



# *Moving America Into the 21st Century*

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REMARKS PREPARED FOR DELIVERY BY  
DEPUTY SECRETARY OF TRANSPORTATION ELAINE L. CHAO  
WASHINGTON HIGH-SPEED RAIL FORUM  
WASHINGTON, D.C.  
NOVEMBER 9, 1990

Good afternoon. I have been looking forward to this meeting, and appreciate the opportunity to join you today to talk about one of the most exciting developments in transportation in recent years: high speed rail.

Clearly, we view the U.S. transportation system as an integral factor in this country's ability to maintain its position in the global market. It not only moves people and goods domestically, but its efficiency in doing so directly effects our international competitiveness in a global economy.

Therefore, maglev or high speed rail should not be viewed as just a train. In an atmosphere like this, productivity takes on added significance and the potential of high speed rail becomes all the more important. Maglev and High speed rail can dramatically improve surface transportation mobility, using a technology that is energy-efficient, and environmentally sound.

There are a number of reasons why advanced technology passenger systems have moved to the forefront as transportation options for the 1990s. The frustration of the American traveler about increased highway and aviation congestion is one.

However, there is another force at work which dramatically strengthens the prospects for these innovations. In the 1970s, high-speed systems generally were viewed as government projects. In the 1990s, it is the leadership of the private sector that is contributing so much to the credibility of these proposals.

The private sector brings new financial resources to bear at a time when the gap between public infrastructure replacement needs and available funding is significant. Of equal importance, the presence of the private sector in a specific project reaffirms its basic logic in the marketplace.



Private sector interest in high speed rail is compelling evidence that deregulation is working. Few issues at the Department of Transportation command our attention more than preserving and building upon the climate of deregulation which has accomplished so much toward positioning the nation's railroads for the 21st century.

Equally important is the fact that several high speed/maglev projects are poised to come to market. They have backers of substance -- local sponsors prepared to make commitments, and in some cases franchises to move forward.

The success of a system such as the T-G-V in France is vitally important to the acceptance of these new technologies -- because they have accumulated a decade of experience in operations, safety, and economic performance. The emergence of magnetic levitation as an exciting option has further stimulated public and professional interest. Amtrak's achievement in the northeast corridor, in which it has become the leading commercial intercity carrier, has also provided an important domestic base upon which to build.

Many of you in this audience have played crucial roles in bringing these technologies and projects to this point in their evolution. Based largely upon your efforts, these concepts have gained acceptance. In several instances, they need only confirmation of economic feasibility in order to move to the construction phase. In others, additional work of a technical nature is required.

This audience is thoroughly familiar with the early activities of the United States Department of Transportation in connection with both high-speed rail and magnetic levitation research and development. You know that the pace of that activity has sometimes been uneven.

While government policies should not unduly influence the choices of the marketplace, it is clear that the Federal government today is a participant, rather than a sideline skeptic, in encouraging development of high-speed ground transportation.

It is fair to say that the posture of the U.S. Department of Transportation has undergone a significant change -- from passive to positive.

So let me now talk about the Department's vision for the future -- a future in which high speed technologies may well play an increasing part.

Earlier this year, the President announced the National Transportation Policy. That policy laid out a strategic framework for our transportation policy for the next several years. The policy recognized the enormous potential that high speed surface technologies might play in our future, and encouraged further research into the area.

Consistent with the National Transportation Policy, we view the development of high-speed surface transportation as primarily a state and local -- and private sector -- responsibility.

The federal government will serve as a catalyst in the process. The federal government will support research and development on technical issues and ensure that regulatory and institutional barriers do not impede implementation of cost-effective, environmentally sound options like high speed rail and maglev.

Thus, one of the very first initiatives to come out of the NTP was chartering and paying for a comprehensive, multimodal study of high-speed rail, maglev, and other high-speed technologies by the Transportation Research Board. That study, which is due to report in less than a year, should prove invaluable in understanding the potential of these exciting technologies.

The Department is also leading a major effort with the Army Corps of Engineers to determine whether maglev is feasible in this country. Recently, the Department issued a report to Congress on maglev concluding that several projects have the potential to recover both operating and capital costs. The Department's 1991 budget adds significantly to available funding, with Congress appropriating \$10 million to the DOT and \$2 million to the Corps of Engineers for maglev programs.

Under the National Maglev Initiative, the Department will carry out several research projects during the coming months and years. We are proceeding with an in-depth assessment of maglev technology, economics, and market potential. The analysis will now move to the field work and simulation, to increase our confidence in the previous analytical work.

Special research will also be undertaken on the feasibility of building maglev guideways in highway corridors. Preliminary assessments indicate that the location of maglev systems in Interstate highway median strips may be technically feasible in certain corridors where horizontal curves are not a restriction.

As the agency responsible for the safety of maglev systems, the Department has initiated a major effort to ensure the safety of domestic maglev systems. Research on the Transrapid system -- which is the type proposed for the Florida, California-Nevada and Pittsburgh projects -- is under way to ensure that unresolved issues of safety do not slow implementation. This work will evaluate the existing German safety standards covering this maglev system, the compliance of the system with these standards, and the need for additional standards for operation in the United States.

