DEPARTMENT OF TRANSPORTATION | NEWS

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REMARKS BY UNDER SECRETARY JAMES M. BEGGS FOR THE NATIONAL CONFERENCE OF GOVERNORS' HIGHWAY SAFETY REPRESENTATIVES, DENVER, COLORADO, NOVEMBER 5, 1969

It is indeed a pleasure to be here with you -- the managers of the States' highway safety programs -- for your second annual meeting.

As Governors' Highway Safety Representatives, you are the most important group of individuals in our highway safety program.

We look to you for state governmental leadership. We look to you to promote and stimulate the efforts of thousands of people at the local level.

Without your support, our task would be like driving nails without a hammer.

We cannot function without you, and I think that there have been times in the past where we in Washington have not entirely lived up to your expectations in the states. In fact, you may well have felt at times like doing the same as the college alumni head

In 1962, we had 5.3 deaths per 100 million vehicle miles traveled. In 1968, that figure was 5.5 deaths. This number has not fluctuated more than one or two tenths of a point over the past few years.

This is one of the most difficult challenges we face, and we really don't have much precedent for meeting it. Europe is just now finding that it is also reaching the "Plateau" -- generally thought to be around 5 deaths per 100 million vehicle miles.

This situation is further complicated by the fact that America has already undertaken several highway safety measures. The law of diminishing returns, therefore, dictates that highway safety achievements -- in terms of fatality rates -- will be ever more difficult to accomplish.

But, we can never reduce human values to mere statistical concepts. That is why we must further define our programs to concentrate on areas where the payoffs are greatest -- payoffs that will reduce death rate figures below this mythical "Plateau!"

So, this is a time for evaluation. We must determine where we are heading in highway safety -- and where we should be going.

As managers of the States' programs, you have the primary responsibility for making these determinations. You know local problems best. You must decide which solutions will do the most good.

This is why I look forward to quick implementation of the new annual work plan procedures.

This new approach will give state and local communities the utmost flexibility in planning -- and in shaping new priorities. I note that you have just finished a session of this topic, and I am very pleased to see that it has rated a high priority in your conference agenda.

President Nixon has spoken frequently of the need for decentralization -- the need for local initiative and authority -- and the need for fewer Washington approvals and more state and regional approvals, he calls it "New Federalism."

reduce red tape and the multitude of Federal requirements which you must deal with.

I would like to spend a few minutes today discussing some of the basic programs we are reviewing and give you some insight into our current thinking in these areas.

Our overall program is structured to include motor vehicle safety service, highway safety program service, and research involving both categories. All of our activity in these three areas is designed to serve the states, and most of that work is, indeed, reflected in your individual state programs.

The role of the National Highway Safety Bureau is to provide leadership and initiative through these three tiers: the vehicle, the driver-highway system combination, and research.

Let me briefly review some of our current activities in these areas.

First -- inspection systems. There is little doubt that some vehicle inspection systems as presently administered are haphazard, inconvenient, and costly. They are, nevertheless, necessary and important.

The Automobile Club of Missouri recently inspected 10,000 cars which had been driven 500 miles or less. It found that 45 percent had safety-related defects. This figure rose to 90 percent on cars 5 years old.

We are now working on an inspection operation fully equipped with modern diagnostic equipment which can check out essential performance characteristics of a vehicle and provide the owner with advice on needed repairs.

This would shift the emphasis from "Driver Enforcement" to "Driver Service." I believe that this concept would create public support by eliminating much of the suspicion that surrounds inspections by commercial garages.

An example of this suspicion was publicized recently by a Washington newsman who recently had his car inspected in the District of Columbia, where it passed with flying colors. He then drove to Maryland, where he was told his car needed almost $100 in repairs

larger mass of social drinkers, since they frequently come to the attention of the courts and social agencies because of their drinking and related problems.

We know that at the time of their death, or at the time of arrest, they have blood-alcohol levels in excess of .15 percent. We know that if a drunk driver turns at the same time the road does, it is probably not much more than a coincidence.

What we don't know is how to keep the problem drinker out of his car. The National Highway Safety Bureau is developing a program to improve the means by which states and communities can guide identified problem drivers into appropriate alcohol treatment.

