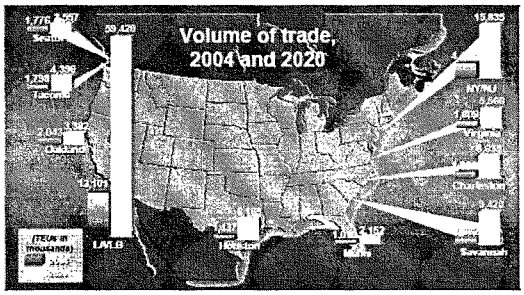
- New diesel engines must meet EPA regulation by 2007
- High cost of fuel
- Insurance coverage increasing from $4600 to $6300 per tractor annually.
- Insurance deductible that were thousands of dollars now reaching into the millions
- Reduce the cost of maintenance on the trailers
- No tractors required for long and short distance shipments. Shipping by Rail Intermodal will help elevate the severe driver shortage.

Once the truck line carriers realize that the 21st century rail intermodal can match or exceed the present time schedule for delivering freight, there will be a stampede of truck line carriers going to rail intermodal. That can only be accomplished with a Thruport 21st century rail infrastructure.

"Today's reality is that the demand now outweighs the supply"[1]

The need for new and expanded infrastructure is imminent. As presented by the Department of Transportation report "Draft Framework for National Freight Policy", container traffic throughout the United States will grow more than 3 times to more than 115 million containers.[2] Additionally, one of the primary objectives stated in this paper is to "Add physical capacity to the freight transportation system in places where investment makes economic sense".

Dramatic increases in projected freight demand



2

"Sooner than later, both industries will not be able to increase their sales volume because the present infrastructure for rails and highways are bursting at the seams. When industry cannot expand, based on inadequate infrastructures, it is not only bad for the truck line and rail industry but it is critical to the nations' business health. Once the infrastructures fail to accommodate the transportation industry, it will affect all business in the nation."

Source: Jack Lanigan, Sr., Chairman, Mi-Jack Products, Inc.

Thank you in advance for taking time to hear our testimony. After reading the attachments, please feel free to contact us by phone or e-mail for further discussion.

Regards,

Jack Lanigan Sr.
Chairman of the Board

1. Ref: US Express, 8-12-04, Statistics No 2-10,
2. Ref: "A Draft Framework for National Freight Policy"; U.S. Department of Transportation, Feb, 1, 2006

The Thurport in 21st Century American Rail Freight Transportation

Written Testimony for the Transportation & Infrastructure Subcommittee on Highways, Transit and Pipelines, U.S. House of Representatives, June 21, 2006

Dr. Jean-Paul Rodrigue
Dept. of Economics & Geography
Hempstead, New York
Jean-Paul.Rodrigue@hofstra.edu

Forwarded to:
Tim Lundquist
Hearing Records
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202.225.6715

I am writing in reference to the Intermodalism hearing by the House Transportation & Infrastructure Subcommittee on Highways, Transit and Pipelines held on June 15, 2006. At the hearing, Dr. Patrick Sherry, from the Intermodal Transportation Institute at the University of Denver, addressed the Thruport Concept "as a project worthy of additional consideration and funding". I would like to further elaborate about the potential of the Thruport concept to improve American rail freight transportation and provide a justification for a strategy involving feasibility studies and implementation. It has been stated before this committee and others that rail freight is currently facing serious challenges to meet the nation's present and future freight mobility needs[1]. In simple terms, limits in the capacity of many segments of the national rail system have been reached and new solutions must be provided. Due to the complexity of contemporary freight distribution these solutions will have to be addressed by the various actors involved, from the federal, state and municipal governments to the private sector (rail companies, terminal operators, trucking companies, third party logistics providers, etc.). While many endeavors can be mitigated almost exclusively by the private sector, the national scale inherent to the problem addressed by the Thruport requires a concerted effort. Before going further, I would first like to provide a brief introduction of what is a Thruport and why its setting should be seriously considered.

The Nature of a Thruport

The term Thruport suggests a seamless transfer of freight by a reduction in handling and the number of movements required to perform a "transmodal" container or trailer

[1] See for instance the testimony of the Honorable Joseph H. Boardman, Federal Railroad Administrator, before the Subcommittee on Railroads, Committee on Transportation and Infrastructure, U.S. House of Representatives, April 26, 2006.

operation. The term transmodal simply refers to a movement from one segment of the same transportation mode to another such as rail to rail or truck to truck. Currently transmodal rail operations rely on two approaches. The first involves trucking as containers are moved from one rail terminal to another; let it be within the same facility or between nearby facilities. The second is a standard rail interchange that switches railcars between different terminals. This can take between 24 and 48 hours or longer depending on the corridor and the type of railcar. Both strategies are not very efficient as they involve several stages. Functionally, a Thruport reduces the multiple stages in transmodal rail operations to a single one. Aside from the gained efficiency resulting from reduced handling operations, the probability for damage from the numerous operations a container is subject to is reduced. For instance, a Thruport would eliminate tractor, driver, chassis, and cross-town delivery to terminals (Figure 1).

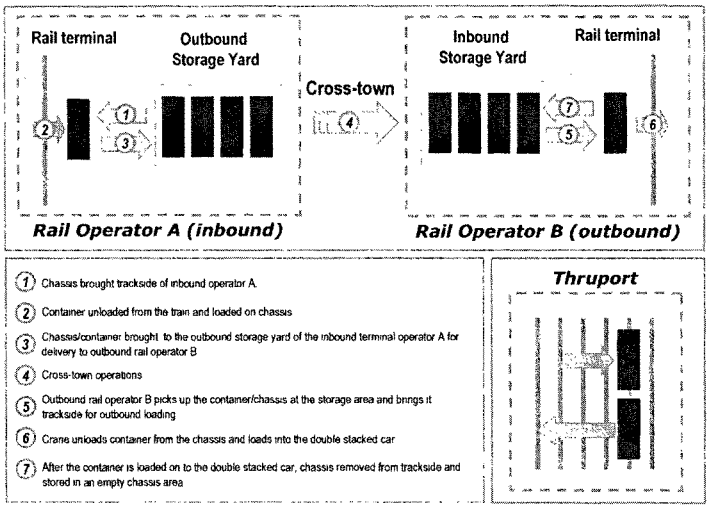

Figure 1 Transmodal Rail Container Transshipment Sequence: Before and After a Thruport

The Rationale for a Thruport

Although American intermodal rail transportation is getting increasingly efficient (particularly rail / ship), the whole issue of transmodal rail has barely been addressed. Rail transmodal operations are complex and time consuming, mainly due to the fact that the terminals involved are not directly connected because of ownership fragmentation. Typically for transcontinental rail freight, a container has to be unloaded at the terminal of a rail operator to a chassis which is then stored at an outbound yard, waiting to be picked up. Then, after several document verifications, the container is carried across town to the terminal of another rail operator, where it is stored at an inbound yard. The truck that delivered the container often drives back empty. When the outbound unit train is being assembled, the container is picked from the yard and loaded on the railcar. The time and cost performance of such operations varies since there is a wide variation

between peak and non-peak time periods, the amount road congestion between terminals as well as congestion and delays to access terminals.

My research[2] has revealed two major factors behind the fragmentation of the current rail system that particularly justify a Thruport:

- **Market Fragmentation**. The American market is massive but fragmented and can only by accessed through a small number of gateways, mainly corresponding to major ports. As the American retailing market increasingly depends on foreign suppliers, the traffic handled at these gateways has surged along with long distance rail. In this one-to-many distribution setting, it is virtually impossible to offer direct services; hubs have to be used. This thus represents a situation in which Thruports could act as hubs where containers are shuffled to their respective unit trains bound to specific markets. The efficiency of gateways to accommodate intermodal traffic would thus be linked with the efficiency of the Thruport.
- **Ownership Fragmentation**. American Rail companies have their facilities and customers and thus have their own markets along the segments they control. Each rail system is the outcome of substantial capital investments occurring over several decades. Interchange is a major problem between segments controlled by different rail companies, particularly since many networks were built to gather market share and regional control over rail freight services. Until the last two decades, this did not present too many difficulties since transmodal operations were comparatively small. However, with a surge of transcontinental rail shipments (for reasons previously discussed), rail operators are bound to further address transmodal issues. In this context, the Thruport creates multiplying effects. The distribution potential of each operator is expanded since they have better access to the freight markets of their competitors, creating a situation of complementarity. An analogy can be made with network alliances that took place in the airline industry. The outcomes were costs reductions, a better service and a wider geographical coverage. Rail networks are obviously much more constrained in the process since they have a high level of spatial fixity – by far the highest of any mode. A Thruport would thus appear to be the next a step in this trend since ownership fragmentation will remain in North America.