In both the Florida and California-Nevada projects, the Federal Railroad Administration has begun the technical documentation. Our specialists are focusing on two questions. First, are there design elements that cause us concern from a safety standpoint? Second, are there any missing safety design elements? Following this phase, the agency will begin running test analysis of the systems involved.

In connection with high-speed rail, several initiatives are under way. Building upon Amtrak's accomplishments in the Washington-New York corridor, the Department announced yesterday a Northeast Corridor Task Force to study ways to improve rail passenger service on the Boston-New York section of the Northeast Corridor. Results should be ready by next summer. It will be a comprehensive study of improvements to infrastructure and signaling, as well as the potential for electrification of this corridor. The goal is to define a system that would allow for running times of under three hours between these two cities.

On the regulatory side, we are taking steps to promote the kind of innovation at the state and local level which will yield new initiatives on rail projects.

For example, we are considering measures to increase the flexibility of the States to implement alternative forms of transportation in certain congested corridors.



These include the use of planning authority already available under the Surface Transportation Act to consider such modal transportation alternatives as high speed rail and maglev.

We are also considering a legislative change permitting States to provide available highway rights-of-way at little or no cost to high speed rail projects. As you may know, current law requires States to receive market rate compensation for the use of Federal-aid highway rights-of-way by private companies. This provision drives up the costs of high speed rail and maglev projects, even though there are good public policy reasons, in many cases, for encouraging the co-location of transportation facilities.

Another proposal under consideration would permit States to use Federal-aid highway funds to make highway facility adjustments to accommodate other modes, including high speed rail and maglev. Such improvements might include alignment modifications, fencing, drainage, structural work, grade crossing elimination, and construction of modal separation barriers.

The leadership of the Department of Transportation has joined the problem-solving team, whether the issue be technology, operational practices, options for corridors, or economic feasibility. High-speed initiatives also benefit from the fact that the Department itself is in a transition, away from individual decisions and actions by isolated modal administrations, to one of cooperation and concerted action.

Building on the national transportation policy process, the Department will continue to conduct long-range strategic planning, bringing together decisionmakers covering *all* modes of transportation. The Department vows to work with State, local, and other public and private interests to assess future needs and respond to emerging issues beyond the perspective of a single mode, sector, or level of government.

We are not in the business of promoting trains, airplanes or highways. Rather, we are trying to provide efficient and coordinated transportation travel for the American public.

No single transportation mode will be able to meet the full range of transportation requirements. A spectrum of options with varied capabilities will have to be fostered to accommodate tomorrow's needs. This multimodal approach helps to assure that options such as high-speed rail and maglev are fully and fairly considered as the nation looks for solutions to transport problems.

We are poised to begin a decade of achievement in the deployment of high-speed technologies. This gathering today is a testimony to the momentum of your industry, and the promise it holds for our transportation future.

Thank you, and God bless you.





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REMARKS PREPARED FOR DELIVERY BY  
DEPUTY SECRETARY OF TRANSPORTATION ELAINE L. CHAO  
THE CALIFORNIA ENGINEERING FOUNDATION  
SAN FRANCISCO, CALIFORNIA  
NOVEMBER 14, 1990

Good morning. It is great to be back in my home state of California. As in so many areas of American life, California takes the lead in bringing private sector resources to bear on one of America's greatest challenges: Meeting the tremendous transportation needs that confront us as a Nation.

I am doubly pleased to see the impressive list of participants in this Conference -- a list that includes leaders in private industry, State and federal government, and academia -- individuals on the leading edge of policy and practice in the exploring the possibilities for public/private partnerships in transportation.

I hope the ideas generated by this conference will add to our understanding of the prospects for a greater private sector role in transportation, both in financing and constructing needed facilities and in developing new technology.

## **I. NEW CONTEXT FOR HIGHWAY TRANSPORTATION**

U.S. transportation needs are growing and changing. The expansion of our population, labor force and economy throughout the eighties placed new demands on our transportation system.

Americans now log almost 3 trillion passenger miles of personal travel every year. By the year 2010, California alone may account for nearly 350 billion miles of vehicle travel. Rapid growth in jobs, especially in the service sector and the suburbanization of employment, as well as expansion of women in the work force, car ownership, and disposable income led to this rapid increase in highway travel.



In addition to passenger travel, demand for freight movement services is also on the rise. Over 3.6 trillion ton-miles of freight were moved last year, more than twice the amount moved in 1960. Freight traffic is now more likely to involve longer hauls, lighter products, and just-in-time delivery of manufacturing components, placing new demands on truck-based transport.

These changes produced more than simple *growth* in demand. For both passengers and freight, new *patterns* of demand emerged, based on changing relationships between residence and workplace, as well as production and consumption. More complex commuting, shopping and shipping patterns placed entirely new burdens on intercity and suburban transportation systems in particular.

The most obvious symptom is congestion on our highways, bridges, and at airports. The direct costs to drivers and shippers are well understood, but recent research by the Federal Reserve Bank suggests there is an equally important negative impact on the nation's overall productivity. In the emerging global market -- especially here on the Pacific Rim -- such considerations cannot be taken lightly.

Improving productivity will require both increased investment in transportation and more cost-effective use of available resources. At the same time, the burden of maintaining aging infrastructure has increased, while inflation, greater fuel economy, and alternative fuels reduce the real value of traditional transportation revenues.

