



DEPARTMENT OF
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NEWS

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REMARKS PREPARED FOR DELIVERY BY FEDERAL HIGHWAY ADMINISTRATOR F. C. TURNER BEFORE THE FIRST GENERAL SESSION OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS 55TH ANNUAL MEETING AT 9:00 A.M., TUESDAY, OCTOBER 28, 1969, IN PHILADELPHIA, PENNSYLVANIA

I have just returned within the week from the lands which were the cradle of ancient mythology -- Greece, Rome, the Arabian world, and Ethiopia, which is the storied land of the Biblical Queen of Sheba. And so under this heading I thought it would be appropriate to discuss with you some of the current day mythology that has arisen regarding the nation's highway program -- myths that have no relationship to reality, but nevertheless are being talked and written about to attract the attention of some of the public who would rather believe in fancy than facts.

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One of the prevalent myths says that highway officials, susceptible to the blandishments of some unseen and selfish "highway lobby," are striving to pave over the whole United States, particularly our cities, just to permit the "lobby" to sell more materials, or equipment or provide itself with jobs in perpetuity.

Firstly, let me acknowledge that there indeed is a "highway lobby," in this country, but that it consists of the owners of our 105 million motor vehicles. This "lobby," incidentally, has an auxiliary membership which includes most of the rest of our 200 plus million people, who may not own or drive a car but are basically dependent on the motor vehicle for virtually every aspect of their day-to-day living.

Secondly, the "paving over" allegation is grossly exaggerated. In 1916, when the Federal-State partnership for improving the nation's roads came into existence, we had nearly 3 million miles of roads and streets. In that year we had only 102 million people and 3.6 million motor vehicles. Today, 53 years later, the mileage of roads and streets has increased by less than 1/4 to a total of 3.7 million miles while population has doubled but vehicles have increased thirty-fold.

The truth is that most of the investment in highways during the last half-century or so has been made not so much for new routes but for improving the existing system. The joint Federal-State effort has been directed largely toward improving -- in terms of capacity, utility and safety -- the basic network we have had since horse-and-buggy days. The improvements which have been made have been in response to the swelling volume of vehicles and the increase in their individual utilization and to the insistent demands of the motoring public for better accommodations. This is the true "highway lobby" and I personally believe it is a true and excellent example of how a democracy such as ours was intended by our founding forefathers to work as they instituted that form of government here in Philadelphia two centuries ago.

Another myth often repeated, even though it is without substance, is that because of congestion, modern roads, particularly our urban freeways, are moving traffic even slower today than during pre-freeway days. Again this just doesn't agree with the facts so let's take a look at them.

Prior to the construction of freeways in Los Angeles, for example, it took 30 minutes to cover 10 miles on conventional streets. After freeways were built, in the same length of time it has become possible

to cover 25 miles on the Santa Ana Freeway, 20 miles on the San Bernadino Freeway, 25 miles on the Hollywood and Ventura Freeway, and 20 miles on the Harbor Freeway, an increase in travel speed of 2 to 2-1/2 times the possible pre-freeway speed. So the jokes about the largest parking lots in the world are just that -- rather crude humor, and far from the truth. I recently covered 225 miles in 240 consecutive minutes on the Los Angeles Freeway system. I would call this a pretty good average speed for this long a distance.

The truth is that urban freeways move more traffic at much higher speeds than city streets. At speeds of only 35-40 miles an hour, the freeway carries twice to three times the number of vehicles per lane as does the average city street.

It would require 20 new lanes of surface street to carry as much traffic as an 8-lane freeway. But the 20 lanes would have neither the speed nor the safety of the freeway.

Benefits of the freeway are many, but probably the most important is its safety superiority over conventional city streets. Head-on collisions, opposite direction sideswipes, vehicle-pedestrian accidents, and traffic turbulence at intersections and driveways have been eliminated. Urban freeways are twice as safe as other city streets in terms of fatalities, and about four times safer as far as non-fatal injuries are concerned.

Another interesting and oft-repeated myth that crops up quite frequently but has absolutely no factual basis is that travel today in urban areas is slower than during the horse-and-buggy days. This is always good for a chuckle or a "horse laugh" but it too is without factual substance.

Admittedly, traffic in some highly publicized downtown areas during peak hours moves frustratingly slow, but believe me, it moves faster as a general rule than in the pre-motor vehicle era. If we were still trying to use the horse and wagon, we would have much worse congestion than we have today -- and also some other problems more difficult and unacceptable than our present ones.