Such an effort will require cooperation from many different community resources, along with the determination of fully informed citizens. In the meantime, we must rely on the imposition of penalties against convicted drunken drivers. It's not the ideal approach, but it can work.

In England, where blood-alcohol tests are mandatory if requested by police, stiff penalties for drunk driving have drastically decreased the death toll.

In the first 12 months after this law went into effect, road-accident deaths dropped an astonishing 1,152 over the previous year. The number of seriously injured dropped by 11,000.

In Sweden, where drunk driving laws are also much stricter than in the U. S., only 10 percent of all fatally injured drivers are impaired by alcohol at the time of death. This compares to the U. S. rate of 50 percent.

These figures indicate to us that strict enforcement can and does work. Until we can develop a more comprehensive program for dealing with the problem drinker and driver, enforcement will have to be our first line of defense.

The driver education problem, like the alcohol problem, points up the fact that we have started programs that now need refinement.

In driver education, where we have spent $9 million in Federal funds, more than for any other highway safety program, several questions remain unanswered.

I have talked mainly about areas concerning driver control and state and community grant programs. I should also say something about our motor vehicle safety regulation activity.

We have literally hundreds of cases where unsafe conditions are found to exist in motor vehicles, and each case is a unique story in itself.

Just recently we found an unsafe condition in disc wheels installed on some 200, 000 GMC 3/4-ton trucks. Although we could not legally force GM to recall the trucks, they agreed to replace, at company expense, the wheels on all trucks with campers or special bodies. These were the trucks thought to be the most endangered by the old wheels. On the basis of accident data and the need for immediate action as opposed to long drawn-out court proceedings, we feel that the GM action is in the best public interest.

Another recent case involved our determination that Fiat rear-view mirrors failed to meet the safety standard requiring "substantially unit magnification." The case was subsequently sent to the Justice Department for prosecution, the first attempt to inflict civil penalties against a company for non-compliance with auto standards. Fiat agreed to a financial settlement on September 18 -- a landmark case for the Department.

I have by necessity mentioned only a few of the major concerns we have in the National Highway Safety area. There are many other problems under review, including the need for better communications systems so that accident teams can respond quickly, better injury evacuation techniques such as helicopters, and faster clean-up of accident debris.

In all of this we are finding that a systems approach to the problem is required -- rather than the shotgun, piecemeal appraoch that has sometimes been used in the past. We must look at the totality of the involvement of drivers, vehicles, and the highways on which they operate.

Without all these elements -- we have no vehicular travel.

Without a breakdown some place among these three elements -- we would have no highway deaths either.

U. S. DEPARTMENT OF TRANSPORTATION
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STATEMENT OF JAMES M. BEGGS, UNDER SECRETARY, DEPARTMENT OF TRANSPORTATION, BEFORE THE SUBCOMMITTEE ON ADVANCED RESEARCH AND TECHNOLOGY, HOUSE COMMITTEE ON SCIENCE AND ASTRONAUTICS, REGARDING AERONAUTICAL RESEARCH AND DEVELOPMENT, TUESDAY, DECEMBER 2, 1969.

Mr. Chairman and members of the Committee:

I appreciate this opportunity to appear before you today to discuss activities in the field of aeronautical research and development and the role of those activities in meeting the present and future problems in aviation.

First, I would like to discuss the question of the appropriate role of the Federal R&D programs in the field of aeronautics and the problem of leadership in this R&D which has been raised so often in the past. I think I have some appreciation for this matter having served with NASA prior to assuming the duties of my present position.

Our principal effort in this area centers around the formulation of a DOT/NASA joint study of civil aviation R&D policy. DOT has the responsibility for coordinating this effort. In addition to DOT and NASA personnel, we expect to have representation in the conduct of the study by DOD and the aviation industry. This is a substantive expansion of the study we discussed with you in September of 1968. The study effort has been greatly expanded in keeping with the scope of the question it addresses. Dr. Paine and I have confirmed our respective agency participation and our personnel have outlined a preliminary

study plan, initiated a contract study of historic benefits derived from Federal R&D, and have had our first Advisory Committee and working group sessions.

