Remarks

By F. C. TURNER, *Federal Highway Administrator, before the Fifty-sixth Annual Convention of the American Association of State Highway Officials, November 9, 1970 in Houston, Texas.*

We meet at a time when the Nation is facing what some persons say is a virtually insoluble transportation problem.

The economists tell us we have to double our transportation plant capacity within the next two decades—and this corroborates our own highway needs studies.

The writer-commentators say we have to achieve this with perfect balancing of the various modes of transport, but without a definition of what balance means—except the implication that it means the same number of dollars expended for something fuzzily referred to as mass transit as are expended for highways.

The urbanologists tell us we shan't disturb the norm of the Central City, and in the same breath bemoan the impending death of the Nation's downtowns.

The preservationists oppose the use of any more land for highways, or any other purpose that would disturb the status quo.

The conservationists don't want a blade of grass or the leaf of a tree disturbed—except by them.

The hygienists scold us for polluting the air, and here lately we've even been chastized because highways bring more business and more people to communities, thereby forcing them to provide more services which the enlarged community demands.

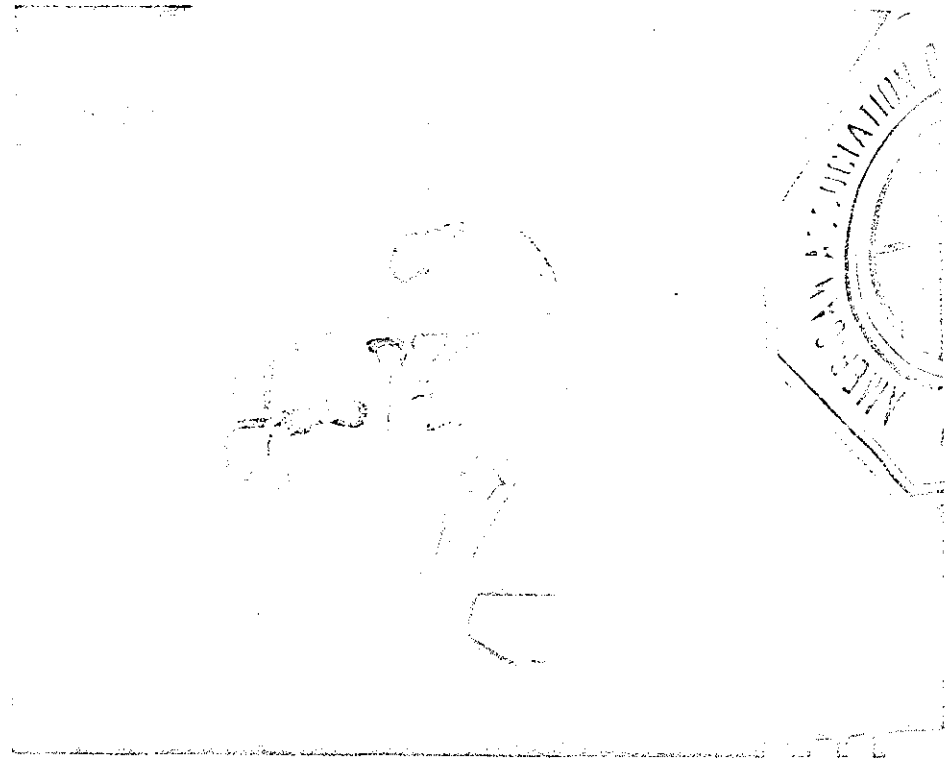
In short the life of anybody in public service these days is beset with criticism and counter-suggestions, from all directions, especially from that loud but tiny number of persons who always think they have the instant and perfectly simple answer to all of life's complex situations—and that only they have been ordained with that superior wisdom which everyone in public service sorely lacks.

Fifteen years ago, this organization held its annual meeting in New Orleans.

We had just witnessed the defeat in the House of Reresentatives of our highway legislation—the only time that a highway act has ever been voted down, incidentally. It failed at the time, however, for reasons of committee jurisdictional questions, rather than any rejection of the highway bill itself.

And we had held such high hopes for this act because it contained the foundation for the Interstate System as well as important expansion of the ABC System.

There were some among us who honestly questioned whether we should try to salvage the legislative proposal or just let it coast. Some counselled us "to wait a while for a better climate."



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But we decided that we could not wait, that we must press on, because this Nation urgently needed a highway building program of major proportions to improve its defensive capability and its civilian mobility, to make its roads safer, to enhance commerce, to improve communications among its cities and its people, and to help erase the effect of long years of accumulated neglect stemming from the construction rationing days of World War II. It needed more transportation capacity then, even as it does now, and for the future so we did not back away from the task.

