

OFFICE OF HIGH SPEED GROUND TRANSPORTATION

A. Program authority

The High Speed Ground Transportation Act of 1965 (Public Law 89-220) authorized the Secretary to "undertake research and development in high-speed ground transportation" and "to contract for demonstrations to determine the contributions that high-speed ground transportation could make to more efficient and economical intercity transportation systems." A proposal to extend the act is now pending with Congress.

The northeast corridor transportation project was formalized as a distinct entity by the Secretary of Commerce in September 1964 as the result of an earlier interagency task force proposal and preliminary studies which pointed out the need for comprehensive planning to meet the transportation needs of the corridor through 1980. The project continues to be funded through the transportation research appropriation. When the Office of High Speed Ground Transportation was established to implement the High Speed Ground Transportation Act of 1965, the northeast corridor project was placed within that Office. With the establishment of the Department of Transportation, the Office of High Speed Ground Transportation was placed within the Federal Railroad Administration.

B. Program benefits

The Northeast corridor transportation project represents the first major effort by the Federal Government to establish procedures whereby regional transportation facility proposals can be considered on a comprehensive and systematic basis. The specific objective of this project is to determine intercity transportation facility requirements for the Northeast corridor through 1980 and beyond.

The project will consider by a modeling and simulation effort the alternative transportation patterns which could be brought into being in the corridor during the next 25 years. Each of these patterns will be analyzed to determine its benefits, direct and indirect, and the resources which it requires. The existing system of transportation in the corridor will be the starting point in the consideration of alternatives. The alternatives, fully described in terms of benefits, costs, and other considerations, will be transmitted to the Secretary of Transportation.

Procedures have been formulated to provide intermediate and long-run forecasts of the volumes of freight and passenger traffic to be carried by all transportation systems, not only those now in use, but also those offering improved services such as the New York-Washington rail demonstration and new, advanced systems such as vertical takeoff and landing aircraft and tracked air cushion vehicles.

The project has developed a system of models for analyzing and evaluating regional transportation investments. Although existing data and techniques have been used wherever possible, significant innovations in technique have been required for much of the analysis. A network model has been developed and is being used to simulate the flow of traffic throughout the region. Estimates of user and operator costs and benefits can be derived for the alternative systems on the basis of these computer simulations.

Forecasts of population, income, and economic activity in the corridor and for three subareas of the corridor, necessary for estimating transportation demands, have been made.

Systems engineering and cost analysis work on several proposed systems for the corridor have been completed and will make it possible to use realistic estimates of cost in the exercise of the model structures. Preliminary runs of the network simulation, demand models, and regional impact models are now being started.

The high-speed ground transportation research and development program is focused on the future improvement of transportation in urbanized regions. It is particularly concerned with the northeast corridor of the United States, because the problems of slow movement and congested facilities are found there today in their most aggravated state. In addition, information which we have developed on the need for transportation facilities in the northeast corridor shows unmistakably that capacity requirements there will have to double in less than the next two decades. This means that even if systems performance does not improve at all in the next 20 years, \$5 to \$6 billion of public money will still be spent on new intercity facilities.

The specific objectives of the high-speed ground transportation research and development are: