



# DEPARTMENT OF TRANSPORTATION

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# NEWS

## OFFICE OF THE SECRETARY

WASHINGTON, D. C. 20590

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REMARKS PREPARED FOR DELIVERY BY JAMES A. WASHINGTON, GENERAL COUNSEL, DEPARTMENT OF TRANSPORTATION, BEFORE THE AMERICAN BAR ASSOCIATION CONFERENCE, ADOLPHUS HOTEL, DALLAS, TEXAS, AUGUST 11, 1969.

It is indeed a pleasure to be here with my colleagues from all over the country. As many of you know, I have only recently been appointed to my post as general counsel by President Nixon. A job which I might add is not only interesting, but challenging!

During the next few minutes, I would like to talk with you about public transportation and the Urban Mass Transportation Administration. Many of you serve on local and state government councils, commissions and act in advisory positions, therefore, the following information may be beneficial in solving your own public transportation problems.

We are all faced with a transportation crisis throughout this country, and you realize this just as much as I do everytime we get in the car and drive across town or across the nation.

Fortunately, I can report relief is in sight. For as you know, just last Thursday the President sent a message to Congress requesting 10 billion dollars for public transportation during the next 12 years.

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This is the plan: Five and a half billion will be used on the major systems, such as Los Angeles, Atlanta, Seattle, Pittsburgh, as well as others.

Existing major systems will get about 2.5 billion for improvements and expansion.

The medium and small transportation systems will receive about 1.5 billion for retention, expansion and improvement of their systems.

And, research and development, demonstrations and technical studies will get about half a billion dollars.

President Nixon knows it isn't enough money. We all know it isn't enough and will not solve all the public transportation problems that plague this great nation, but, let me point out . . . it is far more than has been spent by the Federal government in the past, and a dramatic step in the right direction. Do you realize more has been spent on the Interstate Highway System these past six weeks, than on public transportation for the past six years?

The day has passed when a representative of the Federal government must wage an uphill battle to interest an audience in attacking the nation's need for more public transportation. As our metropolitan areas grow and as our people become more mobile and affluent, the cities of America are choking on their own transportation and pollution. Cities ranging in size from New York City to Laredo, Texas, must have public transit to move their people efficiently, comfortably, and cheaply enough to attract riders.

Our urban areas desparately need money to build and improve public transit systems, technological expertise to keep these systems abreast of the unfolding wonders of new research, and planning resources to adapt these systems to the total community environment. Our public transportation assistance program endeavors to provide each of these types of aid.

The Department of Transportation - through the Urban Mass Transportation Administration - offers five different types of grants. The program to which we devote the largest sum of money is that for capital improvement grants. If a public body wants to buy, build, or improve mass transportation facilities and equipment, we can pay up to two-thirds of the bill, if the capital improvements cannot be financed from transit system revenues. The purposes of the capital grant program are threefold: (1) to help public bodies provide adequate transportation services for all parts of the population, (2) to encourage the use of new technology, and (3) to encourage the development and implementation of area-wide transit improvement programs in keeping with regional planning objectives. Capital grants are for capital improvements: such as purchase of equipment, repairs and maintenance costs.

Only this morning I had the pleasure of being briefed and taken on a tour of the Dallas Transit facilities. Dallas Transit received a grant from UMTA totaling 8 million dollars. It was used to purchase 310 new buses, a highly sophisticated two-way radio system and for construction and refurbishing of buildings.

For most projects, UMTA considers applications: First, which preserve existing transit systems that would otherwise be abandoned, second, which provide new services to groups who lack access to employment and other opportunities, and, third, which improve, upgrade, and expand existing services. For projects involving the building of new transit systems or major extensions of existing systems, we give priority to projects which meet immediate and severe local needs, show the best cost/benefit ratio, implement the UMTA research and development program, and can be completed with the aid of funds then available to UMTA.

A great part of our research and development program involves grants to public agencies and non-profit organizations for application to our urban areas. Our demonstrations are field studies of the operation of and public response to, new types of transit techniques and services. We intend demonstration projects to serve not just the participating localities, but to provide prototype solutions which other parts of the nation can adopt. A demonstration is a controlled experiment: if it succeeds and the applicant wants UMTA aid in implementing it, the applicant must apply for a capital grant.

In the search for ways to reduce pollution stemming from transportation . . . we are exploring the possibility of new types of engines which provide reduced amounts of pollution. For example, in California we are exploring the possibility of steam engines on buses and here in Dallas with the cooperation of the Dallas Transit, we plan to study the use of a freon bus engine. As I pointed out, if these experiments prove successful, the results will be adapted for use in other cities.

Aside from research which seeks technological solutions to the problems of urban transportation, we have other programs designed to demonstrate social and economic solutions to urban problems. UMTA's service development program works with organizations such as the Urban League, in an effort to use improved transportation service to link the urban under-employed to expanding job opportunities in the outlying sections of our metropolitan areas.

The technical studies program, covers that gray field between research and development and planning on the one hand and capital improvements on the other. Once a locality has adopted a comprehensive transportation plan to determine its basic needs and desires, it, or some related public agency can get UMTA assistance for the planning, engineering, and design of proposed projects and for other functional studies necessary to implement a coordinated urban transportation system.

Still another UMTA program is the government's attempt to attack the shortage of trained public transportation managerial, technical, and professional personnel. We are trying to get young ambitious people interested in transportation as a career. And this isn't easy in some cases, so section 10 of the Act authorizes managerial training grants for public agencies to provide fellowships for selected employees. UMTA can award 100 hundred fellowships each year.

The last program provides for university research and training grants. UMTA aids public and private non-profit institutions of higher learning in two respects: conducting comprehensive research in both the technical and social science

aspects of urban transportation and training personnel to conduct further research or work for related public or private groups. In making these grants, we give preference to those universities which have brought various social science and technical disciplines together to focus on the problems of urban transportation.

In a nutshell, that is your Federal government's urban mass transportation program today. Our work . . . and that of all urban America . . . has just begun, especially, with the excellent prospect of having our new \$10 billion Public Transportation legislation program passed by Congress.

We have got to have this legislation. Only a token effort has been possible up to now with UMTA operating on a 175 million dollar budget. Some cities have had to go it alone, or at least practically alone, with only meager Federal assistance. Take for example, the Bay Area Rapid Transit System in San Francisco, which has faced tremendous financial problems. We just haven't had the resources up to now to support them like we should.

I am sure those of you who support the public transportation assistance program before Congress, will want to encourage your Congressman and Senators to endorse this urgently needed program. We need your help to assure passage.

President Nixon and Secretary John A. Volpe are aware of the public transportation crisis. They have fought hard for a Federal program that gives more impetus to the public transportation requirements.

Although the Department of Transportation is still in its infancy (being only 2-1/2 years old), I think you will agree, this Administration is moving quickly and accomplishing a great deal in the transportation area . . . only last month the airways and airport legislation was introduced.

In closing, let me express my appreciation for having the opportunity to share my thoughts with you. Administrator Villarreal deeply regrets his inability to be here. His presence was required on Capitol Hill today regarding the new public transportation assistance program.