Consequently, as a transportation geographer I see the research and development of Thruport facilities as an important strategic step to improve the efficiency of our nation's intermodal transport system. Among the problems facing rail transportation, the challenges of transmodal operations may have been underestimated, particularly in the context of rail freight solutions to rising energy costs and urban congestion. Addressing this issue particularly calls for a strategic plan directed by the Federal government. Because of the capital costs involved, widespread acceptance will be essential; thus, an active Federal role will ensure that every Thruport meets the demands of all the essential players - railroads, motor carriers, and shippers - who often support competing agendas.

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[2] Rodrigue, J-P (2007) "The Thruport Concept: Reconciling Time and Flows in Rail Freight Distribution", submitted for publication, Journal of Transport Geography, http://people.hofstra.edu/faculty/Jean-paul_Rodrigue/downloads/JPR_Thruport1.pdf

Despite divergent agendas, all the players are united in wanting to better serve their customers and would eagerly support strategies enabling them to provide service in a more efficient and cost effective way.

The Setting of a Strategy

In the testimony of the Honorable Jeffrey Shane, under secretary for policy, US Dept. of Transportation, the basic structural make up of the DOT and its placement of the Office of Intermodalism within the Research, and Innovative Technology Administration (RITA) was discussed. Mr. Shane stated that this change within the DOT would help give a much needed boost to intermodalism with research on key issues, the search for appropriate technologies and the use of relevant statistics. In regard to statistics, there is no tracking of essential rail-to-rail interchange speed and reliability, neither by rail or truck. This is essential information for shippers making decisions how to route their cargo in an intermodal transport system. In contemporary freight distribution, the time element is becoming as crucial as the cost element, particularly in the context of "just-in-time". The growth of containerized rail traffic is in addition creating uncertainties. For example, the "dry port" of Chicago, which is the third largest container hub in the world, experienced a rail intermodal volume increase from 12.4 million TEUs in 2003 to 13.98 million TEUs in 2004, yet shippers have no idea what this surge has done to the speed and reliability of service. There also is no tracking of intermodal traffic volume per rail line. To thoroughly compare the benefits of a range of different Thruport locations and designs, these types of statistics will be vital.

There are many possible consequences **caused by a** lack of funding in intermodal rail. The most obvious are congestion and a decline in the reliability of freight distribution. Mr. Edward R. Hamberger, President and CEO of the American Association of Railroads provided an excellent profile of the economic context affecting rail operations in a Testimony for the Committee on Transportation and Infrastructures, Subcommittee on Railroads, on April 26 2006. On the positive side, we should not expect the freight and rail industry to remain inactive for the clear reason that access to the American market remains one of the most strategic commercial ventures in the global economy, in spite of the remarkable potential of emerging markets such as China and India. For instance, global players, namely maritime shippers and/or port operators, will step in to acquire segments (or significant stakes) of inland freight transport systems, starting with port terminals. In his testimony, Mr. Robert Bray, Executive Director, Virginia Port Authority provides an eloquent example: "Perhaps the best indicator of this tremendous effort is the APM/Maersk's private investment of more than $450 million of its own money to build a 300-acre terminal in Portsmouth, Virginia. This is the first time that a shipping line has invested its own money to build a marine terminal from scratch in the United States." This is probably only the beginning as these global corporations have the financial and managerial means to control large segments of international and national transport systems. The acquisition and the management of strategic intermodal infrastructures by foreign interest are not without controversy as the Dubai Ports situation pointed out in early 2006. I am not here to judge if foreign ownership or management is preferable or not (in many cases it is since a foreign company steps in with an unmatchable expertise that benefits the American economy), simply to state that the loss of ownership is almost

always perceived negatively by the public. Nevertheless, the needs for efficient transmodal rail operations can only increase with the question remaining to what extent it will be imposed by external players.

In conclusion, the development of our nation's intermodal transport system has encountered several bottlenecks. One such bottleneck concerns transmodal rail operations, for which the Thruport concept provides a salient solution. Still, little is known about the strategic and operational setting in which a system of Thruports would operate. At this stage, a public and private partnership could be set, namely under the Office of Intermodalism, which could consider establishing a planning and development **agency—a national thruport construction authority. Along with high speed rail corridors, additional main lines, strategic overhead grade crossings, remote switching from the cab, and radar in all locomotives to prevent rear end collisions, the** development of strategically located Thruport terminals present a unique opportunity for the United States to develop an extremely efficient intermodal rail freight system with enormous energy, environmental and competitive advantages that no other country could match.

ILLINOIS INSTITUTE OF TECHNOLOGY

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ThruPorting Containers and Trailers for Enhanced Transportation Capability.

Written Testimony for the Transportation & Infrastructure Subcommittee on Highways, Transit and Pipelines, U.S. House of Representatives, June 25, 2006

Laurence Rohter P.E.
Adjunct Professor
Rohter@iit.edu

Forwarded to:
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202.225.6715

I am writing in reference to the Intermodalism hearing by the House Transportation & Infrastructure Subcommittee on Highways, Transit and Pipelines held on June 15, 2006.

At the hearing, there were several panels dedicated to developing transportation solutions that cross the typical mode based boundaries of highway or rail or air. At the Illinois Institute of Technology (IIT) for 2 and a half years we have been working on **Advanced Shipping Container Transport System Implementations**. Our work was conducted as an InterProfessional Project, embracing many of the engineering, science, business, and design disciplines taught at IIT

In the first year and a half we researched ***capital intensive*** research solutions and developed a highly effective network that would move containers from one intermodal yard to another on a newly built level above existing transportation corridors such as operating railroads. Using the latest technologies in control, construction and propulsion, such as linear induction motors, we were able to template a viable and economic answer to the problem of moving containers through the congested areas of Chicago. Based on the amount of traffic moving through Chicago, and the arrangement of intermodal terminals circa 2004, the plan was financially feasible as well. (**21st-Century Cargo-Handling Regimen for World's Third-Largest Intermodal Port** Daniel Ferguson, Jorge Arreola, Adan Perez, Illinois Institute of Technology, F. Gerald Rawling, Ariel Iris, Chicago Area Transportation Study, Bruce Dahnke, Dahnke Consulting, Transportation Research Board 2005 Annual Meeting {05-2137})

For the last year we have been researching an ***operational intensive*** solution based on the concept of a rail facility that has the ability to shuffle containers from train to train in one step, using an overhead crane. This concept has been labeled **ThruPort.** We have studied this in detail as it might be applied to the Chicago area. Reviewing 7 potential sites, only one was considered unusable. Our results were based on a compact 400 by 9000foot terminal. It is a very powerful, efficient, and environmentally friendly facility. These results are better described in the attached brochure.

I believe it will have exceptional application in other mid-continental inland areas requiring enhancement of rail based container and trailer handling, such as St. Louis, Memphis, Jackson MS, and Atlanta.

For this reason, I consider the ThruPort concept as a project worthy of additional consideration and funding.

The major challenges that need to be studied are the institutional and design elements that need to be addressed to make such a rail forwarding facility viable in a 21st century context. Like an airport acting as a hub for airlines, a facility would need to have inclusive (or neutral) operational control. Again like our air traffic control system, there would need to be a sharing of routing data that would allow the multiple railroads to schedule their movements and transfers. One vision would be to have a "reservation" type protocol that would allow each container to have its slots for movement pre-determined, and a dynamic procedure for revision based on en-route service changes. Such a capability will certainly be needed as the main rail corridors are under substantial planned maintenance and upgrade.

A major feature of the requirements envision a need for implementation at a national level of communications, control, and co-ordination. Thus the associated research and study needs are likewise bigger than any one particular region.

Attachment—200605_ThruPort_brochure_IPRO_iit.pdf

End of Hearing_Testimony_Rohter

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June 26, 2006

Letter of Support for Economic Feasibility Studies of Thruport Transfer Terminals

Federal Highway Administration research and other studies on freight transportation have shown that transportation infrastructure investments have significant impacts on productivity and economic performance. Any improvements in freight transportation that improves the reliability of freight transportation reduce the productions costs through lower transportation and input costs. Warehousing and inventory costs are also reduced from increased reliability. Also, firms gain competitive advantage when they have access to improved freight facilities. Therefore, higher demand for goods and services leads to further cost reductions through economies of scale of production. In addition, reduction in transit time and increases in schedule reliability have significant productivity impacts. Firms are capable of managing their inventories and supply chains more efficiently. This generates further demand for goods and services, as customers are satisfied with their products.

In the literature on intermodal research, intermodal transportation is not just an improvement in transportation infrastructure. It has the potential of affecting the economic productivity through a two-way improvement. It can improve the existing operational functions of the transportation network as well as expand these operational functions by integrating different transportation systems into a cohesive transportation network that utilizes the comparative advantages of different transportation modes.