As we left that annual AASHO session with high resolve, determined to renew our efforts, to take up where we had left off in the previous session, and to see the program through, we were immediately stunned to learn that our newly-chosen President of AASHO, Gen. Frank D. Merrill of New Hampshire, had been stricken and died even before reaching his home after the meeting.

Three days later, we attended General Merrill's funeral services in the chapel at West Point, New York. Among those attending was Alf Johnson, who only a few months before had been named Executive Secretary of AASHO. This sad task behind us, we then began the job of picking up the pieces and regrouping under our new AASHO leader, Rex M. Whitton of Missouri.

Among others whose leadership helped forge the decision to push ahead in that fateful period were the Honorable John A. Volpe, our present Secretary of Transportation who then was serving as Commissioner of Public Works for Massachusetts and as Vice President of AASHO First Region; Ralph Bartelsmeyer, who was Chief Engineer of the Illinois Highway Department and Vice President for the Third Region; and D. C. Greer, State Highway Engineer of Texas, of our Executive Committee. Most of the others on the Executive Committee of that year are no longer with us; some have since gone to their Heavenly reward, but the decision which they helped to reach is now benefiting millions of our citizens who daily ride or are serviced by our vastly improved highway system.

The following days and nights, weeks and months, were spent in data gathering and research, the drafting of old legislation into new form, framing a new method of financing, the working out of the Trust Fund idea, providing for special studies in quest of new approaches, designing and implementing test roads, and a host of other activities.

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The culmination of all of our efforts came with passage of the Federal-Aid Highway Act of 1956—the first piece of legislation to be signed by President Eisenhower as he recovered from his first heart attack at Denver.

Immediately things began to hum. Standards were approved, apportionments worked out, estimates started, and the Bureau of Public Roads was reorganized as this great public work rolled into high gear. The first Interstate contract was let in AASHO President Rex Whitton's State of Missouri for a portion of Interstate 70. That same Interstate 70 now reaches all the way across Missouri, and it's all but completed all the way from Denver eastward to Baltimore and Washington, D.C.

Today, we meet in an atmosphere of accomplishment, with more than 72 per cent of the 42,500-mile Interstate System open to traffic, and another 24 per cent under way, providing the safest, most efficient system of highways in the world. Each five miles we build, means annually saving one life that would have been lost on older, conventional highways. The monetary savings alone already equal the dollar investment to date, without putting a value on the convenience of the service offered by these splendid roadways.

But there's more to the highway program than just the Interstate. While the entire Federal-aid system includes only about a fourth of the country's 3.7 million mile total of roads and streets, this system must carry about three-fourths of all travel *miles.*

I could go into a lengthy chronology of achievements here on how the system has been upgraded, how the average speed of travel increases each year, how the deaths per 100 million vehicle-miles of travel have been steadily whittled down.

But the measure of success of the highway network of the United States, and the results of our 1955 decision, show us that whereas in 1956, the total vehicle mileage rolled up on these highways totalled 631 billion miles, in 1959, that figure had climbed to 1 trillion, 71 billion miles.

Such figures are difficult to comprehend. Even more difficult to comprehend is the fact that in that same period of time our highway system has carried 20 trillion person-miles of travel and 4 trillion ton-miles of freight.

The country's roads and streets are providing nearly 200 million person-miles of travel service per hour for each and every day and night of the year.

And for the benefit of those you hear complaining every once in a while that in providing these services "we are paving over the country," permit me to add these significant statistics:

In 1956, the total road and street mileage in the United States was 3.4 million miles. In 1969, the total road and street mileage was 3.7 million miles. The road and street mileage totalled about 3 million miles when the Federal-aid highway program was begun in 1916. Even before the automobile was invented we already had virtually the same highway network we have today to serve the horse and wagon and buggy.

Roads and streets provide access to land and its superimposed usages rather than merely servicing whatever kind of vehicle it is that travels on them. Most of the increase in our highway system mileage in the years since the auto was invented has been caused by those streets built in new suburban residential developments which generally receive no Federal-aid or State Highway Department funding. Most all of the Federal-aid highway program effort has been devoted to improving the standard of road service on a network system of roads which had been laid out to service wagons and horses, rather than the automobile.

But we've been doing something besides just improving roads since this Federal-State partnership was created back in 1916.