Thank you.

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# DEPARTMENT OF TRANSPORTATION

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# NEWS

## OFFICE OF THE SECRETARY

WASHINGTON, D. C. 20590

REMARKS PREPARED FOR DELIVERY BY JAMES A. WASHINGTON, JR., GENERAL COUNSEL, DEPARTMENT OF TRANSPORTATION, BEFORE THE ANNUAL CONVENTION OF THE FEDERAL BAR ASSOCIATION, HOTEL FONTAINEBLEAU, MIAMI, FLORIDA, September 4, 1969

In the past those of us who were involved with one mode of transportation were for the most part unconcerned, if not ignorant, of the problems, conditions and opportunities in other modes. In many cases there was outright destructive competition between the modes. I recall one popular plot for Hollywood horse operas revolved around an underhanded struggle between the operator of the existing local stage coach line and the new railroad coming through.

I do not find it surprising that a Secretary of the Treasury, Albert Gallatin, in 1805, proposed establishment of a Federal transportation agency. Of course, at that time there were no automobiles, airplanes, nor even a bicycle. Although the complications of public travel and mobility were already a national headache, the idea was not considered seriously by Congress until 1874. The idea was considered regularly by Congress; however, no action of significance

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was taken until 1966 when the Department of Transportation was established. During all this time various modes of transportation were developed on the land and seas and in the air. Each developed completely independently and with only accidental relationship at the interface.

As problems arose in one mode of transportation or another, efforts were exerted to solve that particular problem, but there was no agency which could coordinate such solutions to assure that the transportation system on the whole was doing the best job possible. For instance, on July 12, 1954, the then Vice President Nixon, in delivering a message for the President on a "fifty billion dollar highway program in ten years" to the Governors' Conference at Bolton Landing, New York, warned the State Governors that the highway system had deteriorated to the point where drastic action was necessary. Congressional action was effective and much has been done to improve the highway system.

Traditionally, the Federal Government has directed its efforts and expenditures primarily toward national solutions, leaving city problems for local solution. However, the growing rural to urban trend predicts that by 1975 more than 75 percent of an estimated population of 230 million will be concentrated in urban areas with about 150 million living and working in three metropolitan corridors. Transportation in the cities has become a national problem. Most cities cannot solve the problems and are asking for help. Not just the increased means for mobility in areas where land is at a premium, but the problems of air pollution, noise, traffic congestion, destruction of neighborhoods by freeways, inadequate transport for the under-privileged, the aged and the handicapped, frustrating costly delays and transfer between modes of passengers, baggage and cargo, and improved safety, . . . all cry for priority handling. In response, the Department of Transportation must develop a coordinated transportation system which is responsive to the various economic, social, political and defense needs of the Nation.

Today it has been calculated that the average commuter driver spends about 13 percent of his working hours each workday in a traffic jam going to and from work. Many urban highways have become completely saturated, many being past saturation points. There is just no physical way of increasing the number of vehicles using these highways. The Secretary of Transportation has noted that "transportation is directly

tied in with the number one problem in our cities today." The immobility and isolation of poor, underprivileged minorities is a major force in determining their attitude of alienation and exclusion from the rest of the community.

The result is a striking out in every way, including violence. For instance, back in Washington, a resident in the core city who wanted to go to his job in Bethesda would have to travel about an hour and a half each way, going to and from work, and it would cost him about \$30 a month. In the Watts section of Los Angeles, which is only 16 miles from the large employment center of Santa Monica, it would take almost two hours to make the trip by public transportation. This undue hardship in transportation relegates these persons to a permanent position on the welfare rolls, locks them into governmental support, and fosters generations of children who have not seen beyond the squalor of their immediate decaying neighborhood.

In addition, the facilities which connect the various center city locations in our metropolitan corridors have also been heavily overtaxed. As you have no doubt been made aware recently, five of our major airports have reached saturation. These five airports located in New York, Chicago and Washington are serving a million and a half passengers every week. Over 1,700,000 airline take-offs and landings occurred last year at just these five airports.

Between 1967 and 1980 the total capacity of the transportation system must double if demand continues at the current rate. A non-partisan group of industry representatives, through its research and policy committee composed of 50 trustees from among 200 businessmen and educators, comprise the Committee for Economic Development. In its first policy statement issued in 1960 the Committee stressed that "in most metropolitan areas there is no single public agency able to study the relative needs for highway, mass transit or rail. There is no single body able to allocate costs among users, businesses and the general tax funds. No authoritative body is able to balance transportation capacity and the traffic generating uses of land."

Of course there is still no single body which can exercise all of these functions. However, the Department of Transportation, for the first time, has the potential of working in cooperation with local and State governments so that together we can fill this entire need.

Secretary Volpe's position has been that we can achieve a workable balanced transportation system which will help alleviate some of these problems by strengthening the weak links in our transportation system without injuring the strong links.

For instance, we should be able to set up a sound continuing program for financing new airports to relieve air traffic congestion and for new mass transit facilities. We should be able to develop high-speed inter-city rail transportation to relieve air and road congestion. For instance, the metro-liner between Washington and New York has already enjoyed a great success and will probably become even more popular when it can provide non-stop service.

In general our highway program has been so successful, it has generated a tremendous amount of additional traffic. Therefore, we now realize there isn't any highway system (unsupplemented by other modes) that can handle the total volume of traffic, no matter how well it is financed or engineered. Yet, over the next eight years we can expect the projected volume of traffic on these same streets to increase by 40 percent.

However, in the meantime, mass transit systems have deteriorated. Those conditions are especially evident during peak load periods in the rush hours. Many commuters ride transit during these hours because there is no economic alternative. Service is poor for the most part, and we all know it. Consequently, the effect has been to create an even greater incentive for car owners to desert rail and bus transportation for their automobile. This additional increase in automobiles then causes more congestion and a further deterioration in mass transit.

I suspect many of you are asking now what tangible steps this Administration has taken to start building these badly needed modes of public transportation. And, as you know, only last month President Nixon presented legislation to Congress known as the "Public Transportation Assistance Act of 1969."

Briefly, this is the Program in a nutshell:

Five and a half billion will be used on the major systems, such as Los Angeles, Atlanta, Seattle, Pittsburgh, as well as others.

Existing major systems will get about 2.5 billion for improvements and expansion.

The medium and small transportation systems will receive about 1.5 billion for retention, expansion and improvement of their systems.

And, research and development, demonstrations and technical studies will get about half a billion dollars.

President Nixon knows it isn't enough money. We all know it isn't enough and will not solve all the public transportation problems that plague this great Nation, but, let me point out . . . it is far more than has been spent by the Federal Government in the past, and a dramatic step in the right direction. Do you realize more has been spent on the Interstate Highway System these past six weeks than on public transportation for the past six years?

We have got to have this legislation. Only a token effort has been possible up to now with the Urban Mass Transportation Administration operating on a 175 million dollar budget. Some cities have had to go it alone, or at least practically alone, with only meager Federal assistance. Take for example the Bay Area Rapid Transit System in San Francisco, which has faced tremendous financial problems. We just haven't had the resources up to now to support them like we should.