Freight-related intermodal investments have generated significant economic benefits through reduced travel time and increased schedule reliability. Also, economies of scale effects that exist in a transportation network are magnified through intermodal transportation. This implies that positive externalities associated with the scale effects can initiate cumulative growth effects at both regional and national levels.

In the 21st century freight distribution network, studies have shown that investments in transportation infrastructure through expansion of rail intermodal facilities have significant economic and environmental benefits. While a primary economic benefit is derived from cost reductions due to improved efficiency and reliability of freight transportation, a primary environmental benefit results from reduction in vehicle emissions and fuel consumption.

The Thruport Transfer Terminal is an innovative rail intermodal concept. It has the ability to produce similar economic and environmental benefits and also has the potential to be successful like the airport hubs in the United States. Preliminary data have shown that potential cost savings may be generated by removing tractor-trailers from the highways and transferring them through Thruport terminals. This, in turn, will also eliminate significant truck emissions and improve highway safety. When the Thruport, in conjunction with state of the art high tech infrastructure, is completed these cost reduction savings should be invested in building infrastructure necessary for a 21st century transportation system without imposing additional burden on the taxpayers.

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The two major transportation modes, truck line carriers and rail intermodal, are very inefficient due to highway and rail intermodal restrains caused by obsolete infrastructure. It should be noted that the truck line carriers need rail intermodal to lower their costs when shipping long distance; rail intermodal needs the truck line carriers to generate additional revenue to justify purchasing state of the art equipment. According to some preliminary estimates, the 21st century rail improvements of the Thruport and rail infrastructures have the potential to lower the cost for the truck line carriers and the rail industry by approximately 35% to 40% when all infrastructures are in place.

During the first phase of the Thruport implementation if 50 million tractor trailers are off the highway and onto rail intermodal it will not only improve the transportation system but it will have a tremendous effect on energy conservation. 50 million tractor trailers parked bumper to bumper is equivalent to 3,400,000,000 linear miles which converted to a four way highway equals 161,000 miles. It is 20 to 30 times more expensive to build a tractor-trailer highway than a railroad highway. Railroad highways costs approximately $1,000,000 per mile compared to building a four-lane tractor-trailer highway, which can cost approximately up to $80,000,000 per mile. Railroads are four to nine times more fuel efficient to operate than tractor-trailers on a congested highway. It is also estimated that the diesel fuel savings of 50 million tractor-trailers is equivalent to building 6.18 Grand Coulee dams that generate 1,196,433,333,333,330 Btu's.

According to a recent study by the Panama Chamber of Commerce, the Panama Railroad Company used the Thruport concept by establishing a corridor going to and from the Atlantic Ocean to the Pacific ports loading and unloading containers from the sea vessels onto the rails in lieu of shipping the containers by trucks on the Isthmian Highway and reducing congestion and poison gases into the atmosphere. The Thruport terminals in Panama have generated significant economic and environmental benefits and have contributed to the rapid growth of Panama as a multimodal trans-shipment center.

Based on a preliminary review of the literature on transportation infrastructure and economic productivity, it is worthwhile to investigate if the Thruport Transfer Terminal is a viable concept. Does it have the ability to generate significant cost savings by improving freight network efficiency, reliability, and security? Only further detailed feasibility studies may be able to estimate the potential short-term and long-term costs and benefits associated with its implementation both at the regional and national levels. These studies should be able to determine if the Thruport concept will lead to efficient and reliable freight transportation system, and therefore, help to generate improvements in economic productivity.

Respectfully submitted by:

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United States Government Accountability Office

GAO

Testimony

Before the Subcommittee on Highways, Transit, and Pipelines, Committee on Transportation and Infrastructure, House of Representatives

For Release on Delivery
Expected at 10:00 a.m. EDT
Thursday, June 15, 2006

INTERMODAL TRANSPORTATION

Challenges to and Potential Strategies for Developing Improved Intermodal Capabilities

Statement of Katherine Siggerud, Director
Physical Infrastructure Issues

GAO-06-855T

June 15, 2006

GAO
Accountability·Integrity·Reliability
Highlights

Highlights of GAO-06-855T, a testimony before the Subcommittee on Highways, Transit, and Pipelines, Committee on Transportation and Infrastructure, House of Representatives

INTERMODAL TRANSPORTATION

Challenges to and Potential Strategies for Developing Improved Intermodal Capabilities

Why GAO Did This Study

Mobility—that is, the movement of passengers and goods through the transportation system—is critical to the nation's economic vitality and the quality of life of its citizens. However, increasing passenger travel and freight movement has led to growing congestion in the nation's transportation system, and projections suggest that this trend is likely to continue. Increased congestion can have a number of negative economic and social effects, including wasting travelers' time and money, impeding efficient movement of freight, and degrading air quality. U.S. transportation policy has generally addressed these negative economic and social effects from the standpoint of individual transportation modes and local government involvement. However, there has been an increased focus on the development of intermodal transportation. Intermodal transportation refers to a system that connects the separate transportation modes—such as mass transit systems, roads, aviation, maritime, and railroads—and allows a passenger to complete a journey using more than one mode. My testimony today is based on GAO's prior work on intermodal transportation, especially intermodal ground connections to airports, and addresses (1) the challenges associated with developing and using intermodal capabilities and (2) potential strategies that could help public decision makers improve intermodal capabilities.

www.gao.gov/cgi-bin/getrpt?GAO-06-855T.

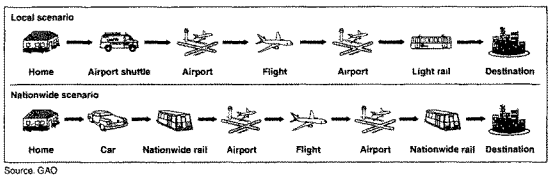
To view the full product, including the scope and methodology, click on the link above. For more information, contact Katherine Siggerud at (202) 512-2834 or siggerudk@gao.gov.

What GAO Found

A number of financing, planning, and other challenges play significant roles in shaping transportation investment decisions and the development of intermodal capabilities. Significant challenges to the development of intermodal capabilities are the lack of specific national goals and funding programs. Federal funding is often tied to a single transportation mode; as a result it may be difficult to finance projects, such as intermodal projects, that do not have a source of dedicated funding. In addition, federally funded transportation projects, including intermodal projects, face a number of planning challenges. These challenges include limits on the uses of federal funds, ensuring that widespread public participation is reflected in decisions, physical and geographic land constraints, and the difficulty coordinating among multiple jurisdictions in transportation corridors. Finally, intermodal capabilities, while offering benefits to mobility, may need to develop a demand over time.

Two general strategies developed from GAO's prior work would help public decision makers improve intermodal capabilities. Both strategies are based on a systematic framework that includes identifying national goals, defining the federal role, determining funding approaches, and evaluating performance. The first strategy would increase the flexibility of current federal transportation programs to encourage a more systemwide approach to transportation planning and development, but would leave project selection with state and local decision makers. The second strategy is a fundamental shift in federal transportation policy's focus on local decision making by increasing the role of the federal government in order to develop more integrated transportation networks. While the first strategy would most likely lead to a continued focus on locally determined and developed transportation projects, the second strategy could develop more integrated transportation networks, either nationwide or along particularly congested corridors. The second strategy could be costly, and high benefits, which may be difficult to achieve, would be needed to justify this investment.

Two Examples of Intermodal Connections for an Airline Passenger



Source: GAO

Mr. Chairman and Members of the Subcommittee:

Mobility—that is, the movement of passengers and goods through the transportation system—is critical to the nation's economic vitality and the quality of life of its citizens. Mobility provides people with access to goods, services, recreation, and jobs; provides businesses with access to material, markets, and people; and promotes the movement of personnel and material to meet national defense needs. However, increasing passenger and freight travel has led to growing congestion in the nation's transportation system, and projections of future passenger travel and freight movement suggest that this trend is likely to continue. For example, the number of airplane passengers using U.S. airports is expected to grow from over 746 million in 2005 to almost 1 billion by 2015 and, since most travelers use cars, whether privately owned or taxis, to get to the airport, local cities and communities will face increased congestion on their airport access roads and highways. In addition, freight traffic on roadways has increased fourfold over the last two decades, and both rail and highway congestion are particularly severe in urban areas where ports for international trade are located. For example, in the Los Angeles area, freight traffic is projected to more than double along the two mainline freight railroads from 2003 to 2025. Increased congestion can have a number of negative economic and social effects, including wasting travelers' time and money, impeding efficient movement of freight, and degrading air quality. These effects are especially problematic in areas and transportation corridors that are already heavily congested. Such congestion may be relieved by intermodal transportation options—that is a system that connects the separate transportation modes and allows a passenger or freight to complete a journey using more than one mode, such as bus, air, rail, and waterways.