We anticipate that the conduct of the joint study should prove of great value in establishing much more precisely than in the past what the Government level of effort should be in aeronautical R&D and where the emphasis should be placed.

In this study effort, as in the past, we continue to enjoy a good working relationship with NASA. As you know, we have had for some time formal agreements with NASA regarding the coordination of R&D programs and technical support for our programs such as the SST and tracked air cushion vehicle development. Coordination on an informal basis between representatives of the two agencies has always been prevalent, and has been the real strength behind the formal agreements. We are particularly pleased that this year for the first time a working arrangement has been achieved between DOT and NASA for reviewing each other's preliminary budgets as they pertain to aeronautical R&D. A primary objective of this action has been to assure that, prior to codification in the President's budget, programs in civil aviation R&D are complementary, and that these programs are responsive to needs we jointly identify.

I believe there has always been an appreciation on the part of DOT and FAA for the special capabilities of NASA, and we look forward to continued cooperation with NASA in our future relationships. We are conscious more than ever of the need to preserve those resources on which we have drawn over the years in our safety and regulatory efforts. We feel it is incumbent upon both agencies, however, to insure efficiency

in the management of aeronautical R&D in the Government, and I believe the continuing dialogue between the two agencies, hearings such as this one and joint efforts such as the policy study will prove to be important steps in achieving that goal. In addition, I believe that the exchange of personnel both in the headquarters offices and the research centers of the two agencies would be valuable and would promote the productivity of the aeronautical research of both agencies. We have initiated discussions along these lines, for example, regarding possible DOT utilization of the Langley Noise Facility, should this project be approved by Congress.

We as a nation and DOT in particular have a number of pressing problems facing us in aviation and I want to discuss them in the context of the overall Federal R&D effort. DOT is charged with the responsibility for operating the airway system, administering the Federal-aid Airport Program, and issuing regulations for the abatement of aircraft noise. We are progressing toward solutions in these areas, but we need the help of Congress and of NASA to meet the demands of the problems. We must apply our resources judiciously toward immediate solutions and toward efforts which will maintain a constant flow of new technology into the aeronautical arena to meet future problems.

NASA is particularly well equipped to engage in advanced research in all aeronautical areas and has demonstrated its acumen in several areas of technological application. We rely on them to carry out the invaluable functions of exploring the "possible" in the various disciplines such as aerodynamics, electronics, propulsion technology, and human factors, so that there can follow a development by NASA, DOD, FAA or industry of the "applicable". Much of this exploratory research should be conducted relatively free of constraints. However, we see the

role of DOT in this area as that of establishing objectives and providing guidance which will insure that the research effort is applied in areas where it is needed most. Obviously, a close relationship must be maintained between DOT and NASA in this endeavor.

The partition of efforts between DOT and NASA is not clear at this time, and I do not believe we should attempt to draw hard and fast lines across which the two agencies should not venture. In noise research, for example, we have an almost complete interlacing of efforts from basic research through technology demonstrations leading to FAA regulations on noise certification. In the development of new aircraft technology for increased speed, efficiency, and the like, NASA is the primary source of expertise not only for DOT but for DOD as well. The support given by NASA to our SST project is but one example of many areas where NASA has made an invaluable contribution.

There are numerous other areas where we are relying on continued or expanded effort by NASA. Some examples are: STOL aircraft high-lift devices, new methods of obtaining controllability, better displays in the cockpit, and direct-lift control. Research in such areas as these would contribute a greater measure of safety, dependability, and economy to civil aviation. Continued and expanded noise research is also needed to support the exercise by FAA of its regulatory authority in this area. Also, general aviation aircraft can benefit from more resilent corrosion resistant materials, and new fabrication processes and new light weight materials can help reduce the high costs in the operation and maintenance of aircraft.

In the area of air traffic control we look to our own resources for system development and implementation with NASA playing a lesser role insofar as near term hardware is concerned, but a key role insofar as longer term efforts on advanced systems components are concerned.