President Nixon and Secretary John A. Volpe are aware of the public transportation crisis. They have fought hard for this Federal program which will give more impetus to the public transportation requirements.

I am sure those of you who support the Public Transportation Assistance Program before Congress will want to encourage your Congressmen and Senators to endorse this urgently needed program. We need your help to assure passage.

The approach for a solution to these problems which the Department of Transportation is presently taking, according to Secretary Volpe, is "to think in terms of what kind of movement of people and goods we want to achieve, and then design the machines and systems that will make such a mobility a reality." We can "take it for granted that no one mode of transportation will be able to provide efficiently all of the mobility we require, especially in and between the cities. Our citizens should be able to choose a mix of modes designed to get them or their freight where they are going with a minimum of delay and irritation."

We must use the same sort of systems approach to the solution of these problems that was successful in putting us on the moon. Surely it is inconceivable that we can achieve this unbelievable feat, but fail here on earth. For instance, airports obviously need better surface public transportation. An assumption has been made that for some reason those who travel by air do not consider it appropriate to ride to the terminal in a bus or a train, but this assumption is not valid in this day of mass travel.

The City of Cleveland has proved that rapid rail lines will work and will be patronized; so well, in fact, that a grant from the Department of Transportation has been required to enable Cleveland to buy additional cars to handle the unexpected increase in traffic. Secretary Volpe has stated that he believes "we have a great opportunity to create better conditions for our people by building transportation systems that do more than just move freight and passengers. We are coming to realize that the quality of urban transportation, just as much as jobs, school and housing, determines the quality of urban life."

"The better the transportation systems, the more opportunity there is to find and keep a job, to attend a college, to shop, to enjoy oneself. Without low-cost, convenient, clean . . . public transportation, the inner city gradually decays. To put it plainly, better buses and subways can help us create a secure, orderly and enjoyable life for urban millions of tomorrow."

President Nixon has placed public transportation among his top ten priorities and Secretary Volpe has also placed public transit on his list of priorities. In 1945 the total trackage of rapid rail transit systems was 1,222 miles. Today it is 1,255 miles. Only 33 miles of additional track in 24 years, although our population has zoomed to 210 million with 70 percent of these people living on only one percent of the land. An indication that our worst problems are where the density of people is highest.

Although urban residents are demanding and requiring more mobility than ever before, the local metropolitan areas and private enterprise have not been able to develop the capital necessary for the upgrading and construction of such facilities. The only source for such funds will have to be the Federal Government.

The President, in his recent message to Congress on public transportation, stressed the fact that transit fares have almost tripled since 1945 and that the number of passengers has decreased to one-third of the level of that year; that in recent years 235 bus and subway companies have gone out of business and the remaining ones have progressively deteriorated, therefore, they give riders fewer runs, have older cars and less service. The new program proposed by the President would help replace and improve local bus, rail and subway systems, as well as help to develop and modernize subway tracks, stations and terminals. Additionally it would help build and improve railroad and train tracks and stations, new bus terminals and garages. An important element in the new Transportation Program is that it would authorize assistance to private as well as public transit systems. This approach follows the intent of Congress as set forth in the Statement of Purposes in the Department of Transportation Act, one of which was "to facilitate the development and improvement of coordinated transportation service, to be provided by private enterprise to the maximum extent feasible."

The recommended program would give to the State governments an opportunity to comment on project applications and would require local public hearings before any major capital construction is undertaken, which is again consistent with the Declaration of Purposes of the Transportation Act, one of which was "to encourage cooperation of Federal, State and local governments . . . toward the achievement of national transportation objectives." This provision also allows local citizens most affected to participate in the planning and should eliminate what has been a major objection to highway programs. The program also provides for substantial research and technology efforts.

The ultimate intent of President Nixon's program is to "make public transit truly attractive and convenient", so that riders will, of their free choice, prefer to ride in transit systems. Then fares can be kept down, equipment upgraded and service improved. Only then will public transit be a good alternative for owners of private cars.

Basic to this new program is the assurance that the Federal Government will obligate itself to future financial support of the program on a continuing basis so that cities and towns can proceed confidently with long-range plans. Localities can plan systematically or acquire rights-of-way in advance of system construction in order to reduce costs and dislocation problems.

With the new "Public Transportation Assistance Act of 1969", each of you, as well as the Nation, will benefit. Our great Nation which has sent men to the moon can then demonstrate it can perfect transportation on earth as well.

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# DEPARTMENT OF TRANSPORTATION

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**NEWS**

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## **OFFICE OF THE SECRETARY**

WASHINGTON, D. C. 20590

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REMARKS PREPARED FOR DELIVERY BY JAMES A. WASHINGTON, JR., GENERAL COUNSEL, AT THE NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS' ANNUAL CONVENTION IN DENVER, COLORADO, ON OCTOBER 6, 1969.

When the Department of Transportation was created by Congress in October of 1966, it was given the mandate to provide leadership in achieving a truly efficient, coordinated transportation system in this country. Up until that time, individual modes of the transportation industry were promoted--and regulated--strictly on an individual basis. While economic regulation of transportation is still accomplished by separate government agencies (each concerned with a particular mode), the ultimate efficiency and safety of moving passengers and freight is the chief concern of D. O. T. This is true whether one or several modes are utilized. Indeed, it is the effective coordination of the various modes in the overall nationwide transportation scheme, which is the Department's primary concern.

Now where does inter-city rail passenger service fit into this overall scheme? Or does it at all? Is it so costly, inefficient, and archaic that it should be abandoned entirely, leaving the transportation of people from city to city to the highways and airways? Or may rail

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service once again enjoy a dynamic and vital role in the movement of people about our country?

At this point I would like to make clear that what I am talking about here today is rail passenger service between cities of more than usual commutation distance, say 100 miles or more. I am not speaking of urban mass transportation or rail service from the city to surrounding suburbs. That is an area where the need is apparent. Rather, what I would like to consider here is passenger service from city to city, a service which, conceivably, could be handled exclusively by airline and bus carriers and private automobiles.

It is true that rail passenger patronage has drastically declined since World War II. This decline, while at first gradual, has rapidly accelerated in the last few years. During this period, travel by rail has been largely forgotten by a public maintaining a romance with buying cars and flying in jets.

But today, due to our overcrowded highways and clogged airways, the focus of attention--and demand--is once again shifting to the railroads. We are finding that planes, buses, and cars cannot do all of the job. They cannot move all of the people who need to be moved, when and where their needs arise. Now, however, as the public once again turns to the rails, it is finding that the reliability, convenience, and comfort which characterized rail travel in the past, have become, to a great extent, things of the past. The public doesn't--and shouldn't--like it.

Until the formation of the Federal Railroad Administration as part of the Department of Transportation, there was no agency within the Executive Branch of the Government whose primary concern was railroad transportation and its role in the future economic and social development of this country. For a number of years now, the other modes of transportation have, in effect, been promoted by Government subsidy, but the railroad industry has been left, at least in this century, more or less to its own devices. While we were building highways and fostering commercial aviation, we failed to help the railroads meet the competitive challenges these modes created.

