

Lessons Learned from Accident Investigations

Motorcoach Occupant Protection Systems Help Save Lives, Reduce Injuries

A motorcoach crash on a rain-soaked interstate highway in Texas that claimed seven lives has prompted the National Transportation Safety Board (NTSB) to again stress to highway officials and motorcoach operators the importance of keeping passengers within their seating compartments during collisions to prevent serious injuries and deaths.

The need for better occupant protection systems was reinforced when the NTSB recently released a final report on an accident in Hewitt, Texas. A motorcoach, traveling on Interstate 35, ran off the road, crossed the median and collided with a van traveling in the oncoming lane. Heavy rain, fog, and haze in the area had reduced visibility at the time of the accident.

More than five years ago, the NTSB urged the National Highway Traffic Safety Administration (NHTSA) to develop motorcoach passenger protection standards to lessen the impact of front, side and rear impact collisions and rollovers. Those standards must be followed by requirements that newly manufactured motorcoaches have crash protection standards that keep passengers within the seating compartment during crashes, the NTSB emphasized. NHTSA has told the NTSB it is continuing its research.

“We are saddened and frustrated when the NTSB investigates accidents only to find that people have been severely injured or died because our recommendations had not been implemented,” said NTSB Acting Chairman Mark V. Rosenker. “This Texas accident is another tragic example.”

In the Hewitt accident, as the motorcoach driver approached the crest of a hill, he noticed that traffic was stopping for an accident up ahead. The driver began to brake and move from the right lane to the left lane to avoid the stopped cars, but seeing another car moving into the left lane at the same time, the driver was forced to brake hard. The rear of the bus skidded and the driver lost control. Five motorcoach passengers, the van driver and one van passenger were killed in the accident. Eight motorcoach passengers and one van passenger were seriously injured.

NTSB investigators concluded that motorcoach passengers likely sustained their injuries from being thrown into other passenger seats, worn headrests, and into windows when the motorcoach crossed the highway median, continued into the opposite lanes, and rolled over. Passengers found under the motorcoach had been thrown against windows that shattered and broke; the passengers were then ejected when the motorcoach overturned.

The NTSB also concluded that survivable space still remained within the passenger compartment after the accident. Had passengers been confined in their seating areas, their exposure to injury-causing impacts and ejection would have been reduced, and they may not have sustained such serious, or fatal, injuries due to blunt force trauma, the report said.

In addition, the report said, headrests on the aisle seats, which no longer had interior padding, created another possible injury-causing mechanism inside the motorcoach for passengers who were not ejected.

Numerous other safety issues were raised by the Hewitt accident, including sight distance and speed as they relate to roadway design, the need to better identify areas with a high risk of wet weather accidents and implement roadway improvements, road design and speed limits, tire tread depths and roadway friction requirements, and motor carrier oversight.

For a complete copy of the accident report, visit the NTSB Web site at www.nts.gov.