ADVOCATES
for Highway & Auto Safety

Legislation Needed to Correct Dangerous and Deadly Motorcoach Safety Problems

Bi-partisan Measure Will Implement NTSB Safety Recommendations

Motorcoaches are the passenger airliners of America's highways, carrying up to 59 occupants on board for a given trip. In 2006, there were more than 630 million passengers taking trips in motorcoaches, according to the American Bus Association, almost as many passenger trips as U.S. commercial airlines carried that year. The Federal Motor Carrier Safety Administration (FMCSA) reports that 3,700 interstate motorcoach companies are registered with the agency and are operating more than 34,000 motorcoaches. Many thousands of other motorcoaches operate wholly in intra-state commerce. Passenger ridership is projected to substantially increase in the near future given expected increases in the cost of commercial airline travel and increasing flight delays. In fact, each year the number of new interstate-registered motorcoach companies increases by about 900. Yet, the U.S. Department of Transportation (DOT) does not require that motorcoaches have the same basic occupant protection safety features that are routinely designed into passenger motor vehicles.

Motorcoach Crashes and Casualties Are a Serious Transportation Safety Problem

The National Transportation Safety Board (NTSB) has investigated 70 motorcoach crashes and fires over a span of 40 years that resulted in hundreds of deaths and thousands of injuries. In some of these incidents more than 20 people on board were killed in a single crash or fire. Congress has also held hearings following crashes by unsafe "curbside" operators operating along the eastern seaboard and the March 2, 2007, Georgia crash resulting in serious injuries and deaths suffered by Bluffton University students.

NTSB safety recommendations for motorcoach operations have languished for years and Congressional hearings have identified numerous oversight and enforcement failings of the FMCSA. The NTSB recommendations address needed federal government actions to improve the safety of the vehicle and protect its occupants, to establish minimal training requirements for motorcoach operators, and to require better operational procedures. Legislation is needed to ensure that lifesaving, cost-effective, and timely safety actions in all of these areas are taken to implement unfulfilled NTSB recommendations and protect millions of Americans who annually travel by motorcoach. The following list contains only a few examples of numerous safety needs that currently are not being met by motorcoaches and not required by federal laws and regulations:

►**Rollovers Are a Major Motorcoach Safety Failure:** Rollover crashes are especially common in motorcoach incidents. The National Highway Traffic Safety Administration (NHTSA) determined that *more than one-third of the deaths in motorcoach crashes occurred in rollovers*.

►**Ejection Frequently Results in Occupant Fatalities in Motorcoach Crashes:** According to a recent research report from NHTSA, *more than half the deaths in motorcoach crashes are the result of occupant ejection from the vehicle*, *and ejection is the reason for 70 percent of occupant deaths in motorcoach rollovers*.

►**Motorcoach Fires Are a Source of Numerous Casualties:** In September 2005, for example, a fire aboard a motorcoach carrying residents of a senior living facility *resulted in the deaths of 23 people.*

Improving Motorcoach Safety Requires Both Enhanced Crash Protection and Motorcoach Operational Improvements

Improving motorcoach safety requires an integrated safety approach that combines both vehicle equipment and design features along with operating improvements. This approach adopts enhanced occupant crash protection, also called crashworthiness, as well as effective crash avoidance measures, but also addresses operational improvements such as minimum driver training standards, stronger commercial driver license testing, upgraded medical qualifications, improved fire suppression, better passenger evacuation, and regular vehicle safety evaluation by both federal and state authorities.

Motorcoaches Still Lack Many Critical Safety Features Recommended by NTSB

Despite several major recommendations issued by the NTSB over many years, current motorcoaches do not have numerous, critical safety features such as safety belts, occupant ejection prevention countermeasures such as advanced glazing on windows, protection against dangerous motorcoach interior impacts, crush-resistant roofs, and protection against fires. The list below gives just a few examples of the numerous NTSB recommendations that have piled up over the years without action by the U.S. DOT:

- **Safety Belts and Occupant Restraint Systems:** Safety belts have been required on motorcoaches in Australia and in the European Union for many years to restrain occupants and prevent them from being ejected from their seats. In these countries, safety belts in motorcoaches have resulted in dramatic reductions in the number of annual deaths of motorcoach passengers by preventing occupants from striking other passengers or dangerous interior motorcoach surfaces. U.S. motorcoaches need safety belts and stronger seating systems to ensure occupants stay in their seats in a crash in order to substantially reduce deaths and injury severity. *See,* NTSB Recommendations H-99-47(MW), H-99-48, and H-05-01. NTSB has issued numerous recommendations since 1968 regarding the performance of motorcoach safety belts and the need for occupant protection systems that restrain passengers in their seats in all types of crashes.
- **Anti-Ejection Glazing:** Already used on several makes and models of passenger cars, advanced glazing in the extremely large windows in most motorcoaches could prevent passengers from being easily thrown outside the motorcoach, which results in numerous deaths and severe injuries. NTSB has issued repeated recommendations for improved safety glazing in motorcoaches since 1973. *See,* NTSB Recommendation H-99-49.
- **Strong, Crush-Resistant Roofs:** Since rollovers are a common source of many deaths and severe injuries in motorcoach crashes, stronger roofs that can withstand rollovers are crucially important for maintaining occupant survival space and also facilitating passenger evacuation. Since 1973, NTSB has called repeatedly for stronger motorcoach roofs that do not fail in rollovers. *See,* NTSB Recommendations H-99-50(MW) and H-99-51.
- **Motorcoaches Need Improved Protection Against Deadly Fires:** In severe motorcoach incidents investigated by NTSB, there was an evident lack of adequate protection against fires, including the flammability of interior and exterior surfaces and components, fire-fighting equipment, and operator training to safely and quickly evacuate passengers. Motorcoaches need dramatic improvements in reducing their flammability, and operators need better training in their firefighting and evacuation skills. *See*, NTSB Recommendations H-07-01 through H-07-08.