It is one goal of the Federal Railroad Administration to balance out this situation. Its purpose is to help the railroads achieve a more efficient, marketable and safe transportation product in order to assure the railroads a vital and firm position in our transportation system.

This is true, not only with regard to rail freight service, but also to passenger service. The Department has taken the position that rail passenger service is necessary for a truly unified and efficient transportation system. The highways and airways are not enough. The public must also have the option--and it must be a real option--of travel by rail.

This does not necessarily mean, however, that we feel all rail passenger routes presently in existence should be continued. The Department is presently conducting a Northeast Corridor Transportation study which is developing a data base by which passenger transportation needs can be evaluated. It may be that in the future rail passenger service should be confined to short hauls in high density corridor areas. It is this type of service which seems most likely to generate the greatest public demand and to provide the railroads with the best financial return for passenger service. But we must also remember that speed is not always the traveler's main desire. Real consideration should be given to saving those long-haul passenger routes providing a scenic panorama of our country that can be enjoyed no other way.

Having taken the stand that rail passenger service is necessary, we must now determine how and where it is to be provided. Obviously, passenger service, as it is now being offered, is not satisfactory to either the traveling public or the railroads. But how can a truly viable inter-city rail passenger service be produced?

As you know, the ICC has recently concluded an extensive study of the costs involved in intercity rail passenger service. In its report, the Commission stated that the net avoidable expenses incurred by the eight selected carriers in operating inter-city passenger service in 1968 alone came to a total of \$118 million. This is the amount which those carriers would have saved by not offering such service during that one year. Thus, it can be seen that, regardless of the causative factors, the financial burden on the railroads of continuing to offer passenger service at its present level is very great. The further cost of providing the modern equipment, facilities and the services necessary to attract patronage and successfully compete with other modes of transportation, cannot be borne by the rail industry alone.

The situation is bad and rapidly becoming worse. We cannot delay taking affirmative measures, or for one day soon, there may no longer be any rail passenger service. This is a real possibility under the discontinuance provisions under §13a of the Interstate Commerce Act. Decisive action is needed, and it is needed now. We think the Federal Government, acting through the Executive Branch may prove to be the necessary catapult.

There are a number of approaches to the problem. The Department of Transportation is presently giving extensive study and consideration to the various alternatives to determine a plan or system which will best provide the rail passenger service required. More importantly, the service which will be needed in the future. Let me tell you about some of the plans proposed:

One system would call for Federal Government subsidy of capital improvements. Under this plan, railroads would continue to be privately owned, but the capital improvements required for adequate service--new cars, improved track and roadbed, more attractive and better located terminals, etc.--would be financed by the Federal Government. Such financing could occur in several ways. For instance, it could consist of loans with provision for long term repayment. Or, it could be made up of grants. These grants would either be outright financing of the total cost of any particular approved expenditure, or would utilize a matching fund concept requiring the corporation or authority to provide a set percentage of the costs involved. For example, the railroad would finance, say, one-third of the costs, with the Federal Government providing the remaining two-thirds.

Another form which Government subsidy could take would be a purchase and lease agreement. Under this plan the Federal Government would buy the new equipment and facilities needed for modern passenger service and lease them to the corporations or agencies actually operating the railroads. Such a system would reduce the capital expenditures of the railroads and provide the Government with a reasonable return on its investment.

But adequate rail passenger service requires more than new methods of financing. A new approach towards managing the service must also be adopted. Again there are various alternatives which the Department is actively considering. One possible program would be to provide passenger service through local public agencies willing to join with the Federal Government in providing funds to operate the routes. Under this program, a public agency willing to participate financially would apply for Federal assistance. Federal participation in a rail passenger project would then be initiated only by action taken at the local level. Under this plan, public agencies would be permitted to join together and to jointly make the application for Federal aid, such as is done in rapid transit, airports, and highways programs.

A second possible program involves a legislative proposal to charter a private corporation to provide rail passenger service in selected high

density routes throughout the nation for at least a three year period. The corporation would issue stock to the railroads and the public. It would have a board of directors composed of stockholder representatives and Presidential appointees.

The corporation would enter into contracts with existing carriers to operate that passenger service the corporation desires to preserve or initiate. Neither its fares nor its routes would be subject to I. C. C. jurisdiction. If the corporation determined that a particular service was unprofitable and should be discontinued, the states or municipalities affected could contract with the corporation to provide partial or full support of the service. Any railroad relieved of the burden of providing a particular deficit passenger service would pay to the corporation a levy equal to 50% of the annual avoidable cost savings which it claims in its train-off case before the I. C. C. This levy would be collected over each of the three years following discontinuance, for a total of 150% of year's savings claimed. Present estimates of this levy upon the railroads indicate that it would amount to about \$330 million.

A third possible program would be to provide Federal grants for capital improvements related to passenger service to those railroad conducting otherwise profitable operations on the routes involved. Such grants could also be made where state or local subsidies are available to cover operating deficits.

Whether one or a combination of these proposals will be ultimately adopted as the best means of providing a reliable, convenient, and comfortable rail passenger system adequate to the demands of an increasingly mobile society it is impossible to say at this point. But I can tell you that the Department of Transportation is convinced that the need for such service is real. Our overcrowded airports and holiday highway traffic situations amply demonstrate this. And I can also tell you that the Department is convinced that such service both can be provided and will be patronized by the public when it is. Our highly successful Metroliner (from Washington, D. C. to New York City) and the Turbo (from Boston to New York City) is valid proof.

Furthermore, we are concerned, not only with the financial aspects of providing rail passenger service, but also with the technical improvements necessary if the industry is to provide the comfort and speed which competition from the other modes will require. As a result, we are actively engaged in research of new and revolutionary devices, such as the promising tracked air cushion vehicle, which hopefully will provide major technical contributions to the industry.

The Department of Transportation is committed to achieving a safe, efficient, and coordinated nationwide transportation system. Rail passenger service is a vital part of such a system. Its necessity is becoming more apparent every day. Government--Federal, state, and local--and the railroads must work together towards solving the problems appendant to meeting this need. They can be solved, they must be solved. And I feel confident under the able leadership of President Nixon and Secretary John Volpe, great strides will be made.

I am sure you are aware of the three major pieces of legislation before Congress that are so important to transportation - the Airport and Airways Bill, the Public Transportation Bill for 1969, and the Super-sonic Transport Program.

I encourage your assistance and support in the passage of these important programs.

Thank you.



# DEPARTMENT OF TRANSPORTATION

118.12  
**NEWS**

## OFFICE OF THE SECRETARY

WASHINGTON, D.C. 20590

REMARKS BY JAMES A. WASHINGTON, GENERAL COUNSEL, DEPARTMENT  
OF TRANSPORTATION, AT THE 60TH ANNUAL MEETING OF THE  
IDAHO SOCIETY OF PROFESSIONAL ENGINEERS, BOISE,  
IDAHO, FEBRUARY 6, 1970

It is indeed a pleasure to speak before this distinguished audience of professional engineers and their wives. This is my first trip to your fine State. I could see on the flight that I should never have waited so long.

