STATEMENT OF
RONALD MEDFORD
DEPUTY ADMINISTRATOR
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

BEFORE THE
SUBCOMMITTEE ON SURFACE TRANSPORTATION
AND MERCHANT MARINE INFRASTRUCTURE,
SAFETY, AND SECURITY
OF THE
COMMITTEE ON COMMERCE, SCIENCE
AND TRANSPORTATION
U.S. SENATE

Hearing on
Ensuring the Safety of Our Nation's Motorcoach Passengers

March 30, 2011

Chairman Lautenberg, Ranking Member Thune, and Members of the Subcommittee, thank you for the opportunity to update you on the activities of the National Highway Traffic Safety Administration (NHTSA) on the issue of motorcoach safety.

I will outline the breadth of our ongoing work for you, and this will illustrate a significant body of research and regulatory activity that addresses the highest risks associated with motorcoach travel and how we have made significant progress toward mitigating these risks. We believe our work in these critical safety areas complement recommendations issued by the National Transportation Safety Board and draft legislation currently being considered by the Congress to improve motorcoach safety.

NHTSA's vehicle safety program includes conducting research on and developing standards for a very wide range of vehicle safety issues, enforcing those standards, and conducting defect investigations. The motorcoach safety work is one of the important elements of the agency's extensive research and rulemaking agenda.

Motorcoach safety is a priority for NHTSA, and we have been working very aggressively in this area. We know that although motorcoach crashes may be

relatively rare, when they do happen, they can cause a significant number of fatalities and serious injuries in a single event. In 10 years, from 2000 to 2009, there were 338 motorcoaches involved in fatal crashes. In 48 of the 338 motorcoaches involved in a fatal crash there was a fatality to one or more occupants (driver and/or passengers) of the motorcoach. The remaining fatalities were to occupants of other vehicles or nonmotorists involved in a crash with a motorcoach. The average for this period was 16 motorcoach occupant fatalities per year, but in 2004, 2005, and 2008 a few events each resulted in a large number of fatalities. In 2011, the number of fatalities has already exceeded the annual average.

DOT Motorcoach Plan

In 2009, NHTSA worked with other modal administrations in the Department of Transportation (DOT) to develop a comprehensive systems-oriented safety strategy for enhancing motorcoach safety. The *DOT Motorcoach Safety Action Plan* is based on a two-pronged approach: First, it addresses possible driver related causes of motorcoach crashes, which are: driver fatigue, inattention, medical conditions, and the oversight of unsafe carriers. Second, it addresses the motorcoach related causes of fatalities and injuries, which are: vehicle rollover, occupant ejection, structural integrity, and fires.

Based on this approach 3 high priority action items related to new vehicle designs were identified and have now been completed. They were:

- Initiate rulemaking to require seat belts;
- Evaluate and consider roof crush performance requirements; and
- Assess the benefits of electronic stability control systems;

Other priority strategies included in the plan were:

- Improving tire performance;
- Improving evacuation and emergency egress;
- Improving fire safety (fire detection, fire hardening systems); and
- Data collection and analysis through the use of event data recorders.

In these areas as well, NHTSA has made significant progress and I will briefly touch on all of the items related to new motorcoaches.

Electronic Stability Control

Directional loss of control and rollover are causal factors in heavy vehicle crashes, including motorcoaches. By selectively applying the brakes on a vehicle, electronic stability control is a technology designed to reduce these types of crashes. NHTSA has been aggressively testing these systems and is currently working on a rulemaking proposal, which we expect to issue later this year.

Improving Tire Performance

Tire performance plays a critical role in ensuring the safety of occupants in every kind of vehicle – and motorcoaches are no exception. We issued a proposal to improve tire performance on September 29, 2010.[1] That proposal included new tests aimed at improving the performance of new tires even when they are underinflated. We are now working to finalize the rule.

Seat Belts

Between 1999 and 2008, there were 24 fatal motorcoach rollover events that resulted in 97 deaths. Seventy-six of those 97 were ejected from the motorcoach. We initiated a proposal to require seat belts in all seating positions in motorcoaches on August 18, 2010.[2] This rule is intended to prevent ejections and keep passengers in their seats, thereby mitigating fatalities and injuries in crash and rollover events. The proposed rule provides a definition of a motorcoach and explores the issue of retrofitting seat belts on existing motorcoaches.