NTSB Recommendations To Improve Motor Carrier and Motorcoach Safety

Over the years, NTSB has made numerous safety recommendations to improve motor carrier safety in general that would also provide a major safety benefit for motorcoaches, including:

Standards for Driver Testing, Training and Medical Certification:
There currently are no required motorcoach driver training standards that must be met for a driver to operate a motorcoach and gain the special passenger carrying endorsement of the Commercial Driver License (CDL). Similarly, some drivers in severe crashes investigated by NTSB eluded detection of disqualifying medical conditions that seriously impaired their ability to safely operate a motorcoach. NTSB has increasingly called for tighter oversight and enforcement of commercial drivers' physical qualifications.

- **Improved Commercial Driver Training:** Driving training of current commercial drivers, both entry-level and motorcoach, other bus, and compensated large van operators, is not required by federal regulation. NTSB has urged improvements in commercial driver training for all types of large commercial motor vehicles. *See*, NTSB Recommendations H-75-9, H-83-21, H-98-19.
- **National Commercial Motor Vehicle Medical Registry:** NTSB has repeatedly criticized FMCSA's physical fitness program because it needs major improvements to ensure that only medically qualified examiners conduct physical examinations of drivers. *See*, NTSB Recommendations H-01-17, H-01-19, and H-01-20.
- **Each Driver Medical Certificate Must be Matched with the Results of the Physical Examination:** NTSB has repeatedly recommended that the medical certificate process be tracked to ensure that all certificates are valid and no unqualified operator is allowed to drive. FMCSA must ensure that driver medical certificates are valid by directing all states to match each motorcoach driver certificate with the original physical fitness examination results. *See*, NTSB Recommendations H-88-24, H-89-32, H-01-18, H-01-21, H-01-22, and H-01-24.

Strengthened Motorcoach Vehicle Safety Inspections:
NTSB in several investigations has repeatedly called for strengthened commercial motor vehicle inspections, including roadside inspections, safety audits, and state and motor carrier programs for identifying vehicle defects. *See*, NTSB Recommendations H-81-15, H-87-38, H-06-0-03 to H-06-5, H-99-06, and H-01-24.

More Rigorous Federal Safety Fitness Standards Are Needed:
In 1999, NTSB issued a major, "Most Wanted Transportation Safety Improvement" to FMCSA urging the agency to apply more stringent safety criteria to its compliance reviews of motor carriers so that violations of either driver safety requirements or vehicle safety requirements are sufficient to trigger an agency Unsatisfactory safety fitness rating. *See*, NTSB Recommendation H-99-06.

Electronic On-Board Recorders (EOBRs):
Fatigue is a major problem in the motor carrier industry including motorcoach operators. NTSB has repeatedly identified long hours of driving as producing fatigue for commercial drivers that substantially increases the risk of a crash. Also, commercial drivers are known to frequently falsify their logbooks to disguise the actual amount of driving and working time as well as off-duty rest time.

EOBRs should have real-time capabilities to track precise vehicle location, and recorded data should not accessible to manipulation by a driver or motor carrier. NTSB has repeatedly recommended to FMCSA and to motor carriers that all commercial motor vehicle drivers should have their hours of work and rest overseen and verified by EOBRs. Without EOBRs, drivers can easily make false entries in their paper logbooks for the hours worked, driven, and taken off-duty, a widespread and chronic highway safety

problem. *See*, NTSB Recommendations H-90-28, H-98-23. In addition, NTSB added EOBRs to its "Most Wanted Transportation Safety Improvement" list on April 14, 2009, applicable to all motor carrier commercial motor vehicles, including motorcoaches.

Event Data Recorders (EDRs):
An EDR is a crucial data-gathering technology that can record pre-crash and conflict maneuver information that provides important data for post-crash reconstruction and for researchers determining what changes to design and performance of motorcoaches would increase their crashworthiness and crash avoidance capabilities. *See*, *e.g.*, NTSB Recommendations H-99-54, H-04-06.

Tire Pressure Monitoring Systems (TPMS):
Underinflated tires on all types of motor vehicles are a primary source of tire failures and of subsequent loss-of-control crashes. Commercial motor vehicles are especially prone to loss-of-control crashes and subsequent rollovers because of one or more underinflated tires. Commercial motor vehicle tire underinflation is a chronic, pervasive problem among both motorcoaches and large trucks. NTSB has recognized that TPMS are crucial for notifying drivers of tire underinflation to provide early information on the need for re-inflation of tires to recommended pressure levels. Because of the numerous tires on commercial motor vehicles, interior tires are often the most overlooked for underinflation. Any TPMS for motorcoaches must be a direct system which provides the direct specific telltale information of exactly which tires are at risk that should be re-inflated as soon as possible. *See*, NTSB Recommendation H-03-17.