The vast wilderness areas remaining in this State are becoming a rare commodity. I hope that you are able to preserve them for those who have not already had the privilege of traveling this way.

I bring you the best wishes of Secretary Volpe and the Department of Transportation. I know that he regretted having to tell Governor Samuelson that he couldn't come.

I know that it is often standard treatment for an after-dinner speaker to think that the evening is his. With so many beautiful ladies before me, I am under no such illusions. So I'll try to give you most of the evening for dancing.

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The theme of your 60th annual meeting, "Environmental Designs for the Seventies," is quite appropriate. A new awareness of the importance of our environment is sweeping the country with amazing speed.

I remember only a few months ago when Florida conservationists began criticizing the location of a new jetport for Miami, Florida. They said that it would ruin the ecology of the Everglades National Park. And they were ridiculed as eccentric and unrealistic. One official even referred to them as "Brainless Bird and Bunny" people. After the matter was studied, however, the conservationists were proven correct. The Department of Transportation and the Department of Interior effectively stopped the construction of that jetport. It was to have been the largest and most advanced in America. So I think that our action in that case firmly establishes the serious intentions of the Federal Government to protect our environment.

Perhaps I should take a few minutes to outline the Federal commitment to environmental conservation. President Nixon set the pace when he said in his State of the Union message: "Clean air, clean water, open spaces -- these should once again be the birthright of every American. If we act now -- they can be."

The President's first official action in 1970 was to sign the National Environmental Policy Act. In this legislation, the Congress recognizes the fundamental right of every American to a healthful environment. It establishes a three-member council -- somewhat similar to the President's Council of Economic Advisers -- to insure that those rights are protected.

We believe that passage of this legislation is destined to have a profound impact upon all levels of Government and Government-sponsored projects.

We anticipate a Departmental response that will be positive, broad in its application, and clearly indicative of a broad concept of environmental quality.

The totality of our surroundings is now the arena. It is no longer narrowed by the more conventional units of air and water pollution.

But most significant is the provision that every Federal agency consider the environmental effect of every program that it administers. And such consideration must be provided in writing.

This has many ramifications -- most of them affecting the work of the professional engineer. A company receiving a Federal small business loan, for example, would have to show that its physical plant would not pollute the environment.

It means that highways must be judged according to human values as well as engineering values. That's not to say, of course, that engineers aren't human.

It simply means that they must add a new set of criteria to existing engineering guidelines.

Architects, designers, sociologists, psychologists, and other disciplines will be more formally involved in planning and building systems.

In effect, we are saying that it is just as important to have a park to go through, as it is to go through a park.

When the Department of Transportation was established by Congress in 1967, the enabling legislation included a provision -- Section 4(f) -- which delineated our responsibilities to the environment.

Section 4(f) begins: "It is hereby declared to be the national policy that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites."

That mandate was strengthened in 1969 by Secretary Volpe's decision to establish an Office of Assistant Secretary for Environment and Urban Systems. That position is now filled by an outstanding Northwesterner, J. D. Braman, former Mayor of Seattle.

So our concern for the environment is not entirely new. We in the Department are quite proud of the fact that we were one of the first to institutionalize environmental considerations.

Because of local freeway battles now under way in many cities, national attention has focused on those problems. And they are most difficult. Our Interstate system, now nearing completion, has done a tremendous job of connecting cities in this country.

But now those once glorious super-highways are on the outskirts of town and threatening to tear up neighborhoods, parks, business districts and other aspects of community life.

Naturally there is opposition. It is quite vociferous. And in many cases it is quite legitimate.

Our problem in planning where these highways should enter the city is in trying to assign quantitative values to human values. Is mobility more important than esthetic value?

What is the value of a park as a park? When is the past more important than the present? In the Vieux Carre, an historic French quarter of New Orleans, we recently decided that the area's historic value was greater than the location of the Riverfront Expressway. The highway was relocated.

But this is just one aspect of our concern for the environment.

In transportation we are faced with a hardware system -- whether it be the auto, train, bus or plane -- that daily pours millions of pounds of pollution into the air. It is a technological problem that requires technological solutions. And engineers must provide them.

But it is no longer safe to assume that every discovery and invention will necessarily contribute to the improvement of the human condition. And it is no longer only cranks who suspect that we have already passed the point where technology has begun to create more problems than it is solving.

Overpopulation, the mounting volume of industrial waste, and overproduction of disposable goods have presented a threat which is suddenly being revealed as a threat.

Junk piles begin to stack up and industrial waste is poured into lakes and streams in quantities which nature, overwhelmed by technology, cannot absorb.

Distinguished paleontologist Henry Osborn once said, "We no longer destroy great works of art. They are treasures . . . of priceless value, but we have yet to attain the state of civilization where the destruction of a glorious work of nature, whether it be a cliff, a forest or a species of animal or plant is regarded with equal abhorrence."

As engineers, you must recognize the value of our environment. You must help us find a way to apply engineering sophistication to social problems. And perhaps most important of all, you must be aware of the need for a change of attitude toward social problems.

The engineer is in a unique position to play a major role in solving the problems of society, for almost all of these problems involve technology and economics. Yet at the same time, we are

asking you to get involved in sociological and community development areas -- areas in which you probably have had little training.

As I look at the engineering designs in the transportation of the 1970's, I see sociological, political, and humanistic criteria as just as important, if not more so, than changes in materials, processes and technology.

In determining mass transit requirements, for example, we know that a string of cattle cars in an underground tunnel isn't going to attract patronage. Mass transit, bus or rail, to be effective, must provide a reasonable alternative to the private auto. So esthetic values, comfort, safety and reliability become just as important as speed, cost and operational characteristics.

Transportation is entering a new era of technological development -- an era of fantastically rising demand for transportation services.

In the next 10 years air passenger miles will triple. The volume of automobile traffic will increase by 50 percent. Railroad ton-miles will be up 25 percent. Trucks will be carrying 50 percent more than they are today.

As these trends continue -- and we have every reason to expect that they will -- we will have to double the capacity of our transportation system within the next two decades.

That doesn't necessarily mean more of everything -- more highways, more airports, more trains. It means that we may have to set some new priorities -- priorities that say we must concentrate on mass transit, or on serving some segment of the population that is currently without transportation. There are many relatively new factors -- such as proper land use and prevailing social conditions -- which must be considered in increasing systems capacity.

Transportation is more than mobility. It is one of the most important tools available to help a region and its cities meet social and physical development goals. Thus the options considered and selected in the process of planning transportation are critical.

Such critical choices should be made by those decision-makers who have been elected to lead communities toward their own goals. These are not engineering choices, they are policy choices. But there is no reason why engineers can't make them.

This afternoon I understand you discussed the promotion of engineering as a career. In transportation, perhaps as in few other fields, I see the nature of that career rapidly changing -- changing to include more emphasis on the humanities.