Our past work has shown that the development of intermodal capabilities can provide a range of benefits. Those benefits include potentially reduced travel times and costs for travelers and freight by providing alternative transportation options and eliminating freight "chokepoints" or bottlenecks at entrances to freight facilities, and reduced road congestion with the potential for an associated reduction in vehicle emissions and improved air quality. Intermodal transportation capabilities are typically initiated by state and local transportation agencies, including some combination of state departments of transportation, local transportation planning bodies (i.e., metropolitan planning organizations), airports, seaports, and local transit agencies. The federal government's role is primarily one of funding and oversight through separate transportation programs within the Department of Transportation (DOT). My testimony

today is based on our prior work on intermodal transportation, and addresses (1) the challenges associated with developing and using intermodal capabilities and (2) potential strategies that could help public decision makers improve intermodal capabilities. In particular, I will be drawing a number of examples from our July 2005 report on ground access and intermodal connections at airports.[1] (See Related GAO Products.)

In summary:

- Financing, planning, and other challenges play important roles in shaping transportation investment decisions and the development and use of intermodal capabilities. Significant challenges are the lack of specific national goals and funding programs to develop intermodal capabilities. Federal funding is often tied to a single transportation mode; as a result it may be difficult to finance projects, such as intermodal projects, that do not have a source of dedicated funding. This may also make it difficult to use federal funds to finance the best transportation investment, regardless of mode, to improve mobility. In addition, federal transportation projects, including intermodal projects, face a number of planning challenges that include limits on the uses of federal funds, ensuring that widespread public participation is reflected in decisions, physical and geographic land constraints, and the difficulty in coordinating among multiple jurisdictions in transportation corridors. Finally, intermodal capabilities, while offering benefits to mobility, may need to develop a demand over time. For example, in the case of ground access to airports, most passengers may prefer to use private vehicles to access airport over transit options.

- Two general strategies could help public decision makers improve intermodal options. Both of these strategies are based on a systematic framework that includes identifying the federal interest in and national goals for transportation, defining the federal role, determining funding approaches, and evaluating performance. In the first strategy, Congress would increase flexibility within current federal transportation programs to encourage the development of intermodal capabilities and transportation investments that offer the best mobility improvements by shifting federal transportation funding, which is generally focused on individual transportation modes, to a more systemwide approach across all modes and types of travel. This strategy would include having the

[1]GAO, *Intermodal Transportation: Potential Strategies Would Redefine Federal Role in Developing Airport Intermodal Capabilities*, GAO-05-727 (Washington, D.C.: July 26, 2005).

federal government develop approaches to target funding on transportation investments that better focus on outcomes related to national goals and promote better coordination between jurisdictions. The second strategy is a fundamental shift in federal transportation policy's long-time focus on state and local decisionmaking by increasing the role of the federal government in planning and funding intermodal projects in order to develop more integrated transportation networks, either nationwide or along particularly congested corridors. To develop a nationwide intermodal system, the federal government could take on a role similar to its efforts to develop the interstate highway system. A more active federal government role might also require additional federal funding responsibilities. For example, if the federal government were to take a more active role in developing airport intermodal capabilities that included enhancing or expanding rail service or developing high-speed rail corridors, it might also need to increase its funding role, and the role of other beneficiaries of the service, due to its high cost.

Background

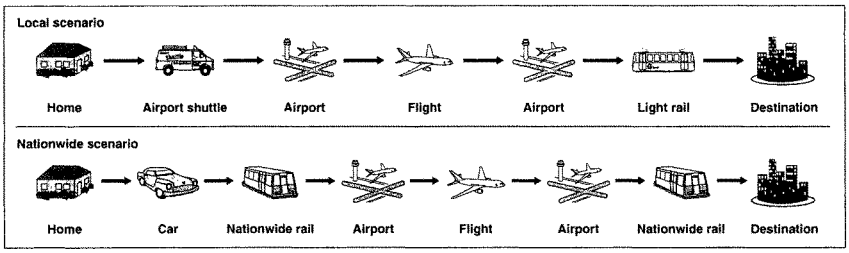
Historically, federal transportation policy has generally focused on individual modes rather than intermodal connections between different modes. Federal transportation funding programs are overseen by different modal offices within DOT—the Federal Aviation Administration (FAA), Federal Transit Administration (FTA), Federal Railroad Administration, and Federal Highway Administration (FHWA). No specific federal funding programs have been established that target intermodal projects for either passengers or freight although a few federal programs offer flexibilities that would allow these types of projects.

Intermodal transportation refers to a system that connects the separate transportation modes—such as mass transit systems, roads, aviation, maritime, and railroads—and allows a passenger or freight to complete a journey using more than one mode. For example, an efficient intermodal capability at an airport would provide a passenger with convenient, seamless transfer between modes; the ability to connect to an extended transportation network; and high frequency of service among the different modes. As shown in figure 1, an intermodal connection at an airport might involve a passenger arriving at the airport by private shuttle service, flying to another airport, and then transferring to local rail service[2] or a nationwide system, such as Amtrak, to reach a final destination. Similar to airline passengers, an intermodal freight transportation system relies on

[2]Local transit rail includes commuter rail, light rail, subway systems, and trolleys.

ready transport of cargo between ships and other transportation modes, particularly highway and rail.

Figure 1: Two Examples of Intermodal Connections for an Airline Passenger



Source: GAO

The scope and nature of intermodal passenger connections is further illustrated by ground access to airports. In 2005, we reported that most major U.S. airports have direct intermodal ground connections to either local transportation systems or nationwide bus or rail networks.[3] Sixty-four of the 72 airports[4] that we surveyed reported having direct connections[5] to one or more local transportation systems in their area, such as local bus or rail service, with 26 airports reporting having both. The most common type of public transportation system available to and from the airport is local bus service. Sixty-four airports reported having a direct connection to a local bus service. However, the level of bus service varies depending on the airport. For example, Seattle-Tacoma International Airport has five public bus routes that serve the surrounding

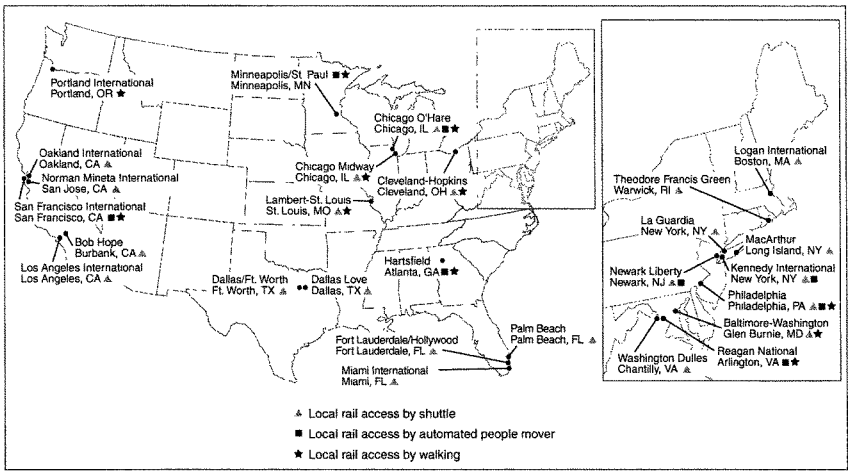
[3]GAO-05-727.

[4]We surveyed all 68 large and medium hub U.S. airports, and those small hub airports (4 in total) that are located in the same metropolitan statistical area as one or more large or medium hub airports.

[5]We considered a transfer point (such as a bus stop or rail station) to be a direct connection to the airport if (1) it was convenient for an average adult with luggage to walk to the transfer point from any of the airport's terminals; (2) the airport had an automated people mover that transports passengers from the transfer point to any of the airport's terminals; or (3) there was regular, fixed-route shuttle service from the transfer point to any of the airport's terminals.

communities, while General Mitchell International Airport in Milwaukee has only one route that serves the airport. Twenty-seven airports reported having a direct connection to a local rail system, such as light rail, commuter rail, or subway. (See fig. 2.)

