

Remarks Prepared for
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For the
Bus Industry Safety Council
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Good afternoon. Thank you for the invitation to be here. Administrator Strickland's travel schedule did not permit him to accept your invitation, but he did ask me to convey to you his unflagging commitment to NHTSA's ongoing work to improve motorcoach safety.

This has been a very difficult year. Since January we've experienced six motorcoach crashes causing 25 occupant deaths and numerous injuries. These unfortunate tragedies have cast a negative spotlight on bus safety and caused a great deal of concern and alarm in the traveling public and in the U.S. Congress. Just last Friday, NTSB Chairman Deborah Hersman published an editorial in the Washington Post calling on NHTSA, FMCSA, and the industry to make specific changes that could prevent these tragedies.

The Congress has held two hearings this year already on motorcoach safety. Earlier this year NHTSA Deputy

Administrator Medford testified with Federal Motor Carrier Safety Administrator Anne Ferro on the status of our Motorcoach Safety Action Plan. As some of you may know, Administrator Ferro testified again a week ago. Motorcoach safety will continue to be a high priority action item across the Department of Transportation for the foreseeable future.

At this time, NHTSA is moving with all deliberate speed to complete the actions in the Department's Motorcoach Safety Action Plan. We are devoting a significant amount of our research and rulemaking resources toward improving the safety of motorcoaches: the recent crashes in Virginia, New York, and New Jersey highlight why we must continue to do so. The critical factor is the potential severity of any crash involving these vehicles. A single motorcoach crash has the potential to injure and kill a large number of people.

From 2000 to 2009, there were 338 motorcoaches involved in fatal crashes. In 48 of those incidents 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 non-motorists 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 year resulted in a large number of fatalities. In 2011, the number of fatalities has already exceeded the annual average.

NHTSA is committed to improving motorcoach safety. In August 2007, the agency published “NHTSA’s Approach to Motorcoach Safety,” that outlined the course of action it would pursue to most expeditiously address motorcoach safety issues, including occupant ejection, crash and rollover protection, emergency egress, and fire safety. The agency took into consideration the various NTSB recommendations for enhancing motorcoach safety, especially those on its Most Wanted List, in determining its priority action items.

In 2009, NHTSA worked with other modal administrations in the Department of Transportation to develop a comprehensive systems-oriented safety strategy for enhancing motorcoach safety. The resulting *DOT Motorcoach Safety Action Plan* is based on a two-pronged approach: First, we need to address possible driver related causes of motorcoach crashes, which include: driver fatigue, inattention, medical conditions, and the oversight of unsafe carriers. FMCSA, of course, has the lead in those areas. Second, we must address the vehicle-related causes of fatalities and injuries, which include: vehicle rollover, occupant ejection, structural integrity, and fires. These vehicle-based issues are NHTSA's responsibility.

We identified three high priority action items in the DOT Motorcoach Safety Action Plan related to new vehicle designs and have now taken steps toward completion of those actions. The first item is the installation of seat belts on all new motorcoaches. Of the 97 occupant deaths in motorcoach

rollover events between 1999 and 2008, 76 were passengers ejected from the motorcoach. We initiated a proposal to require seat belts in all seating positions in motorcoaches on August 18, 2010.

This proposed rule is primarily intended to prevent ejections and keep passengers in their seats, thereby mitigating fatalities and injuries in crash and rollover events. It will also offer passengers increased protection in other crash modes. 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.

We are analyzing the comments we received and expect to issue our final rule on seat belts next year.

Our second priority action item is to improve the structural integrity of the vehicle. Doing so will improve the chances of adequate survival space for occupants in the event of a rollover. Our testing of motorcoach roof strength and development of relevant testing procedures was a challenging and somewhat costly endeavor. NHTSA completed its research on roof crush test procedures and the agency is currently developing a rulemaking proposal, which we expect to issue late this year.