Talking about the horse-and-buggy days recalls a corollary myth. This one accuses the highway program of taking valuable agricultural land for right-of-way and so we are about to produce starvation for the nation. Actually, by replacing the horse and mule, motor vehicles have made more land available on which to grow food for humans. In 1910, 90 million acres were required to produce feed for horses and mules. This is twice the total area of all the right-of-way on all of the entire public road and street system of our nation today. And the pavement itself is only a minor fraction of this amount. Today, we need only 4 million acres for feeding "Old Dobbin." Rather interestingly, we also are taking more agricultural land out of crop production as a part of our soil bank program each year than we take out for new highways -- simply because of overproduction of agricultural products.

You have all heard the often-repeated myth that urban highway construction and improvements take land from the ratable rolls, reduce taxation revenues, and thus compel the remaining taxpayers to make up for the loss by having to shoulder an added tax load.

Actually, we have hundreds of studies which show that while there may be a brief loss in ratables in some instances, in the overwhelming majority of cases, the highways bring with them substantial economic benefits. Let me cite just two examples of what I am referring to.

One of the best documented cases is Route 128, a circumferential highway around Boston. It was opened in 1951, and it is estimated that by 1959, over \$137 million had been invested in new plants along the route employing some 27,500 workers. Although some of this activity involved relocation from other parts of the community, the net gain to the whole metropolitan area represented an estimated \$129 million, and added 19,000 new employees to the area's payrolls.

The second illustration involves a smaller town -- Yankton, South Dakota, a city of 9,000 population where 3.1 miles of U.S. 81, running through the heart of the city, were widened and upgraded in design at a cost of \$852,489. An in-depth study made by the Federal Highway Administration of the impact of the improvement disclosed that it saved time and money for the citizenry, reduced accidents, spurred business, boosted employment, hiked land values, and improved the tax base.

The study further revealed that accidents dropped from 71 in 1956 to 34 in 1965, even though travel doubled from 1-1/2 to 3 million vehicle miles. The overall cost to the user, which in addition to accidents includes travel time and vehicle operating costs, totaled 15.8 cents per vehicle mile before and 13.1 cents after the highway was rebuilt, a decrease of more than 15 percent. The number of businesses showed a net increase of almost 100 percent -- from 60 to 119.

Land values showed a sharp increase as assessed valuations for property tax purposes climbed from \$1.2 million to \$2.79 million, an increase of 133 percent. It is estimated that the improvements themselves increased assessed values by more than 100 percent.

The number of persons employed by business firms along U.S. 81 jumped from 402 in 1956 to 952 in 1966, an increase of 137 percent. By comparing this with the increase in a "control group," it was concluded that at least 1/3 percent of the increase was due solely to the widening and upgrading of U.S. 81.

The improvements also resulted in a number of somewhat intangible sociological benefits due primarily to improved mobility and accessibility.

Recreation areas can now be reached with greater ease; membership and participation in voluntary associations have increased; and trips to work are less strenuous. Also benefitting are public service activities. School buses make their rounds more efficiently and more safely. Ambulances save travel time that could save lives. Fire and police protection, and rural mail service have been expedited.

The Yankton experience demonstrates that highway improvements not only make for economic growth but they result in a better environment and better living and illustrate that these benefits accrue to both the small and the large community. These Yankton and Boston illustrations are repeated with regularity across our entire country year after year as we go about the job of improving our highway system.

Another myth bandied around as if it were a fact is the one which claims that freeways use up tremendous amounts of scarce urban land needed for other purposes.

The fact is that urban freeways presently planned will require less than 3 percent of the land in the cities and if we didn't build the freeway types of highway, several times as much land area would be required for moving the same traffic volume by conventional street systems. In Los Angeles -- sometimes held up as a horrible example -- the proposed 800 miles of freeways -- only a fraction of which are on the IS incidentally -- that will run through the metropolitan area by 1980 will occupy only about 2 percent of the available land.

It has been frequently charged that half of the total area of Los Angeles is devoted to highways, streets and parking -- in other words to the motor vehicle. This is true at this present time only about the central business district. But a large share of the parking usage represents land that is in a transitional stage from old un-economic buildings to new high density building use which will then permit parking as an incidental to some other usage of the same plot of ground. And this other type of land usage could not occur if the street and vehicle did not provide the access thereto. About 50

years ago in the horse and buggy and trolley era, 35 percent of the central business district was devoted to streets, alleys and sidewalks. We do not have a record of the amount of area that was devoted to the stables and wagon yards to park the horse and buggy transportation of that era, but it must have also been a sizeable amount. Surely some small additional percentage is not too high a price to pay for the speed, convenience and flexibility of the private motor vehicle, -- and accessibility which it brings that makes all the rest of the occupied land as valuable as it is.