This situation is aggravated by the fact that exclusive use of revenues from transportation user fees at the Federal level is at least temporarily suspended, as the nation copes with the burden of the Federal budget deficit. In this context, meeting the productivity challenge clearly requires new approaches.

## **II. THE NATIONAL TRANSPORTATION POLICY: NEW PARTNERSHIPS**

Earlier this year, President Bush announced a new National Transportation Policy. This policy -- the first in a decade -- was based on an outreach effort across the complete array of transportation interests.

The policy recognizes the need to maintain and expand the Nation's transportation system in support of mobility, safety, security and quality of life. It also reaffirmed the importance of a strong and competitive transportation industry, including technological superiority, and the need for a sound financial base.

At its core, the National Transportation Policy acknowledges the fundamental fact that increased investment and improved productivity requires a new balance between the public and private sectors. Toward this goal, the continued emphasis on deregulation and privatization represents a parallel policy thrust.

This will become more evident in legislation next year to reauthorize the Federal Highway Program. A restructuring is under consideration which includes important changes to better utilize the financial, management, technical and entrepreneurial resources of the private sector.

### III. INNOVATIVE FINANCE

It is clear that preserving the nation's highway system and responding to critical capacity requirements requires more investment. Meeting this need will require maximum use of both current funding sources and new sources of investment capital.

Conventional user fees, such as fuel and vehicle taxes at the federal and state level, and the local government tax base will continue to be the predominant source of highway finance. Recent actions in Washington, including the 1991 DOT Appropriations Act and the Budget Reconciliation agreement, demonstrate that the Federal government will maintain its strong role in funding highway development, -- even while contributing a portion of gas tax revenues to reduce the federal budget deficit.

We also expect state and local governments to raise the revenues necessary to maintain their relative share in highway funding. Thirty three states have increased highway taxes in the last 3 years, and local governments are tapping new sources as well. California, with the passage of the June Propositions and strong reliance on the local option sales tax, is a national leader in both regards. These trends are likely to continue over the next several years, maintaining the current proportion of public funding roughly as it is today.

But additional resources will be needed, especially in growing regions like California, with heavy investment requirements and severe competition for state and local revenues. Conventional motor fuel taxes and related vehicle taxes will certainly remain the backbone of highway finance, but supplemental funding sources to advance key projects and supply new forms of service can play important roles in improving mobility.

For this reason, state and local governments must develop a broader array of revenue sources to suit their needs and circumstances.

In the past few years, many have done exactly that, either for specific highway projects or to expand the transportation financial base. Broadened legal and institutional frameworks have permitted local governments to organize cooperative cost-sharing or "value capture" arrangements with private sector interests. These include property owner contributions of rights-of-way and cash, utilization of benefit assessment districts, and establishment of impact fee systems. Here in California, the increasing significance of such funding sources has led to creation of a Caltrans special Division of Local Programs.

These "innovative financing" methods are being mixed with conventional funding sources and tailored to fit a wide variety of circumstances -- depending on the traffic levels, the property development context, and availability of state and local funds.

These new sources of revenue also require new institutional forms of cooperation among public and private entities. For example, we are seeing formation of "transportation development corporations" and "road districts" with limited powers, as well as local transportation authorities and conventional public toll authorities with broader responsibilities.



The more fully private highway concessions with complete finance, design, construction, and operation franchises, represent a special case, and I will come back to them later.

The National Transportation Policy encourages State and local governments to develop new approaches, and is dedicated to minimizing legal and regulatory barriers to private sector involvement. We are tracking these developments nationwide, and have a substantial computerized data base of innovative financing projects.

These statistics show that the total value of "innovative financing" -- contributions, assessments, fees, dedicated sales taxes, the monetary value of right-of-way, and other in-kind services -- may amount to between \$1 billion and \$2 billion annually. This is in addition to the \$2.5 billion in toll revenues.

Last year, the Federal Highway Administration established an annual award for innovation, and is developing training and technical material to assist interested state and local governments.

Furthermore, in drafting legislation to reauthorize the Federal Highway Program, we are considering enlarging the range of sources eligible as a state/local match in federal-aid projects. Proposals include permitting funds raised by private sector contributions and through donation of public-owned rights-of-way to constitute the state/local share.

#### **IV. BROADENING TOLL APPLICABILITY**

Conventional highway funding shortfalls have also led to a resurgence of interest in toll roads. There are currently about 1000 miles of new toll facilities in various stages of development.

In 1987, Congress authorized a toll pilot program in seven states to examine the merits of federal funding participation in toll projects. Under the Pilot Program:

- The projects must be publicly-owned and operated and tolled solely for the purposes of construction or renovation;
- Tolls may not be applied on Interstate system facilities;
- The federal share of financing may not exceed 35 percent; and
- Toll collections may be continued after the construction debt has been retired, only if the excess revenue is applied to the facility.

Construction is now underway in three of the pilot states. The four other states have either location studies, environmental statements, preliminary engineering work, or right-of-way acquisition underway. Here in California, Orange County was one of the designated Pilot Program sites, so we are watching this project and the others with great interest.

The DOT is currently studying an extension of the Pilot Program, which would make it available in all states, consistent with the NTP's goal of providing states with increased flexibility.