It might be quite an education, in fact, if the sociologists and environmentalists would take the time to leaf back through the various Federal-aid Highway Acts of the past decade or so. They would find there a long and deep awareness of today's headline-making problems, and a steady and relentless effort to do something about them.

They would find that highway engineers and administrators have for many years now been trying to utilize highways as a positive force in achieving desired social and environmental goals, related to land uses.

They would find highway projects that have produced new parks, new recreational areas and new land uses all across the land exceeding in amount, the highly publicized occasional taking which create controversy and result in anti-highway headlines.

They'd find highway embankments being employed to create new lakes, sometimes for recreational purposes, other times for water impoundment reservoirs, and provided from highway funds, with erosion and water controls applied to larger areas than those taken for highways themselves.

They'd find programs to preserve and protect artifacts of past civilizations that sometimes are uncovered during road building. Some of these have been spectacular findings which have led to the discovery of hitherto unknown species of animal life on this continent—all financed from highway funds, and done cooperatively with grateful archeologists who had no funds of their own to accomplish such finds.

They would be thankful for the construction of thousands of rest areas which would make motor travel with families safer and more pleasant for both kids as well as the family dog and scenic overlooks, landscaping, beautification efforts that go far beyond the control of outdoor ads and junkyards—again with all of these having been financed from highway funds.

They might be amazed, too, to learn that we plant millions of trees and shrubs each year along the right-of-ways, and spend hundreds of thousands of dollars transplanting trees—some rare species, some not so rare—instead of bulldozing them under as some have been led to believe. In fact we plant more trees and shrubs and flowers than we remove, again using highway monies.

They would find, too, an impressive record of erosion control, prevention of siltation in our lakes and streams, efforts to control noise and air pollution through the use of buffer zones, wider medians and depressed roadways. They would even find, too, that highway monies are funding effective measures to control rats in building demolition and construction areas.

They would find, as a matter of fact, that the Federal-aid highway program, which is frequently held up as an enemy of our environment, has been devoting 15 per cent or more of its annual budget to work directly concerned with protecting and enhancing our ecological heritage —expenditures which actually exceed in amount the expenditures for paving itself. The highway dollar is also making substantial contributions to training, research, accident studies, railroad grade crossing protection, the areawide transportation planning efforts in all of our cities, and a large and varied list of other contributions to improve the social order.

This is only a small chronicle of the results flowing from that 1955 decision by this organization, and as we meet today we again consider a course of action that could be the prelude to an even more beneficial program.

But we are more experienced and equipped with better tools today than in 1955. We have an even more urgent mission to assist in providing the increase in transportation and related services which our society is demanding for now and the future an increase which continues to compound at about 4 per cent per year. We need to use all of our capabilities and to contribute fully the expertise which our special training and experience have developed. The impact of actions in this crucial field of endeavor dictate that decisions must not be left to the untrained amateurs or those who act without delving into the whole realm of complexities surrounding the transportation needs of this Nation.

The quantity of these needs is estimated by the Department of Transportation to be equal in the next 20 years to all of the transportation which has been provided in the United States since the founding of the Nation if the other stated goals of our society are to be achieved. In the highway field, we customarily make our forecasts of needs 20 years into the future, so that we must be thinking in terms of a program during the next 20 years larger by far than what we have done during the last 20 years. A "do-nothing" solution, or a "do-less" solution, obviously then cannot be a responsible answer.

To develop the policy for guidance of the Federal interest in this undertaking, The Department of Transportation is presently engaged in a broad policy study to determine what part of these total needs can best be provided by each of the modal administrations within the Department. You are involved with us in the FHWA portions of the study. During the recent past and even today, there are some voices which have already concluded that we have put too much emphasis on highways in the past and that in this future program we should abandon further highway construction and divert its present funding sources to something else.

If you look objectively at the whole transportation picture and see the overwhelming portion of the total load which is now being carried on our road and street system, and then look at the already reported needs to the year 1985, and compare this with the projected financial resources to meet those needs, the conclusion is inescapable that you can't solve the problem by diminishing the expenditures for highways.

Even if some other vehicle other than the automoble, truck and bus is invented and is produced in the quantity and 20-year time frame for which we are projecting for total transportation needs, we will still require the construction of roadbeds and roadways of some type, such as our highway rights-of-way provide.