After completing the research on improving the strength of the motorcoach structure, we are now looking into improving window glazing and window retention to prevent occupant ejection.

We've determined that a staggered approach would be the most effective and expedient method of ensuring effective window retention and glazing requirements. We know that the effectiveness of window glazing in preventing occupant ejection is closely related to the structural integrity of the motorcoach. Specifically, glazing is most effective when the structural strength of the motorcoach roof and the area surrounding the windows is sufficient to prevent excessive deformation during a rollover event. With that in mind, we prioritized our efforts to focus on improving structural integrity as well as requiring seat belt installation to reduce occupant ejection first before completing our research on window glazing and window retention.

The third priority item, preventing directional loss of control and rollover, addresses a significant causal factor in heavy vehicle crashes, including motorcoaches. By selectively applying the brakes on a vehicle, electronic stability control is designed to reduce these types of crashes. NHTSA has been

aggressively testing stability control systems and is currently working on a rulemaking proposal, which we expect to issue later this year.

Taken together, completion of these three priority actions will reduce the likelihood of rollover crashes through stability control, ensure greater survivability in rollover crashes through enhanced structural integrity, and reduce the likelihood of fatalities in rollover and other crashes by requiring seat belts.

NHTSA has made significant progress in other priority areas of the action plan as well, and I'll briefly touch on all of the items related to new motorcoaches.

Tire performance plays a critical role in ensuring the safety of occupants in every kind of vehicle – and motorcoaches are no exception. We issued our proposal to improve tire performance on September 29, 2010. That proposal included

new tests aimed at improving the performance of new tires even when they are underinflated. We are now assessing the comments and conducting research to respond to the comments. We are planning for an agency decision to determine the next course of action in 2012.

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.

We 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 fire propagation such as fire hardening, 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. The final report on this research will be published this summer. We will assess the results of the research and make a decision next year on whether to initiate rulemaking on these fire-related issues.

In the area of improved emergency evacuation, NHTSA completed research in 2010 at the Volpe research center on motorcoach emergency egress requirements and the need for enhancements to effectively facilitate passenger evacuation.

The agency's work on improving evacuation and emergency egress included conducting human volunteer simulations to evaluate current emergency egress designs. The research examined the need for floor level exits that can easily open

and remain open during emergency egress. It also evaluated emergency lighting and/or retro-reflective material to identify exits. The final research reports for this work have been placed in the public docket, and we will make a decision whether to initiate rulemaking later this year.

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.” This practice was 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 plan to make a decision whether to initiate rulemaking on this issue this year.

The agency is also working towards preventing motorcoach crashes. In 2010, NHTSA expanded its crash avoidance

research for motorcoaches, from a stability control focus to include research of crash avoidance warning systems, such as forward collision warning (FCW) and lane departure warning (LDW). This research parallels similar agency efforts focused on truck tractors.

While FCW—particularly with automatic braking—and LDW hold great promise for crash avoidance in the heavy truck and motorcoach areas, we have a significant amount of work to do before we can determine the agency’s appropriate regulatory course of action on these technologies.

In addition to the action items in the DOT Motorcoach Safety Action Plan, the agency granted a petition earlier this year to pursue rulemaking on speed limiters for heavy vehicles, which may include motorcoaches. We expect to publish an NPRM for heavy vehicle speed limiters next year.

As you can see, we have been pushing forward aggressively on the DOT Motorcoach Action Plan. Across DOT, and specifically at NHTSA, we are devoting a significant amount of research and rulemaking resources toward improving the safety of motorcoaches. We must do so, of course, in the context of our current staffing and research funding realities, and while pursuing many other important and safety-critical measures not related to motorcoaches. We have placed a high priority on improving the safety of these vehicles, and will work as quickly and thoroughly as we can to do so. In that effort, we will benefit from the continued insights provided by bus operators, manufacturers, researchers, the NTSB, and organizations such as yours. Thank you very much for your attention.