Broadening the Pilot Program to tap the potential of toll-viable facilities could be achieved in several ways. One would permit states to add new capacity and access control to any existing free non-Interstate federal aid facility as a public authority toll road. Another would allow commingling of federal aid with tolls for capacity additions to existing toll facilities or creation of new ones.

Federal aid could thus be mixed with toll revenues, conventional state sources, and any other "innovative" sources raised by a public toll authority. The specific federal share for such projects could be up to 35 percent.

We are also considering the option of allowing tolls to continue beyond debt retirement, making revenues available to supplement conventional state and federal transportation funds.

A parallel approach for the discretionary bridge program is under consideration in the form of a required toll feasibility assessment as a precondition for federal aid.

## **V. PRIVATIZATION**

The last frontier is, of course, "full privatization," where the private sector takes on the complete range of project responsibilities, including design, finance, construction, operation and maintenance. Proposals include the Assembly Bill 680 concessions here in California, the Private Capital Involvement Projects in Puerto Rico, the Northern Virginia Toll Road Corporation, and several others at earlier stages of development.

We are considering another extension of the Toll Pilot Program to encompass privately-financed toll projects as well. Under this concept, privately financed toll projects could add capacity to existing federal-aid facilities or build new ones.

Even without state participation, a private project might be eligible for federal funding, provided the State had an agreement with the private entity covering general public interest requirements. The decision to use its federal aid apportionment for such projects would, of course, be up to the states.

The ultimate extension of the Toll Pilot program would permit federal and state aid participation in "privatized" projects mixed with private debt and equity financing.

It is clear that many new forms of public/private partnerships are possible and desirable. The private sector offers untapped resources for highway development -- financial, technical, and entrepreneurial-- which must be taken advantage of.

Historically, the private sector has contributed to project design and construction, but only to a limited extent in financing and project development. Consequently, there are challenging issues which must be explored and sorted out in seeking new forms of public/private partnership.

Many of these issues are recognized in your Conference agenda this week, such as the appropriate allocation of risk and reward, problems of competition and monopoly, and issues of efficiency and equity. These issues can be resolved and, given the imperative need, experimentation is in order.

There is much to be learned. The initiatives here in California and elsewhere suggest that there are alternative institutional and financial arrangements that merit consideration. There is also much to be gained from studying the examples in Europe, where major new highway systems are emerging under arrangements where the division between the public and private sector interests is less than clear. In an increasingly globally competitive environment, we cannot presume a monopoly on good ideas.

## **VI. PUBLIC/PRIVATE PARTNERSHIPS IN RESEARCH AND TECHNOLOGY DEVELOPMENT**

While most of my remarks today regard private sector involvement in highway development, I would like to close by emphasizing that our attempt to forge new public/private relationships does not end there. A major thrust of the National Transportation Policy is to regain world leadership in transportation technology and expertise. The Congress this effort in the recent 1991 Appropriations Act, which includes a substantial increase in DOT funds for research and technology deployment.

Given the opportunities for innovation and the potential rewards of the marketplace, it would not be surprising to find a close link between new technology and an evolving role for the private sector in highway development. I know that many of you here today are actively involved in exploring this link.

Within the highway arena, our renewed R&D efforts are dedicated to three basic areas: (1) long term research in materials, methods and operations; (2) motor carrier regulations; and (3) intelligent vehicle highway systems or IVHS.

For IVHS, we are looking for technology to increase the efficiency, safety, and productivity of highways through advanced traffic management, information and control systems. We recognized early on that a new form of alliance between the public and private sectors and research institutions is vital to progress in this area.

I have made several trips to California this year to keep up to date with the progress of the Pathfinder, Smart Corridor, Crescent and other projects where the federal, state and private sector partnership is already at work. At the national level, the DOT recently participated in the formation of "IVHS America," with a 30-member Steering Committee drawn from both the public and private sectors. The Committee will act as an official advisor to the Department in charting the course of this important initiative.

Your profession is on the cutting edge of these and other exciting developments for the future of transportation. New relationships between the public and private sectors touch many of your most critical concerns. Maximum promise may lie in a new era of shared responsibility, risk, and reward between the public and private sectors which can tap the obvious strengths of each.

To make the transportation investments today that ensure our continued prosperity tomorrow, I believe that the partnership of the public and private sectors must be pursued to its fullest advantage. The operations of the private market made this country and our standard of living the envy of the world. Its energies must be directed toward keeping the American transportation system the best in the world.

Thank you and God bless you.





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PUBLIC/PRIVATE VENTURES IN TRANSPORTATION  
WASHINGTON, D.C.  
NOVEMBER 19, 1990

Good afternoon, and thank you for that kind introduction. I am delighted to be here today with so many people who understand the importance of the private sector's role in delivering public services.

This topic is particularly relevant today. Our economic strength and ability to compete in international markets is largely determined by how well our transportation system works. There is no question that transportation infrastructure must keep pace with future needs, and I'm pleased to share with you my outlook on the initiatives that can help us reach this goal.

I also hope the ideas generated by this conference will add to our understanding of the prospects for a greater private sector role in transportation, both in financing and constructing needed facilities and in developing new technology.

