

was that the busdriver probably failed to stay awake and steer the bus, which permitted the bus to encounter the median, which, in turn, resulted in loss of vehicle control and in overturn of the bus on a guardrail inadequate to resist a shallow-angle impact. Contributing to the fatalities and injuries was the absence of passenger restraints, which permitted the tumbling and ejection of passengers. Ejections were contributed to by the undesired opening of side windows subjected to rollover-induced stresses.

surveillance over the performance of bus side windows in rollover crashes involving those buses which are required to meet the provisions of Section 393.61 of the Motor Carrier Safety Regulations, effective July 1, 1973, to determine as soon as possible whether these provisions will produce the degree of window retention contemplated in the Regulations and still permit effective escape of occupants via the side windows. (Recommendation No. H-73-6)

**VI. RECOMMENDATIONS**

The National Transportation Safety Board recommends that:

1. The Bureau of Motor Carrier Safety of the Federal Highway Administration assign high priority to a study of practical methods and means to prevent or to minimize dozing at the wheel by drivers of carriers in interstate commerce, toward the end that appropriate rule-making will follow. (Recommendation No. H-73-5)

3. The National Highway Traffic Safety Administration and the Bureau of Motor Carrier Safety, in accordance with recommendations made by the Board in several prior accident reports, take immediate action toward requiring the availability of seat restraints to passengers of buses in interstate commerce. First attention should be given to restraints in buses of new manufacture. (Recommendation No. H-73-7)

2. The Bureau of Motor Carrier Safety of the Federal Highway Administration maintain close

4. The Federal Highway Administration study and develop by testing a system of ratings which will describe the intended capacity of highway guardrails to resist impacts without adverse side effects. Such a system should permit ratings for most vehicle types and for varieties of vehicle collision speeds and aspects. (Recommendation No. H-73-8)

BY THE NATIONAL TRANSPORTATION SAFETY BOARD

/s/ JOHN H. REED  
Chairman

/s/ FRANCIS H. McADAMS  
Member

/s/ LOUIS M. THAYER  
Member

/s/ ISABEL A. BURGESS  
Member

/s/ WILLIAM R. HALEY  
Member

February 22, 1973