

TESTIMONY OF GILBERT E. CARMICHAEL
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BEFORE THE
SUBCOMMITTEE ON TRANSPORTATION AND HAZARDOUS MATERIALS
OF THE
COMMITTEE ON ENERGY AND COMMERCE
UNITED STATES HOUSE OF REPRESENTATIVES
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Mr. Chairman and distinguished members of the Committee, it is my privilege to appear before the Subcommittee today to testify on behalf of the Department of Transportation on recent developments to bring high speed rail service to this country.

It was not long ago that advocates of high speed rail were characterized, at best, as impractical dreamers. But the last few years -- indeed the last few months -- have seen rapid changes in how the public and the political decision makers view the options available to address this Nation's transportation problems. Passenger rail service in general and high speed rail, in particular, is now high on many people's agenda and, with increasing frequency, improved rail passenger service is viewed as the transportation investment of choice.

Many factors have contributed to this significant change in how this country will plan for its transportation future. For years

progressively more congested, and that this trend is likely to continue for the foreseeable future. In the face of the expense and difficulty of expanding or building new airports or highways in congested intercity corridors, the Department recognized that this country must look to other forms of transportation, including high speed rail passenger service, to meet at least part of our transportation needs.

The National Energy Strategy also provided a policy basis for support of high speed rail by recognizing these technologies as a potentially important contributors to future reductions in the dependence of the transportation sector on oil.

The Statement of National Transportation Policy was followed last year by the Administration's fiscal year 1992 budget request. In introducing the Department's proposed budget (which included, for the first time in several years, funding for Amtrak), Secretary Skinner expanded upon the policy statement by recognizing that rail passenger service is an essential part of an integrated transportation system.

Further putting these new principles of transportation policy into action, the Department's proposed reauthorization of the Surface Transportation Act for the first time would permit, under certain circumstances, funds previously restricted for highways to be used for improvements to highway facilities to permit them

SAFETY

I stated earlier that state initiatives to develop high speed rail solutions to state transportation problems have been one of the factors that led to new directions in Federal transportation policy. Several states have developed detailed processes to award franchises for the development of high speed rail systems. The most advanced today are a proposed demonstration of the German-developed Transrapid maglev technology near Orlando, Florida, and the proposed development of a high speed "steel wheel" system using the French-developed TGV technology for the "Texas Triangle" linking Dallas-Fort Worth, Houston and San Antonio. These projects are actively being developed. Other proposals, including intercity high speed rail systems in Ohio, California, and Nevada are also progressing, and they too would likely use technologies that can largely be bought "off the shelf."

A key to the long-term success of high speed rail in this country will be whether we can duplicate here the incredible safety record of high speed rail overseas. In Japan, the Shinkansen, the so-called bullet train, has been in operation over 27 years, with total ridership in the billions of passengers, with no fatalities. The French TGV system, which has now been in operation for 9 years, has also been fatality free in its high speed service.

systems in this country to assess the safety considerations incorporated into the design of these systems and to identify the issues and information necessary to develop the appropriate safety regulatory structure for high speed rail.

With regard to the TGV system proposed for Texas, the French manufacturers of TGV and the consortium awarded the high speed rail franchise in Texas have assembled teams with which FRA is meeting to identify those areas where the system proposed for Texas would not be consistent with existing FRA regulations. The TGV system was developed under European standards that differ from the standards and practices of this country. This is not to say these systems are less safe, but persons proposing to develop systems such as the TGV will have to demonstrate that these systems achieve the necessary level of safety. In July of this year, we published our initial review of TGV safety related issues.

Maglev must be treated differently since it represents further evolution of railroad technology. FRA, the German Government, and the manufacturer are undertaking a detailed review of the design of the Transrapid system. We published our preliminary safety review of this system in April of 1991. As we speak here today, a team of safety experts from FRA is in Germany arranging for FRA observation of the process through which the German

More recently, FRA has continued to help develop the factual information necessary for informed policy decisions in this area.

In line with FRA's policy role, we have also assumed the responsibility for the preparation of the environmental impact statements on all high speed rail projects. In these efforts, FRA is breaking new ground. As an example, electro-magnetic field effects are of growing concern throughout modern society; however, little is known about this issue. Not only is FRA funding research into the electro-magnetic field levels in high speed rail vehicles and potential need for shielding, we are funding basic research into biological responses to alterations in electro-magnetic fields. FRA's research program will have benefits that transcend transportation, and is being coordinated with the Environmental Protection Agency and the Department of Energy.