## **I. NEW CONTEXT FOR TRANSPORTATION**

U.S. transportation needs are growing and changing. The expansion of our population, labor force and economy throughout the eighties placed new demands on our transportation system.

Americans now log almost 3 trillion passenger miles of personal travel every year. Rapid growth in jobs, especially in the service sector and the suburbanization of employment, as well as expansion of women in the work force, car ownership, and disposable income led to this rapid increase in highway travel.



In addition to passenger travel, demand for freight movement services is also on the rise. Over 3.6 trillion ton-miles of freight were moved last year, more than twice the amount moved in 1960. Freight traffic is now more likely to involve longer hauls, lighter products, and just-in-time delivery of manufacturing components, placing new demands on truck-based transport.

These changes produced more than simple *growth* in demand. For both passengers and freight, new *patterns* of demand emerged, based on changing relationships between residence and workplace, as well as production and consumption. More complex commuting, shopping and shipping patterns placed entirely new burdens on intercity and suburban transportation systems in particular.

The most obvious symptom is congestion on our highways, bridges, and at airports. The direct costs to drivers and shippers are well understood, but recent research by the Federal Reserve Bank suggests there is an equally important negative impact on the nation's overall productivity. In the emerging global market such considerations cannot be taken lightly.

Improving productivity will require both increased investment in transportation and more cost-effective use of available resources. At the same time, the burden of maintaining aging infrastructure has increased, while inflation, greater fuel economy, and alternative fuels reduce the real value of traditional transportation revenues.

This situation is aggravated by the fact that exclusive use of revenues from transportation user fees at the Federal level is at least temporarily suspended, as the nation copes with the burden of the Federal budget deficit.

The driving force behind privatization is, therefore, stronger because the need for restoration of the transportation infrastructure may exceed government resources at all levels. In short, we need the private sector like never before.

In this context, meeting the productivity challenge clearly requires new approaches.

## **II. NATIONAL TRANSPORTATION POLICY: NEW PARTNERSHIPS**

Earlier this year, President Bush announced a new National Transportation Policy. This policy -- the first in a decade -- was based on an outreach effort across the complete range of transportation interests.

The policy recognizes the need to maintain and expand the Nation's transportation system in support of mobility, safety, security and quality of life. It also reaffirmed the importance of a strong and competitive transportation industry, including technological superiority, and the need for a sound financial base.

At its core, the National Transportation Policy acknowledges the fundamental fact that increased investment and improved productivity requires a new balance between the public and private sectors. Toward this goal, the continued emphasis on deregulation and privatization represents a parallel policy thrust.

### III. INNOVATIVE FINANCE

It is clear that preserving the nation's transportation system and responding to critical capacity requirements requires more investment. Meeting this need will require maximum use of both current funding sources and new sources of investment capital.

Conventional user fees, such as fuel and vehicle taxes at the federal and state level, and the local government tax base will continue to be the predominant source of highway finance. Recent actions in Washington, including the 1991 DOT Appropriations Act and the Budget Reconciliation agreement, demonstrate that the Federal government will maintain its strong role in funding highway development -- even while contributing a portion of gas tax revenues to reduce the federal budget deficit.

We also expect state and local governments to raise the revenues necessary to maintain their relative share in highway funding. Thirty three states have increased highway taxes in the last 3 years, and local governments are tapping new sources as well. These trends are likely to continue over the next several years, maintaining the current proportion of public funding roughly as it is today.

But additional resources will be needed, with heavy investment requirements and severe competition for state and local revenues. Conventional motor fuel taxes and related vehicle taxes will certainly remain the backbone of highway finance, but supplemental funding sources to advance key projects and supply new forms of service can play important roles in improving mobility.

For this reason, state and local governments must develop a broader array of revenue sources to suit their needs and circumstances.

In the past few years, many have done exactly that, either for specific projects or to expand the transportation financial base. Broadened legal and institutional frameworks have permitted local governments to organize cooperative cost-sharing or "value capture" arrangements with private sector interests. These include property owner contributions of rights-of-way and cash, utilization of benefit assessment districts, and establishment of impact fee systems.

These "innovative financing" methods are being mixed with conventional funding sources and tailored to fit a wide variety of circumstances -- depending on the traffic levels, the property development context, and availability of state and local funds.

These new sources of revenue also require new institutional forms of cooperation among public and private entities. For example, we are seeing formation of "transportation development corporations" and "road districts" with limited powers, as well as local transportation authorities and conventional public toll authorities with broader responsibilities.

The more fully private concessions with complete finance, design, construction, and operation franchises, represent a special case, and I will come back to them later.



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#### **IV. BROADENING TOLL APPLICABILITY**

One of the most promising areas for public/private cooperation is in the area of direct user charges through tolls. Charging a direct fee for the use of a facility is being implemented in two areas of transportation: airport landing fees and toll roads.

The 1990 Budget agreement provides airport operators with additional revenue and flexibility by allowing the imposition of Passenger Facility Charges. Under this provision, airports may charge passengers up to \$3 per enplanement. Airports are also imposing landing fees set in proportion to actual airport costs.

Conventional highway funding shortfalls have also led to a resurgence of interest in toll roads. There are currently about 1000 miles of new toll facilities in various stages of development.

