



National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: December 14, 2015

In reply refer to: H-15-40;
H-99-54, H-10-3, -7, -14,
and -15 (Reiterations)

The Honorable Mark R. Rosekind
Administrator
National Highway Traffic Safety Administration
Washington, DC 20590

On November 17, 2015, the National Transportation Safety Board (NTSB) adopted its report concerning the September 26, 2014, crash in which a Peterbilt truck-tractor in combination with a Great Dane semitrailer, operated by Quickway Transportation Inc., collided with a Champion Defender 32-passenger medium-size bus on Interstate 35, near Davis, Oklahoma.¹ The truck-tractor departed the roadway, traveled more than 1,100 feet across the median without evidence of braking or steering, entered the southbound lanes of traffic, and collided with the bus—which was transporting 15 members of the North Central Texas College softball team. As a result of the crash, four passengers on the bus were fully or partially ejected and died, and both drivers and the remaining passengers were injured. Additional information about this crash and the resulting recommendations may be found at our website, www.nts.gov, under report number NTSB/HAR-15/03.

As a result of this investigation, we issued seven new recommendations, including two to the Federal Motor Carrier Safety Administration; one to the Federal Highway Administration (FHWA); one to the 50 states, the District of Columbia, and Puerto Rico; one to five motor carrier industry stakeholders; one to the American Association of Community Colleges; and the following recommendation to the National Highway Traffic Safety Administration (NHTSA):

H-15-40

Develop, and require compliance with, a side-impact protection standard for all newly manufactured medium-size buses, regardless of weight.

¹ See *Truck-Tractor Semitrailer Median Crossover Collision With Medium-Size Bus on Interstate 35, Davis, Oklahoma,, September 26, 2014*, Highway Accident Report NTSB/HAR-15/03 (Washington, DC: National Transportation Safety Board, 2015).

The NTSB also reiterated the following five previously issued recommendations to NHTSA:

H-99-54

Develop and implement, in cooperation with other Government agencies and industry, standards for on-board recording of bus crash data that address, at a minimum, parameters to be recorded, data sampling rates, duration of recording, interface configurations, data storage format, incorporation of fleet management tools, fluid immersion survivability, impact shock survivability, crush and penetration survivability, fire survivability, independent power supply, and ability to accommodate future requirements and technological advances.

H-10-3

In your rulemaking to improve motorcoach roof strength, occupant protection, and window glazing standards, include all buses with a gross vehicle weight rating above 10,000 pounds, other than school buses.

H-10-7

Require that all buses above 10,000 pounds gross vehicle weight rating be equipped with on-board recording systems that: (1) record vehicle parameters, including, at minimum, lateral acceleration, longitudinal acceleration, vertical acceleration, heading, vehicle speed, engine speed, driver's seat belt status, braking input, steering input, gear selection, turn signal status (left/right), brake light status (on/off), head/tail light status (on/off), passenger door status (open/closed), emergency door status (open/closed), hazard light status (on/off), brake system status (normal/warning), and flashing red light status (on/off; school buses only); (2) record status of additional seat belts, airbag deployment criteria, airbag deployment time, and airbag deployment energy; (3) record data at a sampling rate sufficient to define vehicle dynamics and be capable of preserving data in the event of a vehicle crash or an electrical power loss; and (4) are mounted to the bus body, not the chassis, to ensure recording of the necessary data to define bus body motion.

H-10-14

Develop and implement minimum performance standards for event data recorders for trucks with gross vehicle weight ratings over 10,000 pounds that address, at a minimum, the following elements: data parameters to be recorded; data sampling rates; duration of recorded event; standardized or universal data imaging interface; data storage format; and device and data survivability for crush, impact, fluid exposure and immersion, and thermal exposure. The standards should also require that the event data recorder be capable of capturing and preserving data in the case of a power interruption or loss, and of accommodating future requirements and technological advances, such as flashable and/or reprogrammable operating system software and/or firmware updates.

H-10-15

After establishing performance standards for event data recorders for trucks with gross vehicle weight ratings over 10,000 pounds, require that all such vehicles be equipped with event data recorders meeting the standards.

As a result of this investigation, we also reiterated two previously issued recommendations each to the FHWA and the American Association of State Highway and Transportation Officials. In addition, we superseded one previously issued recommendation to the governors and legislatures of the 50 states, the US Territories, and the District of Columbia.

These safety recommendations are derived from the NTSB's investigation and are consistent with the evidence we found and the analysis we performed. Chairman HART, Vice Chairman DINH-ZARR, and Members SUMWALT and WEENER concurred in these recommendations.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 90 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendations by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Chairman