NY-D10
98-11

COORDINATING THE DEVELOPMENT OF OUR TRANSPORTATION SYSTEM

Remarks of A. Scheffer Lang, Administrator
Federal Railroad Administration
A.S.C.E. National Transportation Engineering Meeting
Hotel Del Coronado, Coronado, California
Monday, February 19, 1968, 12:30 p.m.

It really is a great privilege for me to have been invited to address this national meeting of the A.S.C.E. on transportation engineering and appear here as a representative of the United States Department of Transportation and Secretary Alan Boyd. But it is a special privilege for me to be talking at a civil engineering conference on transportation to so many of my professional colleagues in the transportation engineering business.

As some of you may know, the community of interest between engineers working on the various aspects of transportation has been my primary area of professional concern for many years. In particular, the role played by the civil engineering profession in the emerging interdisciplinary area of transportation engineering has been of special interest to me because of my own professional background and vantage point.

Transportation System Development: The Next Phase

I believe we are now entering a new phase in the development of our transportation system in this country, a phase which will

LANGAS680219

0013

2/21/68

FR 1011 2/6/69 FAA-5*1

be professionally the most challenging and the most satisfying one yet for those who work on and are responsible for the technical side of transportation. I believe, moreover, that one of the keys to this new phase lies in a concept of planning that will relate the work of the transportation engineer more closely than ever before to the social and economic needs of the country which transportation serves.

In all of this, I see a new concept of the role of government emerging, too, a concept which calls for a more sophisticated interaction between technology and the market for transportation which, in turn, will promote a more sophisticated use of the technical resources which we have available for the transportation systems development job.

Finally, I think that these new concepts will foster a more sophisticated approach to the coordination of our transportation system and its development and a better transportation system than the already good one which we have today.

What "Coordination" implies

The more you look at transportation in this country, the clearer it becomes that "coordinating" the development of our transportation system does not mean someone sitting on top calling all the shots on what is to be built where. Transportation in a modern society is too complex and too pervasive to

be directed by some central decision-making institution, regardless of its competence or its motives.

Transportation capability, in fact, is not created so much as it "evolves" from a myriad of decisions made by a large and very complicated set of institutions. While restructuring these institutions and the relationships between them may be necessary to the more orderly development of transportation, our ultimate requirement will still be that of seeing that the evolutionary process which involves all levels of government and private industry coordinates itself.

The Transportation Planning Process

When we think of coordinating transportation systems development, most of us here would probably think first of the transportation planning studies which have become an integral part of our work in urban areas. These studies, however, as we have known them to date, suffer from some important deficiencies.

First, these studies are still not well-suited to the dynamic decision-making process which characterizes transportation development. While at the national level decisions may be made infrequently, State and local government and private industry are in a position where they must go on making decisions about transportation investments continuously. Transportation planning is of value only to the extent that it facilitates this continuous and dynamic decision-making process.

Second, the methods which we have developed in our urban-area transportation planning studies are seriously limited in their applicability. While they can tell us much about urban passenger transportation, they still tell us relatively little about urban freight transportation. More importantly, we have yet to develop any significant capability to deal with intercity transportation requirements and alternatives or with regional transportation problems in general.

Third, to the extent that our planning studies can aid the dynamic kind of decision-making that characterizes transportation, they still work with an essentially static view of transportation technology. Few of our ongoing studies take any explicit account of the technological options which might be available to us in solving our transportation problems in the future.

I think, however, we are making progress in all of these areas. The evolution of our planning methodology into a dynamic decision-making aid has been a recognized objective now for several years. As our methodology and computer capability improve and as our overall understanding of the planning process deepens, we should surmount this deficiency.

As we study larger regions (witness the Tri-State Study in the New York Area), our ability to forecast and analyze intercity requirements and capabilities must similarly improve.

We are pushing very hard in this direction in our Northeast Corridor Transportation Systems Planning Project at the Department of Transportation. This project, in fact, constitutes the first comprehensive attempt to deal with intercity and large-region problems; but the project is viewed as only the first of many future studies with a similar scope.

Planning for the use of dynamically evolving transportation technology is something even newer to us. Again, we at the Department of Transportation are trying to learn how to do this kind of a job in the context of our Northeast Corridor Project. In this area, we are pushing our engineering knowledge and forecasting capability to the limit; but the stakes involved in providing future transportation for a population of more than 40 million people are very large!

The Role of Research and Development

Planning transportation systems in such a way as to take advantage of future technological capabilities requires that we develop a somewhat new perspective on the role of research and development in the whole transportation investment process. It seems that we are only now coming to an adequate realization that research and development expenditures can and should be rationalized in essentially the same way as any other capital investment. Investing in research and development involves the same kind of estimation of future returns that investing in new aircraft, new port facilities, or new bridges requires.

Even more importantly, research and development expenditures can and should logically be viewed as alternatives to investment in capital facilities. Thus, in the concept of transportation systems development which is now emerging, research and development becomes another decision variable, not a given. Stated another way, we are now moving into a phase where planning can call for research and development to provide technological answers to key problems. Notice that the BARTD test track work provides a real-world example of how this process can take place.

It is important to note further that, at least at the major system level, we are not only finding research and development one way to help get the job done; we are also finding that we are faced with research and development alternatives from which we must choose. So the planning for transportation investment and the planning for transportation research and development are beginning to merge into a single, larger, and more complex process.

In this regard, the identification of transportation research opportunities becomes a critical part of the overall planning process, just as the identification of alternative networks has always been a critical part of the metropolitan transportation planning process. This manifests itself in the increased importance attached to technological forecasting by those designing such transportation facilities as airports and transit systems.

Similarly, the analysis and evaluation of such research and development opportunities as have been identified poses both methodological and institutional problems similar in their complexity to the procedures long since found necessary to informed decision-making on urban transportation systems. In fact, evaluating the performance of new technologies being sought through research and development has, in the case of the Northeast Corridor Transportation Systems Planning Project, turned us back to the transportation planning procedures themselves. This, in turn, has shown us that these planning procedures need some redesign if they are to help us in the analysis and evaluation of new technology and new transportation services.

Changing Attitudes Towards Transportation

While some of the professionals in transportation are changing their ideas on planning and on research and development, other things are happening in the general world of transportation. Most important among these is the growing recognition on the part of more and more responsible people that our transportation needs dictate a spectrum of transportation solutions. More people are recognizing that no one means of transportation provides "the answer" to our emerging transportation needs, but that the only hope of our meeting these needs lies in making all available means of transportation work in concert.

Thus, more of the people who make key decisions about transportation systems development are beginning to think about coordinated transportation systems. For example, we are now moving with more determination than ever to develop better intermodal container systems, to integrate ground transportation and ground facilities with air transportation, and to combine automobile, bus, and rapid transit to provide better total transportation capability in our urban areas.

This process is accelerating interest in transportation systems engineering and systems analysis, and we are learning more about these fields every day. Equally important, we also are learning more and more about how transportation relates to its social, economic, and political environment. This is to say, we are learning more about the why for transportation as we learn more about the how of transportation.

The Role of the Federal Government

The Federal Government has some special responsibilities in this whole process. As I have already suggested, it can not do the coordinating of our transportation system as such. That job necessarily gets done at the level where the value judgments on transportation alternatives get made; at the level of state and local government and of private industry.

What the Federal Government can and, I think, must do is to help assure that when those value judgments are made, they are the very best possible. Among other things, this means help from government in spelling out the capability and availability of both present and future systems. No one should be left in ignorance of what can be done!

The Federal Government has some responsibility, of course, for the substance of our transportation options too. Where the existing incentive structure is unlikely to lead either private industry or local government to undertake research and development into new transportation services or technology, the Federal Government should--if the potential is there--step in to provide support. In particular, it seems only logical that government explore those technologies that fall into the cracks in our institutional structure. The work which we are doing in our Office of High Speed Ground Transportation on the technology of linear electric motors and tracked air cushion vehicles is an example of this kind of government involvement. Again, though, because coordination of transportation systems development is not something that gets done, but something that happens; the Federal Government must be as much concerned with the mechanism for coordinating transportation development as it is with the substance of that development. That is, it must be concerned with planning methodology, with institutional structures, with incentives, with technical information.

All of this imposes requirements on the Federal Government that we know only imperfectly how to meet. All of this argues, however, for the kind of broad responsibility at the Federal level now embodied in the Department of Transportation; and, I might add, since the formation of the Department, we have made good progress in learning how to do this job.

The Role of the Civil Engineer

Of course, the civil engineering profession is and should be right in the middle of this whole process too. The layout and design of transportation systems has always been the business of civil engineers. Assuming that as civil engineers we recognize the changes that are taking place in the way our transportation system must develop, we will continue to be a professionally moving force.

If the transportation civil engineer is to play his role, however, he has to--more than ever--put his work on transportation systems into a larger institutional context. He must learn to view transportation planning as dynamic in its interaction with our social, economic, and political environment, not merely in its interaction with our physical environment. He must think in terms of coordinated urban and intercity transportation. And he must be more cognizant than ever of the dynamics of technology and the possibilities for exploitation of technological opportunities in transportation.

