

November 3, 2022

Ms. Janna Smeltzer
Managing Director/Director of Membership and Internal Relations
National Association for Pupil Transportation
1971 Western Avenue, #221
Albany, New York 12203

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. We determine the probable cause of the accidents and issue safety recommendations aimed at preventing future accidents. In addition, we carry out special studies concerning transportation safety and coordinate the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters.

The attached letter from the NTSB Chair provides information about the NTSB's October 18, 2022, report *Collision Between Service Vehicle and School Bus, Decatur, Tennessee, October 27, 2020*, NTSB/HIR-22/06. The details of this accident investigation and the resulting safety recommendation may be found in the attached report, which can also be accessed at <http://www.nts.gov>. For more information about NTSB and our recommendation process, please see the attached one-page summary.

The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate a response within 90 days of the date of this letter, detailing the actions you have taken or intend to take to implement these recommendations. When replying, please refer to the safety recommendation by number (for example, H-22-25). We encourage you to submit your response to ExecutiveSecretariat@ntsb.gov. If your reply exceeds 20 megabytes, including attachments, please e-mail us at the same address for instructions on how to send larger documents. Please do not submit both an electronic copy and a hard copy of the same response.

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Executive Secretariat-CRB
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National Transportation Safety Board

Office of the Chair

Washington, DC 20594



November 3, 2022

Ms. Janna Smeltzer
Managing Director/Director of Membership and Internal Relations
National Association for Pupil Transportation
1971 Western Avenue, #221
Albany, New York 12203

Dear Ms. Smeltzer:

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. We determine the probable cause of the accidents and issue safety recommendations aimed at preventing future accidents. In addition, we carry out special studies concerning transportation safety and coordinate the resources of the federal government and other organizations to assist victims and their family members affected by major transportation disasters.

We are providing the following information to urge the National Association for Pupil Transportation (NAPT) to act on the safety recommendation in this letter because we believe your organization can help reduce the risk of future accidents. For more information about the NTSB and our recommendation process, please see the attached one-page summary.

This letter also includes information about our October 18, 2022, report *Collision Between Service Vehicle and School Bus, Decatur, Tennessee, October 27, 2020*, NTSB/HIR-22/06. The details of this accident investigation and the resulting safety recommendations may be found in the attached report, which can also be accessed at <http://www.nts.gov>.

As a result of this investigation, we identified the following safety issues:

- Inadequate roadway design of State Route 58,
- Lack of lane departure warning and prevention systems for heavy vehicles, and
- Lack of sufficient passenger protection measures on school buses.

Accordingly, the NTSB makes the following safety recommendation to the NAPT. Additional information regarding this recommendation can be found in the noted section of the report.

Inform your members of the need to periodically review onboard video event recorder information to ensure that students engage in safe transportation behaviors on school buses, including sitting properly and wearing seat belts, when available, and that the members use this information to improve the bus safety training provided to drivers, students, and parents. (H-22-25) (Section 2.5.3)

To assist you in fulfilling this recommendation, we are attaching a "sample article" covering the Decatur crash that addresses the safety issue area identified in the recommendation to the NAPT. Please feel free to use this article (or parts of it) in your communications to members. If you would like to discuss the article or this recommendation, please contact Dr. Meg Sweeney, project manager for the Decatur investigation, at meg.sweeney@ntsb.gov, or by calling 202-314-6125.

The NTSB is vitally interested in this recommendation because it is designed to prevent accidents and save lives. We would appreciate a response within 90 days of the date of this letter, detailing the actions you have taken or intend to take to implement this recommendation. When replying, please refer to the safety recommendation by number (H-22-25). We encourage you to submit your response to ExecutiveSecretariat@ntsb.gov. If your reply, including attachments, exceeds 20 megabytes, please e-mail us at the same address for instructions on how to send larger documents. Please do not submit both an electronic copy and a hard copy of the same response.

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Sincerely,

[Original Signed]

Jennifer Homendy
Chair

Cc: Ms. Angela Kelly
CMP Director of Marketing and Events
National Association for Pupil Transportation

November 3, 2022

Ms. Ronna Weber
Executive Director
National Association of State Directors of Pupil Transportation Services
P.O. Box 409 (180 Canada Street)
Lake George, New York 12845

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. We determine the probable cause of the accidents and issue safety recommendations aimed at preventing future accidents. In addition, we carry out special studies concerning transportation safety and coordinate the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters.

