



**National Association
of State Directors
of Pupil Transportation Services**

February 6, 2017

The Honorable Christopher A. Hart
Chairman
National Transportation Safety Board
490 L'Enfant Plaza, SW
Washington, DC 20594

Re: NTSB Safety Recommendations H-16-7, H-15-2, and H-13-36

Dear Chairman Hart:

This letter is in response to your letter of November 7, 2016, conveying Safety Recommendations from the National Transportation Safety Board (NTSB) to the National Association of State Directors of Pupil Transportation Services (NASDPTS).

The National Association of State Directors of Pupil Transportation Services was founded in 1968. Our purpose is to provide leadership, assistance, and motivation to the nation's school transportation community and industry. The association works to ensure safe, secure, environmentally responsible, and cost effective transportation to school children and ensure their continued access to school and school related activities. NASDPTS represents a cross section of individuals and organizations involved in student transportation. As the association's name indicates, members include those individuals with the primary responsibility for school transportation in each state. In addition, school bus manufacturers and other industry suppliers, school transportation contractors, and a number of state associations, whose members include school transportation officials, drivers, trainers, and technicians, also are members of affiliated councils within the association. This diversity in membership, combined with the day-to-day involvement of the state directors in policy matters, creates a unique perspective on pupil transportation issues.

Our response to each specific safety recommendation follows.

Response to NTSB Safety Recommendation H-16-7

On October 11, 2016, the NTSB adopted its report ([Highway Accident Brief](#), "School Bus Roadway Departure"), concerning the April 24, 2014 crash in Anaheim, California, involving a school bus that was occupied by a driver and 11 students.

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The bus was traveling downhill and traveled out of its lane to the right. It left the roadway and overrode the right curb, where it struck a light post, continued up an embankment, struck a tree on the front, and scraped along another large tree along the left side of the bus from approximately the front axle to the rear axle. The bus came to rest against the large tree, with significant intrusion into the left side and roof of the bus. The driver and four students were seriously injured. Five students sustained minor injuries, and two students were uninjured. The brief stated, in part, "Based on the video evidence, the NTSB concludes that the school bus departed the roadway as a result of the driver's loss of consciousness." In post-crash interviews, the school bus driver reported a history of pulmonary hypertension going back five years and further reported that he had experienced a seizure a year prior to the crash and had "blacked out" three times over the last five years. He had not informed the doctor who performed the commercial driver medical examination of these conditions or of the medication he was taking for them.

The above summary, paraphrased from the NTSB brief, does not provide the full detail contained within the brief, but is included to provide context to the agency's safety recommendation and our response, discussed below.

The NTSB Safety Recommendation H-16-7 to NASDPTS was to:

Inform school bus drivers of the impact their health may have on the safe transportation of school children, of their responsibility to accurately and completely report their health history and medications, and of the legal consequences of dishonesty on the medical examination report.

NASDPTS agrees with and supports this recommendation. Student transportation professionals and the parents and students they serve well understand the importance of maintaining the unparalleled, high level of safety provided by school bus transportation. NASDPTS, its members, and all of the over one-half million professionals charged with driving, maintaining, and overseeing the nation's school buses welcome and encourage any opportunity to further improve that record. As such, NASDPTS is copying this response concurrently to our state director members, informing them of the circumstances of the Anaheim crash and the NTSB's recommendation. We are also ensuring the NTSB receives a concurrent copy of our memorandum of transmittal to state directors.

The commercial driver medical examination requirements prescribed by the Federal Motor Carrier Safety Administration (FMCSA), including the National Registry of Certified Medical Examiners, provide a stringent standard for the fitness for duty of the drivers of school buses and other commercial vehicles. Nevertheless, as the NTSB found in the Anaheim brief, it is incumbent upon school bus drivers to self-report accurately any medical conditions that may affect their fitness to drive, as prescribed in the Driver Health History section of the FMCSA Medical Examination Report Form.