In 1987, Congress authorized a toll pilot program in seven states to examine the merits of federal funding participation in toll projects. Under the Pilot Program:

- The projects must be publicly-owned and operated and tolled solely for the purposes of construction or renovation;
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The DOT is currently studying an extension of the Pilot Program, which would make it available in all states, consistent with the NTP's goal of providing states with increased flexibility.

Broadening the Pilot Program to tap the potential of toll-viable facilities could be achieved in several ways. One would permit states to add new capacity and access control to any existing free non-Interstate federal aid facility as a public authority toll road. Another would allow commingling of federal aid with tolls for capacity additions to existing toll facilities or creation of new ones.

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Even without state participation, a private project might be eligible for federal funding, provided the State had an agreement with the private entity covering general public interest requirements. The decision to use its federal aid apportionment for such projects would, of course, be up to the states.

The ultimate extension of the Toll Pilot program would permit federal and state aid participation in "privatized" projects mixed with private debt and equity financing.

It is clear that many new forms of public/private partnerships are possible and desirable. The private sector offers untapped resources for transportation development -- financial, technical, and entrepreneurial-- which must be taken advantage of.

Historically, the private sector has contributed to project design and construction, but only to a limited extent in financing and project development. Consequently, there are challenging issues which must be explored and sorted out in seeking new forms of public/private partnership.

The bottom line is that public/private partnerships and fully private initiatives can improve transportation services at the local level. It brings market forces to bear on the allocation of scarce resources. We are seeing the results in mass transit, privately built and operated toll roads, and the new technologies surrounding Intelligent Vehicle Highway Systems, and high speed rail.

Privatization also encourages management at its best, improving public services by sharpening the sense of local involvement in solving transportation problems. But the real advantage of public/private partnerships is that they make things happen, and build things that would not be built otherwise.

For example:

- Here in the Washington area, a public service corporation has been formed to construct an extension to the Dulles Airport toll road;

- In Orange County, California, a partnership has been created to build three state-of-the-art toll highways;

- In Orlando, Florida a cooperative agreement was signed recently to begin testing an Intelligent Vehicle Highway System, which is expected to provide safer and more efficient use of existing highway capacity;

- In New York City, over \$100 million in transit improvements were funded by the private sector;

- In Boston, a private developer leased the South Station, then rehabilitated it and added a downtown mall. He now maintains the space and rents it from the transit agency.

- In the Meadowlands in New Jersey, a developer is constructing a project which will tie together several rail lines, thereby improving access to Manhattan and developments in the Meadowlands itself;

- In Seattle, negotiations have led to nine joint development agreements between Metro and private developers. These projects provide new development for the private sector, while saving the City of Seattle and Metro over sixteen million dollars in land acquisition costs.

These and other projects recognize the non-federal role in building transportation infrastructure. Innovative financing, tolls, and other mechanisms should be used to a greater extent, and federal policy should support this kind of creative thinking.

There is much to be learned. The initiatives so far suggest that there are alternative institutional and financial arrangements that merit consideration. There is also much to be gained from studying the examples in Europe, where major new highway systems are emerging under arrangements where the division between the public and private sector interests is less than clear. In an increasingly globally competitive environment, we cannot presume a monopoly on good ideas.



## VI. PUBLIC/PRIVATE PARTNERSHIPS IN RESEARCH AND TECHNOLOGY DEVELOPMENT

While most of my remarks today regard private sector involvement in actual transportation development, I would like close by emphasizing that our attempt to forge new public/private relationships does not end there. A major thrust of the National Transportation Policy is to regain world leadership in transportation technology and expertise. The Congress this effort in the recent 1991 Appropriations Act, which includes a substantial increase in DOT funds for research and technology deployment.

Given the opportunities for innovation and the potential rewards of the marketplace, it would not be surprising to find a close link between new technology and an evolving role for the private sector in transport development. I know that many of you here today are actively involved in exploring this link.

Within the highway arena, our renewed R&D efforts are dedicated to three basic areas: (1) long term research in materials, methods and operations; (2) motor carrier regulations; and (3) intelligent vehicle highway systems or IVHS.

For IVHS, we are looking for technology to increase the efficiency, safety, and productivity of highways through advanced traffic management, information and control systems. We recognized early on that a new form of alliance between the public and private sectors and research institutions is vital to progress in this area.

For instance, I have made several trips to California to keep up to date with the progress of the Pathfinder, Smart Corridor, Crescent and other projects where the federal, state and private sector partnership is already at work. At the national level, the DOT recently participated in the formation of "IVHS America," with a 30-member Steering Committee drawn from both the public and private sectors. The Committee will act as an official advisor to the Department in charting the course of this important initiative.

Your association is on the cutting edge of these and other exciting developments for the future of transportation. New relationships between the public and private sectors touch many of your most critical concerns. Maximum promise may lie in a new era of shared responsibility, risk, and reward between the public and private sectors which can tap the obvious strengths of each.

To make the transportation investments today that ensure our continued prosperity tomorrow, I believe that the partnership of the public and private sectors must be pursued to its fullest advantage. The operations of the private market made this country and our standard of living the envy of the world. Its energies must be directed toward keeping the American transportation system the best in the world.

Thank you and God bless you.