Philip S. Myers, past-President of the Society of Automotive Engineers, said in a recent magazine article, "If the engineer optimizes his design for these new (social) conditions, he must be increasingly aware of the social effects and responsibilities of his work, and of the inevitability of the interaction between the engineer and society."

Consider the following Department of Transportation projects which call for this kind of an awareness:

--a tracked air cushion vehicle, propelled by a linear induction motor, which emits no noise or pollutants,

--a safety car designed to save lives rather than time,

--steam, electric and turbine engines which will not spew pollution into the air,

--mass transit systems geared to serving inner city travel patterns and relieving congestion,

--airport systems that emphasize the movement of people on the ground as well as in the air,

--and safety in all modes.

No mission of the Department of Transportation, or of an engineering design, is more important than safety.

All of these projects represent the nature of environmental designs in the 1970's. As you can see, we give the environment a broad definition -- a definition that includes the entire spectrum of man and his surroundings.

The future of our country, and indeed the world, depends on the designs we give that environment. Unreasoned technology and unreasoned reaction against technology are both extremes to be avoided.

The correct position is somewhere in between. We are looking to the professional engineer to chart that course.

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**DEPARTMENT OF  
TRANSPORTATION**

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**NEWS**

**OFFICE OF THE SECRETARY**

**WASHINGTON, D. C. 20590**

REMARKS PREPARED FOR DELIVERY BY JAMES A. WASHINGTON, JR.,  
GENERAL COUNSEL OF THE DEPARTMENT OF TRANSPORTATION,  
BEFORE THE DOT COORDINATING COMMITTEE -- NATIONAL TRANS-  
PORTATION WEEK LUNCHEON, REGENCY ROOM, ROYAL HAWAIIAN  
HOTEL, HONOLULU, HAWAII, WEDNESDAY, MAY 13, 1970

Honolulu is so beautiful a city that it must be difficult here to  
maintain a real sense of concern about environmental quality. There can  
be no doubt, however, that our natural resources are in serious jeopardy,  
and that it has taken us too long to recognize the crisis for what it is.

The observance throughout the country of Earth Day last April 22 served  
to put us all on notice that we had better establish a new set of priorities  
in making decisions about what is best for the Nation, and that we had  
better do so quickly. The word "conservation" used to evoke images of  
contour plowing and Smokey the Bear, and not many of us, I'm afraid,  
were impressed. Now, belatedly, we have come to recognize that the  
conservationists have not been talking merely about the fate of our  
forests; they have been talking about the survival of man.

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How urgent is the crisis? We've all heard the terrible stories by now, but they never cease to shock. Young people today are the first in history to have Strontium-90 in their bones and traces of DDT in their body fat. Scientists have reported higher levels of DDT in human mothers' milk than the Federal Government will permit in cow's milk sold for human consumption. Pesticides have been detected even in Antarctic penguins, and lead and gasoline have been found in Greenland ice. As far back as 1948, a small steel town called Donora, Pennsylvania, found itself blanketed by a four-day fog that killed and sickened almost half of the town's population. London produced a three-day killer fog in 1952; the city's annual death rate increased by 4,000 that year. Since 1955, Los Angeles, that unhappy municipal archetype, has had no fewer than 71 air pollution alerts.

Upstream communities have dumped so much raw sewage into the Eagle River in the Colorado Rockies that trout fishermen, if they still go there, are more likely to catch toilet paper than trout.

How did it all happen? Who is responsible for the mess we have made? Some fascinating papers have been written about the historical roots of our attitude toward nature. There is evidence, for example, that primitive peoples related to nature intimately, as though, in the words of Professor Clarence J. Glacken of Berkeley, it were a "thou" instead of an "it." Later, in antiquity, every rock, tree, and brook had its own guardian spirit -- a spirit with which man had to make his peace before disturbing the resource in question. With the advent of the Judeo-Christian culture, however, western man's solicitousness for nature came to an abrupt end. Man now knew that he had been created in God's image, to "have dominion over the fish of the sea and over the birds of the air, and over every creeping thing that creepeth upon the earth." That's Genesis, chapter 1, verse 26. Nature, man now knew, was put here to serve him. And serve him it did. The Judeo-Christian culture primed our technological pump. All it took then was a break with scholasticism in the sixteenth and seventeenth centuries to send us hurtling into our present world of technological magic and unimaginable filth.

As we know, thanks to Paul Ehrlich and others, the spiraling growth of the world's population is another source of our troubles. The population of the earth doubled about once every thousand years up to the seventeenth century; then it doubled in about 200 years, and then it doubled

in only 80 years. That brought us to a world population of 2 billion in 1930. That was only 40 years ago, and we've come close to doubling the number again. We now have about 3.5 billion people on the planet, a number which can be expected to double again in the next 35 years. Professor Ehrlich has explained why we cannot allow the population to keep on mushrooming at its present rate. This is what he says: "In 900 years there will be a billion billion people on the face of the earth or 1700 for every square mile. Projecting this farther into the future, in about 2000 or 3000 years people would weigh more than the earth; in 3000 to 4000 years, the mass of humans would equal the size of a sphere with the same diameter as the earth's orbit around the sun; in 5000 years everything in the visible universe would be converted into people, and their expansion would be at the speed of light."

What he's doing, of course, is playing a numbers game. We'll never get to the point where we have 1700 people per square mile (most of those square miles, don't forget, are wet) because the planet is clearly incapable of supporting that many of us. Still, the exercise does help to dramatize the nature of the population issue.

Actually, the United States is one of the world's less crowded countries. We have only about 55 people per square mile in America, as opposed to 382 per square mile in Switzerland, 588 in England, and 975 in Holland. But the most frequently cited statistic these days is that Americans, who comprise a measly 6 percent of the earth's total population, nevertheless manage to consume about half of the world's goods and services. A pretty greedy bunch. Let me read to you, if I may, from the very first page of Moment in the Sun, an excellent book by Robert and Leona Rienow: "Every 8 seconds a new American is born. He is a disarming little thing, but he begins to scream loudly in a voice that can be heard for seventy years. He is screaming for 56,000,000 gallons of water, 21,000 gallons of gasoline, 10,150 pounds of meat, 28,000 pounds of milk and cream, 9,000 pounds of wheat, and great storehouses of all other foods, drinks, and tobaccos. These are his lifetime demands of his country and its economy. . . . Up to the time he has requisitioned his last foot of lumber for his coffin and his three-by-six plot of land (probably arable), he will have been internationally respected for the voraciousness and extensiveness of his appetite, for the zestful way he fulfills his consumptive role in an opulent society. An

awe-inspiring amount of the soil's resources (for all things come from the soil) will have passed through him like earth through an earthworm and ended up in the watercourses and in the ever-mounting junk piles of the Nation."

But I'm sure you have heard enough about the general nature of our critical pollution problem. My specialty is transportation, so let me now address myself specifically to that.

Before discussing the various ways in which transportation facilities are a potential threat to the quality of our surroundings, and before describing the steps we have taken toward eliminating that threat, I should tell you something about the Department of Transportation.