We, therefore, encourage state directors to take the following actions:

1. Recommend adoption for all school bus drivers within your state of the commercial driver medical examination requirements prescribed by FMCSA, if such requirements are not already in place.
2. Inform local school districts regarding the circumstances of the Anaheim crash; ensure that all school bus drivers are trained regarding the overall importance of self-reporting accurately any medical conditions that may affect their fitness to drive and medications taken, including at least those conditions listed within the Driver Health History section of the [FMCSA Medical Examination Report Form](#).
3. Research potential legal consequences within your state of failure by school bus drivers to report honestly any medical conditions and medications taken, as required by the state's adopted commercial driver medical examination report; inform school districts of such consequences and have them train all school bus drivers accordingly.

Response to Reiterated NTSB Safety Recommendation H-15-2

In 2015, the NTSB issued [Safety Report NTSB/SR-15/01](#), Commercial Vehicle Onboard Video Systems. The report focused on two crashes in which continuous onboard video systems recorded critical crash-related information. In a 2011 motor coach crash in Kearney, Nebraska, the video system captured critical pre-crash information, but had certain limitations that negated the potential benefits of crash and post-crash event data. In a 2012 school bus crash in Port St. Lucie, Florida, the video recording system captured all three phases of the crash, including pre-crash driver and passenger behaviors and vehicle motion; vehicle and occupant motion during the crash; and post-crash events, such as passenger evacuation, short-term injury outcomes, and emergency response. The report noted the need to improve the visibility of all passenger seating positions to the cameras when installing onboard video systems. In addition, the report indicated that to understand the motion of the vehicle during a crash and to record any surrounding vehicles, onboard video systems require improved range of coverage forward of the vehicle.

In the agency's Highway Accident Brief on the 2014 Anaheim, California school bus [crash](#), released in October 2016, the NTSB noted that the bus was also equipped with an onboard video recording system. The video recording provided data reflecting the trip, the crash sequence, and the post-crash response. The driver and some students were recorded in the camera views. The video showed that the driver was not using a cell phone, nor was he distracted, before the crash event. It also showed that, during the trip, the driver did not always wear his lap/shoulder belt. The video also documented the driver slumping over and letting go of the steering wheel just prior to the crash, and his unresponsiveness for the duration of the crash event and for most of the period recorded post-crash.

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Based on the video evidence, the NTSB concluded that the school bus departed the roadway as a result of the driver's loss of consciousness. The NTSB further concluded that the continuous onboard video recording system provided valuable data concerning the driver's physical state and loss of consciousness prior to the crash sequence.

The above summaries, paraphrased from the NTSB brief, do not provide the full detail contained within the reports, but are included to provide context to the agency's safety recommendation and our response, discussed below.

The NTSB Safety Recommendation H-15-2 to NASDPTS was to:

Encourage your members to ensure that any onboard video system in their vehicles provides visibility of the driver and of each occupant seating location, visibility forward of the vehicle, optimized frame rate, and low-light recording capability.

NASDPTS agrees with and supports this recommendation. Since the first National Conference (now "Congress") on School Transportation (NCST) was convened in 1939, state directors of pupil transportation have been leaders of and parties to the congresses, now held every five years. The resulting standards documents, including the most recent [2015 edition](#) of the National School Transportation Specifications and Procedures (NSTSP), have served as the primary guidelines for both school bus vehicle specifications and operational procedures used within the United States.

The 2015 NSTSP, published in October 2016, includes guidance and several references regarding onboard video systems, primarily relating to monitoring of student and driver behavior, and monitoring and recording security incidents. In addition the NSTSP includes Resolution A, adopted by the delegates to the Congress, as follows:

RESOLUTION A

The National Transportation Safety Board (NTSB) has worked with the sponsoring Associations of the NCST over the years in promoting safety within the School Bus Industry.

