

Log R 17 Not 627 Per R-71-13 & 14

UNITED STATES OF AMERICA  
NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, D.C.

ISSUED: June 10, 1971

Adopted by the NATIONAL TRANSPORTATION SAFETY BOARD  
at its office in Washington, D. C.  
on the 27th day of May 1971

-----  
FORWARDED TO: )  
Honorable John A. Volpe )  
Secretary of Transportation )  
400 Seventh Street, S. W. )  
Washington, D. C. 20590 )  
-----

SAFETY RECOMMENDATIONS R-71-13 & 14

Research programs to promote railroad and rail transit safety and efficiency are expected to accelerate in volume and diversity in the near future. The National Transportation Safety Board has called attention to the voids in rail research in various accident reports and special studies. The Safety Board also recommended legislative action to promote rail safety, and in this role, the Board urged a strong research component in the Railroad Safety Act. The Congress has recognized this need and has authorized research programs through the Railroad Safety Act, the Urban Mass Transportation Assistance Acts, and the High Speed Ground Transportation Acts. The ASTRO report, prepared by a railroad industry group, endorses stepped-up research programs, as well as increased governmental participation,

Accelerated rail research also is under way with the backing of public and private interests. The work now in progress will further the understanding of basic relationships, and past research results must be made more easily available.

Rail research is accomplished by many different organizations. Within the Department of Transportation (DOT), rail research activities are conducted by the Office of the Secretary, the Federal Railroad Administration (FRA), and the Urban Mass Transportation Administration. Other Federal agencies, both within DOT and in other departments, have conducted research that readily can be related to rail requirements. In addition, trade organizations, such as the Association of American Railroads, the Railway Progress Institute, the American Transit Association, and the Institute for Rapid Transit, are involved in research activities. Professional

organizations, individual railroads, suppliers, and manufacturers, as well as foreign sources, contribute to the entire knowledge spectrum. Your recent memorandum-of-understanding with six countries will further the accessibility to overseas research efforts.

Now, however, there is no single source for obtaining easy access to results of all of the various research activities that have been accomplished and those in progress.

The FRA and the DOT are making progress in other information areas. We have noted in the FRA's "Program Proposals for Fiscal Year 1972" plans for the systematic accumulation of accident information, grade-crossing data, and the requirements for rail networks, services, and regulations.

We are aware that the DOT has sponsored the development of a research information center for all transportation modes as a group (TRIS-I), an information center for transportation noise research (TNRIS), and has cooperated in supporting an information center for highway research (HRIS). The Department of Commerce similarly has sponsored the development of a maritime research information service (MRIS). All of these services are provided by the National Academy of Sciences. We also understand that a proposal for the establishment of a similar service for railroad research was submitted to FRA in early 1970, but that funding limitations have forestalled active plans for the implementation of such a program.

The Safety Board believes that the establishment of a railroad research information service warrants priority consideration. A thorough knowledge of the status of research is necessary to identify and solve current and future transportation safety problems.

A prime example of the need for such a center involves the American Railway Engineering Association (AREA). This organization comprises the nucleus of American and Canadian railroad engineering expertise. Through the years, the results of research and studies by this organization have been compiled and presented in "Proceedings" form. A great deal of work was accomplished in the years prior to 1940 when times were prosperous for the railroads. Yet, it is difficult to obtain this information because there is no consolidated index of the subject matter covered. To find all sources of a subject, it is necessary to review the individual 39 volumes of proceedings published before 1940. Because railroad technology

changes slowly, much of this work is still useful. This work will be lost to all, except the very persistent, unless a consolidated index is prepared. AREA has indicated that there are no current plans for accomplishing this indexing because of a lack of funds. This means that some previous research may be duplicated unknowingly.

In 1970 in anticipation of the passage of the Railroad Safety Act, FRA accumulated information to facilitate the development of meaningful, enforceable regulations. This collection process involved the solicitation of information from industry, labor, state, and foreign sources. It was necessary to use college students to search engineering and governmental documents, including Library of Congress records. A centralized information center would have simplified the entire effort, and also ensured more comprehensive technical coverage. In 10 years' time, a repeat performance of this effort undoubtedly will be necessary unless the required information can be compiled centrally and systematically.

The Safety Board is of the opinion that the rational use of railroad and rail transit safety research resources requires the establishment of a railroad research information service. We believe that the benefits would include the following:

- (1) The minimization of costly duplication of research efforts.
- (2) The promotion of effective and timely implementation of available research data, including accident data.
- (3) The furtherance of cooperative research efforts between public and private agencies.
- (4) Evaluation and greater use of completed research projects.
- (5) The identification of experienced research agencies and firms.
- (6) Assistance in determining research goals and priorities.

To realize these benefits, the Safety Board recommends that:

- (1) The Department of Transportation take the necessary action for the timely establishment of a railroad research information service to identify effectively the status of railroad and rail transit research, and provide for access to research results. The cooperation and advice of the Association of American Railroads, the American Transit Association, the Institute for Rapid Transit, the Railway Progress Institute, and other

technical societies which have been developing advance technology in all modes of transportation, should be most helpful in this matter.

- (2) The Department of Transportation, in cooperation with the American Railway Engineering Association, initiate procedures for indexing of AREA Proceedings.

The Safety Board will be pleased to have further consultation with your Department concerning these recommendations.

This recommendation will be released to the public on the issue date shown above. No public dissemination of the contents of this document should be made prior to that date.

Reed, Chairman, Laurel, McAdams, and Thayer, Members, concurred in the above recommendations. Burgess, Member, was absent, not voting.



By: John H. Reed  
Chairman