Another area about which I am particularly concerned is intermodal connectivity. How do we integrate the evolving high speed rail systems with the remainder of the Nation's transportation system? I believe that this intermodalism is one of the most exciting challenges of our transportation future. Seamless connections at intermodal terminals is an answer. In support of this, Department has formed an intermodal terminal committee and we are funding research and demonstrations into how to develop effective intermodal connections.

speed rail options through the Volpe National Transportation Systems Center and the Department of Energy's Argonne National Laboratory. The purpose of these efforts goes straight to our primary mission of determining the potential for maglev. Our efforts will also provide information on the nature of the maglev system that is most likely to meet U.S. transportation needs.

We have awarded 27 contracts for the evaluation of specific technological components and issues associated with the development of maglev systems. The studies funded under these contracts will explore innovative approaches to improving performance and reducing costs and seek to determine areas where U.S. expertise in science and industry can lead to major advancements in maglev technology.

And, within a few days, we will be awarding several contracts that will define the conceptual maglev systems that can meet the U.S. transportation needs and offer the most promise of an advanced maglev system that can be developed and manufactured in this country.

Our major NMI activities are now up and running, and we expect that our report and recommendations will be ready in early 1993. I recognize that this represents a little slippage from the initial NMI schedule of completion in late 1992. Everyone involved in planning the NMI recognized that it would be an

carrier of passengers in this market. This is a clear indication that advanced high speed rail systems in this country can be competitive with air for trips of moderate length.

The overwhelming success of Metroliner service has led to calls for improved Amtrak service in the NEC, in particular, between New York and Boston where trip times are substantially longer than between New York and Washington. Last year, Secretary Skinner directed FRA and the Urban Mass Transportation Administration to evaluate of potential system improvements to the NEC north of New York, including identifying improvements necessary to providing a Boston to New York trip time of 3 hours or better.

The NEC study, which was conducted for FRA and UMTA by the Volpe National Transportation Systems Center, identified the costs and the benefits that could be expected from specific levels of improvements to the NEC in this area. The study is still in draft form and under review in the Department. As a consequence, I cannot discuss its specific contents. But I will discuss in general terms the factual results of this study.

First, a significant amount of work will be required on the north-end of the NEC to maintain safe operations at current levels of service. As an example, we have identified over \$350 million in replacement or repairs to bridges that have exceeded

initial costs associated with electrification and FRA has initiated preparation of the environmental impact statement for this improvement.

It is apparent that investment in improvements to the north-end of the NEC have the potential to result in substantial benefits to both intercity passengers and commuters. I look forward to working with the Subcommittee in addressing the future of rail transportation in this area.

VIEWS ON PENDING LEGISLATION

As your letter inviting me to testify notes, many bills have been introduced that address issues associated with high speed rail. The Administration has not taken formal positions on most of these bills and, in fact, they are too numerous to address in detail in this statement. Instead, I would like to discuss the basic issues that are raised by these bills in the context of my views on the appropriate role for the Federal Government in supporting the development of high speed rail in the U.S.

DEVELOPMENT OF HIGH SPEED RAIL TRANSPORTATION POLICY

A number of bills would direct FRA to develop a National High Speed Transportation Policy. I believe that such a policy is important but that it cannot be developed in isolation. It must

the Department in such an undertaking. Some proposals that I have seen involve very strict schedules with major program decisions being made early in the process. I fear that such proposals would act to stifle innovation and force potential maglev developers to rely upon existing, proven technology, thereby limiting the opportunity for us to develop a significantly better system that would become the system of choice for high speed systems throughout the world.

FUNDING THE DEVELOPMENT OF HIGH SPEED RAIL SYSTEMS

A number of legislative proposals address different approaches to funding the construction of high speed rail and maglev systems including one in the context of the reauthorization of the Surface Transportation Act. Recently, the Department conveyed to the Committee on Public Works and Transportation its position on the proposed use for high speed rail of funds provided under the surface transportation legislation. The Department believes that public-private partnerships offer the best opportunity to develop cost effective high speed systems that are responsive to the needs of passengers. As a consequence, we want to encourage continued private sector leadership in high speed rail projects and towards this goal, the Department believes that the large majority of capital investment in these projects should continue to come from other than Federal sources.

remarks and I will be happy to answer the questions of the
Subcommittee.