REMARKS PREPARED FOR DELIVERY BY  
DEPUTY SECRETARY OF TRANSPORTATION ELAINE L. CHAO  
FRA REGIONAL DIRECTORS CONFERENCE  
ARLINGTON, VIRGINIA  
NOVEMBER 26, 1990

- Good evening, and thank you, Perry.
- I am delighted to be here, and appreciate the chance to meet so many of the fine people that make up the FRA. I appreciate your invitation and your hospitality.
- Since becoming Deputy Secretary, I feel I have really come to know not just the many missions of the FRA, but also some of your marvelous people and the spirit that motivates them -- people like Gil Carmichael, Perry Rivkind, Bill Watt, Mark Lindsey, and Phil Olekszyk. This is a proud team with justifiable pride in the progress of the American railroad system.
- This conference reflects the determination to get on with the job -- to find ways in which the agency can carry out its responsibilities more efficiently. This conference formally recognizes that the FRA regional offices can be a solid basis on which to build a stronger management team within the agency.
- Clearly, each of you, the FRA's regional directors of safety, are critical participants in this process.

- Your role takes on added importance during this period of increased public and congressional attention to safety issues in transportation -- whether maritime oil spills, the death rate on the nation's highways, hazardous materials incidents, or railroad derailments.

- I know that FRA's system of regional offices is different from that of many other agencies because they are very tightly focused on safety regulation. This is an advantage at a time when safety has taken on such prominence in our operations.

- At the same time, it is no secret that this orientation in the past had undesirable side effects. It placed the field safety forces outside the mainstream of the agency's day-to-day central management. FRA's regional directors and their staffs were a human resource that was not being used to its full potential.

- It should be obvious to everyone by now that this situation is changing. Perry Rivkind has gone beyond the process of quick fixes and is strengthening the agency's ability to perform its mission in a credible fashion -- to give it a new sense of urgency and vitality as it confronts the challenges of the 90s.

- Your agenda this week demonstrates the direction the agency is taking. There should be no doubts about



the fact that today the regional directors of FRA have joined the agency's central management team.

- At the end of the week, as you return to Portland, or Fort Worth, or Cambridge, or another regional office, you will not be breaking the tie with the management team at FRA. You will be back more often.

- You are taking part in finding approaches to improved communications, inspections, safety training, cooperative efforts with the states, and enforcement. You must take responsibility for successfully and efficiently executing the policies you are helping to create.

- Your professionalism has raised the level of public awareness of the need for an absolutely safe rail system. I am grateful for your efforts, and urge you to keep up the good work.

- Thank you, and God bless you.

REMARKS PREPARED FOR DELIVERY BY  
DEPUTY SECRETARY OF TRANSPORTATION ELAINE L. CHAO  
SEMINAR ON TECHNOLOGY TRANSFER AND ADAPTABILITY  
IN INDUSTRIALIZED NATIONS  
ORLANDO, FLORIDA  
NOVEMBER 12, 1990

Thank you, Gene. Good morning. I am delighted to be here in Orlando to participate in this international seminar on technology transfer in industrialized countries.

Today, I want to share with you some of my thoughts on the changing context facing surface transportation in most OECD-member countries, and outline the U.S. response to this new context.

## **CHANGING CONTEXT**

I believe transportation policies and programs of member countries in the 1990s will be shaped by several major trends:

First, growth in travel demand will exert tremendous pressure on existing systems. In the U.S., two-thirds of peak hour traffic on U.S. urban freeways is already moving at under 35 miles per hour, or 56 kilometers per hour, in great part because of the past vitality of the U.S. economy. In addition, heavy truck travel has tripled in the last 25 years.

By all accounts, road congestion in Europe and Japan is also worsening. European travel is growing faster than in the United States, and will be further spurred by the creation of a single European market in 1992. Japanese travel is growing too, primarily due to the extraordinary strength of its economy.

Second, the unwanted side effects of this traffic volume are becoming more evident. There has been some progress in reducing accident rates and severity in OECD countries. In the United States, for instance, traffic fatalities are down slightly, to about 45,000 annually, while the *rate* of fatalities per passenger mile has declined by 3%. Still, the number of traffic injuries and deaths is intolerable. Annual fatalities total over 400,000 worldwide, with 120,000 in OECD-member countries.

Other negative effects are on the rise in many parts of the world. Air pollution from traffic and other sources is damaging the health of many of our citizens, and may be detrimental to the climate patterns of the earth. Noise levels, too, pose an increasing threat to the quality of life.

In spite of these factors, most of us are relying more and more on the flexible mobility provided by motor vehicles. Dispersed job sites and residences are the



product of the automotive age, and hard to reach efficiently in the short-run except by motor vehicle.

The United States is especially concerned with the role of transportation in improving productivity and assuring international competitiveness. We believe that investments in transportation infrastructure can improve the comparatively poor recent U.S. productivity record.

The solution will require innovation and investment, at a time when funding for transportation infrastructure is harder to come by in most member countries.

## **U.S. RESPONSE TO THE CHANGING CONTEXT HAS BEEN MANIFOLD**

Earlier this year, President Bush announced a new National Transportation Policy. This policy -- the first in a decade -- was based on an outreach effort across the complete array of transportation interests and across the country.