The Job Ahead

Old notions of separate modes of transportation, of static planning, of research and development as something to be rationalized in itself, of simple institutional settings, and of trying to centralize decision-making in transportation--all these approaches are breaking down in the face of our growing understanding of the complexity of transportation and its interactions with our environment.

If we are going to have coordinated and effective development of our transportation system in the years ahead, those of us in the business have our work cut out for us. No one can wave a wand and get the job done for us, not even the Federal Government.

-ooOoo-

Statement by A. Scheffer Lang, Federal Railroad Administrator, Department of Transportation, Before the Senate Commerce Committee on S. Con. Res. 25 and S. J. Res. 52

Mr. Chairman and Members of the Committee:

This statement is submitted on behalf of the Department of Transportation in regard to Senate Concurrent Resolution 25 and Senate Joint Resolution 52. Both resolutions are concerned with rail passenger service. Senate Concurrent Resolution 25 would state the sense of Congress that the Secretary of Transportation investigate and study in a number of respects the potential of rail passenger and mail transportation, that pending completion of this study the Interstate Commerce Commission exercise its authority to prevent passenger train discontinuance, and that the Postmaster General continue during this study all existing arrangements for mail transportation.

Senate Joint Resolution 52 would direct the Secretary of Transportation to prepare within a year a master ground transportation plan and to prohibit during that year and for 60 days thereafter approval by the Interstate Commerce Commission of any passenger train discontinuance or without the approval of all States affected, changes in service and any railroad consolidation, unification, or merger.

Let me first express some general reactions to these Resolutions.

Initially, they are limited to movement by a given mode. As such, they tend to compromise the notion of a balanced transportation system in a broad multi-modal sense.

Secondly, work underway within the Department should accomplish most of the stated ends outlined in the legislation.

Finally, delaying decisions of the Interstate Commerce Commission while a plan is being developed may not prove to be in the interest of the public.

Returning to my first point -- the need for a multi-modal approach encompassing all the reasonable alternatives -- work in this area is underway in the Department. The Northeast Corridor project of the Federal Railroad Administration and the Analysis of Functions of Transportation (AFT) project of the Federal Highway Administration are multi-mode oriented. The Department intends to integrate these efforts, together with the planning of the industry and individual localities, into a planning framework for national transportation. The one-year period specified in Senate Joint Resolution 52 for a ground transportation plan is simply not sufficient for a master ground transportation plan -- or one encompassing highways,

waterways, and air transportation, for that matter -- in detail and in sufficient depth.

However, we intend to put together a picture of the national transportation system as it is now and as it appears in the planning of the responsible organizations. Successive editions of this work will go into greater analytic depth. They will provide measures of system effectiveness and recommendations concerning possible contributions by individual modes.

Addressing now the second point -- Department of Transportation work already in progress -- I propose to relate it to Senate Concurrent Resolution 25 which states:

> "That, for the purpose of relieving the ever increasing congestion on the nation's highways, promoting the spread of population throughout the nation, and providing relief to an over-burdened mail service, it is the sense of Congress that the Secretary of Transportation should make a full and complete investigation and study of the potential of rail transportation particularly over existing lines and rights-of-way, for passenger and mail transportation in the United States."

The resolution urges that such an investigation and study should include:

(1) "a determination of the possible future use of high speed passenger trains in the various corridor cities or megalopolis areas of the nation."

Under the Demonstrations program authorized by Congress, the Department of Transportation through the Office of High Speed Ground Transportation in

the Federal Railroad Administration will start actual operation later this year of experiments in improved intercity railroad passenger service between Washington, D. C., and New York and between Boston, Massachusetts, and New York, respectively, in the so-called Northeast Transportation Corridor.

These operating demonstrations are designed to measure public reaction to varying combinations of service factors, including speed, frequency, fares, food service and general amenities, and will produce the information required to evaluate the potential economic role of railroad service in urbanized areas of the nation. In addition, the Demonstrations program includes a test of the movement of automobiles and their occupants in specially designed rail equipment between Jacksonville, Florida, and the Washington, D. C., area, scheduled to start early in 1968.

There are identifiable corridors in other sections of the country in which metropolitan areas are fusing into super-regions and in which new and demanding transportation requirements must be met. It will prove useful to determine whether the character of the market and existing railroad facilities in these emerging corridors would support a valid and feasible demonstration of improved rail passenger service. Preliminary findings of the demonstrations in the Northeast Corridor should indicate the practicability and feasibility of similar service in other areas.

(2) "a determination of the possible future use of auto carrier passenger trains for long-distance, high speed rail transportation"

This is the objective of the Department's demonstration of "Auto Train" between the cities cited above. We presentaly have reached a basis for an

operating agreement with the participating railroads. The "Auto Train" has a capacity for 76 automobiles and their occupants. The 750-mile run will be completed in twelve hours or less. The experimental train will consist of ten auto-carrying, two service cars, and two locomotives.

Should this service attract the share of the total market already indicated by preliminary market study and findings, the auto-train concept may also be feasible in other areas.

(3) "a determination of the possibilities of developing economical means to continue and provide additional rail service to small communities not located in areas of dense population."

We are approaching this problem with due consideration. The results of the demonstrations in the Northeast Corridor may well point to the application of the newly designed, light weight gas turbine-powered trains. Of equal importance will be the exploration with those parties concerned of the feasibility of reducing the inordinately high operating cost of such branch line operations.

(4) "a determination of the possible use of electricity for high speed rail transportation."

A survey has been made by the Department of the plans and studies concerning possible electrification which are under way by railroads in the United States. This survey has not yet been published but the results indicate that there is one major obstacle to electrification of railroads, namely, the investment cost of the distribution system to provide the power along the right-of-way. Interest has been expressed by some utility companies in providing the distribution system, and selling the power to the railroads at the locomotives. Their interest is partially due to the desire for additional rights-of-way for transmission lines into cities and

partially due to a desire to broaden their rate base. The Edison Electric Institute has started a study with the New York Central Railroad and the half dozen utility companies whose area includes the New York Central right-of-way from New York to Buffalo. This study should be completed by fall and should indicate the economic feasibility of electrifying this part of the New York Central system. Electrification can only be justified in the areas of high traffic density but, until the cost of the distribution system can be lowered, there seems to be little likelihood that any additional electrification will take place. It seems inevitable that the results of the Edison Electric Institute will show this is true on the New York Central.

The Department's plans in this area have been to sponsor design studies with the objective of developing a catenary or overhead distribution system which can be constructed for about $12,000 a track mile.

(5) "in consultation with the Postmaster General, a determination of the possible use of the high speed rail transportation for post office operations."

The Post Office Department has voiced their approval for a joint study. Preliminary explorations will be continued in order to evaluate the application of high speed rail transportation for post office operations.

(6) "a review of all existing research and development in rail transportation and a determination of areas where future research and development should be concentrated."

This review has been under way since 1963 when the National Academy of Sciences was asked to do a study of research and development in the

rail industry. Subsequently, the Secretary of Commerce organized an ad hoc study group to recommend what could be done to improve research and development in transportation. In addition, when a request for high speed ground transportation legislation was prepared, an explanatory statement was submitted for the record which included both a history of rail research and development and suggestions where additional research and development was needed. Also, one of the first efforts under the Northeast Corridor Project was a contract with Massachusetts Institute of Technology to determine what technology was available for high speed ground transportation, including rail. The report issued in September 1965 includes such recommentations. Finally, the Department of Commerce Technical Advisory Board was asked to study the problem and an Ad Hoc Panel on High Speed Ground Transportation conducted a study and published a report in December 1966, recommending research and development in both rail and unconventional ground transportation. The results of all of these studies are contained in the present research and development program under Department of Transportation sponsorship.

(7) "such other matters as would promote such purpose."

The Department will continue its broad research and development program, encompassing both conventional railroads and unconventional system. We will continue our efforts to increase the amount of research and development activity in the railroad industry; this effort will include both carriers and suppliers. Research and development contracts have been awarded to a number of research institutions around the country to study various technical factors essential to future high speed railway operations, such as roadbeds,

tracks, power catenary systems, electric motors, and the dynamic behaviors of trains at high speeds.

Concurrent Resolution 25 states:

> "It is also the sense of the Congress that pending the completion of such investigation and study by the Secretary of Transportation
>
> (1) "the Interstate Commerce Commission should exercise such authority as it has under law to prevent any further discontinuance or abandonment of railroad service."

Joint Resolution 52 states:

> "until the sixtieth day after the submission of the master ground transportation plan to the respective committees, the Commission may not approve any consolidation, unification, merger, or acquisition of control of a railroad corporation, nor may there be any discontinuance or change, in whole or in part, of the operation or service of any train or ferry subject to Part 1 of the Interstate Commerce Act, unless such discontinuance or change is approved by the appropriate state regulatory agency of each State affected by such discontinuance or change."

Train discontinuances are presently authorized by the Commission under provisions of law requiring consideration of the public convenience and necessity and of the burden on interstate and foreign commerce.

Given the provisions of existing law, the Committee should carefully consider whether the proposed provisions would tend to make it more difficult and costly to eliminate unneeded, unpatronized and, therefore, uneconomical passenger train service during the suspension period. It should also determine whether it would be appropriate to require the railroad industry to carry uneconomical deficit services, where they exist, for a 14-month period where lack of public need and the existence of a burden on commerce would allow the train discontinuance.