It is interesting to note that when Pierre L'Enfant laid out the city of Washington, D.C. in 1790, a full century before the days of the automobile, he proposed that 59 percent of the total area be used for roads and streets. This is even more than the area now devoted to highway transportation and parking.

Then there is the myth that we have reached the stage of a national coast-to-coast and bumper-to-bumper traffic jam, with the whole country strangling in traffic congestion. This is really an interesting one because last year Americans drove a whopping one trillion 16 billion vehicle miles. If, as some critics claim, motor vehicles have become immobilized on our highways, how did the driving public rack up this fantastic mileage? There just had to be more than a few gaps in the mythical coast-to-coast traffic jam.

Perhaps the biggest myth the American public is asked to swallow is that highway people want to prevent any other mode of transportation from being made available, just because they are so selfishly jealous of the automobile that they don't want any competition.

The real truth is that no group is more aware of the limitations in highway transportation than are the highway people themselves and no group is more willing than the hard-pressed highway administration to share with others some of the heavy burden of transportation in this country.

We in the Federal Highway Administration welcome with open arms the contribution which any mode of transportation can make toward moving people and goods efficiently. That is why we support enactment of the pending Public Transportation Assistance Bill of 1969 which would provide \$10 billion over the next 12 years to cities for additional mass transit facilities. Please note that this bill would permit both-or either-rail and bus types of mass public transit.

There is no disputing the fact that in some areas of high population density, rail mass transit can do a fine job, and we enthusiastically support its construction in such cases. But we also recognize a truism of transportation life -- that in many areas rail transit is impractical and uneconomical and will never be built. These areas then must rely on bus mass transit, which today is already carrying 70 percent of all transit passengers in our urban areas, and the bus will probably continue to be the only form of mass transit in at least 95 percent of our urban areas of 50,000 or more population, and in every one of our smaller communities.

We must not lose sight of the fact that about 70 percent of today's population lives in urban areas, and by 1985 this figure will jump to almost 80 percent. As this growing urbanization continues, more and more people will have to depend on bus public transit.

One of the biggest and most often repeated myths is that rail mass transit can substitute effectively for highway transportation in an either-or, or local choice basis. In some larger cities, it can surely augment highway transportation of people but what about the movement of goods none of which can be moved by a rail line? To talk about rail transit as the single, simple panacea for all the nation's transportation problems in every urban area simply does not jibe with reality.

The clothes we wear, the food we eat, the newspapers we read, the mail we receive, are all dependent on highway transportation and even more so within the urban areas than the inter-city links. As a matter of fact, it is difficult to imagine any major facet of American life that is not closely linked to rubber-tired transportation.

In the 233 urban areas of more than 50,000 population in our nation today, 99 percent of all person-trips and 98 percent of all person-miles of travel are by highway vehicle. Of 213.6 billion person-trips annually, 205.4 billion are by automobile, 6 billion by bus, and 2.2 billion by rail. Of 653.3 billion person-miles annually, 616.2 billion are by automobile, 23.9 billion by bus, and 13.2 billion by rail. In smaller urban areas, the proportion of highway travel is total.

In intercity travel, it is estimated that of 1,073 billion person-miles, 931 billion are by automobile and 25 billion by bus, for a total of 956 billion or 88 percent of all such travel by highway. Air travel was second with 93 billion person-miles or less than 9 percent of the total. Thus the highway mode is more than 10 times as big as all others put together.

A few other statistics should delineate the role played by highway transportation in American life. For instance:

Buses carry 15.5 million children to school annually, or 39 percent of all public school students.

American families spent about \$32 billion on domestic vacation and pleasure travel last year, \$28.8 billion or 90 percent of it traveling by car.

There were 39 million visitors to national parks in 1967, with over 95 percent arriving in automobiles.

About 14 million persons are employed in highway transport industries. Highway transportation involves 13 percent of the labor force, and represents about 17 percent of the gross national product.

About 800,000 businesses or one out of every six are highway oriented.