When Congress created the Department in 1967, no less than 163 years after the idea was first proposed by the Jefferson Administration, it was really doing nothing more than creating a bureaucratic super-structure over several already existing Federal transportation agencies. Let me give you a few examples. The Federal Aviation Administration had been an independent entity prior to the creation of the Department of Transportation. The Federal Highway Administration was formerly part of the Department of Commerce. Our Urban Mass Transportation Administration came from the Department of Housing and Urban Development, and the United States Coast Guard was transferred to us from the Treasury Department.

The primary concern of Congress in placing these and other agencies under a single Cabinet-level officer was that there had been too little communication between these agencies, and that transportation planning at all levels of Government was suffering as a result.

One of the primary deficiencies in this planning was with respect to environmental considerations. The location and construction of our transportation facilities too often depended upon gross economic considerations, and not enough upon more subjective assessments of environmental consequences. Congress perceived this penny-wise-pound-foolishness, and included in its mandate to the new Department of Transportation a requirement that it make a special effort "to preserve the natural beauty of the countryside and public park and recreation lands,

wildlife and waterfowl refuges, and historic sites." That sentence set the tone of the Department's operations in an unmistakable way. The admonition applies, of course, to all of the Department's activities. It says that environmental quality is now an important consideration in all of the operations subject to the jurisdiction of the Secretary of Transportation -- operations previously carried on in many different ways in many different quarters of the Federal bureaucracy.

Other new provisions of Federal law set forth even stricter limitations on Department of Transportation operations. Section 4(f) of the Department of Transportation Act absolutely prohibits the Secretary of Transportation from permitting any project subject to his authority to encroach on a park, recreation area, wildlife refuge, or historic site unless "there is no feasible and prudent alternative." Even if there is no feasible and prudent alternative, the Secretary is prohibited from granting approval unless all possible planning to minimize harm has been undertaken. The effect of this restriction on transportation planning at all levels of Government has already been significant.

Secretary Volpe ended a 20-year-long controversy over a proposed riverfront expressway in New Orleans, Louisiana, by withdrawing Federal funds from the project. Construction of the expressway would have unfavorably affected the appearance, atmosphere, and environment of the city's unique and historic French Quarter.

The Secretary also made it clear that Federal funds would not be granted for the expansion of a small training airport near Everglades National Park into a major international jetport, and that another site must be found for this facility. Construction of the proposed jetport, together with related commercial development, would have had an adverse and perhaps irreversible effect on the delicate and essential life cycle of the Everglades.

More recently, the Department refused to approve interstate highway construction through the scenic and historic Franconia Notch in New Hampshire's White Mountain National Forest. This highway would have impaired the aesthetic value of the famous Old Man of the Mountain Rock Formation, one of the scenic treasures of New England.

A recent decision of Secretary Volpe to withhold approval of a bridge proposed in Santa Barbara, California, is one of the most fascinating demonstrations I know of the reach of section 4(f). By law, every bridge over a navigable stream must have the prior approval of the United States Coast Guard, one of the Department of Transportation's constituent administrations. The Coast Guard was asked to permit the construction of a bridge in Santa Barbara that would have facilitated construction of a freeway through a nearby estuary called the Goleta Slough. Conservationists were so concerned about the Slough that they persuaded the Coast Guard to hold a public hearing on the bridge application. The Coast Guard has traditionally concerned itself with safety issues alone, and it had never faced such a request before. You must understand that the bridge itself was not located in the Goleta Slough; only the highway would have intruded on the estuary, and that was to be financed entirely with state funds. Nevertheless, because the Coast Guard -- like the rest of us -- has picked up the environmental message, it consented to the hearing proposal. After listening carefully to both sides, the Coast Guard officer in charge concluded that the bridge was clearly a sine qua non to the State's highway project, that the highway project was likely to have a detrimental impact on the Goleta Slough, that the Slough was in fact a significant wildlife and waterfowl refuge, and that the State of California had not looked into possible alternatives to the freeway proposal. As a result of those findings, the

Coast Guard urged Secretary Volpe to find that section 4(f) applied to the bridge application, and that the law prohibited its approval. (Where section 4(f) applies, the Secretary of Transportation himself makes the final decision.) Secretary Volpe, to his great credit, went along with the Coast Guard's recommendations.

So far I have talked about the environmental protection provisions in the Department of Transportation's enabling legislation. On New Year's Day of this year, however, President Nixon signed into law a statute which will have an even more profound effect on transportation decision-making -- the National Environmental Policy Act. This new law is notable in a number of ways. First, it establishes a Council on Environmental Quality. It will be the new Council's responsibility to keep watch over all Federal activities and ensure that they are consistent with the preservation and enhancement of our natural and social environment. The Act goes further than any other legislation has gone in defining a national environmental policy, and it soars nearly to poetic heights in the process. Listen to this: ". . . it is the continuing policy of the Federal Government . . . to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans." That's from section 101(a). In section 101(b), the Act says that it is the Federal Government's continuing responsibility to see that the nation "fulfills the responsibilities of each generation as trustee of the environment for succeeding generations; . . . maintains wherever possible, an environment which supports diversity and variety of individual choice;" and "achieves a balance between population and resource use which will permit high standards of living and wide sharing of life's amenities." Another section requires every Federal agency, whenever it makes a recommendation or report on a major Federal project "significantly affecting the quality of the human environment," to issue a detailed statement." That statement must discuss the environmental impact of the proposed action, alternatives to it, and such things as "the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity," and "any irreversible and irretrievable commitments of resources" required by the project.

Perhaps the most significant departure in the National Environmental Policy Act, however, is that it is not designed to protect only parks, or only wildlife, or only estuaries. The Act is clearly designed to promote and enforce a policy of genuine concern for -- in the words of the Act -- the "human environment." The Act protects not only natural resources and the scenic beauty of our countryside, but also the quality and health of life in our cities. The law, in other words, speaks of "environment" in the broadest sense of the word, and establishes once and for all the Federal Government's clear responsibility for its protection and enhancement.

A law like this is bound to have a profound effect on the quality of planning -- not only in the Department of Transportation, but throughout the Federal structure. It may be that, for a while at least, many Federal officials will see the Act's provisions as creating nothing but more paperwork, and it may be that the first "detailed statements" issued in accordance with the new law will be nothing but after-the-fact rationalizations for decisions already made. But the detailed statements are to be cleared with the new Council on Environmental Quality, and the Council has indicated that it expects the statements in each case to be formulated at the earliest possible moment. Each statement will then accompany its respective project throughout the entire planning procedure. Eventually, the establishment of this mechanism must bear fruit. Environmental criteria which have for too long been ignored or glossed over will become important gauges of acceptability for Federal projects. The quality of our surroundings, therefore, and of our lives, can only be improved as a result.

There can be no doubt, of course, that Federal decision-makers are more aware now than ever before of the importance of environmental considerations, and that the weight of public opinion has had much to do with creating this awareness. This is, needless to say, as it should be. But the legislation I have described has provided Federal administrators -- including the Secretary of Transportation -- with the tools they need to put that concern to work. As anyone in government can tell you, good intentions are not enough. Enlightened

decisions are the hard-won product of careful negotiation backed up by an unmistakable statutory mandate. We now have that mandate, and its effects are already being felt.