By prohibiting mergers during the recommended suspension period, I would raise the point that mergers have no necessary relationship to the elimination of passenger trains but, indeed, mergers may make it more economically possible for the rail industry to carry the burden of passenger service.

Joint Resolution 52 further provides:

> "That during the suspension of the Commission's power the anti-trust laws shall be in full force and have full effect."

The Interstate Commerce Act provides relief from the operation of the anti-trust laws in Section 5 transactions approved by the Commission. Quite clearly, any actions which substantially reduce or eliminate competition in such transactions should be subject to prior government approval.

The Department of Justice would enforce these laws during any suspension of the Commission's power.

Resolution 52 also states:

> "The Postmaster General should continue all existing arrangements for railroad mail transportation."

I am sure that other witnesses will present their views on this particular proposal. I would add the comment, however, that railroad passenger service should not be subsidized by Post Office funds. That Department should be free to use efficient facilities and methods for handling mail for the public.

In summary, I believe that the activity presently underway will provide clear answers to the basic objectives of the proposed resolutions and that any time constraints placed on our present endeavors will preclude any opportunity of including other improved systems that developing technology will provide. Accordingly, I respectfully recommend that no further action be taken on either resolution.

# # #

June 19, 1967

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
WASHINGTON, D. C. 20591

Remarks by A. Scheffer Lang, Administrator
Federal Railroad Administration, prepared for
delivery before the Western Railway Club,
at the Sherman House, Chicago, Illinois
Monday, March 18, 1968, 7:30 p.m.

OBSERVATIONS ON THE PROBLEMS OF THE RAILROAD INDUSTRY

It is a great privilege to have been asked to speak before this audience. There is probably no audience which is more broadly representative of those interested in and involved with railroad transportation in this country than the group here tonight.

I recognize, of course, that some of you may be in the unhappy position of having to listen to me talk both tonight at this Western Railway Club Dinner and tomorrow morning at the opening session of the Annual Meeting of the American Railway Engineering Association. I can assure you that none of us planned to have the AREA meeting date changed so it would come out that way; but I will not apologize for any similarity between what I say here and what I will say there. Some things about our industry bear repeating.

I do not find giving two talks in a row here too surprising. After all, Chicago is to a railroad man a little like Mecca to a Muslim; the center of the world. We meet here, we talk here,

we virtually worship here. In fact, sometimes we may be inclined to do a bit too much worshipping. I would like to think, however, that a railroad man can pay past respects here in Chicago without allowing that to interfere with his perception of what the industry should be doing about its future.

This industry has a lot of problems which it has to solve before it can realize the future which I am sure most of us in this room are seeking for it. I now see many of these problems--the passenger train "deficit," mergers, car shortages, rate regulation and so forth--in a different light than I did as either a railroad employee or an academician. This different point of view, however, does not always lead me to a different conclusion about the courses of action which the industry should follow.

One thing has come through very strongly: we <u>have</u> to solve more of our problems as an industry rather than as an disparate set of companies.

Let me elaborate, from my present point of view, on why this seems to be so.

<u>Railroad Problems: Old and New</u>

From the standpoint of the general public, the railroad industry has no greater problem than the accelerating disappearance of its intercity passenger service. As someone

who knows a little something about railroad operations and railroad costs and also something about the structure of the overall market for passenger transportation, I think I understand why this business is partly drying up and partly being encouraged to dry up.

Overwhelming personal preference for the private automobile, competition from buses and airplanes, obsolete equipment and service, management and employee attitudes; yes, even governmental promotional policies--all are factors. The public, however, has not been given a clear, concise picture of the situation, so it is inclined to be both puzzled and perturbed.

I do not think there is any easy answer to the market shift away from conventional intercity railroad passenger service; but one would have difficulty making a case that the railroad industry was working hard to find some answer to that shift! Except for the cooperative projects between our Office of High Speed Ground Transportation and the Penn Central and New Haven Railroads, there is no visible evidence that the industry is doing anything other than trying to get out. If this is the decision and direction, what steps have been taken to inform the public as to why? Now, I know that individual railroads have made valiant efforts to save, if not improve their service; but the public at large--and their political representatives--remains skeptical about the good faith of the industry as a whole, because they see so little motion!

Let's look at the merger situation. Here again, there is no simple answer to the question of what sort of further mergers we should have in the railroad industry, if any. I am satisfied that the Interstate Commerce Commission is doing their utmost to see that this problem works out to the satisfaction of all concerned; but everyone knows they are having a very difficult time of it.

I think any careful student of railroad finance, operations, and markets would have to concede that further corporate consolidations within the industry are inevitable and, in fact, in many ways desirable. Thus, the problem is not with the fact of merger, but with the vast confusion and in-fighting which seems increasingly to attend the merger process. Some would accuse the Commission of inadequate leadership. But the facts of our present situation seem to point more directly at a failure of the railroad companies themselves to find some common ground--not only with each other but also with the public--on how the process could best go forward.

The so-called "freight car shortage" is yet another industry problem of great public interest. The industry has been subject to continuing criticism on this problem, criticism which threatens each year to break out into more restrictive actions on the part of government, even to the

point of dictating to the railroad companies how they can use the capital they have available for rolling stock investments.

Again, the problem of freight car distribution and use is one which is enormously complex and is in no way susceptible to quick or easy solutions. Again and again, however, one keeps coming back to a recognition that this is an industry problem susceptible to resolution only on an industry-wide basis.

Industry-wide efforts have been slow in coming, though. The multi-level per diem was certainly a step in that direction, and more recently the development of the Universal Machine Language Equipment Register, the TRAIN Computer project, and the adoption of automatic car identification have been evidence of industry determination to move forward. But we have yet to see such things as a meaningful study of the extent to which the common carrier obligations imputed to the railroads impose unjustifiable requirements for equipment or the extent to which peak pricing might be a legitimate device for rationing scarce equipment.

Perhaps more importantly, the industry seems slow in looking collectively at ways in which the design of our freight equipment itself might be the cause for poor utilization, to say nothing of poor service to the customer. One must ask, in

other words, just how serious the industry is--as an industry--about solving its car use and distribution problems.

Safety is another problem of particular public interest and therefore one of which I am particularly aware. Safety is a problem, moreover, which I think the industry individually and collectively has always been aware of and always worked on. Yet the present safety picture, while not all bad, does make one stop and wonder whether the industry has this problem under adequate control.

Here again, as in so many areas, the effectiveness of industry actions--as opposed to individual railroad actions--is unclear. While safety is clearly something which "begins at home," many of the long-range efforts necessary to solve fundamental problems can be handled only on an industry-wide basis. Committees of the Association of American Railroads are working on these problems, but often with limited staff assistance and certainly with limited financial resources.

Railroad Transportation and the Public

As my remarks suggest, I am sensitive to the public's view of these problems.

I think, these problems all add up to about the same thing, though: the public is interested in good railroad transportation. Both history and common sense tell us that this interest is ever-present.

The question, then, is whether the public is getting good railroad transportation. The two most effective criteria which we can apply in answering that kind of question are the rate of profit and the rate of growth in the industry. Unfortunately, a look at these criteria does not lead us to any very encouraging judgments.

Do not misunderstand; I am not suggesting our industry has done a "bad" job. I am not talking really about what we have done, but rather of what more we can do.

Thinking Our Way Out

The railroads, at one time, were intellectual leaders among industry as a whole. More recently, however, it seems we have been inclined to try to run over our problems instead of thinking our way around them. As one who has been involved in engineering education, I shall never cease to marvel at the intellectual achievements of A. M. Wellington. Where, one must ask though, is railroad thinking today?

My own answer to that question is that we are thinking a lot harder now than we were ten years ago, but we are probably still not doing a lot of thinking by modern standards. We have few top-notch professionals of any kind in the industry--relative, that is, to the size of the industry as a whole. The output of professional work is therefore low, and the interaction between the industry and the outside world is still limited.

In point of fact, we just do not spend very much of our money on thinking in the railroad industry. I do not want to get bogged down in an argument over what the industry does by way of research, because quite aside from the question of what we commit to research in the way of resources, I think that the role of research is not well understood in this industry. Perhaps, my point can better be made by comparing the railroad industry in a general way with an industry such as the computer industry.

I do not think anyone would take exception to the statement that the computer industry spends a lot of money and a lot of time on thinking about their business. (You may call it research, or research and development; but I still call it "thinking.") I suspect that all of you here would also be willing to agree that the railroad industry spends very much less time and money on "thinking" than does the computer industry. Yet the computer industry is only a $3 billion a year industry and the railroad industry is a $10½ billion a year industry!

Of course, some have said to me that such a comparison is meaningless, because the computer industry is a high technology, growth industry. Precisely!

The Importance of Industry Action

This industry seems to have problem after problem which it cannot come to grips with. Time and time again you and I have heard over the years how the large number of companies in the industry precludes effective industry-wide problem solving. People say that until we get more mergers, there is no way to deal with this problem.

Moreover, I know from first hand experience that people working on individual railroads, who are capable of finding solutions to specific problems, have been prevented from doing so because the results would have been available to the entire industry while the money would have been spent by only one company. Fortunately, this has not been an attitude which has always prevailed; but it is an attitude which has prevailed and continues to prevail in enough cases to be a cause of major concern.