Figure 2: Major U.S. Airports with Direct Connections to Local Rail Systems

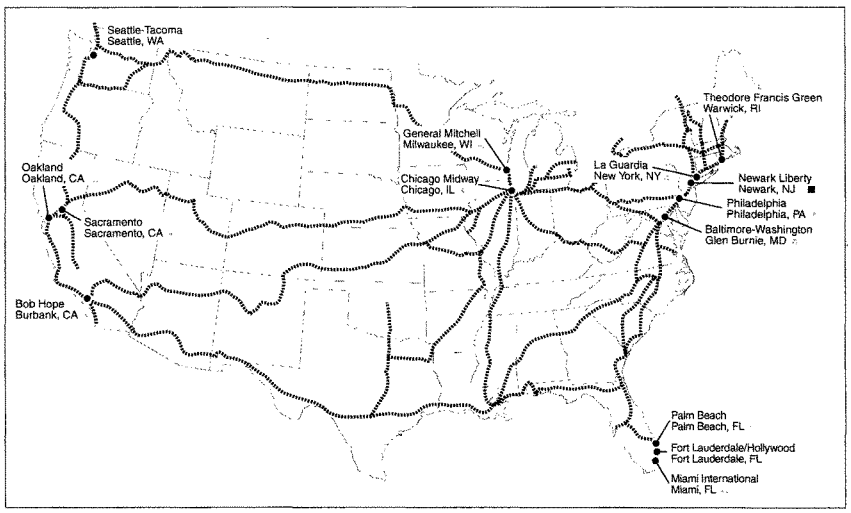


Source: GAO summary of data from 72 airports

While most major U.S. airports are located in metropolitan areas that have stations for nationwide transportation systems, such as Greyhound or Amtrak, 20 airports reported having direct connections to nationwide bus service or nationwide passenger rail service. Twelve of the 20 airports reported having direct connections to nationwide bus service, and 14 airports reported having a direct connection to Amtrak rail service. (See fig. 3.) All 14 airports provide shuttle service to transport passengers to Amtrak stations that serve the metropolitan area. One of the 14 airports—Newark's Liberty International Airport—reported that passengers could also access the Amtrak station by an automated people mover. In addition, the accessibility of Amtrak to Newark airport has allowed Continental

Airlines to establish a code share agreement with Amtrak, whereby passengers can purchase one ticket for a journey that includes travel by both air and rail.[6] This agreement has allowed Continental Airlines to eliminate some short-haul flights from Newark.[7]

Figure 3: Major U.S. Airports with Direct Connections to Amtrak's Nationwide Rail Systems



Amtrak
National rail access by shuttle
National rail access by automated people mover

Source: GAO.

[6]Code sharing refers to the practice of airlines applying their own names and selling tickets to flights or rail service operation by other carriers.

[7]Continental officials stated that in April 2003, they reinstated limited air service between Newark and Philadelphia because of market demand.

While there is no single federal funding source for rail to airport projects, we found that local governments, airports, and transit systems were able to tap and package a variety of federal funds to pay for recent rail connections to airports. These included direct appropriations, the New Starts program for fixed guideway transit systems, two federal aid highway categories—the Congestion Mitigation and Air Quality Improvement Program and the Surface Transportation Program—and passenger facility charges at airports. Appendix I describes these programs.

Several Significant Challenges Affect the Development and Use of Intermodal Capabilities

According to transportation research, planning officials, and our prior work, a number of financing, planning, and other challenges play important roles in shaping transportation investment decisions and the development of intermodal capabilities. Significant challenges to the development of intermodal capabilities are the lack of specific national goals and funding programs. Federal funding is often tied to a single transportation mode; as a result it may be difficult to finance projects, such as intermodal projects, that do not have a source of dedicated funding. Federal legislation[8] and federal planning guidance all emphasize the goal of establishing a systemwide, intermodal approach to addressing transportation needs. However, the reality of the federal funding structure—which directs most surface transportation spending to highways and transit and is more oriented to passengers than freight—plays an important role in shaping local transportation investment choices.[9] In addition to the focus on highways and transit over other investment choices, we found limited instances in which investment decisions involved direct trade-offs in choices between modes or users—such as railroad versus highway or passenger versus freight.[10]

[8]The Intermodal Surface Transportation Efficiency Act of 1991; the Transportation Equity Act for the 21st Century, enacted in 1998; and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, enacted in 2005.

[9]While most federal funding sources and programs are linked to highway or transit uses, some funding flexibility between highway and transit is allowed under programs such as the National Highway System, Surface Transportation Program, and Congestion Mitigation and Air Quality Improvement Program. Federal programs provide limited support for investment in railroad infrastructure.

[10]GAO, *Surface Transportation: Many Factors Affect Investment Decisions*, GAO-04-744 (Washington, D.C.: June 30, 2004).

A significant challenge to developing certain intermodal connections is the difficulty of securing funding within the mode-specific federal funding structure. The cost of intermodal projects can vary widely, depending on the complexity and scope of the project. In addition, measuring and forecasting the benefits from individual projects can be hard to quantify, and we found only anecdotal evidence of benefits for the 16 intermodal projects we examined.[11] The costs of rail projects are typically substantial and can include costs to construct a station, as well as track and other infrastructure to support the rail network. Table 1 provides examples of the costs of intermodal projects at airports and funding sources. We found that many intermodal projects at airports fit the funding criteria for one or more federal programs focused on surface transportation or aviation. For example, FTA's New Starts program is a significant source of funding for intermodal capabilities at airports that are part of a rail transit system. However, the rigorous rating process and increasing demands for its limited funds make the New Starts program time-intensive and competitive in nature and has made it difficult for local transportation agencies to secure this funding, according to local officials that we spoke with. Federal funding programs, like the New Starts program, will contribute only a portion of the total project costs, subject to local matching funds, which can be derived from local agencies such as metropolitan transportation authorities, transit agencies, and airport authorities.[12] However, local transportation officials said it can be difficult to secure local funds for intermodal projects at airports because these agencies could potentially have different funding priorities, making it difficult to build the unified local support necessary to secure funding.

[11]Our case study airport locations were Baltimore-Washington International, General Mitchell International, John F. Kennedy International, La Guardia, Los Angeles International, Metropolitan Oakland International, Miami International, Minneapolis/St. Paul International, Newark Liberty International, Norman Y. Mineta San Jose International, Ontario International, Portland International, Ronald Reagan Washington National, San Francisco International, Seattle-Tacoma International, and Washington Dulles International. The airports were selected to provide a range of airport sizes (medium and large), planned or existing types of intermodal service, and geographic locations.

[12]For selected New Starts projects, a maximum of 80 percent federal contribution to total project costs can be funded, but projects that request a maximum federal share of 60 percent of the project's total cost receive higher priority.

Table 1: Examples of Intermodal Project Costs and Funding Sources

Dollars in millions

Project description	Capital costs[a]	Funding sources
Construction of a new Amtrak rail station adjacent to and serving Milwaukee's General Mitchell International Airport, and improvements to the existing rail line, which already provided service between Milwaukee and Chicago	$6.8[b]	• Two separate annual federal appropriations • Wisconsin Department of Transportation
5.5-mile light rail line (Metropolitan Area Express) extension to existing rail line to provide service between city center and Portland (Oregon) International Airport	$154[c]	• Tri-Met (local transit agency) • Airport passenger facility charges • City of Portland • Cascades Development Corporation (a private land development corportation)
New light rail system (Hiawatha Light Rail) providing service between downtown Minneapolis and the Mall of America, with two stations located at Minneapolis/St. Paul airport	$715.3[d]	• New Starts • Congestion Mitigation and Air Quality grant • Hennepin County Regional Rail Authority • Metropolitan Airports Commission

Source: GAO analysis of interviews conducted with, and documents provided by, airport and transportation officials

[a]Capital costs are approximations as reported by airport or local transportation officials.

[b]Amount is expressed in 2005 dollars and includes the construction of a new building, boarding platform, canopy, parking facility, and several miles of rail improvements, including upgraded rail technology.

[c]Amount is expressed in 2001 dollars and includes engineering, design, vehicle acquisition, and construction and system installation.

[d]Amount is expressed in nominal dollars (1999-2004) and includes costs for the engineering, design, acquisition of 24 vehicles, construction and 12-mile system installation, 17 stations, and tunnel construction to access the two airport stations.

Additionally, intermodal capabilities at airports can be funded with passenger facility fees, commonly referred to as PFCs.[13] Local transportation officials also described difficulties in securing the use of PFCs. In particular, requirements that PFC funds be used for projects on airport property, among other criteria, are seen as limiting their use for intermodal projects. Moreover, airlines support these restrictions on the use of PFC funds, believing that these funds are for airport development and capacity improvements, and not ground-access projects. However, even with this restriction, we reported in July 2005 that four airport

[13]PFCs are fees up to $4.50 paid by airport passengers, which are used to finance airport capital improvements.

authorities were using PFC funds to develop or contribute to intermodal projects at airports, as shown in table 2.

Table 2: Selected Examples of Intermodal Rail Projects Funded by Passenger Facility Charges (PFC)

Dollars in millions[a]

Location	Project description	Funding amounts from PFCs
Portland, Ore.	Light rail extension and new station at Portland International Airport	$43
Newark, N.J.	People mover system 1-mile connection from Newark Liberty International Airport to new Northeast Corridor rail station	$357
New York, N.Y.	People mover system 3-mile connection from John F. Kennedy International Airport to two transit rail stations	$1,326
St. Louis, Mo.	On-airport transit station at St. Louis Lambert Field International Airport	$4

Source GAO analysis of FAA data.