The attached letter from the NTSB Chair provides information about the NTSB's October 18, 2022, report *Collision Between Service Vehicle and School Bus, Decatur, Tennessee, October 27, 2020*, NTSB/HIR-22/06. The details of this accident investigation and the resulting safety recommendation may be found in the attached report, which can also be accessed at <http://www.nts.gov>. For more information about NTSB and our recommendation process, please see the attached one-page summary.

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November 3, 2022

Ms. Ronna Weber
Executive Director
National Association of State Directors of Pupil Transportation Services
P.O. Box 409 (180 Canada Street)
Lake George, New York 12845

Dear Ms. Weber:

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. We determine the probable cause of the accidents and issue safety recommendations aimed at preventing future accidents. In addition, we carry out special studies concerning transportation safety and coordinate the resources of the federal government and other organizations to assist victims and their family members affected by major transportation disasters.

We are providing the following information to urge the National Association of State Directors of Pupil Transportation Services (NASDPTS) to act on the safety recommendation in this letter because we believe your organization can help reduce the risk of future accidents. For more information about the NTSB and our recommendation process, please see the attached one-page summary.

This letter also includes information about our October 18, 2022, report *Collision Between Service Vehicle and School Bus, Decatur, Tennessee, October 27, 2020*, NTSB/HIR-22/06. The details of this accident investigation and the resulting safety recommendations may be found in the attached report, which can also be accessed at <http://www.nts.gov>.

As a result of this investigation, we identified the following safety issues:

- Inadequate roadway design of State Route 58,
- Lack of lane departure warning and prevention systems for heavy vehicles, and
- Lack of sufficient passenger protection measures on school buses.

Accordingly, the NTSB makes the following safety recommendation to the NASDPTS. Additional information regarding this recommendation can be found in the noted section of the report.

Inform your members of the need to periodically review onboard video event recorder information to ensure that students engage in safe transportation behaviors on school buses, including sitting properly and wearing seat belts, when available, and that the members use this information to improve the bus safety training provided to drivers, students, and parents. (H-22-25) (Section 2.5.3)

To assist you in fulfilling this recommendation, we are attaching a “sample article” covering the Decatur crash that addresses the safety issue area identified in the recommendation to the NASDPTS. Please feel free to use this article (or parts of it) in your communications to members. If you would like to discuss the article or this recommendation, please contact Dr. Meg Sweeney, project manager for the Decatur investigation, at meg.sweeney@ntsb.gov, or by calling 202-314-6125.

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Sincerely,

[Original Signed]

Jennifer Homendy
Chair

November 3, 2022

Mr. Curt Macysyn
Executive Director
National School Transportation Association
623 North Broad Street
Lansdale, Pennsylvania 19446

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. We determine the probable cause of the accidents and issue safety recommendations aimed at preventing future accidents. In addition, we carry out special studies concerning transportation safety and coordinate the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters.

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November 3, 2022

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Executive Director
National School Transportation Association
623 North Broad Street
Lansdale, Pennsylvania 19446

Dear Mr. Macysyn:

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We are providing the following information to urge the National School Transportation Association (NSTA) to act on the safety recommendation in this letter because we believe your organization can help reduce the risk of future accidents. For more information about the NTSB and our recommendation process, please see the attached one-page summary.

This letter also includes information about our October 18, 2022, report *Collision Between Service Vehicle and School Bus, Decatur, Tennessee, October 27, 2020*, NTSB/HIR-22/06. The details of this accident investigation and the resulting safety recommendations may be found in the attached report, which can also be accessed at <http://www.nts.gov>.

As a result of this investigation, we identified the following safety issues:

- Inadequate roadway design of State Route 58,
- Lack of lane departure warning and prevention systems for heavy vehicles, and
- Lack of sufficient passenger protection measures on school buses.

Accordingly, the NTSB makes the following safety recommendation to the NSTA. Additional information regarding this recommendation can be found in the noted section of the report.

Inform your members of the need to periodically review onboard video event recorder information to ensure that students engage in safe transportation behaviors on school buses, including sitting properly and wearing seat belts, when available, and that the members use this information to improve the bus safety training provided to drivers, students, and parents. (H-22-25) (Section 2.5.3)

To assist you in fulfilling this recommendation, we are attaching a "sample article" covering the Decatur crash that addresses the safety issue area identified in the recommendation to the NSTA. Please feel free to use this article (or parts of it) in your communications to members. If you would like to discuss the article or this recommendation, please contact Dr. Meg Sweeney, project manager for the Decatur investigation, at meg.sweeney@ntsb.gov, or by calling 202-314-6125.