Well, if we know these things, is it in fact impossible for us to do something about them? No!

We have had an Association of American Railroads for many years. It has done great service to the industry in many areas, and there is no reason that it cannot do further service on a broader front. What seems to be lacking is a determination on the part of the railroad companies that they will solve their problems on an industry basis, instead of as individual companies.

There are those in railroad management who say that their individual company cannot justify hiring the kind of staff and mounting the kind of effort required to solve some of its complicated problems. They then turn around and say, more by their words, that they cannot afford to support industry-wide efforts to get at these problems either. All this leaves me a little bit puzzled.

A Little Motion Goes a Long Way

You know, it is pretty clear to me from where I sit that what the public looks for in a public service industry like the railroad industry is basically a little motion. While in the last analysis motion is best demonstrated by results, in this day and age evidence of thinking is also evidence of motion. Not unreasonably so. It can be shown that those industries or segments of industry which are doing a lot of thinking almost always end up making a lot of progress. Conversely, those industries in which there is little evidence of thinking almost always end up making relatively little progress.

How we are going to get thinking and motion on some of the difficult and complicated problems we have in railroad transportation without a more effective industry-wide effort is beyond me. I do know this much: money is not the problem.

This industry has the money to multiply its thinking efforts ten-fold--tomorrow! It does not have the personnel to do so, admittedly; but it will not have them until it creates an environment which makes it possible for the right kind of talent (much of which is within the industry today) to flourish.

The public, I think, sees the railroads as a system, not as a collection of separate operations. A train-off case in the West also brings cries of anguish from the East. But then, any knowledgeable student of railroad transportation sees the railroads as a system, too. Therefore, I am forced to conclude that industry-wide action, well funded and well staffed, is critical to the future of railroad transportation. Equally important, it is critical to attaining the coordinated transportation system we well know must evolve.

As head of one of the Department of Transportation's major operating arms, I am prepared to do all I can towards meeting that goal. Our first steps have been directed towards:

-- Building a better statistical and analytical base for government and industry assessment of modal and intermodal problems.

-- Working with the railroad and railroad supply industries to develop joint programs of technical and economic research.

In short, we are beginning to do the homework which will permit us to help chart the most productive course--for the industry, the Nation, and the public.

So in commenting tonight on the industry's problems, it has not been my intention to be hypercritical. The industry's problems are basically our problems and the solutions to these problems are therefore equally important to us. We want to see our railroads get cracking--together--and help show this Nation what transportation is all about. We at the Department of Transportation can do no less.

###

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
WASHINGTON, D. C. 20591

Remarks by A. Scheffer Lang, Administrator
Federal Railroad Administration, prepared for
delivery before the Tenth Annual Transportation
Conference, College Station, Texas
Friday, March 29, 1968, 10:00 a.m.

I want to thank the Transportation Association of America and Texas A&M University for inviting me to participate in the Tenth Annual Transportation Conference and for giving me the opportunity to speak to you about the Federal Railroad Administration and some aspects of its work over the past twelve months which are of direct interest to the transportation community.

As most of you are aware, up until the formation of the new Department, there was no agency within the Executive Branch of Government whose focus was specifically on the problems of railroad transportation and its future role in the social and economic life of the country.

I raise this point early in my presentation because I think this makes the Federal Railroad Administration somewhat unique, especially when compared to the other four operating administrations. For instance, while we inherited extremely capable personnel and three on-going programs--the railroad safety functions that were formerly handled by the ICC; operation of the Federally-owned Alaska Railroad, formerly in the Department

of Interior; and the Office of High Speed Ground Transportation, formerly in the Commerce Department--we had no personnel or programs to get cracking immediately on the real nut and bolt railroad issues. I would be less than candid if I said this staffing-up problem has been completely solved. It hasn't. When you're looking for people not only educationally qualified but also technically able--hopefully with solid railroad experience--I think you can appreciate one of my initial concerns.

In these early months, the FRA also has been involved in a number of unique "brush fires"--we had two railroad strikes, the New Haven Railroad situation reached a crisis stage, the passenger train discontinuance problem began rising to the surface again. We were not unique, however, in another respect: We, just like the rest of DOT, had to tighten our budgetary belts almost before we got started.

Now before anyone here gets the impression that what I have just said is the prelude to my pulling out a rather large crying towel, let me dispel that notion right now. For despite our newness, and despite the organizational and budgetary problems, I can very definitely say the Federal Railroad Administration, even though we're still in our swaddling clothes, moved forward very creditably on a number of fronts.

The High Speed Program

As most of you know, our primary concern in the high speed program is with the maintenance of mobility in those densely populated regions of the Nation where projected population growth threatens to overtax existing and presently planned transportation facilities within the next twenty years.

Our initial efforts are being concentrated on analysis of requirements and evaluation of alternative inter-city transportation systems for the so-called Northeast Corridor region. This most densely populated region of the United States is a commercial center which requires the most sophisticated transportation and communications systems for continued growth. Within this 40,000 square-mile area--roughly 1½ percent of the land area of the United States--lives 20 percent of our total population.

So from the purely economic standpoint alone, there is an overwhelming need for: (1) developing a better idea of what transportation service the public really wants, and (2) how we should deploy our future transportation investments so as to meet those wants as well as possible.

In this regard, a major thrust of the high speed ground transportation program is an attempt--through research and development--to develop information about the economics and

operating characteristics of conventional railroad transportation at speeds higher than those in practice today, using that data to project or forecast what could be done with these higher speeds or even higher speeds tomorrow.

The quality and technical sophistication of the two types of rail demonstration equipment which is now being tested by the Budd Company and United Aircraft results from the coordinating efforts of our Office of High Speed Ground Transportation. Within the restraints of operation on existing railroad trackage, the trains to be operated in the Northeast Corridor are a step beyond the Japanese Tokaido Line equipment and the best European trains. Technological improvements on the Washington-to-New York trains will include solid-state control circuitry, speed regulation, and electrical dynamic braking. In the Boston-to-New York service, free shaft aircraft turbines, pendulum suspension and aircraft structural design are being used. In addition to technical advances, passengers will enjoy a whole host of improvements, not the least of which is better service.

The High Speed Research and Development Group has also completed development studies and design supervision of the auto-on-train equipment, a concept brought from the idea stage almost entirely by OHSGT. It is a significantly novel train, embodying several unprecedented features to make this

mixed-mode service practical. These include automobile loading techniques, improved roll control suspensions, and gas turbine auxiliary power units.

I would be remiss if I did not mention the significant steps being taken using the Department's rail research cars, which we accepted in April of last year. To date, over 25,000 miles of operation have been logged, many at the 150 mph speed level.

Extensive instrumentation has been placed on the cars and along the test track right-of-way, and an automated program for recording and analyzing data has been started. We are measuring, for instance, some 150 variables while the cars are in motion, including vibration and temperature in specific components of propulsion, car suspension, roadbed and track, and similar subsystems. Wayside instruments, placed adjacent to the test tracks, measure the effects on the guideway and overhead structure from passing trains.

The significance of all this? Comprehensive data on effects of high speed operations had not been collected previously in this country or foreign countries, and will contribute to a better design of railroad systems as well as the evaluation of rail as a high speed ground transportation system of the future.

The High Speed Program is also concerned with advanced systems of transportation as part of the process of determining whether improved existing or unconventional new systems can better meet future needs. Research in unconventional systems is concentrated in high speed tracked air cushion vehicle systems and tube vehicle systems. Both offer promise for operation well above 250 miles per hour.

The immediate goal of the TACV project is to design and build a research vehicle and guideway within the next 18 to 24 months. Subsequent tests on this vehicle will provide a basis for preparing demonstrations of a high speed TACV in uses such as airport access and intercity passenger service.

Among the other high speed directions we're traveling: analysis and experimental work with a deep-tube transport concept; new systems of communications and control, evaluations of magnetic suspension, construction of a linear electric motor for speeds above 150 mph, advancements in tunneling technology, and studies of present and future safety needs.

Railroad Safety Activities

That last item--safety--is one we are concerned with on other fronts than high speed.

Just last month, we completed work on an extensive reorganization plan for the Federal Railroad Administration's

Bureau of Railroad Safety. We think this step is not just another realignment--which it isn't--but really a first step towards a restructuring of our safety regulatory activities so that they more appropriately reflect the real safety problems facing the railroad industry today.

Once operational, the new plan will enable the Bureau to increase its accident investigation activities. More importantly, however, we will be in a better position to analyze current regulations with a view toward bringing them into line with modern management concepts and technological developments.

Under the reorganization plan, the Bureau will consist of a Director and five major divisions: Engineering and Accident Analysis, General Safety, Locomotive Safety, Signals and Train Control, and Hazardous Materials. The field operation will continue under the present system of seven regional offices.

Hand-in-hand with this reorganization, we are establishing the first of several special study groups whose mission will be to look at each major area of railroad safety from "the ground up" and to pinpoint where the important problems are and where a governmental regulatory program can contribute meaningfully to the solution of these problems.

We do not expect these study efforts, or our plans to reorganize and upgrade our existing regulator activities, to work miracles over night. We are convinced, however, that even as we call upon the railroad industry to improve its safety performance, we ourselves must be doing everything we can to improve our performance in this common area of concern.

