School Districts Asked to Re-Evaluate Student Loading, Unloading Safety

WASHINGTON, D.C. (Sept. 1, 2009) — The National Transportation Safety Board recommended that NHTSA require brake transmission shift interlock devices and electronic data recorders on all light- and heavy-duty vehicles to prevent and learn from the phenomenon of brake pedal misapplication, which was found to be the cause of at least two high-profile school bus crashes in recent years.

Known as BTSIs, brake transmission shift interlocks require drivers to step on the brake pedal before the vehicle transmission can be shifted from park into drive mode. Similar technology is available on school buses but does not come standard as federal requirements do not currently exist. NTSB called on NHTSA to begin rulemaking procedures to standardize BTSIs for the estimated 3 million heavy-duty vehicles nationwide, including the fleet of 500,000 school buses.

NTSB also again recommended that NHTSA require event data recorders, or EDRs, to help gather data on when brake misapplication incidences occur, as they would prove that vehicles did not have faulty brakes or other mechanical problems and that the driver in fact stepped on the wrong pedal. NTSB first asked NHTSA to consider EDRs in 1999 following a bus crashworthiness investigation. A consortium of 19 automobile manufacturers currently have an agreement with NHTSA to provide voluntary EDRs on passenger vehicles.

NTSB also asked NHTSA for further studies on pedal design and positive separation of the location of accelerator and brake pedals and to publish resulting guidelines for vehicle designers and manufacturers.

"I think it's very troubling we can't come up with basic parameters for heavy-duty vehicle with about 3 million of them on the road," said NSTB Chairman Deborah A. Hersman. "It's unbelievable to me that the justification is, 'We don't have a standard.' We need to get a standard and require it in vehicles."

The recommendations were issued during a board hearing on five heavy-duty vehicle crashes tied to the driver mistaking the acclerator pedal for the brake pedal. One of these instances occurred on May 9, 2005 in Liberty, Mo., when a school bus driver navigated an out-of-control, transit-style school bus with 53 elementary school students onboard past several slowly moving and stopped cars, through an intersection and into two motorists waiting at a red light. The crash killed both other motorists and seriously injured two students.

The driver at the time blamed the bus brakes for the accident, but the resulting crash investigation

turned up no defects to the school bus brake, acclerator, electrical or steering systems. NTSB found that the brake and accelerator pedals were only located two inches apart, common to that style of 1989 model year Thomas Built bus, and were operating correctly. As the 45-year-old driver passed post-crash drug and alcohol tests, was not found to be fatigued and had proper certification and training documentation, NTSB concluded that all evidence pointed to brake pedal misapplication.

NTSB also sent recommendation letters to NAPT and NASDPTS asking the organizations to share the lessons learned from the accidents involving brake pedal misapplication with members and to seek additional driver training to help mitigate any confusion. The organizations will also be asked to have local school districts re-evaluate procedures for organize studetns for school bus loading and unloading in light of a Jan. 12, 2007 incident in Falls Township, Pa., one of the five crashes the NTSB investigated.

A 54-year-old driver was found to have mistakenly stepped on the accelerator when shifting a 1995 Thomas Built transit-style bus from park into drive. With 10 high school students on board, the bus proceeded to jump a four-inch curb, travel down a sidewalk and strike a group of 18 high school students waiting nearby.

The Pennsbury School District driver proceeded to steer the bus through the parking lot and down an access road before finally stopping the bus against a brick wall. NTSB learned that the driver's usual bus was in the shop for repairs and was driving a substitute Thomas bus that had a rearfacing engine rather than a front-facing one. The driver reported that he heard an engine rev behind him right before he shifted the bus from park into drive. The NTSB report says this indicates the driver was in fact stepping on the accelerator instead of the brake pedal. A brake interlock system would have prevented the bus from moving.

The NTSB board meeting is archived online.



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