Some manufacturers and operators have already started to equip their motorcoaches with seat belts. For example, Greyhound (First Group) is currently installing belts on new buses.

Improving Fire Safety

There are more than 2,200 bus fires annually, which add up to a $24.2 million annual cost in direct property damage. NHTSA collaborated with the National Institute of Standards and Technology to conduct research on motorcoach flammability. This research program looked at developing more stringent flammability and fire detection requirements.

[1] 75 FR60036, Docket # NHTSA-2010-0132.

[2] 75FR50958, Docket # NHTSA-2010-0112.

The program also reviewed existing flammability standards and procedures, as well as various test procedures to assess the flammability of materials used in both the interior and the exterior of motorcoaches.

We conducted wheel-well mockup studies to examine how fires propagate into motorcoach occupant compartments, countermeasures for fires such as fire hardening, fire detection, and fire suppression systems, and the tenability of the occupant compartment during a wheel-well fire. In December 2010, we published a report on the results of the first year of this research.[3] The final report on this research will be published this summer. We will assess the results of the research and make a decision whether to initiate rulemaking next year.

Improving Rollover Structural Integrity

By improving the structural integrity of the vehicle, we can improve the chances of adequate survival space for occupants in the event of a rollover, and we can strengthen the bus structure surrounding the windows to improve their effectiveness in preventing ejections.

NHTSA completed research on roof-crush test procedures and the agency is currently developing a rulemaking proposal, which we expect to issue late this year. This NPRM will consider NTSB's recommendation for performance standards for motorcoach roof strength, which is on its Most Wanted List.

In addition to studying whether we can strengthen the bus structure surrounding the windows to improve their effectiveness in preventing ejections, we are looking into window glazing and window retention. Initial research and testing has been completed and we will make a decision whether to initiate rulemaking by the end of the year.

Improving Evacuation and Emergency Egress

In the area of improved emergency evacuation, NHTSA and FMCSA completed research in 2010[4] at the Volpe research center on motorcoach emergency egress requirements and the need for enhancements to effectively

[3] Docket # NHTSA-2007-28793.
[4] Docket # NHTSA-2007-28793-0024.

facilitate passenger evacuation. We will make a decision whether to initiate rulemaking this summer.

The agency's work on improving evacuation and emergency egress considers NTSB's Most Wanted List recommendation to revise the standard to require floor level exits that can easily open and remain open during emergency egress.[5] It also considers recommendations to revise standards to require emergency lighting and/or retroreflective material to identify exits, as well as a recommendation to conduct simulations to evaluate current emergency egress designs.[6]

Data Collection and Analysis

Finally, in the area of data collection and analysis and the use of Event Data Recorders (EDRs), NHTSA has monitored the Society of Automotive Engineers (SAE) Truck and Bus Event Data Recorder Subcommittee in the development of SAE Recommended Practice J2728, "Heavy Vehicle Event Data Recorders." These were developed to define specifications and requirements for heavy vehicle EDRs for the reliable and accurate recording of the crash parameters relevant to heavy vehicles. We will make a decision whether to initiate rulemaking on this issue this year.

Conclusion

Mr. Chairman, NHTSA shares your desire to complete the actions that are identified in the DOT motorcoach plan. NHTSA is devoting a significant amount of its research and rulemaking resources toward improving the safety of motorcoaches and the recent crashes in New York and New Jersey highlight why we must continue to do so. We recognize that these vehicles carrying so many of our Nation's citizens have the potential in a single crash to injure and kill a large number of people. That is why we have placed such a high priority on improving the safety of these public transportation vehicles.

Chairman Lautenberg, Ranking Member Thune, and members of the Subcommittee, thank you for your consideration and thank you for your ongoing efforts to improve highway and motorcoach safety. I would be pleased to answer any questions.

[5] NTSB Recommendation H-99-09.
[6] NTSB Recommendations H-00-01, H-00-02, and H-07-08.