Grade Crossing Safety

We are also hard at work in another safety area--railroad-highway grade crossings.

Secretary Boyd last August directed the Federal Railroad Administration and the Federal Highway Administration to initiate a national program aimed at reducing rail-highway grade crossing hazards and accidents. He also directed that special consideration be given to grade crossings in the heavily traveled Northeast Corridor.

I think Lowell Bridwell will agree with me that in the short period we have been involved in this extremely complex problem, the FHWA-FRA Action Committee has made substantial progress.

Of all the many facets of the grade crossing situation, perhaps the most astounding of those encountered is the sheer lack of reliable data. Even the true number of grade crossings or the accident losses and patterns that characterize different

classes of crossings throughout the United States were unknown. In this regard, our people had to jump in and start almost from scratch.

Some idea of the scope of investigation can be seen from the committee's present activities. We are, for example, looking at such things as guidelines for diagnosing hazards, enforcement of traffic regulations at grade crossings, improving accident data collection, identification of crossings most used by school busses and commercial vehicles carrying hazardous cargo, and closing or limiting the use of existing crossings. We are also studying present Federal and State motor carrier safety regulations and laws on mandatory stopping of certain vehicles at crossings, and the development of more effective measures and devices to reduce grade crossing accidents.

Personnel of the Railroad and Highway Administrations have also taken advantage of many opportunities to encourage State and local governments and industry toward goals set forth in a definite program for accident reduction at the crossings. These contacts range from individual visits with State public service commissions, highway departments, railroad representatives, and equipment suppliers, to participation in formal railroad meetings and conferences and even the holding of a national Grade Crossing Safety Symposium. The Symposium

was jointly sponsored by the Texas Transportation Institute and the Department at the very place we are meeting today.

Here, for the first time, face-to-face contact was established on a broad scale among leaders in the railroad industry, significant research authorities, representatives of labor, engineers of State and city government, and the academic community. Here, we forgot about maintaining the status quo, and took the first major step away from ignoring a very real public problem.

In my view, this is the kind of activity that should highlight any summary of programs and progress. For it is here, a meeting place for all sides, the questions of special importance get attention. And it is here, I think the Department of Transportation can play its most important role.

###

104.6

STATEMENT OF
A. SCHEFFER LANG
ADMINISTRATOR, FEDERAL RAILROAD ADMINISTRATION
DEPARTMENT OF TRANSPORTATION
BEFORE THE
SUBCOMMITTEE ON TRANSPORTATION AND AERONAUTICS
U. S. HOUSE OF REPRESENTATIVES
ON
H.R. 18212
JULY 8, 1968

Mr. Chairman, members of the Committee:

My name is A. Scheffer Lang. I am Administrator of the Federal Railroad Administration which is part of the Department of Transportation. On behalf of the Department, I wish to thank the Committee for this opportunity to present our views on H.R. 18212, a bill to amend Section 13a of the Interstate Commerce Act, to authorize a study of essential railroad passenger service by the Secretary of Transportation, and for other purposes.

This bill combines amendments proposed in legislation already before the Committee (H.R. 7004), proposals included in a Senate bill (S.2711), and provisions which the Interstate Commerce Commission has suggested "to reflect the testimony offered on these bills by the railroads and other parties in the course of the hearings."

The provisions derived from H.R. 7004 would amend Section 13a (1) by limiting its application to passenger trains and ferries; changing the Interstate Commerce Commission's initial jurisdiction over service between points in the various states to include points in a foreign country; requiring the carriers

7/11/68

LANG, AS 680708 00235

to file a notice of discontinuance 60 days in advance of the effective date rather than the present 30 days; increasing the present four month period during which a proposed discontinuance can be suspended to seven months--with a provision for an additional two months when required; imposing the burden of proof on the carrier to show that continued operation of the service is not warranted by the public convenience and necessity and that continuance would be an undue burden on Interstate Commerce; and clarifying the right of the public to seek judicial review of a Commission discontinuance decision. Other provisions derived from H.R. 7004 would change Section 13a (2) regarding appeals by the carriers from action or non-action by a state agency.

The provision derived from S. 2711 prevents a carrier from unilateral discontinuance of a service prior to the expiration of the notice period.

There are also three new proposals included in H.R. 18212:

1. That the carrier or carriers proposing a discontinuance must post a notice to this effect on the property of carriers other than those proposing a discontinuance where the train or trains are part of a joint service.

2. That for two years following enactment, where any trains proposed to be discontinued are the last remaining in either direction by the carrier proposing such discontinuance, the Commission shall require the continuance of the service for one year from the date of its order unless it finds that (a) the public convenience or necessity do not require its continuance, or (b) it finds the continuance will impair the ability of the carrier to meet its common carrier responsibilities, considering its overall financial condition.

3. The Secretary of Transportation is authorized to undertake a one-year study of the existing and future potential for intercity railroad passenger service.

The facts and circumstances underlying these proposals are discussed in the report of the Interstate Commerce Commission transmitted to this Committee under date of June 25, 1968, a report which points a dismal picture of the future for intercity rail passenger service. We can only agree with the Commission that if there is in fact a need for intercity rail passenger service, then we must identify that need more clearly and fashion a new and more

positive public policy toward meeting it as soon as possible.

Accordingly, the Department of Transportation supports the Commission's recommendation for a thorough study of this problem to assist us in the creation of such a policy. We think it important that expressions of interest in such a study have also been manifested within the railroad industry itself. In particular, the Committee should note that Mr. Stuart T. Saunders, the Chairman of the Board of the Penn Central, urged in a speech before the New York Chamber of Commerce on June 6 of this year that industry and government undertake a study of this problem in partnership with each other.

We think that the general guidelines for such a study which have been suggested by the Commission in its report are good ones. In particular, we would emphasize the Commission's admonition that any study of this problem should consider the overall intercity passenger transportation requirements of the country and should not attempt to look at intercity railroad passenger service except within this larger context.

At the same time, we must caution the Committee against expecting that a thorough study of this problem will be either easy to accomplish or certain in its outcome. Over the past year we have devoted much thought to this problem and have satisfied ourselves that any such study will encounter substantial difficulties.

First and foremost of these difficulties are those associated with identifying intercity passenger transportation "needs." While private and public agencies are slowly developing some capability to forecast what sort of transportation service people will use and in what amounts they will use it, we have yet to develop any workable notions of what sort of transportation service people "need." It is obvious that people need to be able to get from one city to the next by some means of transportation, and it is also obvious that we need to provide them with the best service it is possible to produce.

The proposition which we do not yet know how to defend is that we need to provide intercity transportation service different from that which people have shown through their market choices they want. But, when we judge need on the basis of market preferences, we can only conclude that virtually all intercity railroad passenger service of the kind which we have known to date is not needed.

This is not a new conclusion. The extensive investigation of intercity railroad passenger service conducted by the Interstate Commerce Commission in 1959 (306 I.C.C. 417) reached this conclusion. The exhaustive study of transportation problems conducted by the Senate Committee on Commerce which culminated in the publication in 1961 of the so-called Doyle Report similarly concluded that by any usual tests the need for intercity railroad passenger service had largely disappeared.

Thus, any new study of this problem must develop some concept of public need different from that indicated by market preferences, or its conclusions will simply be a restatement of those already reached by the two studies I just mentioned. It should be understood, moreover, that it will not be enough merely to develop the new means of measuring need; we must also find a way to determine how much public or private money we are justified in spending to meet these extra-market needs. There are no previous studies which provide satisfactory answers for either of these problems.

Nor are these the only problems which we will encounter in any thorough study of intercity passenger transportation. As this Committee is well aware, data on intercity passenger travel are at best fragmentary and incomplete. The information which we are collecting in connection with our Northeast Corridor Transportation Planning Study and the Northeast Corridor Passenger Train Demonstration projects will constitute the first reasonably complete profile of intercity passenger travel yet compiled. Compiling data this complete for the country as a whole will require many more years and many millions of dollars beyond those funds now available for such purposes. Without data that describe completely the character of the demand for intercity travel, it is impossible

to specify with precision the full spectrum of transportation services which ought ideally to be made available to the public. The study we are discussing here will have to be made without complete data.

I am not suggesting that a meaningful study of the kind proposed by the Interstate Commerce Commission in its report is impossible. I am saying only that it will take time, it will be difficult of accomplishment; and it may well produce conclusions at variance with present public hopes and expectations.

Furthermore, if it is the judgment of the Congress that the Department of Transportation should assume responsibility for such a study, then we must respectfully urge that the expenditure of additional funds must be authorized beyond those presently at our disposal. The Department must also be given the power to compel the appearance of witnesses and the production of relevant data and documents. Finally, we would advise the Committee that at least two years would be required for us to produce any meaningful and constructive study results.

In the meanwhile, we would respectfully direct the Committee's particular attention to one of the important statements made in the June 25 report of the Interstate Commerce Commission, where on page 54 it says, "The development of

a rail system adequate for future needs of the Nation can not be attained simply by preserving those trains which operate today; the service must be extensively modernized." In our judgment, the traveling public, the Post Office Department, and the Department of Defense have made the validity of that statement painfully clear. Preserving today's outmoded intercity railroad passenger service is and can be of little benefit to the public.