WHEREAS, on March 3, 2015, the NTSB issued the following SAFETY RECOMMENDATION to the sponsoring Associations of NCST (NAPT, NSTA, and NASDPTS) as well as the American Bus Association, the United Motorcoach Association, American Trucking Association, and the American Public Transportation Association.

TO encourage your members to ensure that any onboard video system in their vehicles provides visibility of the driver and of each occupant seating location, visibility forward of the vehicle, optimized frame rate, and low light recording capability. (H-15-2)

BE IT FURTHER RESOLVED that the NCST adopt this Resolution on May 20, 2015, for the purpose of providing important data for accident investigations to enhance the safety of our school bus operations.

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NASDPTS has notified its members of the publication and availability of the 2015 NSTSP as both a bound hard-copy and a free PDF download, and we have encouraged its use by states and local school districts when developing their bus specifications and operational procedures. We believe that it is important to remind our members directly about the 2015 NTSB [Safety Report NTSB/SR-15/01](#), Commercial Vehicle Onboard Video Systems, and the supporting evidence released in the Anaheim report. NASDPTS emphasizes to states and local school districts the importance of properly specifying onboard video systems and ensuring they are functioning as designed.

We recognize there is more that can and should be done to encourage installation and use of video systems that perform optimally and include at least the features outlined in the NTSB recommendation. Several of the member companies within the NASDPTS Supplier Council, including the supplier of the system in the Anaheim bus, are manufacturers and sellers of onboard video systems for school buses. As part of our transmittal to state directors, we are asking them to advise us whether further guidance on this recommendation may be useful to them. We are seeking input from states on whether it would be useful to states and local school districts to involve them and their video system suppliers in collecting model specifications and procedures for the purchase, installation, and use of onboard video systems. If affirmed, NASDPTS will then post such information as resources on our website for ready availability by any party.

NASDPTS is copying this response concurrently to our state director members. We are also ensuring the NTSB receives a concurrent copy of our memorandum of transmittal to state directors.

Response to Reiterated NTSB Safety Recommendation H-13-36

In 2013, the NTSB issued [Highway Accident Report NTSB/HAR-13/01](#), School Bus and Truck Collision at Intersection Near Chesterfield, New Jersey, February 16, 2012. The report focused on a crash in which a school bus transporting 25 elementary age students pulled into the path of a large, fully loaded roll-off truck. One bus passenger was killed. Five bus passengers sustained serious injuries, 10 passengers and the bus driver received minor injuries, and nine passengers and the truck driver were uninjured. Contributing to the severity of passenger injuries were the nonuse or misuse of available school bus passenger lap belts; the lack of passenger protection from interior sidewalls, sidewall components, and seat frames; and the high lateral and rotational forces in the back portion of the bus. The NTSB noted that injuries to the fatally injured occupant and examination of the lap belts in her row indicated that she was likely unbelted. The NTSB concluded that some students on the school bus wore their lap belts improperly or not at all.

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Included within the Chesterfield report were findings from a school bus crash in Port St. Lucie, Florida that occurred on March 26, 2012. A St. Lucie County School District bus turned left in front of a truck, which collided with the right side of the bus in the vicinity of the rear axle. As a result of the crash, one student passenger on the bus was fatally injured. The school bus driver and 19 other passengers received injuries of varying degrees. Like the school bus in the Chesterfield crash, the St. Lucie County Schools bus was also equipped with two-point lap belts. The NTSB concluded that in the Port St. Lucie crash, the combination of high forces, lack of upper body restraint, and loss of seating system integrity resulted in the fatal injuries to the one passenger who died.

In the 2014 Anaheim crash, occupant simulations conducted by the NTSB indicated that lap/shoulder belted occupants had the best retention in their seats with the lowest potential for occupant-to-occupant contacts and occupant-to-interior contacts, which are common in severe lateral impacts involving unbelted school bus occupants. The simulations also indicated that while restrained with a lap/shoulder belt, the occupant seated nearest the area of intrusion (seat 8A) maintained a more upright position than that person would have maintained if restrained only by a lap belt. The NTSB concluded that the properly worn lap/shoulder belts of the two occupants of the row eight seats most likely reduced their injuries related to upper body flailing, which are commonly seen when occupants are restrained only by lap belts. Further, the NTSB concluded that the properly worn lap/shoulder belts reduced passenger motion toward the intruding tree, which probably reduced the severity of the injuries sustained, especially for the student in seat 8C.