Note: These projects have been approved by FAA and airports have begun collecting PFC funds. FAA has approved the use of PFC funds for additional projects for which airports have not yet started collection PFC funds.

[a]Funding amounts are rounded to the nearest million.

In addition to the limits on the use of federal funds, federal transportation projects, including intermodal projects, face a number of planning challenges including the following:

- Decision makers must ensure that wide-ranging public participation is reflected in their deliberations and that their choices take into account numerous views. During the planning of an intermodal project, the lead local agency's responsibilities include soliciting public comment regarding the most appropriate project to select for the area. This public participation can introduce considerations such as quality of life and other issues that are difficult to quantify in making transportation choices. It also puts decision makers in the position of balancing different public agendas about funding and values.

- The physical constraints of an area may present a challenge to building intermodal facilities. The development of intermodal capabilities at airports provides an example of this challenge. On the one hand, our work has found that densely populated urban areas offer few alternatives for expansion or new project development. On the other hand, it is these same densely populated urban areas where rail connections to airports are more

likely to generate benefits that will justify the costs, as these areas may have high levels of congestion and larger numbers of people willing to use public transportation to access airports as a result. For example, since the proposed light rail line into the Minneapolis/St. Paul International Airport crossed land owned by various federal agencies, the process to gain the needed right-of-way was a multiagency effort that required significant coordination, adding somewhat to the project planning time and costs.

- Multijurisdictional transportation corridors present special challenges in coordinating investment decisions. Getting the cooperation of and coordination between these different officials can make the planning and implementation of multistate and multiregional projects difficult. For example, during the planning of the Seattle light rail, Sound Transit officials noted that the alignment from downtown Seattle to the Seattle-Tacoma International Airport ran through a number of surrounding cities and required three local cities to approve permits for the construction of the project.

The effective use of passenger rail as an intermodal option along heavily traveled air and highway corridors also poses challenges due to limitations of the existing nationwide rail network. For example, Amtrak's passenger rail network does not support air-rail service requirements because rail lines do not go near some airports, passenger train schedules in some parts of the country are not frequent enough to effectively link to airline flight schedules, and transferring from air to rail poses inconveniences that limit consumer demand. As we discussed previously, although 14 airports reported having a direct connection to Amtrak's passenger rail service, 1 reported that passengers could access the station by automated people movers—others required boarding a shuttle. In addition, although Amtrak track lines are adjacent to the Cleveland Hopkins International Airport, Amtrak officials stated that Amtrak trains run only twice a day along this line, which is not frequent enough to establish a code share agreement with an airline.

Furthermore, transportation industry experts and European transportation officials have pointed out that high-speed passenger rail, including connections to congested airports, has provided an alternative for air travel in short-haul markets in Europe. There has been a reduction of air service between Paris, France, and Brussels, Belgium—a popular short distance city pair for travelers—due, in part, to the high-speed train service linking Paris Charles de Gaulle Airport and downtown Paris with Brussels. In the United States, few efforts have been made to use rail service to complement air service in this manner because, in part, the cost

of establishing service is not likely to justify its benefits given that some distances are too great for rail to provide an attractive alternative transportation mode.

Finally, intermodal capabilities, while offering benefits to mobility, may need to develop a demand over time. For example, the development and use of intermodal connections at airports can be limited by the inability of the ground connections to meet the preferences of airline passengers, therefore, the majority of passengers still use private vehicles to access airports even when transit service is available. Passenger preferences can include seamless transitions from one mode to another; a simplified process to handle baggage; transit schedules that meet consumer demands; and clear, easy-to-follow information on accessing transportation options—including signs at airports and information at hotels on accessing transit to airports. In addition, passengers, particularly those traveling with children and large amounts of luggage, may not consider using transit or rail systems to complete their travel plans due to inconvenience.

Two General Strategies Could Help Address Intermodal Financing and Planning Challenges

Two general strategies could help public decision makers improve intermodal options. These strategies are based on a systematic framework that has the following three components:

- Set national goals for the system. These goals, which would establish what federal participation in the system is designed to accomplish, should be specific and measurable.
- Clearly define the federal role relative to the roles of state and local transportation agencies and the private sector. The federal government is one of many stakeholders involved in the development of intermodal capabilities. This component is important to help ensure that the federal role supplements and enhances the participation of other stakeholders and appropriately balances public investment when the benefits flow in part to the private sector.
- Determine which funding approaches—such as alternatives to investment in new infrastructure and those approaches that reward projects that advance national/federal goals—will maximize the impact of any federal investment. This component can help expand the ability to leverage funding resources and promote shared responsibilities. Given the current budgetary environment, and the long-range fiscal challenges confronting

the country, substantial increases in funding for transportation projects will require a high level of justification.

In addition, either strategy would be enhanced by a process for evaluating performance periodically to determine if the anticipated benefits from federally-funded projects are accruing as expected.

In the first strategy, Congress could encourage the development of intermodal capabilities by increasing the flexibility with current federal transportation programs, which are largely focused on individual transportation modes, to a more systemwide approach across all modes and types of travel. To promote intermodal development, the federal government could consider several alternatives for transportation planning and funding that might better focus on these outcomes and promote better coordination between jurisdictions. These alternatives include the following:

- Increasing the flexibility of federal transportation funding programs to help break down the current funding stovepipes.
- Applying different federal matching criteria for different types of expenditures in order to provide a higher level of federal matching for projects that reflect federal priorities.
- Establishing performance-oriented funding or a reward-based system that would favor those entities that address the national interest and meet established intermodal goals.
- Expanding support for alternative financing mechanisms—such as providing credit assistance to state and local governments for capital projects and using tax policy to provide incentives to the private sector for investing in intermodal capabilities—to access new sources of capital and stimulate additional investment in intermodal capabilities.
- Aligning incentives for planning agencies to adopt best practices and to achieve expectations.

While this strategy would involve changes in federal transportation policy, it would most likely not involve a major shift in the federal role, which would continue to be focused on funding and oversight of locally determined and developed transportation projects. However, since this strategy would include the goal of establishing a more systemwide approach to transportation planning, the federal government would need

to determine the scope of its involvement in encouraging such an approach.

The second strategy is a fundamental shift in federal transportation policy's long-time encouragement of state and local decision making by increasing the role of the federal government in planning and funding intermodal projects in order to develop more integrated intermodal networks, either nationwide or along particularly congested corridors. This strategy could be similar to the strategy the federal government used in the 1950s to develop the interstate highway system. Under this strategy, Congress could establish national goals for the development of intermodal capacities that could include not only the development of facilities and connections, but also the development of a supporting transportation network to improve the ability of either passengers or freight companies to reach their final destination. The role of the federal government would change, with the federal government taking a more active role in setting priorities and planning of intermodal connections between the individual transportation modes. Similar to the development of the interstate highway system, the federal government's role could include providing project specific oversight, laying out routes, overseeing construction, and ensuring that the system is adequately maintained.

For the federal government to take a more active role in developing intermodal capabilities, it might also need to take on additional funding responsibilities. An example would be if a federal policy were established to develop a transportation system that promoted connections between airports and high-speed rail networks, as in Europe.[14] To accomplish improved air-rail connections, the federal government would have to increase its funding role due to the high costs of enhancing or expanding rail service or developing high-speed rail corridors or tap others that would benefit from such service, including the region, its airport, and businesses associated with the airport as possible funding sources. The full costs of this policy would be dependent on how integrated and expansive such an intermodal network would be and whether it would include additional high-speed rail or be focused on conventional passenger rail service. We have shown in the past that both of these choices are

[14]In several cases, European national governments have established policies to reduce the number of short-haul flights at their major airports and have supported these policies by funding high-speed rail infrastructure.

costly and increased federal involvement could require the implementation of a dedicated funding source.

However, even if a revenue source is established, this new funding would face many of the same revenue challenges that other transportation systems, such as highways, are facing now as revenues sources are eroded. Additionally, given the high costs of this strategy, benefits high enough to justify investment in intermodal facilities would likely be anticipated in a limited number of places.

Concluding Observations

Increasing passenger travel and freight movement have led to growing congestion, and decision makers face the challenge of maintaining the nation's mobility while preventing congestion from overwhelming the transportation system. Successfully addressing mobility needs in the face of growing congestion requires both strategic and intermodal approaches. However, the current system for planning and financing transportation is not well-suited to advancing intermodal transportation projects—including both passenger and freight transportation—calling for fundamental changes that use a broader, systemwide approach to transportation investment decisions. A federal strategy of encouraging a more systemwide approach to transportation planning, including alternative funding mechanisms, could encourage transportation officials to consider the development of additional intermodal connections in the context of other transportation investment decisions. At the same time, it is clear that more quantitative evaluations of the costs and benefits of intermodal capabilities could help to better inform state and local, as well as federal decision makers, as they attempt to determine which projects to develop with their limited resources.