If there is to be intercity rail passenger service, then it must be improved. The wording of Section 2 of H.R. 18212 reinforces this point. In listing those matters to which a study should address itself, the only mention made of railroad passenger service appears in sub-paragraph (5) which directs the proposed study to consider, "The ability of improved railroad passenger service to meet these anticipated needs."

These statements support the position which the Department of Transportation takes that the time has not yet come to abandon the fundamental objectives of Section 13a of the Interstate Commerce Act set forth by the Congress in 1958: namely, that when the cost of providing intercity passenger service reaches a point where it is unreasonably high considering the public use of this service, the carrier's financial position, and the availability of alternative forms of transportation prompt, discontinuance should be permitted. Thus,

while the Department has posed no strong objections, and poses none now, to the various technical changes to Section 13a set forth in H. R. 18212, we do oppose the imposition of any explicit or implicit moratorium on the further discontinuance of existing services.

Thus, we must oppose that section of the present proposed legislation which would direct the Interstate Commerce Commission to require the continuance of any "last remaining passenger train...between a point in one state and to a point in another state...for one year from the date of its order" throughout a period of two years following the enactment of the legislation. In our judgment, this proviso constitutes an implicit moratorium on the discontinuance of something in excess of forty percent of the presently remaining intercity railroad passenger service. Since alternative forms of transportation are in virtually every case available to the would-be traveler between any and all points in this country, we can find no logic in the suggestion that the last unpatronized railroad passenger train between two points should be subjected to any different tests of public necessity than the first such unpatronized train.

In all of this, the Committee must be aware that the financial condition of our privately-owned railroads is a cause for increasing public alarm. When the Congress enacted

Section 13a of the Interstate Commerce Act in 1958, the railroads were suffering from depressed earnings, a deteriorating financial condition, and a shrinking market. The situation today is, if anything, less comforting than it was in 1958.

In 1958 the Class I railroads had net income of $602 million, down from the previous five-year average of $825 million. In 1967 their net income was $555 million, down from an average of $728 million for the previous five years. More importantly, net income as a percentage of operating revenues declined from an average of 8 per cent in the 1953-56 period to 7.3 per cent in the 1962-66 period, and to 5.3 per cent in 1967.

The railroads have experienced an accelerating rate of financial deterioration since the early 1950's. During this period the ratio of debt to total capitalization increased from approximately 50 per cent to 57 per cent. For a high fixed-cost industry which has demonstrated little or no growth and has steadily lost its share of the market, this high debt ratio is cause for concern. Moreover, the weakening financial condition of the railroads, coupled with the present historically high interest rates, will seriously handicap their ability to add new debt, or even to refund their existing debt.

The railroads' share of the intercity freight market has also been declining steadily. In 1958 the railroads' share in ton-miles was 46 per cent. In 1967 their share had

dropped to 42 per cent. The decline of the railroads' dollar share, however, has been much more dramatic. In 1958 the railroads' share of the United States intercity freight bill was approximately 32 per cent; by last year this figure had dropped to 24 per cent, and it is still going down.

I can only advise the Committee that if we want our railroads to continue doing their job for the public, then we have to start taking their circumstances and their problems seriously.

Everyone who has a particular interest in the problem of intercity passenger service should also be aware that the competitive squeeze which long since began pushing our railroads out of this business is now being felt by the railroads in virtually every developed country in the world. As highways improve, as disposable income and thus automobile ownership rise, and as commercial air service comes into its own, the railroad passenger train will lose out. It has happened in this country; it is very clearly beginning to happen, despite the high quality of rail service available, in all of the developed countries abroad! I might also point out here that virtually all railroads in the Western world run a fiscal deficit on their passenger operations. In fact, since the Dutch and Swiss national railways first went into the red in 1966, the only major railroads in the Western world which do not run an overall operating fiscal deficit are the privately-

owned, taxpaying railroads of the U. S. and Canada.

Mr. Chairman, that concludes my statement. I shall be most happy to answer any questions the Committee may have.

104.9

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
WASHINGTON, D. C. 20591

REMARKS PREPARED FOR DELIVERY BY A. SCHEFFER LANG, FEDERAL RAILROAD ADMINISTRATOR BEFORE THE SUBCOMMITTEE ON SURFACE TRANSPORTATION OF THE SENATE COMMITTEE ON COMMERCE, ROOM 5110, NEW SENATE OFFICE BUILDING, 9:00 A.M., TUESDAY, JULY 16, 1968, ON S. 3237

Mr. Chairman, Members of the Committee, I appreciate the opportunity to appear before you on the extension of the High Speed Ground Transportation Act (PL 89-220) proposed by S. 3237.

The bill would extend the Act for two years and establish June 30, 1971, as the expiration date of the Act. Other procedural amendments would take account of the establishment of the Department of Transportation and the transfer to it of elements previously in the Department of Commerce.

A more substantive change is the amendment to Section 7 which would clarify the authority to acquire necessary real property by purchase, lease, or grant and to construct, make repairs, or furnish necessary support facilities. This clarification is necessary in order for the Department to acquire a test site for the development of advanced ground transportation systems. The amendment would not change in any way the prohibition now in the Act against the Secretary's acquisition of any interest in any line of railroad.

The House Interstate and Foreign Commerce Committee in reporting favorably on H.R. 16024, the bill introduced in the House, concurs in this substantive change and the various technical changes and goes further to authorize the Secretary

6-26-68 #0446

7/16/68 S. 2

LANGAS68 07 16

00237
00237

of Transportation to ". . .contract for the construction of two suburban rail stations, one at Lanham, Maryland, and one at Woodbridge, New Jersey, without acquiring any property interests therein . . ." as ". . .furtherance of a demonstration program . . . ." The House bill also concurs in the 1971 expiration date and provides appropriation authorization of ". . . $16,200,000 for the fiscal year ending June 30, 1969; and $21,200,000 for the fiscal year ending June 30, 1970. The 1968 authorization is equal to our pending appropriation request for the next fiscal year and both Senate and House Appropriation Committees are awaiting enactment of the authorization before acting on the request. The fiscal year 1970 authorization is substantially below the amount of $36.5 million we consider necessary for fiscal year 1970 to carry out planned research and development in advanced systems and technology. Nevertheless, in the interest of expediting the business of the legislative session, we would concur in the reduced amount at this time. We would, therefore, be agreeable to Senate substitution of the House bill for S. 3237.

The proposed test facility is needed to carry research and development on new systems such as the tracked air cushion vehicle and the linear electric motor to a testing stage. For test operations at speeds on the order of 300 mph, we need a great deal of land and relative isolation to assure non-interference. We are seeking about 30,000 acres of land that is relatively flat and free of obstructions. We hope that it will be Government-owned property or property that can be made available to us at little or no cost.

The suburban stations are considered an integral part of the planned demonstrations to test public response to improvements in service and equipment. They are being located at junctions with major limited access highways, with ample parking provided to determine whether the urban, suburban and rural populations in the communities having access to those highways, will use the rail service for intermediate-distance travel.

The High Speed Ground Transportation Act was passed in 1965 with a sense of urgency that the demand for transportation in the urbanized intercity corridors, which have grown up about the Nation, will far exceed our present capability to handle

it. The purpose of the Act was to try, through research, development and demonstration, to stimulate alternative modes of transportation which could better handle high volumes of movement in densely populated regions.

Today there is an even greater sense of urgency. Travel volumes have increased at a greater rate than predicted and the period of time before we will completely run out of transportation capacity in the Northeast Corridor is being drastically shortened. The growth in air transportation has been particularly dramatic. Between 1962 and 1966, intercity air passenger miles in the United States nearly doubled, while intercity passenger miles by all modes increased by more than 17 percent.

In the Northeast Corridor the problem of congestion is extremely critical at several major airports. According to Federal Aviation Administration estimates, delay time at J. F. Kennedy, Newark, LaGuardia, Washington National, Boston, and Philadelphia airports in 1965 amounted to 49,000 hours. Estimates indicate that at three airports alone - Kennedy, LaGuardia and Newark - there will be an increase in delay time from 33,000 hours annually in 1966 to 133,000 hours in 1970 and the delays will become very much larger by 1975, if nothing is done to expand capacity.

Estimates by the Bureau of Public Roads indicate that highway travel on intercity routes in the Northeast Corridor will almost double between 1965 and 1985. Approximately $2½ billion will be needed just on the intercity portion of the Corridor highway system. The total cost to Federal, state and local authorities of all street and highway construction in the Northeast Corridor for the same 20-year period is estimated at more than $33 billion. These new facilities will have to be accommodated into what is already the most heavily developed region in the country. Fourteen percent of the Nation's total road mileage is concentrated on less than two percent of the land area.

As income levels go up, we anticipate that transportation demand will continue to expand at a very rapid rate. No doubt most of the cost of meeting this demand can be, and should be, imposed on the users of these services. In today's economically and technologically complex world, however, the direction which the development of new systems and the improvement of the old should take is not clear. Research and development, testing and demonstrations should be carried on in several directions until we begin to see clearly the most useful and productive path.

It is unrealistic to expect completely private sponsorship during this experimentation phase. The costs are too high and the risks are too great. Government must provide the seedbed and must stimulate and encourage involvement by private firms. This is essentially what this program has tried to do and, I believe, has done with a high degree of success. We estimate that over the three-year period, Federal appropriations of $52 million have been met by $75 to $100 million of expenditures and commitments by private firms.

