

V. RECOMMENDATIONS

1. The Safety Board recommends that the States not now having a requirement that the door of a school bus be opened for a sufficiently long period while stopped to allow the whistle or horn of a train to be heard at unprotected railroad grade crossings, consider establishing such requirement. (H-68-7)

2. The Safety Board again recommends to the Federal Highway Administration and the Federal Railroad Administration that they study the questionable audibility of external sound signals within motor vehicles and to work toward creating a unified system of warnings and reliable reception which could be made effective through Federal regulations or State laws. A similar recommendation was made on January 15, 1968, in the Board's report of a grade-crossing accident which occurred near Sacramento, California. (H-68-8)

3. The Safety Board recommends that the Federal Highway Administration consider the need for requirements for structural strength of school bus bodies in connection with its study of desirable standards for protection of school bus occupants. In particular, the Board recommends that program A.1.1.4 of the National Highway Safety Bureau, titled "Design, Fabrication, and Test of a Safe School Bus Interior," be expanded in scope to include consideration of structural integrity and intrusion into the school bus interior. (H-68-9)

4. The Safety Board recommends that criteria for school bus operating safety of the Federal Highway Administration, States, and local school governing bodies include school bus routing to avoid grade crossings whenever possible. (H-68-10)

5. The Safety Board recommends that when it is absolutely necessary that school buses operate over unprotected grade crossings, provisions should be made for a responsible individual, other than the driver, to alight and determine that no train is approaching, and to signal the driver to proceed over the crossing. (H-68-11)

6. The Safety Board recommends that the Federal Highway Administration establish a vehicle safety standard to protect driver vision against external sun glare. (H-68-12)

7. The Safety Board recommends that the Federal Railroad Administration, under its authority to regulate railroad brakes, study the existing state of the art of railroad passenger and freight brake systems, and issue descriptive reports of the capabilities of such systems to efficiently stop trains in an emergency. (H-68-13)

8. The Safety Board recommends that the National Education Association, the National Professional Driver Education Association, and the Supervisors of Driver Training of the Boards of Education of the several States, review their driver training programs to insure that, in the normal course of driver instruction for all types of drivers, specific attention be paid to the visual and perceptual task of searching a location of possible hazard to ascertain that the hazard is not present. (H-68-14)

9. The Safety Board recommends that the American Association of Motor Vehicle Administrators place greater emphasis on proper grade crossing procedures during the examination process for drivers' licenses applicants. (H-68-15)

10. The Safety Board recommends that the Federal Railroad Administration study the visual effectiveness of the white, fixed, sealed-beam headlights on locomotives in contrast with the bright daylight as compared with an oscillating or gyrating headlight unit, a flashing strobe light or other high intensity-type light, possibly of a more contrasting color. (H-68-16)

11. The Safety Board recommends that the Office of High Speed Ground Transportation, the Association of American Railroads, railroads operating in the Northeast Corridor, and States having safety regulatory authority over railroads, consider the implications of this accident analysis for logical and necessary train operating speed reductions under restricted visibility wherever tracks cross unprotected grade crossings. The time needed by motor vehicles to cross tracks requires that drivers be able to detect the train at a considerable distance in order to be certain of crossing safely. This distance, as illustrated by this case and others, is already beyond the range of typical present-day train horns when the actual conditions under which the horn is to be heard are considered. Conditions which limit audibility at a distance, including enclosed vehicle passenger compartments, local vehicle noises, and restricted use of horns or bells, are now found so frequently as to be a normally anticipated

situation. As train speeds rise, persons crossing a grade crossing must rely increasingly on ability to see approaching trains in order to determine that it is safe to proceed. (H-68-17)

BY THE NATIONAL TRANSPORTATION SAFETY BOARD:

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Member

/s/ JOHN H. REED
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