It seems fair to say that many of the current aeronautical problems we have stem from the phenomenal growth of aviation. This growth has been very substantial for several years, and it promises to continue in like fashion for many years to come. Heavy congestion in the air and on the airport is prevalent in the vicinity of our largest population centers, and it has been necessary to limit by regulation the number of operations at five of our busiest airports. Greater numbers of aircraft are entering the system. These greater numbers and the widely differing performance capabilities of the aircraft involved continue to intensify problems in the areasof safety, noise, and congestion.

Improvements will be needed in the air traffic control and airport system to provide the greater capacity essential to accommodating this growth in aviation. We do not believe, however, that we will find any new major R&D breakthroughs or inventions in time to cope with the present air traffic control problem. We are convinced, therefore, that the essential need is to get on with timely and intelligent application of existing knowledge in the development and operation of the air traffic control system.

We have under review now the findings of the Air Traffic Control Advisory Committee chaired by Mr. Ben Alexander which undertook to define the requirements for an air traffic control system adequate for the

1980's and beyond. The Committee concluded that it will be necessary to upgrade the semi-automatic National Airspace System (NAS) now being designed to supplant the present manual ATC system if we are to accommodate the aviation growth of the 1970's. It also concluded that with a further upgrading NAS could meet the traffic needs of the 1980's.

The Committee studies indicated that it will be possible to more than double the capacity of present airports through the use of more precise techniques of instrument landing, surveillance, and air traffic control. Use of scanning beam microwave ILS's will increase the precision of positioning information and permit more efficient use of existing runways. They also concluded that, by adding computing modules, NAS can be expanded to include spacing, sequency, and conflict prediction and resolution. The Committee further concluded that it will be possible for aircraft to navigate routes near busy terminals more precisely if they utilize VOR/DME area navigators and modern flight directors and are monitored by upgraded radar beacon systems.

The Committee stated that an upgraded NAS eventually would begin to exhibit significant deficiencies, and identified space and computer technologies as offering the greatest potential in the way of increased accuracy and capacity. They noted, however, that both full automation and satellite systems would have to be examined carefully for reliability because of the necessity that they perform virtually without failure. The Committee recommended a research program to run parallel with the upgrading of the NAS and to clarify the issues involved in designing and scheduling the next generation system.

Our principal concern with respect to airports has been to obtain legislation expanding the existing Federal-aid program for airport development. There is a widespread need to expand the capacity of existing airports and, in some areas, we need new airports. As you know, the President recommended to Congress earlier this year legislation which would commit the Government to a $2.5 billion 10-year airport program. We are pleased that the House has passed a bill similar in many respects to the one proposed by the Administration, and we are hopeful that the legislation will receive early attention by the Senate.

Turning to the area of aircraft noise abatement, the Department along with NASA has made progress in several areas of research, and we are hopeful that NASA can place more effort in a number of areas of technology to increase the effectiveness of our noise regulatory program. These include jet, propeller, and rotor noise suppression, operational techniques for noise abatement (particularly in regard to V/STOL aircraft), and sonic boom generation. As you know, we are expanding our research in noise abatement, but we are doing so under the presumption that NASA will be able to continue its participation at least at its present rate. The working relationship between DOT and NASA has been particularly close in the noise field.

Taken on the whole, aviation progress in the United States continues to stay out in front of progress in the rest of the world. Of course, there are specific areas where other countries have gone ahead of us.

This is true in the case of the development of a civil supersonic transport, and it is true with respect to certain STOL and V/STOL aircraft development. In some cases, foreign countries enjoy the advantage of being able to move ahead in a given area of research and development without feeling compelled, as we do in this country, to evaluate and justify in a cost effectiveness sense each advance we want to attempt in our aviation technology. The approach we follow frequently is difficult to pursue because we are evaluating the unknown and cannot always predict where our efforts will lead or what benefits we may derive from them. Some foreign countries, on the other hand, sometimes gain experience very quickly from their prototype programs, and it is conceivable that a larger effort on their part could enable them, as a group, to overcome our lead.

In conclusion, I believe we are making definite progress in getting the most out of our combined R&D efforts in DOT and NASA. Both the Executive and Legislative branches must, however, continue to work to ensure that such efforts continue in a cooperative, coordinated way. As far as the air traffic control system is concerned, it appears from the conclusions drawn by the Aviation Advisory Committee that the NAS program underway in FAA will provide a basis for the development of an ATC system adequate to serve the burgeoning growth of aviation for more than two decades. As far as DOT R&D functions are concerned, I believe we need to expand our overall effort beyond the scope of the current

basic FAA program to insure that proper emphasis is placed on R&D essential to solving aviation problems outside the ATC system and insuring that the aviation system develops in harmony with surface transportation systems.

Mr. Chairman, that concludes my prepared statement. Now I will be happy to answer any questions you may have.

REMARKS PREPARED FOR JAMES M. BEGGS,
UNDER SECRETARY OF TRANSPORTATION, FOR
LINEAR INDUCTION MOTOR UNVEILING CEREMONY,
GARRETT CORP., LOS ANGELES, CALIF.
DECEMBER 9, 1969

This is indeed an exciting day for all of us in the transportation business, and I am proud to be a part of it.

I know Secretary Volpe is as excited as I am about the possibilities of this linear induction motor - and I am sure that all of you here today share our sentiments. We look forward to its application in a number of transportation systems and the resulting benefits to the traveling public. Our friends at Garrett, I expect, look forward to the same things - with the added hope of a good return on investment in the years to come. Believe me, I fully support them in this hope, for it is this kind of incentive that will keep our nation's transportation system alive and well.

The LIM development is another excellent example of what can result from an industry/government team effort. As such, it falls into much the same category as the R&D projects that have been so successfully carried out in the U.S. space program.

Certainly, the LIM has much in common with our space achievements. A great part of its significance lies in the future - in the door it has opened for surface transportation development. As the development of rocket propulsion enabled man to break loose from earth's gravity, so the LIM promises to enable us, on the ground, to be freed from dependence on the wheel.

The wheel has served man well, - first as a suspension system, and then in more recent history as a drive and braking system. However, to drive and brake a vehicle, the wheel must have adhesion with its guideway. This, of course, produces wear. And the higher the speed required, the more wear and its attendant reduction of efficiency and reliability.

The linear induction motor shows promise of replacing the wheel as the driving and braking mechanism for high speed ground vehicles. It is one of the technical advances which will enable us to combine both high speed and reliability in surface transportation, - by means of radically improved trains, tracked air cushion vehicles, or some other vehicle

as yet not conceived. This motor may, in fact, herald a new generation of faster, more efficient ground vehicles, particularly in our crowded urban corridors.

But it also does much more: It provides a propulsion and braking system without vibration, noise, or air pollution.

Many problems face today's transportation systems. Among the greatest - faced by all modes - are those associated with transportation's often negative side effects on the quality of our environment.

I refer to congestion, noise and air pollution, visual aesthetic values, and in general, the effect a transportation system has on those who use it, or live and work around it. I don't have to point this out to you in Southern California. You are constantly faced with clogged freeways, polluted air, and ruined landscapes. You are not unique in this, however. Practically every major urban area in the nation faces a similar problem. Deterioration of the nation's "quality of life" is becoming a major concern in America. In fact, last week's newspapers reported that the environmental issue may become the next prime target for campus activists.

The basic mission of the Department of Transportation, of course, is to reconcile the needs and demand for transport capacity with these equally important requirements for improving the quality of life for both the user and the neighbor of any transportation system.

The LIM program is only one of many activities currently underway at DOT by which we hope to achieve this reconciliation.

Our entire Northeast Corridor project, including the Metroliner and Turbotrain demonstrations from Washington to Boston, is aimed at demonstrating alternative transport modes which will not only relieve congestion, but also provide more economy and comfort for the traveler.

We are actively pursuing R&D programs to reduce aircraft noise and to produce low pollution bus engines. I firmly believe that new technology can provide the cutting edge for the solution of most of the transportation ills we face today.

This technology can and must come from industry. President Nixon has often said that government must tap the energies of the greatest engine of productivity the world has ever seen - the engine of American industry and American private enterprise.

We see here today one of the results of this approach. I can assure you that it won't be the last.

I commend the men of the Garrett Corporation, its suppliers, and the Department of Transportation team - all of whom played such an important role in the success of this project. It is a great step forward and a fine start towards meeting the challenge of improved surface transportation of the future.