The Office of High Speed Ground Transportation has direct responsibility for the Northeast Corridor Transportation Project, under the Secretary's general authority to carry out research and development in intercity transportation, and has responsibility for the research and development and demonstrations in high speed ground transportation under the Act of 1965. In carrying out its responsibilities, the Office of High Speed Ground Transportation has retained essentially a task force orientation to the problems of transportation in urbanized regions. Close integration and coordination has, therefore, been maintained between the Northeast Corridor Transportation Project and the research and development and demonstration activities pertaining to high speed ground transportation systems.

The High Speed Ground Transportation Act of 1965 authorized appropriations of $20 million for FY 66, $35 million for FY 67, and $35 million for FY 68 for research, development and demonstrations in high speed ground transportation and for the national transportation statistics program. Of the authorized $90 million, $52 million have been appropriated.

I should like to describe briefly what we have accomplished since the High Speed Ground Transportation Act was passed. The major categories of activity have been research and development and demonstrations.

Section 2 of the High Speed Ground Transportation Act authorizes the Secretary of Transportation ". . .to contract for demonstrations to determine the contributions that high speed ground transportation could make to more efficient and economical intercity transportation systems" The purpose of

demonstrations, carried out under the Act, is ". . . to measure and evaluate such factors as the public response to new equipment, higher speeds, variations in fares, improved comfort and convenience, and more frequent service." In connection with contracts for demonstrations under the section, the Secretary shall ". . . provide for financial participation by private industry to the maximum extent practicable."

Within this pattern of objectives, two rail passenger service demonstrations were set up for the Northeast Corridor. One was to operate between New York and Washington and the other between New York and Boston. A third demonstration of auto-on-train service between Washington, D.C., and Jacksonville, Florida, was planned and partly funded. The three demonstrations would help to determine the role that rail passenger service, based on generally contemporary technology, can play in future transportation. In both the New York - Washington and New York - Boston demonstrations substantial improvements in rail passenger service are to be made. Terminal to terminal times are to be reduced, new equipment is to be acquired, and roadbeds and stations are to be upgraded.

In carrying out the Washington - New York demonstration, the Department entered into a contract with the Pennsylvania Railroad--now Penn Central. Under the contract the railroad was to acquire a fleet of not less than 28 and not more than 50 new MU cars capable of sustained speeds of up to 150 mph. The railroad was to upgrade its roadbed to very high standards specifically set out in the contract; to build high level platforms at Wilmington, Baltimore, and Washington, D.C.; to retrain personnel to be utilized in the new service and to operate the new trains on schedules of not more than three hours between Washington and New York. The consideration to be paid to the Penn Central Railroad for the performance of the contract was $9.6 million. The Railroad was to bear all costs which, excluding the Government's contribution, were estimated at the time of the signing of the contract to be between $20 and $25 million. The contract also provided that the Department of Transportation would be able to collect data on passenger movement on board trains between New York and Washington prior to and during the demonstration.

The conduct of the demonstration between New York and Boston posed a different situation. There the New Haven Railroad has been in bankruptcy for seven years. The Department of Transportation had to take full responsibility for the conduct of the demonstration. Early in 1966 the Department contracted with the United Aircraft Corporation for the lease of two three-car turbine-powered trainsets for a two-year period at a cost of $1.7 million. The Department agreed to pay maintenance costs for the two years which would amount to $2.8 million. We estimate that operating and other costs will be $5 million. The total cost of the New York - Boston demonstration would be about $9.5 million, some of which may be returned through revenue sharing arrangements with the New Haven Railroad.

From the New York - Boston demonstration we expect to determine the prospective usefulness of equipment which can operate at a substantially higher speed than conventional equipment over curved roadbed. If the equipment is successful and attractive to the public, it may be an answer to short and intermediate rail passenger hauls in many areas of the country. It offers the prospect of substantially upgraded service at minimum cost.

Both the Washington - New York and New York - Boston demonstrations have been delayed beyond the starting times we originally hoped for. Very clearly we were unduly optimistic about the time that would be required for the design, building and testing of new equipment. In both cases the equipment is a substantial advance in the state of the art. United Aircraft TurboTrains are relying on turbine power for propulsion and have adopted an advanced suspension system. The cars for the Washington - New York demonstration, built by the Budd Company, are electronically the most complicated ever built. They will have a sustained-speed capability of 150 mph and will have automatic controls of speed, braking, and wheel slide. If the speed requirement of 150 mph had not been imposed, it is probable that the cars could have been built much more quickly. Without this capability, however, we would have precluded the possibility in the future of improved performance with a better roadbed.

Target dates for the start of the demonstration were set to convey the sense of urgency in the program. When it was apparent that the project would not meet them, Secretary Boyd called a meeting of the major industry participants in the program. He suggested that all the parties form a task force to identify and establish the priority of the unresolved technical problems. Where is priority of problems established? The task force identified these problems as follows:

1. Electronic maintainability;

2. Wheel thermal stress under specified deceleration when using air brakes alone;

3. Pantograph-catenary current collection stability at high speed during winter months, particularly under the remaining light wire; and

4. Acceptability of ride quality.

The task force found that many of the individual problems which delayed the demonstration had been identified by the contractors and that substantial resources were now being devoted to their resolution. The task force also found that, given the magnitude and complexity of the project, all concerned with the project--Government, railroad, car builder, and equipment supplier--were overly optimistic with respect to the planning and scheduling. The task force concluded that a reliable demonstration could be initiated within seven months given prompt action in the major problem areas.

The implementation of the task force report is now being expedited by a steering committee that the Secretary has appointed for the purpose.

It should be perfectly clearly understood that the hold-up in the delivery of equipment for these demonstrations has been completely without funding costs to the Government.

In completing this discussion of the demonstrations, I should like to commend the Penn Central Railroad and the rail supply firms involved in the construction of equipment

for the demonstrations. The rail industry and the rail equipment industry have clearly not enjoyed financial prosperity since the end of World War II. Yet the firms involved here have been willing to commit sizeable resources to research and development and to the improvement of their engineering and production capability. This has been done, moreover, with the prospect of only a relatively small Federal financial participation.

The research and development in high speed ground transportation has also proceeded more slowly than anticipated. Almost all of the reduction in appropriations has been taken by this activity. Nevertheless, in addition to specific advances in technology in several areas, the program has marked out the general directions for research and development in high-speed ground transportation for the future. Work has been done in systems engineering and in high-speed rail operation, new high-speed ground systems, tunneling, power pick-up, and guideway surveillance. Among the accomplishments of the program are the construction of four rail-research cars which have been operated under test conditions at speeds of 150 mph on upgraded roadbed; the design and current construction of a 2,500 horsepower linear electric motor; the development of designs for tracked air cushion vehicles; and breakthroughs in tunneling technology. These accomplishments will lead to the building of test vehicles, guideways, and propulsion systems and, ultimately, to commercial demonstrations.

The work in the high speed ground transportation program has been done with a total authorized staff for the first two years of 27. This was increased for fiscal year 1968 to 34.

I should like to request that a detailed "Statement in Explanation of Request for High Speed Ground Transportation Legislative Extension" prepared by the Office of High Speed Ground Transportation be entered into the record. This statement is intended to provide detailed information in review of the program and in explanation of work which remains to be done. It outlines the major areas in which the new authorizations which we have requested will be obligated.

I strongly urge upon this Committee the passage of S. 3237 with the amendments proposed.

# # #

Mr Cresson
HQ 610
104.12

STATEMENT OF
A. SCHEFFER LANG
ADMINISTRATOR, FEDERAL RAILROAD ADMINISTRATION
DEPARTMENT OF TRANSPORTATION
BEFORE THE
SUBCOMMITTEE ON SURFACE TRANSPORTATION
SENATE COMMITTEE ON COMMERCE
ON
RAILROAD PASSENGER SERVICE STUDY
JULY 24, 1968

Mr. Chairman, members of the Committee:

My name is A. Scheffer Lang. I am Administrator of the Federal Railroad Administration which is part of the Department of Transportation. On behalf of the Department, I wish to thank the Committee for this opportunity to present our views on the study of essential railroad passenger service by the Secretary of Transportation proposed by the Interstate Commerce Commission, and on related matters.

The facts and circumstances underlying the study and proposals to amend Section 13(a) of the Interstate Commerce Act are discussed in the report of the Interstate Commerce Commission transmitted to this Committee under date of June 25, 1968, a report which paints a dismal picture of the future for intercity rail passenger service. We can only agree with the Commission that if there is in fact a need for intercity rail passenger service, then we must identify that need more clearly and fashion a new and more positive public policy toward meeting it as soon as possible.

Accordingly, the Department of Transportation supports the Commission's recommendation for a thorough study of this problem to assist in the creation of such a policy. We think, moreover,

LANGAS680724 00240 7/24/68

that the general guidelines for such a study which have been suggested by the Commission in its report are good ones. In particular, we would emphasize the Commission's admonition that any study of this problem should consider the overall intercity passenger transportation requirements of the country and should look at intercity railroad passenger service in this larger context.