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Sincerely,

[Original Signed]

Jennifer Homendy
Chair

Cc: Mr. Richard C. Kelly, Esq.
Government Relations
National School Transportation Association

Enhancing School Bus Safety

Video cameras—inward- and outward-facing—are becoming much more common on vehicles, including school buses. For several years, the National Transportation Safety Board (NTSB) has stated that video recordings can be used to better understand the vehicle and passenger dynamics during a crash, as well as be used as a tool to enforce rules, such as seat belt use.¹

Crash investigation of school bus equipped with inward- and outward-facing video cameras

The NTSB recently completed an investigation of an October 27, 2020, collision involving a school bus and a service utility vehicle in Decatur, Tennessee, in which the school bus was equipped with inward- and outward-facing video cameras.² The 2013 Thomas Built transit-style school bus was traveling southbound on a two-lane highway at a speed of about 46 mph, carrying 33 students home from school. At the same time, a 2018 Freightliner truck, configured as a service vehicle for a local utility company, was traveling northbound at an estimated speed of about 52 mph. The truck driver reported that he was looking in his side rearview mirrors at a sheriff's deputy vehicle traveling behind him when the truck's right-side wheels departed the roadway. When the truck driver steered the truck back onto the roadway, the truck yawed counterclockwise, crossed into the southbound travel lane, and was almost perpendicular to the roadway. Although the school bus driver braked, she did not have time to avoid the collision, and the school bus struck the right side of the truck.

The school bus driver and a 7-year-old passenger seated directly behind the bus driver were fatally injured. Four other school bus passengers sustained serious injuries; all four were seated in the first three rows of the school bus closer to the impact location. The other students on the bus were not injured or they sustained minor injuries.

The NTSB determined that the probable cause of the Decatur crash was the service truck driver's inattention to the forward roadway due to his looking at a sheriff's vehicle behind him, which resulted in his failure to keep the truck on the roadway. Contributing to the cause of the crash were non-recoverable and critical foreslopes and the pavement edge drop-off along the state highway, which prevented the truck driver from safely returning the truck to the roadway in a controlled manner. Contributing to the severity of the crash was the lack of passenger lap/shoulder belts on the school bus and the unsafe seating positions by some of the students.

Investigators analyzed the video footage captured by the school bus's inward- and outward-facing cameras. The footage from the outward-facing camera showed the precrash

¹ See for example the 2015 report [Commercial Vehicle Onboard Video Systems](#), NTSB/SR-15/01, and the 2022 report [Multivehicle Crash Near Mt. Pleasant Township, Pennsylvania, January 5, 2020](#). NTSB/HIR-22/01.

² See *Collision Between Service Vehicle and School Bus, Decatur, Tennessee, October 27, 2020*. NTSB/HIR-22/06.

movement of the truck, and, based on that, investigators were able to estimate the speed of the truck. The footage from the inward-facing cameras was used to determine seating positions and passenger movement on board the bus before impact. The footage showed that several students—including three of the four seriously injured students—were seated out of position, such as kneeling in their seat facing aft, or sitting sideways with their feet in the aisle. Additionally, based on the video footage, investigators were able to conclude that the bus driver reacted by braking when the truck crossed into her travel lane, because all the students moved forward at the same time, indicating that the bus decelerated before impact.

Sitting out-of-position (such as kneeling or facing aft) is unsafe because, in the event of a frontal or rear crash, passengers do not receive the benefits of compartmentalization (the occupant protection system for school bus passengers). Video camera footage can be used by school transportation officials to make sure students are engaging in safe behaviors, which includes sitting in their seats properly—forward-facing, feet on the floor—and using available seat belts. Although the Decatur school bus was not equipped with passenger seat belts, the benefits of compartmentalization and lap/shoulder belts will only be realized if students are seated properly and lap/shoulder belts are properly worn when available.

What can school transportation officials do?

The NTSB recommends that school transportation officials periodically review onboard video event recorder information to ensure that students engage in safe transportation behaviors on school buses, including sitting properly and wearing seat belts, when available, and use this information to improve the bus safety training provided to drivers, students, and parents. Improper seating positions, such as facing backwards or standing, can be shown as examples of unsafe behaviors when talking with students, drivers, and parents. In order for compartmentalization to be effective, students must be seated completely within the seat compartment and be facing forward. Passenger seat belts enhance compartmentalization and will only provide protection if worn properly, so if school officials see that students are not using available seat belts, that information can also be used to improve training.