At its core, the National Transportation Policy recognizes that government must get closer to its customers. Greater investment and improved productivity requires a new balance between the public and private sectors. This will become more evident

when we propose legislation next year to reauthorize the U.S. highway program. A restructuring is under consideration which will better utilize the financial, management, technical and entrepreneurial resources of the private sector.

It is clear that history endorses this effort, as we see similar ideas take hold in Eastern Europe and the developing countries. Even in the democratic, market-oriented countries of the OECD, the trend is in the same direction.

At the Department of Transportation, we are devising surface transportation strategies to implement the new policy.

First, federal programs for financing highway improvements must be restructured. Federal resources will focus on highways of truly national importance. These are the investments that yield the highest returns to users, and promise the greatest improvement in our mediocre rate of productivity growth.

Our existing highway programs need to become more flexible. Individual states, for instance, should be able to spend federal funds for projects that best solve local transportation problems. They should not have to spend money for specific purposes designated in the remote halls of Washington. They should also have

more freedom to spend federal highway funds on public transit improvements, in circumstances where that would provide better service.

While providing more flexibility, the federal government should expect greater State accountability in return. For example, the establishment of more rigorous State management systems will ensure the best use of federal funds. These systems will guide spending on maintenance, safety improvements, air quality control, and congestion relief.

We will also encourage greater financial contributions directly from the beneficiaries of road projects. We need to continue our strong reliance on user fees and enlarge potential sources. This suggests greater reliance on toll financing and other means, such as contributions from local landowners. As we refine our strategy on toll roads and public/private cooperation, we are looking at the experience of France, Italy, Japan and other countries with wide application of toll road concessions.

We also expect to more fully open the door to projects involving greater participation by private firms in all phases of surface transportation, from finance and design through maintenance and operation.



## **STREAMLINE REGULATIONS**

In a further effort to improve efficiency and competitiveness, the United States is continuing to streamline existing regulations in all transport modes. In the past ten years, it is estimated that deregulation of freight -- including air, rail and truck -- has saved about \$40 billion annually. Building on this success story, we have three principle objectives in the highway sector:

- First, having already substantially *reduced* federal regulation, we now seek uniform State regulations for registering trucks and reporting taxes;
- Second, we seek elimination of remaining federal economic regulations on interstate shipping; and
- Third, we will cooperate with OECD and other countries to harmonize international standards for motor vehicles and containerized freight.

I am sure that those of you from the European Community recognize how closely our agenda resembles the measures to remove obstacles to open transportation within the single European market.

## **RENEWED EMPHASIS ON RESEARCH AND TECHNOLOGY**

New programs, new sources of money, and streamlined regulations must be supplemented by new

technologies if our economies are to thrive and yield a better quality of life. These technologies will range from whole new systems, such as high-speed trains, to refinements of today's systems, such as more durable paving materials and cheaper repair methods.

The U.S. Department of Transportation is committed to increased spending on transport research and development. Within our Federal Highway Administration alone, overall R&D spending will total \$30 million in Fiscal Year 1991 -- up from \$19 million in Fiscal Year 1990. Entirely separate from these expenditures, funding for Intelligent Vehicle Highway Systems, or IVHS, has increased from \$3 million to \$20 million in the same period.

IVHS, as well as the SHARP program focusing on improved pavement, are but two examples of our renewed commitment to technology development. Both also demonstrate the need for increased emphasis on international cooperation and technology transfer.

Most transportation technology originates in OECD-member countries. It would be wasteful for us to ignore the rich store of inventions made in your countries, just as you would be ill-advised to ignore ours. None of us should make that mistake. International seminars such

as this one will proliferate in the future, and you will find U.S. representatives attending more frequently.

Equally important is transferring knowledge from inventors to the engineers and technicians who must implement these ideas on a large scale. This process must improve if we are to reduce congestion, save lives, and attack unwanted side effects of present systems.

In the United States, our Federal Highway Administration makes an important contribution to speeding the application of road technologies through a system of Technology Transfer Centers in most of our States.

These Centers improve the flow of technical information between technology suppliers, such as universities or the Federal government, and local officials who need the technology.

The 46 Centers provide practical information of immediate use to over 50,000 local highway authorities. Some Centers use traveling vans to take the expertise on the road, so that local users get the latest know-how first hand. Many even offer "how to" manuals, technical bulletins, videotape libraries, and special information services over the telephone.



As some of you know, technology transfer centers can be effective at the international level as well. In 1987, the Pan American Highway Congress established the first regional international technology transfer center. This Pan American Institute of Highways promotes the transfer of technology between the Americas. I understand that the Institute is working well, and we hope that its charter will be made permanent at the meeting next March in Montevideo of the Pan American Highway Congress.

You will be hearing more about these Centers in the course of the seminar. We will, in turn, be looking for ideas from your countries on how to ensure that costly research finds its way into general use.

## **CONCLUSION**

It is clear that we live in changing and challenging times. As we cope with these changes, we should commit ourselves to fostering an environment where competition and technology can flourish. I foresee transportation networks combining the best elements of the public and private sectors in a formidable joint venture.

These are not unrealistic expectations, but real possibilities essential for the economic health of our

respective nations. We must work together to successfully meet these challenges.

Thank you.