At the same time, we must advise the Committee that a thorough study of this problem will be neither easy to accomplish nor certain in its outcome. Over the past year we have devoted much thought to this problem and have satisfied ourselves that any such study will encounter substantial difficulties.

The extensive investigation of intercity railroad passenger service conducted by the Interstate Commerce Commission in 1959 (306 I.C.C. 417), and the exhaustive study of transportation problems conducted by your Committee which culminated in the publication in 1961 of the so-called Doyle Report concluded that by any usual tests the need for intercity railroad passenger service had largely disappeared.

Thus, any new study of this problem must develop some concept of public need different from that indicated by market preferences, or its conclusions will simply be a restatement of those already reached by the two studies just mentioned. It should be understood, moreover, that it will not be enough merely to develop some new means of measuring need; we must also find a

way to determine how much public or private money we are justified in spending to meet these extra-market needs. There are no previous studies which provide satisfactory answers for either of these problems.

Nor are these the only problems to be encountered in any thorough study of intercity passenger transportation. As this Committee is well aware, data on intercity passenger travel are at best fragmentary and incomplete. The information which we are collecting in connection with our Northeast Corridor Transportation Planning Study and our High Speed Ground Transportation Demonstration projects will constitute the first reasonably complete profile of intercity passenger travel yet compiled. Compiling complete data such as this for the country as a whole will require many more years and many millions of dollars beyond those funds now available for such purposes. Without data that describe completely the character of the demand for intercity travel, it is impossible to specify with precision the full spectrum of transportation services which ought ideally to be made available to the public. The study we are discussing here will have to be made without complete data.

I am not suggesting that a meaningful study of the kind proposed by the Interstate Commerce Commission in its report is impossible. I am saying only that it will take time, it

will be difficult of accomplishment; and it may well produce conclusions at variance with present public hopes and expectations.

Furthermore, if it is the judgment of the Congress that the Department of Transportation should assume responsibility for such a study, then we must respectfully urge that the expenditure of additional funds be authorized beyond those presently at our disposal. The Department must also be given the power to compel the appearance of witnesses and the production of relevant data and documents. In this connection, I want to assure the Committee that while we believe the subpoena power to be necessary, we would expect to use it with great discretion and only as a last resort. Finally, we would advise the Committee that at least two years would be required for us to produce any meaningful and constructive study results. We have drafted legislative language incorporating these changes which is attached as an Appendix to my statement and which we respectfully urge the Committee to adopt.

In the meanwhile, I should like to direct the Committee's particular attention to one of the important statements made in the June 25 report of the Interstate Commerce Commission, where on page 54 it says, "The development of a rail system adequate for future needs of the Nation can not be attained simply by preserving those trains which operate today; the service must be extensively modernized." In our judgment, the traveling public has made the validity of that statement regrettably clear.

The Department of Transportation believes that the time has not yet come to abandon the fundamental objectives of Section 13a of the Interstate Commerce Act set forth by the Congress in 1958: namely, that when the cost of providing intercity passenger service reaches a point where it is unreasonably high considering the public use of this service, the carrier's financial position, and the availability of alternative forms of transportation, prompt discontinuance should be permitted. Thus, while the Department has posed no strong objections, and poses none now, to the various technical changes to Section 13a set forth in S. 1175 (Committee Print No. 1), we would oppose the imposition of any explicit or implicit moratorium on the further discontinuance of existing services.

Therefore, we must oppose that section of the ICC's proposal which would require the continuance of any "last remaining passenger train...between a point in one state and to a point in another state...for one year from the date of its order," which requirement would be in force throughout a period of two years following the enactment of the legislation. In our judgment, this proviso could constitute an implicit moratorium on the discontinuance of something in excess of 40 percent of the presently remaining intercity railroad passenger service. Since alternative forms of transportation are in virtually every case available to the would-be

traveler between any and all points in this country, we can find no logic in the suggestion that the last unpatronized railroad passenger train between two points should be subjected to any different tests of public necessity than the first such unpatronized train.

This Committee is already aware that the financial condition of our privately-owned railroads is a cause for increasing concern. When the Congress enacted Section 13a of the Interstate Commerce Act in 1958, the railroads were suffering from depressed earnings, a deteriorating financial condition, and a shrinking market. The situation today, if anything, is less comforting than it was in 1958.

In 1958 the Class I railroads had net income of $602 million, down from a previous five-year average of $825 million. In 1967 their net income was $555 million, down from a previous five-year average of $728. It is also important to note that the industry's share of the intercity freight market has declined steadily throughout this period. In 1958 the railroads' share of the United States intercity freight bill was approximately 32 percent; by last year this figure had dropped to 24 percent, and it is still going down. Despite some modest increase in revenue ton-miles and the benefit of two recent freight-rate increases, moreover, net income for 1968 will still remain close to that of 1967.

In view of our Department's responsibility for the development of an efficient and economically viable transportation system, we can only be concerned about this situation. In fact, we cannot escape the conviction that, if the railroads are to continue doing their job for the public, they must begin to attack some of their own problems with a new sense of purpose and we in government must take their circumstances and their problems seriously.

It should be noted that virtually all the railroads in the Western world run a fiscal deficit on their passenger operations. This passenger deficit has in all cases been an important contributing factor in the deepening, overall financial problems of railroads everywhere. In fact, since the Dutch and Swiss national railways first went into the red in 1966, the only major railroads in the Western world which do not now run an overall fiscal deficit are the privately-owned, taxpaying railroads of the U.S. and Canada.

In summary, the Department poses no strong objections to the technical amendments to Section 13a embodied in S. 1175 (Committee Print No. 1) and recommended by the Interstate Commerce Commission. The Department does not favor that proviso in the Commission's proposed bill which would subject "last trains" to special criteria in a discontinuance proceeding. The Department would accept responsibility for a study of the

type proposed by the Commission, but urges additional funding for the study, as well as extension of the time period to two years and the right to subpoena witnesses and records.

That concludes my statement, Mr. Chairman. I would be pleased to answer any questions which the Committee may have.

A P P E N D I X

SECTION 2. The Secretary of Transportation, acting in co-operation with the Interstate Commerce Commission and other interested Federal agencies and departments, is authorized and directed to undertake and submi t, within two years after the date of enactment of this Act, a study of the existing and future potential for intercity railroad passenger service in the United States to the Committee on Commerce of the Senate and the Committee on Interstate and Foreign Commerce of the House of Representatives. In making this study, the Secretary shall consider, among other things:

(1) Existing resources of all types for meeting the Nation's present passenger transportation needs.

(2) Anticipated expansion of those resources by 1975 on the basis of current governmental or private activities (such as the interstate highway program, by Government, and auto production increased, by industry.)

(3) The Nation's expected passenger transportation needs, including business, private, and defense movements, in the years 1975 and 1985.

(4) The ability of the existing resources, or resources as expanded by current governmental or private programs, to meet these anticipated needs adequately, efficiently, economically, expeditiously, safely and comfortably, at least as far ahead as 1975.

(5) The ability of improved railroad passenger service to meet these anticipated needs.

(6) The proper role of the carriers and governmental bodies in developing the required quality and quantity of service, including methods of financing operations which are necessary but not economically viable.

SECTION 3. (a) For the purpose of carrying out the provisions of Section 2 of this Act the Secretary or on the authorization of the Secretary any officer or employee of the Department of Transportation, may hold such hearings, take such testimony, sit and act at such times and places, administer such oaths, and require, by subpena or otherwise, the attendance and testimony of such witnesses and the production of such books, papers, correspondence, memorandums, contracts, agreements, or other records as the Secretary, or such officer or employee deems advisable.

(b) In order to carry out the provisions of Section 2 of this Act, the Secretary or his duly authorized agent shall at all reasonable times have access to, and for the purposes of examination the right to copy, any documentary evidence of any corporation, business firm, institution, or individual having materials or information relevant to the study authorized by this joint resolution.

(c) The Secretary is authorized to require, by general or special orders, any corporation, business firm, or individual or any class of such corporation, firms, or individuals to file, in such form as the Secretary may prescribe, reports or answers in writing to specific questions relating to the study authorized by Section 2 of this Act. Such reports and answers shall be made under oath or otherwise, and shall be filed with the Secretary within such reasonable period as the Secretary may prescribe.

(d) Any of the district courts of the United States within the jurisdiction of which an inquiry is carried on may, in case of contumacy or refusal to obey a subpena or order of the Secretary or such officer or employee issued under subsection (a) or subsection (c) of this section, issue an order requiring compliance therewith; and any failure to obey such order of the court may be punished by such court as a contempt thereof.

(e) Witnesses summoned pursuant to this section shall be paid the same fees and mileage that are paid witnesses in the courts of the United States.

(f) Any information which is reported to or otherwise obtained by the Secretary or such officer or employee under this section and which contains or relates to a trade secret or other matter referred to in section 1905 of title 18 of the United States Code, shall not be disclosed except to other officers or employees of the Federal Government for their use in carrying out Section 2 of this Act. Nothing in the preceding sentence shall authorize the withholding of information by the Secretary (or any officer or employee under his control) from the duly authorized committees of the Congress.

SECTION 4. There are hereby authorized to be appropriated, without fiscal year limitation, such sums, not to exceed $2,000,000, as may be necessary to carry out the provisions of Section 2 of this Act.