I said before that I would describe some of the potential ways in which transportation facilities can detract from environmental quality, and that I would tell you about some of the specific things the Department of Transportation is doing in this area.

I will address myself first to that champion of polluters, the internal-combustion engine. As you may have heard by now, we Americans pump into the atmosphere about 200 million tons of pollution each year. That's about a ton per person.

More than half of that pollution is attributable to motor vehicles. My own city of Washington has relatively little in the way of heavy industry, and yet it ranks well up among the most air-polluted cities in the country. The primary source of our problem is the internal-combustion engine. In Los Angeles the problem is even worse. It is said that cars are responsible for about 90 percent of LA's smog.

Pollution by motor vehicles is a problem that must be attacked on more than one front. First of all, it is clear that, in urban areas at least, we are going to have to change our transportation priorities. Specifically, we are going to have to put a much greater emphasis on public transportation than we have in the past. The urgency of this restructuring needs little elaboration. There were 40 million cars in the United States in 1950; there are 80 million today. By the year 2000 we will add to that number 75 million more cars in urban areas alone. Even if there were no pollution problem associated with automobiles they would simply take up too much space. It has already become clear that not everyone can bring to work each morning a brief case and three thousand pounds of steel. We just don't have room in our cities for so much mobile metal.

One important means of increasing the availability of public transportation facilities is by increasing the amount of Federal financial

assistance available for mass transit projects. Until recently, Federal money for mass transportation programs was limited to about one-thirtieth of the amount available for highway construction. This discrepancy produced an understandable preference for highway construction as the answer to urban transportation ills.

The Department of Transportation is presently seeking legislation authorizing it to offer much more substantial levels of assistance for public transportation in the future. If the legislation passes, and we think it has a good chance, it will make \$10 billion available for mass transit projects over the next twelve years. This will be the kind of quantum jump this country so desperately needs in Federal mass transportation assistance.

Altering our metropolitan transportation priorities is only one way of attacking the auto pollution problem. Another, more direct way, is to develop ways of simply reducing the emission belched out by each vehicle. Auto pollution standards are not administered by the Department of Transportation, but by the Department of Health, Education, and Welfare. Nevertheless, we too are working on the problem. We are working closely with industry in its efforts to produce a lead-free gasoline which will solve part of the problem, and we are encouraging research into more efficient engines and emission reduction devices. The Department is also working in cooperation with HEW in its administration of the Clean Air Act, and is assisting HEW in its efforts to strengthen the provisions of that legislation. Under the present law, for example, HEW tests only prototypes of each car model sold. It has been found that production models don't always measure up to the standards established by the prototypes. One proposed amendment to the Clean Air Act, therefore, would grant HEW authority to test production models for their pollution potential, a much more effective program.

The Department of Transportation is attempting to reduce air pollution from public vehicles, as well as private. Last December, two new types of buses designed to reduce pollution were being tested. One is equipped with a new low-pollution device, and the other is an experimental turbine bus. In March, the Department's Urban Mass Transportation Administration followed up on these tests by the award

of three bus demonstration grants for projects to determine how effective these new kinds of buses are in reducing air pollution, noise, and vibration. In San Francisco and Washington, D. C., diesel-powered buses equipped with the low-pollution device are undergoing performance tests for one year in actual service. The third grant was made to a committee of California Legislature to install steam engines in three modern buses for tests.

Let me leave the motor vehicle problem now and talk briefly about airplanes. When compared to cars, trucks, and buses, airplanes cause relatively little pollution except in the immediate vicinity of airports. All of downtown Washington, however, is in the immediate vicinity of an airport, and so that fact doesn't offer residents of my city much consolation.

Four months ago, the Departments of Transportation and Health, Education, and Welfare announced that 31 of the nation's major airlines had agreed to undertake a program to virtually eliminate smoke emissions from certain engines by late 1972. In March, furthermore, DOT's Federal Aviation Administration proposed the establishment of aircraft engine emission standards. We are also studying criteria for the control and reduction of nitrogen oxides, one of the invisible pollutants emitted by jet engines.

I suspect that, to the average citizen, airplane noise is more offensive than airplane pollution. We have been doing things on this front, too. Working under authority granted in 1968 by Public Law 90-411, the Federal Aviation Administration issued a rule last December to establish noise standards for future subsonic aircraft. I should explain to the majority of you who are probably unfamiliar with aircraft regulation that, before an airplane manufacturer is allowed to produce any given model, he must obtain permission from the FAA. In the past, the FAA has concerned itself solely with the safety characteristics of proposed airplanes. Under the new law, implemented by the new regulations, manufacturers will have to comply with noise level requirements as well as the usual safety standards. More recently, the FAA proposed a new rule which would prohibit supersonic flight over populated land areas.

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Turning to water transportation, you may be surprised to learn that the United States Coast Guard is part of the Department of Transportation. The pollution of our waterways by sea-going vessels has become a matter of increasing concern. Oil spills are the most dramatic example of water pollution by vessels, and it becomes a more serious problem each year as the quantity of oil carried in ships increases. Five years ago, daily consumption of oil in the United States was 11 million barrels. Today, daily consumption has reached 14.1 million barrels. In 1969, the total number of oil spills reported to Coast Guard Headquarters was 1,007. Fifteen to twenty percent of these came from ships (the balance being attributable to shore facilities).

The Coast Guard has launched an anti-pollution program that may help prevent oil from off-shore rigs and tankers from washing ashore and causing destruction on our beaches and among wildlife. The system will involve "skimming" the oil from the top of the sea waters once a leak is discovered. Oil will also be pumped from damaged tankers into large rubber bladder-like devices which will then be towed to shore before the oil mixes with the sea waters. The Coast Guard's entire maritime safety program, of course, keeps the efficiency of such mishaps at an effective minimum.

I hope that I have given you some impression of the important changes that have taken place in transportation decision-making at the Federal level. I do not mean to suggest that the integrity of our social and natural environment is now safe, or that we may be any less vigilant in protecting our precious natural resources than we are at the present time. On the contrary, higher levels of technological sophistication are sure to bring with them more subtle and complex threats to the quality of our surroundings, and those threats will be met successfully only if the public is both alert and informed. I do not hold with those who suggest that our current concern with environment is merely a passing fad. I believe rather that our society has simply arrived at a kind of saturation point. We have a certain tolerance for pollution perhaps, but it isn't boundless. Now that we have reached our limit, I think it unlikely that we will forget how close we are to disaster.

The Department of Transportation has been working hard and, I believe, effectively to implement an efficient and coordinated national transportation program in a way that is fully consistent with environmental considerations. We intend to keep working hard. But you must not forget that much of the responsibility for enlightened Federal decisions rests with the public. Genuine concern, articulately expressed, is the fuel that keeps us going. Our environment is still in a precarious state. Don't let your guard down.

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