What can regulators do?

The NTSB recommends that the National Highway Traffic Safety Administration require that all buses and trucks over 10,000 pounds gross vehicle weight rating be equipped with onboard video event recorders that record, at a minimum, parametric data associated with the event, such as real clock time, GPS location, and acceleration data, and visibility of the driver's face and of each occupant seating location, visibility of the instrument panel, visibility forward of the vehicle, optimized frame rate, and low-light recording capability.

Also, the NTSB recommends that the National Highway Traffic Safety Administration require all newly manufactured commercial motor vehicles with gross vehicle weight ratings above 10,000 pounds to be equipped with lane departure prevention systems. A lane-keep system would have actively assisted the truck driver in keeping the truck within the travel lane, preventing the roadway departure that initiated this crash.

What can states do?

The NTSB recommends that the states that don't currently require passenger lap/shoulder belts on large school buses enact legislation or amend state statutes to require that all new large school buses be equipped with passenger lap/shoulder belts for all passenger seating positions in accordance with Federal Motor Vehicle Safety Standard 222. Properly worn lap/shoulder belts provide the highest level of protection for school bus passengers and enhance compartmentalization.

Additional information?

Additional information about the Decatur collision, including the final report, can be found on the NTSB website at www.nts.gov, Highway Investigation Report NTSB/HIR-22/06.



NTSB Recommendations and You

The National Transportation Safety Board (NTSB) is an independent federal agency charged with investigating and determining the probable cause of transportation accidents. We do not make regulations, but we do issue recommendations to organizations such as yours when we discover shortcomings in the transportation system that increase the risk of accidents. **As a result of our investigative activities, we have issued one or more safety recommendations that we believe you can act on to improve transportation safety.**

Why did the NTSB issue my organization a safety recommendation?

We issue safety recommendations to organizations that can bring about change to reduce the risk of accidents, either through their direct role in the transportation industry, their legislative or regulatory authority, or the significant influence they have among others in the industry. We believe your organization is able to make or influence such changes.

What does the NTSB expect of safety recommendation recipients?

First and foremost, we encourage you to promptly take the recommended action to improve safety. Because we're eager to see recommendations implemented before more accidents occur, we follow recipients' efforts to implement each recommendation. We ask that you update us any time you achieve a significant milestone in your progress toward implementing the attached recommendation(s), or at least annually. We will provide feedback on your efforts by classifying each recommendation as open or closed, acceptable or unacceptable.¹ Information about your actions associated with your recommendation(s) is available at our [website](https://www.nts.gov) so that the public can see our combined efforts to improve transportation safety.

¹ For a full description of our safety recommendation classifications, see the [Status Explanation](#) page on our website.

What should our response to the NTSB include?

Please respond to us within **90 days (30 for urgent recommendations)** explaining the specific actions you have taken or intend to take in response to the safety recommendation(s), and propose a timeline for completion. We understand organizations today are faced with competing priorities and limited resources, which can make implementing our recommendations a challenge. If, for any reason, you are not able to take the recommended action, or if you believe an alternate action would be more appropriate for your organization, please explain why. When you respond, please provide an e-mail address for future communications. We will review your response and provide feedback.

What if my organization doesn't believe the recommended action is the best way to improve safety?

We base our recommendations on the evidence, facts, and circumstances of the accidents we investigate. Sometimes industry leaders identify ways to attain the same safety objective more efficiently, and we encourage recipients to share their ideas with us. In these cases, we will evaluate the alternate means of achieving the safety objective and provide feedback. We believe safety is a collaborative effort, and we're happy to work with your organization to set goals and make improvements.

Why does the NTSB expect us to take action, even though our organization wasn't responsible for the accident that resulted in the safety recommendation?

Our goal is to prevent accidents. Often, the factors we identify as causing or contributing to an accident are not unique—they represent common practices or situations that may be accidents waiting to happen. In such instances, we may make recommendations intended to raise the minimum standard for safety throughout the industry.

How do we contact the NTSB to provide updates or obtain further information?

Please contact us electronically at executivesecretariat@ntsb.gov. If you wish to send us supporting documentation that, with your response, exceeds 10 megabytes, please contact us at the same e-mail address for instructions.

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Safety Board
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We look forward to working with you to prevent accidents and save lives!