Mr. Chairman, and members of the Subcommittee, this concludes my prepared statement. I would be pleased to answer any questions you or other members of the Subcommittee might have.

GAO Contact and Staff Acknowledgments

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Appendix I: Federal Programs That Can Fund Intermodal Projects at Airports

Program	Description	Example of use at airports
New Starts (FTA)	Selects worthy fixed guideway transit projects for funding by congressional appropriations. Projects can include heavy, light, and commuter rail and certain bus transit projects (such as bus rapid transit). To be eligible for funding, projects must, among other things, be justified based on a comprehensive review of mobility improvements, environmental benefits, cost effectiveness, and operating efficiencies, as well as being supported by an acceptable degree of local financial commitment. The program funding match is at most 80 percent federal and 20 percent local.[a] In fiscal year 2006, this program was funded at $1.2 billion.	Bay Area Rapid Transit extension south of the San Francisco International Airport into San Mateo County New light rail system (Hiawatha Light Rail) providing service between downtown Minneapolis and the Mall of America, with two stations located at Minneapolis/St. Paul International Airport
Congestion Mitigation and Air Quality Improvement Program (joint FHWA and FTA)	Funds transportation projects and programs in order to reduce transportation-related emissions in localities with poor air quality. To be eligible for funding, projects must be transportation related, in nonattainment or maintenance areas,[b] and reduce transportation-related emissions. The program funding match is 80 percent federal and 20 percent local. In fiscal year 2006, this program was funded at $1.7 billion.	Hiawatha Light Rail service between downtown Minneapolis and the Minneapolis/St. Paul International Airport
Surface Transportation Program (FHWA)	Provides funding to states and localities for projects on any federal-aid highway—including transit capital projects and local and nationwide bus terminals and facilities. The program funding match is 80 percent federal and 20 percent local. In fiscal year 2006, this program was funded at $6.3 billion.	Miami Intermodal Center at the Miami International Airport
Transportation Infrastructure Finance and Innovation Act of 1998 (joint FHWA/FTA)	Provides federal credit assistance for surface transportation projects. Project sponsors may include public, private, state, or local entities. Projects eligible for federal assistance through existing surface transportation programs, including passenger bus and rail facilities, are eligible for credit assistance under this program. The amount of federal credit assistance may not exceed 33 percent of the reasonably anticipated project cost. In fiscal year 2006, this program was funded at $130 million.	Miami Intermodal Center at the Miami International Airport
Airport Improvement Program (FAA)	Provides grants to airports for planning and development projects. The program is funded, in part, by aviation user excise taxes, which are deposited into the Airport and Airway Trust Fund. In terms of promoting intermodal capabilities, these funds may be used for access roads that are on airport property, airport owned, and exclusively serve airport traffic. The program funding match is 75 to 90 percent federal based on the number of enplanements[c] at the airport and the remainder is from local sources. In fiscal year 2006, this program was funded at $3.5 billion.	We found no example of its use for intermodal projects.

Program	Description	Example of use at airports
Passenger facility charges (FAA)	Authorizes commercial service airports to charge passengers a boarding fee—commonly called a passenger facility charge—of up to $4.50, after obtaining FAA approval. The fees are used by the airports to fund FAA-approved projects that enhance safety, security, or capacity; reduce noise; or increase air carrier competition. In calendar year 2005, $2.4 billion in fees were collected under this program.	AirTrain automated people mover at New York's John F. Kennedy International Airport and Newark's Liberty International Airport Light rail extension and new station at Portland International Airport

Source: GAO analysis of DOT information.

[a]When evaluating New Starts proposals, FTA places greater priority on projects that have a greater local matching share. Competitive New Starts proposals often have a 40-50 percent local match.

[b]Federal air quality standards exist for certain common air pollutants (known as criteria pollutants). Geographic areas that have levels of a criteria pollutant above those allowed by the standards are called nonattainment areas. Areas that did not meet the standards for a criteria pollutant in the past but have reached attainment are known as maintenance areas.

[c]An enplanement is defined as a passenger boarding a flight. Enplanements include passengers boarding the first flight of their trip, as well as passengers who board after connecting from another flight.

Related GAO Products

Freight Transportation: Short Sea Shipping Option Shows Importance of Systematic Approach to Public Investment Decisions. GAO-05-768. Washington, D.C.: July 29, 2005.

Intermodal Transportation: Potential Strategies Would Redefine Federal Role in Developing Airport Intermodal Capabilities. GAO-05-727. Washington, D.C.: July 26, 2005.

Highway and Transit Investments: Options for Improving Information on Projects' Benefits and Costs and Increasing Accountability for Results. GAO-05-172. Washington, D.C.: January 24, 2005.

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Marine Transportation: Federal Financing and a Framework for Infrastructure Investments. GAO-02-1033. Washington, D.C.: September 9, 2002.

Potential Energy and Air Quality Benefits of Freight ThruPorts

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Freight transport continues to grow at a rapid pace, especially within the heavy-rail sector. Bottlenecks within existing rail transfer terminals yield freight delays and most of these terminals have little or no right-of-way available for terminal expansion and congestion relief. Existing intermodal system inefficiencies associated with moving containers from terminal-to-terminal by truck (to transfer containers between long-distance rail carriers) also introduce significant goods movement delays and environmental impacts.

Construction of new rail ThruPorts designed to complement existing terminals would allow Class I railroads to dock and exchange freight with a high degree of automation. Rail ThruPorts will improve the general efficiency of activity within the freight yard and will simultaneously eliminate the current practice of moving containers from terminal to terminal. Hence, ThruPorts will significantly reduce onroad truck activity in regions with multiple freight terminals.

All preliminary analyses conducted to date indicate that a ThruPort will significantly reduce fuel consumption and emissions from heavy equipment within freight yards, while simultaneously reducing onroad heavy-duty vehicle fuel consumption and emissions. The associated benefits of the ThruPort include: 1) reduced yard emissions from the use of new heavy-duty nonroad engines for freight transfer, 2) elimination of heavy-duty truck emissions associated with freight transport between existing yards, and 3) decreased truck-related congestion associated with terminal-to-terminal transfers. The reduction of urban freight yard and onroad emissions of diesel particulate matter should also significantly reduce human exposure to toxic air contaminants in populated areas.

Reduced Freight Yard Emissions

In a rail-oriented multimodal facility, the primary sources of emissions are: 1) movement of freight into and out of the terminal, and 2) transfer of freight within the terminal. Inbound and outbound emissions come from the primary goods movers, which include the line-haul locomotives and, in the case of rail-to-truck transfers, the truck tractors. In the second category, emissions are associated with the use of switching locomotives, small and large forklifts, gantry cranes, and service vehicles (goods transfer vehicles and equipment) responsible for affecting the transfer of cargo between the transportation modes. In most cases, estimating emissions from primary line-haul sources is significantly easier than from yard activity, due to greater availability of arrival and departure records, and the more restricted range of activities for the primary goods movers.

Other than the effect of reducing vehicle idling activity, which in some cases may be significant[1], the ThruPort plays a minor impact on the overall emissions from the inbound/outbound primary line-haul equipment. This is because all of the containerized cargo still moves into and out of a terminal via the same line-haul equipment. However, significant benefits will arise from reduced use of transfer vehicles and equipment. These emissions reductions are due to two processes. First, the efficient transfer and storage of containers achieved using large gantry cranes at a ThruPort reduces the number of container movements between arrival and departure and reduces the distance the containers move during transfer operations. Simply stated, the number of "ton miles" of transfer movements within the port itself decreases. Because emissions tend to correlate well with work (horsepower-hours), fuel consumption and emissions also decline. Load based emission models, such as those developed at Georgia Tech,[2,3,4] have made substantial progress in recent years in terms of allowing quantitative evaluations of these emissions effects.

The second way in which activity and emissions from goods transfer vehicles and equipment will decline is through reductions in secondary movement of vehicle and equipment that support container movement. For example, many multimodal terminals dedicate significant time and resources to the movement and storage of the trailer chassis used for transport of containers. The significant reduction in these storage requirements for ThruPorts results in a reduction in the activity of yard tractors dedicated to the movement of these chassis and, if the chassis are stacked to reduce space requirements, in diesel forklift activity. In addition, it is likely that an efficient ThruPort will require significantly less overall activity from switching locomotives although the exact reduction in this activity is dependant on load and freight mix[5].