In addition to findings relating specifically to school bus passenger crash protection, the two reports contained significant information and details on other factors in the crashes, including some of those discussed in our responses to Safety Recommendations H-16-7 and H-15-2 herein. In the summaries above we have included only very concise descriptions of the circumstances relating to Safety Recommendation H-13-36; we encourage a more thorough review of the reports by interested parties. The above summaries, paraphrased from the NTSB reports, do not provide the full detail contained within the reports, but are included to provide context to the agency's safety recommendation and our response, discussed below.

The NTSB Safety Recommendation H-13-36 to NASDPTS was to:

Provide your members with educational materials on lap and shoulder belts providing the highest level of protection for school bus passengers, and advise states or school districts to consider this added safety benefit when purchasing seat belt-equipped school buses.

NASDPTS agrees with and strongly supports this recommendation. NASDPTS has a long history of providing comments and analysis relating to improved passenger crash protection in school buses. In 2008, the association submitted comments to the National Highway Traffic Safety Administration (NHTSA), pursuant to its notice of proposed rulemaking to update Federal Motor Vehicle Safety Standard 222, School Bus Seating and Passenger Crash Protection.

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In our comments, we encouraged NHTSA to mandate the installation of three-point lap/shoulder belts in all large school buses with commensurate funding. In February 2014, NASDPTS published and distributed to members a [Position Paper](#), “The Equipping and Use of Passenger Lap/Shoulder Belts in School Buses.”

The position paper included the NTSB Safety Recommendation H-13-36. The Position Statement portion of our position paper is as follows:

Position Statement

As an association with a primary leadership role in issues relating to student transportation safety, environmental responsibility, and access to education, NASDPTS fully supports state and local decisions for the installation and use of lap/shoulder belts in school buses. NASDPTS is not advocating that the installation and/or use of lap/shoulder belts be required by state or local jurisdictions without thorough consideration of available resources. NASDPTS believes this decision should be based on state or local need, but also believes lap/shoulder belt equipped seats should be encouraged as an option when considering new bus original equipment specifications. NASDPTS further believes that states and local jurisdictions should require proper usage by all students when belts are available and should provide related notices, training and enforcement.

NASDPTS supports the NHTSA position stated in the 2007 NPRM that this local decision should not be made at the expense of students being displaced from school bus transportation. A state or local district that does decide to proceed with lap/shoulder belts should consider the following points on usage arising from the NTSB report on the Chesterfield, New Jersey crash:

- A usage policy must exist for buses equipped with passenger restraints.
- A training program must exist for proper usage and adjustment of passenger restraints.
- A training program must exist for evacuation that includes unbuckle drills.

In 2015, NASDPTS proposed updates to the [National School Transportation Specifications and Procedures](#) that included 13 instances throughout the document of recommendations and graphical training materials for students and school bus drivers regarding proper wearing and use of both two-point lap belts and three-point lap/shoulder belts. The changes were adopted by the delegates and can be found within the published 2015 NSTSP. All members were notified of the publication of the NSTSP in October 2016.

NASDPTS is copying this response concurrently to its state director members. We are also ensuring the NTSB receives a concurrent copy of our memorandum of transmittal to state directors.

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We greatly value the important safety work of the National Transportation Safety Board and appreciate this opportunity to respond to the safety recommendations. We trust the above actions will address the recommendations satisfactorily. As always, NASDPTS remains available to assist the Safety Board.

Sincerely,

A handwritten signature in cursive script that reads "Charlie".

Charlie Hood, Executive Director
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