

6. Would you describe the principal operations that are involved in producing this output?

Most of the modeling and research and the demonstrations are under contract with private R. & D. firms, the railroads, university research centers, and other Government agencies. In-house operations consist of planning, contract review and control, systems analysis, determination of new or changed research program directions, coordination of the demonstrations, data analysis, and development of interest by private industry in investing funds and research for the improvement of high speed ground transportation.

7. How many employees are involved in the program and in what general type of employment categories do they fall?

Fifty-six permanent employees are authorized. About a dozen individual consultants are on the roll primarily on an intermittent basis. Major professional fields are: Engineering, economics, operations research, transportation, inter-governmental relations and statistics.

8. What is the grade structure and how many super grades—quota and non-quota—are involved?

GS-17	1
GS-16	3
GS-15	15
GS-14	14
GS-13 and below	23
Total	56

¹ Quota.

² 1 quota, 2 nonquota.

9. What capital equipment, such as ADP, if any, do you rely upon to fulfill this program?

Four rail research cars with full instrumentation, which measure over 150 variables while in motion, are used extensively. A modest IBM data processing system is used on a rental basis for analyzing trip information in regard to the demonstrations.

Research firms and other Government agencies use their equipment in fulfilling contracts and agreements. The Penn Central Railroad is obtaining 50 MU cars for the New York to Washington, D.C., demonstration. Two turbine trains are being leased from United Aircraft Corp. for use on the Boston-New York demonstration.

10. Do you expect the expenditures or the benefits of the program to grow appreciably in the future?

Emphasis will continue to shift from railroad R. & D. to unconventional systems R. & D. and advanced technology. As R. & D. activity progresses and technological feasibility is determined, the knowledge gained can be used to design prototype hardware for full-scale testing. This will involve the acquisition of a suitable site and construction of a facility to develop and test advanced systems such as the tube vehicle and tracked air cushion vehicle and the application of the linear electric motor.

As technology advances it may become desirable to conduct demonstrations using new transportation systems in areas where market analyses indicate a fair test of public response.

The refinement and implementation of the Northeast corridor transportation planning capability will produce increasing benefits but at about the present level of expenditure.

11. At what level are the personnel responsible for the various parts of the program coordinated to determine if the program as a whole is being efficiently carried out?

Continual coordination at office, division and contractor level is performed as a basic function of the Office of High Speed Ground Transportation.

12. Is there a continual program review within the agency, other than the annual budgetary review, to determine more effective and efficient ways to achieve these program objectives?

Yes.

13. To your knowledge, does this program duplicate or parallel work being done by any other agency?

No, nor is the program duplicated by State, local, or private organizations. Cooperative projects are planned or underway with NASA in air cushion research.