Mass public transit, whether by bus or rail or both, must play an increasing role in urban transportation but there is nothing in the foreseeable future that will eliminate or greatly reduce the need for some more freeways and other traffic arteries in our growing urban areas. These must be provided, with much greater emphasis placed on increased use of buses moving on the highway system to accommodate the increasing number of persons traveling into and out of the downtown business areas in rush hours -- or alternatively we must radically revise our present concepts of the working hours and days to spread peak demand over considerable longer spans of time -- both day and night and perhaps on weekends as well.

The limited experience we have had with preferential and exclusive bus lanes on freeways indicates that buses can play a major role in the movement of people in urban areas. Buses traveling on freeways between core cities and the suburbs could afford a substitute for many of the private cars now contributing to street congestion. A switch of 50 persons from their own cars to bus transit can bring a reduction of 30 cars on city streets.

We are closely observing an experiment recently begun on Interstate 95 in northern Virginia where two lanes have been reserved for exclusive bus traffic inbound for Washington, D.C., in the morning rush hours. We know already that travel time is reduced by restricting the use of the lanes to buses, and we are hopeful

that more people will leave their cars at home and use bus rapid transit.

Yes, there are many myths and much misinformation being spread about the highway program. We must however act in a responsible way that separates myths from hard facts. In dealing with the real world of today we must base our actions on sound basic information and constantly apply the trained professional expertise and experience which we have learned. We cannot be motivated by simple hunches and emotions. We must look at the whole of our country's transportation needs and the relation of those needs to the overall needs of our society. No other group is as experienced in this field as are we -- and no other group has as much information and resources available to assist in arriving at the right answer.

The right answer may frequently involve a mix of more than one form of transportation. In every case the choice of the individual mode or the amounts of differing modes to produce a proper mix must be based on factual determinations of what combination will produce the most overall efficient service to meet the needs of the particular situation. These decisions cannot be arrived at by a popular referendum based on public group or individual hunches. Each element of the system selected must complement the others to produce the most effective whole. As engineers and planners, we are trained to make decisions in this way. The cooperative, continuing, comprehensive transportation planning process in which we engage in every urban area of more than 50,000 population, not only forms the solid base on which to develop a sound highway program for these areas, but at the same time it creates the data base on which the remainder of a sound community wide transportation program can be selected. Please note that I called these transportation planning processes -- and that I did not limit them to the single highway mode. This is significant because it is accurately descriptive of the procedure which we follow in the highway program to insure that we do make highway decisions on the basis of a full consideration of the whole of the transportation needs and possibilities of the community -- in every one -- not just some -- of our 233 present urban areas of more than 50,000 population.

Our planning operation, our research efforts, our industrial know-how and capability, our trained and dedicated public officials in the highway field, combined with the long-established Federal-State cooperative partnership arrangement -- despite the occasional faults of any one of these factors -- are producing for our people the finest highway transportation system in the world. I know, for I have personally seen most of the rest of the world's systems at first hand. I commend you and your associates on this fine job of public service.

As I conclude, I have the pleasure of extending personal greetings on behalf of Secretary Volpe to all State highway officials.

The Secretary had wanted to be with you in person today but he had to keep an appointment with a Congressional Committee in connection with important legislation in one of the other fields of transportation. So he asked me to bring you his best wishes, and to convey a brief message for him.

He asked me to tell you of his special concern for two areas of interest to all of us, namely: highway safety and the quality of our environment.

Secretary Volpe urges you to join with him in giving your best effort to advancing both of these causes -- causes in which we share a major responsibility under the Federal-aid Highway Program and the National Highway Safety Program.

Under his leadership, the Department of Transportation is also the Department of Transportation Safety. And highway safety, because of its magnitude, is our most urgent problem. The Secretary is well aware of the contributions which the highway program has made to safe travel, and he is looking to highway departments to devote even greater attention to overcoming this problem now and in the future.

Secretary Volpe feels just as strongly that concern for the environment must be a factor in all our decisions, for highway planning on through to construction and maintenance. He regards it as not just illegal under our own highway law, but politically impossible and undesirable to disregard the legitimate public interest in conservation, clean air, community values, and all the other environmental factors. He expects us to manage the highway program so as to cause it to make a positive contribution to a better environment.

In reporting these concerns of Secretary Volpe, let me add that he is aware that the highway program and its people are already keenly concerned with both of these matters and that we all concur with him in his wishes and are practicing these virtues as we wrestle with the individual project and these goals as two among many which are considered in arriving at the final decision.

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