We have already changed the vehicular characteristics during this century, but without reducing the need for the highway itself as the artery over which to move the changed vehicle. I refer of course to the conversion from wagons and buggies and horses to the motor vehicles of today when, as I mentioned earlier, we had virtually the same highway network for that vehicular type as we use today for its successor. This is so now, and will undoubtedly be true in the future, because I repeat that the highway and street network is a necessity for land access, and the type of vehicle used for that access is only incidental thereto. Roads and streets have been the means of providing access to land since the dawn of history, and certainly they were not invented with the 1956 Federal-Aid Highway Act, nor even with its original antecedent in 1916 as an evil companion of the automobile.

If we are to double our capacity in 20 years, then we need more, not less, from each of the modes of transportation, and it is self defeating simply to transfer funds for critically needed improvements to another mode—unless it can be shown that this will indeed provide more total transportation from the same investment of resources. Such a case cannot be made to justify large scale diversion of highway transportation dollars to other modes because careful studies already made disclose that a dollar spent for most other forms of competing passenger transportation will not buy as much transportation as the same dollar spent for highways.

We must make decisions for the future in the knowledge that the almost universal trend in all of our major urban areas shows a steadily declining density of land use in the core areas, while there is a growth rate in the surrounding suburbs several times the rate of downtown decline. Indeed in a number of cities, the downtown areas are actually losing either relatively or numerically. This means when converted to highway needs, that major expansion beyond presently planned freeways to serve the central city areas will not be generally required. Likewise an objective use of this same set of data will indicate the lack of need for high density mass transit capacity such as a rail system to and from the central city. The smaller increases that are being projected can easily be accommodated on the planned highway network by the addition of such amounts of buses as are required. Present and planned roadways in most cases can handle the added bus vehicles along with many passenger cars, service vehicles, and trucks needed to move goods. Thus the road and street system can be and is, the universal type of access facility. No lesser highway facility would be required in most cases, even if a special mass transit facility were to be constructed, because the large volume of freight and service vehicles would continue to require the highway and street network.

The newly enacted Urban Mass Transit Assistance Act contains the authority to assist in acquisition of transit vehicles and their servicing facilities, while the highway legislation under consideration this year contains authority to construct the required roadway facilities and appurtenances so that the two acts in combination are complementary to each other, to essentially supply the answer to the center city transportation needs in the immediate and 20-year future.

The highway legislation also provides for the development of a new Urban Highway System to supplement the major existing Federal-aid Primary, Secondary, and Interstate System extensions into the urban areas. Such a system would include the principal arterial routes in each urban area of more than 50,000 population, extensive enough to carry about 75 per cent of the total vehicle miles of travel in the area, thus making the portion of the traffic load carried on the Federally assisted routes in the urban areas consistent with the size of load carried on the other portions of the total system. Funds either from new authorizations, or current TOPICS and ABC apportionments, would be available to begin construction and other types of improvement on this new system. Thus, a considerable measure of assistance would be available beyond the present program for urban areas.

Through either new legislation or procedural revisions, the overall planning process under Section 134 of our Title 23 will be expanded and broadened to encompass even more of the community goals and objectives and participation than at present. Community involvement will be enlarged through appropriate means. Environmental factors will be spread throughout the total planning and development processes from their very beginnings with proper weighing of their values in relation to other factors.

Further refinement has already been made of the housing and relocation provisions to reduce the adverse impact on those citizens whose place of business or residence must be taken to provide the transportation network found to be needed for our future societal goals.

Training opportunities for both minorities and others are being increased. A start will be made on replacement of major obsolete and structurally deficient bridges. Likewise increased attention is proposed for treatment of railroad grade crossings. Further improvements in the techniques of relating transportation requirements to land use proposal can be expected through application of research and development coupled with accumulating experience. Planning must continue to be directly tied to program administration as it is at present and not separated as some are presently advocating. It should not be allowed to become a functional end of and for itself alone. Proper coordination such as is now being effected among the appropriate modal administrations within the Department of Transportation will provide that degree of overall integration and melding into a total transportation plan that is both necessary and desirable. The statutory authority or procedural tools to realize all of these objectives can confidently be anticipated to be in our hands within the next few months, giving us the wherewithal to carry out the transportation policy and plan which is being developed within the Department of Transportation as I have mentioned earlier.

As we plan our highway needs for the

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longer future, we need to be giving consideration to ways to coordinate heavy freight truck movements with available railroad facilities so that some reduction in numbers of vehicles and heavy axle load passages can be achieved, to produce both a possible increase in traffic safety, an increase in present roadway lane capacities, and an increase in length of life of roadbeds and structure, while simultaneously assisting railroad revenues without increasing trucking costs. I refer of course to the study of whether piggy-backing operations can be a means to assist the overall integrated transportation effort and efficiency. We need also to consider the possibility of increased use of rail passenger movement in the medium trip length range to reduce both passenger automobile volumes on the highways, and airways and airport congestion at the same time.