The reduction of vehicle and equipment activity within freight yards is important. However, reduced activity is only part of the emission reduction picture. The second aspect is the reduction in rate of emissions released into the environment from each unit of activity (e.g. a mile traveled or a container moved) that arise from improved emissions

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[1] In the case of the Atlanta Heavy-Duty Vehicle and Equipment Inventory and Emissions Study (AHDVEIES), idling activity was found to contribute between five and ten percent of total emissions for both locomotives and heavy-duty trucks in the Atlanta area. Due to the extended idling present at multimodal terminals the effect is likely to be larger at these locations, but relatively little quantitative data are available.

[2] Guensler, R., S. Yoon, C. Feng, H. Li, and J. Jun (2005). "Heavy-Duty Diesel Vehicle Modal Emission Model (HDDV-MEM): Volume 1: Modal Emission Modeling Framework; Volume 2: Modal Components and Outputs." U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-05/090.

[3] Yoon, S., H. Li, J. Jun, J. Ogle, R. Guensler, and M. Rodgers (2005). "Methodology for Developing Transit Bus Speed-Acceleration Matrices for Load-Based Mobile Source Emissions Models"; Transportation Research Record; 1941; pp. 26-33. National Academy of Sciences; Washington, DC.

[4] Fomunung, I., S. Washington, and R. Guensler (1999). "Comparison of MEASURE, and MOBILE5a Predictions with Laboratory Measurements of Vehicle Emission Factors"; In: Transportation Planning and Air Quality IV; Arun Chatterjee, Ed.; American Society of Civil Engineers; New York, NY.

[5] An important aspect of the design of an efficient ThruPort is to make the best use of available yard space. Because many trains include bulk cargo in addition to container shipments, increased yard space should translate into fewer switching movements in crowded yards for these mixed assemblages.

controls. It is typically easier and more cost effective to control a small number of large emissions sources than it is to control a large number of small emissions sources. While not universally true, this statement is generally a sound operational principle. The construction of a ThruPort should incorporate support equipment that produces significantly lower emissions per unit of work than the existing freight transfer systems.

In the case of ThruPorts, container movements are concentrated at one or more large gantry cranes, thereby reducing the activity of smaller cranes and large forklifts. This has the impact of reducing overall costs to achieve a specified level of emissions reductions. Similarly, the reduction in the required use of switching locomotives and concentration of this activity in a smaller area allows for the cost effective use of hybrid switchers (e.g. the "Green Goat" by Railpower™) that produce significantly lower emissions than standard line and yard switchers.[6]

It is difficult to fully quantify the expected reduction in nonroad emissions resulting from the development and operation of a ThruPort facility without conducting an extensive analysis. Assessment of the benefits associated with these changes can be quantified by undertaking a detailed emissions inventory for each freight terminal being replaced and performing an engineering assessment of the new support equipment proposed for the ThruPort. However, rough estimates can be obtained by scaling recent results from Atlanta, GA as part of the AHDVEIES study. This study found that heavy-duty vehicle and equipment emissions accounted for approximately half of overall mobile source oxides of nitrogen (NOx) emissions in the Atlanta area (representing about 300 tons/day). Approximately two-thirds of this total was associated with goods movement activities (about 200 tons/day) mostly for on road emissions. While the AHDVEIES study did not specifically break out the nonroad portion of these emissions it is reasonable to assume that about five percent of this total (about 10 tons/day) can be attributed to nonroad sources[7].

Using the 10 tons/day estimate for Atlanta (relative to about 20 tons/day for Chicago), it seems likely that an efficient ThruPort could yield overall emissions reductions of one to three tons/day for nitrogen oxides from nonroad sources in the Chicago area. Onroad emissions reductions due to displacement of truck traffic will add significantly to this total. A more complete analysis of this emissions reduction will require an analysis of the overall yard movements and equipment currently employed.

Given the variability in freight yard design and operations, engineers must assess the yard-related energy and air quality benefits for freight ThruPorts on a case-by-case basis. The first step in the analysis is to develop a detailed emission inventory for the operations at current terminals. However, the inventory must be assembled at a significantly higher level of detail than is typically performed in preparing a regional inventory for air quality

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[6] Several studies, including the AHDVEIS study, have concluded that the use of hybrid switchers is highly cost effective even without the improved efficiency of the ThruPort. The ThruPort design will result in even more favorable cost effectiveness ratings.

[7] A complication of the AHDVEIES study is that multimodal facilities were not considered independently of other truck terminals and thus the relative splits must be estimated from USDOT databases.

planning. A large scale emissions inventory for onroad heavy-duty and nonroad engines was recently undertaken for the entire Atlanta metropolitan area provides the mechanisms for developing freight emissions inventories and for assessing the cost-effectiveness of emission control strategies (e.g., retrofitting older heavy-duty diesel equipment with oxidation catalysts and using ultra-low sulfur diesel fuel). The Atlanta Heavy-Duty Vehicle and Equipment Inventory and Emissions Study[8], scheduled for release this summer, was sponsored by the Georgia Regional Transportation Authority, the Georgia Department of Natural Resources Environmental Protection Division, and the Georgia Department of Transportation. Similar studies will need to be conducted in any region that proposes the development of a ThruPort to fully quantify the emission reduction benefits associated with freight yard operations.

Reduced Onroad Heavy-Duty Vehicle Emissions

The elimination of truck activity in the Chicago area associated with moving containers/trailers between primary rail yards will provide significant emission reduction and fuel consumption benefits. According to the initial screening analyses for Chicago, a ThruPort would eliminate more than 4000 cross-town truck movements (typically 25 miles/haul). This should constitute a direct NOx emissions reduction of 0.5 to 1.5 tons/day, depending upon the composition of the truck fleet and the conditions under which the vehicles currently operate. The direct onroad reduction benefits can be readily estimated using standard emission modeling tools once the detailed activity is quantified and vehicle fleet composition is determined.

A significant (yet-to-be-quantified) benefit also accrues from reducing traffic congestion on the freeways and arterials serving these freight terminals. The presence of heavy-duty trucks in the fleet during congested periods contributes to traffic congestion. Heavy-duty vehicles are equivalent to multiple light-duty vehicles in consuming available system capacity. Under highly constrained flow conditions, when transportation demand exceeds capacity, emissions from the fleet can increase. In addition, trucks can affect onroad vehicle speed and acceleration profiles,[9] potentially increasing emissions from other vehicles in the fleet by inducing weaving and passing maneuvers. Unfortunately, the congestion reduction benefits (especially the time-savings associated with reduced congestion) cannot be accurately quantified using standard travel demand models. Assessing the congestion reduction impacts from removal of significant numbers of heavy-duty vehicles from onroad operations on the specific yard-to-yard transportation corridors requires the implementation of traffic simulation models. By developing corridor-level simulation models for Chicago similar to the large-scale simulation model developed for Atlanta,[10] and applying new modal emissions modeling tools, the indirect energy and emissions impacts from congestion reduction can be assessed.

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[8] http://www.grta.org/heavydutystudy/default.asp

[9] Grant, C. (1998). "Modeling Speed/Acceleration Profiles on Freeways"; Dissertation; Georgia Institute of Technology; Atlanta, GA.

[10] Lee, J., M. Hunter, J. Ko, R. Guensler, and H.K. Kim, (2005), "Large-Scale Microscopic Simulation Model Development Utilizing Macroscopic Travel Demand Model Data", Proceedings of the 6th Annual Conference of the Canadian Society of Civil Engineers, Toronto, Ontario, Canada, June 02-04.

Conclusions

Freight ThruPorts have the potential to significantly reduce the emissions from onroad heavy-duty vehicles directly, through reductions in truck activity, and indirectly, through reduction in congestion. Less apparent, but also important is the potential for ThruPorts to reduce nonroad emissions. As for the on road sources these emissions reductions can occur directly through reduction in activity of nonroad emissions resources (e.g. locomotives, diesel forklifts, etc.) and indirectly through changes in emissions profiles and/or indirect impacts on emissions from other sources.

Rail ThruPorts have the potential to transform the industry and provide significant environmental benefits at the regional and local scales. Screening analyses already indicate that ThruPorts will significantly reduce emissions of ozone precursors, diesel particulate matter, toxic air contaminants, and greenhouse gas emissions. The next logical step is to apply detailed freight logistics and transportation system modeling in scenario analysis to quantify the environmental benefits of ThruPorts as a function of alternative design configurations. With the construction of the first functional ThruPort, analysts can then focus on confirming the projected environmental benefits by performing detailed monitoring studies. This will allow stakeholders to quantify the benefits associated with the large-scale development of a nationwide ThruPort system.

Rail ThruPorts have the potential to simultaneously improve goods movement efficiency, reduce fuel consumption, and decrease air pollutant emissions. Given the tremendous potential benefits in all three areas, detailed feasibility studies and demonstration projects should be a high priority from a public policy perspective.

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