Some changes in planning in other fields could be helpful to us. For example, in building and rebuilding our cities we could give greater consideration to the possibilities of reducing the total person-miles of movement within the city through greater co-location of jobs and residences. If greater use were made of self-contained communities containing residential, service, trade, cultural and employment opportunities in a planned community area such as visualized in the New-Town-In-Town concept, then travel over long distances from home to employment areas would substantially reduce the present congestion of morning and evening commuter hours. This situation constitutes the most serious deficiency in urban transportation in the minds of most critics at the present time, although this commuter movement is generally only 5 to 10 percent of the total urban movement which must be accomodated. A program of building more residential apartments either on top of present offices and stores in the typical downtown areas would be a substantial assist in relieving this problem for us. More attention to increased staggering of work hours, and days, and promotion of more carpooling through control of center city parking facilities would likewise be contributing factors to relieve the present problems for us without requiring major additional street construction.

In a number of our cities, study should be made of the possibilities of consolidating railroad trackage and terminal facilities to permit abandonment of some presently used rights-of-way which could be made available for improvement as mass transit arteries, either for rail transit cars or as busways, thus reducing rail taxation burdens, operating costs, and permitting construction of needed transit facilities or new roadways without major displacement of people. In most cases, the freight generation or delivery requirements on such abandoned routes could be as efficiently handled by truck, especially if combined with the piggy-backing referred to earlier.

Thus as we plan now for meeting our future transportation needs, with a recognition that we as highway administrators must undoubtedly continue to carry most of the load during the next 20 years and more, we are broadening our approaches to highway matters, including in our planning projections factors such as those I have been discussing, and weighing our proposals in the light of criteria by which to provide th largest measure of overall transportation service meeting the expressed desires of a majority of our citizens.

As a group, we have the largest resources of trained manpower in transportation planning and land use planning which is available for converting those planning decisions into transportation programs and projects. With the new and improved tools which the Congress is proposing to give to us through the 1970 legislation and with our overwhelming dominant share of responsibility in the transportation field, we must respond with sound and fair judgments—and soon. Just as we responded with action in 1955, I'm confident we will do so again in this year of 1970 as we roll again through this crucial point in our Nation's transportation history.

National Registry for Unemployed Engineers Established

Secretary of Labor, J. D. Hodgson and the National Society of Professional Engineers have announced the establishment of a national registry for unemployed engineers beginning November 1, 1970.

Although physically located in Sacramento, California the registry will provide on a national basis specialized employment assistance to unemployed engineers and employers in need of their services.

Secretary of AASHO Committee on Public Information Named

Tom H. Taylor, Director of Travel and Information Division, Texas Highway Department, Austin, Texas, has been appointed by President Douglas B. Fugate of AASHO as Secretary of the AASHO Committee on Public Information, succeeding Robert Hetherington, resigned, of Pennsylvania.

Secretary of Transportation Announces Award Winners for 1970

Mr. F. C. Turner, Federal Highway Administrator, has been awarded the Secretary of Transportation's Award for Outstanding Achievement (Gold Medal). The award ceremony was held December 9, 1970 in Washington, D. C. and the award was presented by John A. Volpe.

Other awards for Meritorious Achievement (Silver Medal) were given by the Secretary at the same meeting, where he was assisted by other Administrators in the Transportation Department. The Silver Medal Awardees are: Harold W. Adkison, Division Engineer for the New Mexico Division Office in Region 9; Sheridan E. Farin, Regional Federal Highway Administrator, Region 7; Kenneth R. Oviatt, Deputy Chief, Federal Highway Projects Division, Vancouver, Washington; Charles W. Prisk, Assistant Director of Office of Highway Safety; John A. Swanson, Associate Administrator for Right of Way and Environment.

Fugate Named Co-chairman of Joint Committees of AASHO-AGC and ARBA

Past President of AASHO, Douglas B. Fugate, Commissioner of Highways, Virginia has been named by President W. J. Burmeister to fill the Co-chairman position on the AASHO side of the Joint Committees on Cooperation with Contractors (AASHO-AGC) and American Road Builders (AASHO-ARBA), filling the vacancy caused by the death of Marvin J. Snider, Chief Engineer of Missouri. Past Presidents of AASHO W. A. Bugge, Washington and D. H. Stevens, Maine have held these positions in the past.