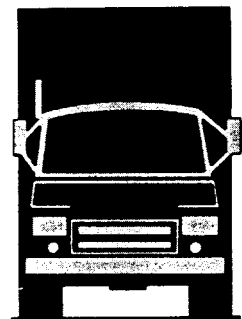
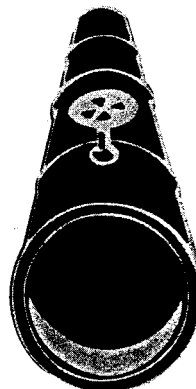
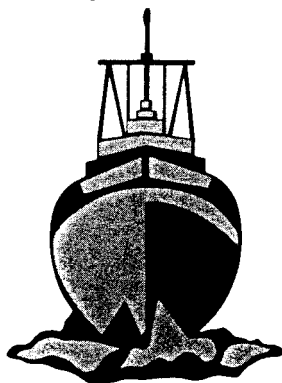
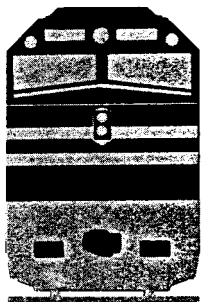


# NATIONAL TRANSPORTATION SAFETY BOARD

WASHINGTON, D.C. 20594

## HIGHWAY ACCIDENT/INCIDENT SUMMARY REPORT

COLLISION WITH A PEDESTRIAN  
BY A UTILITY TRUCK  
NEAR COSMOPOLIS, WASHINGTON  
ON NOVEMBER 26, 1996



6910

**Abstract:** On November 26, 1996, a utility truck collided with and fatally injured a 10-year-old student near Cosmopolis, Washington. The child had just exited a transit bus that had transported him from school to his residence. No other injuries were involved.

The major safety issues discussed in this report are the inequity between the safety of children transported on school buses and the safety of children transported on transit buses and the lack of a mechanism in place to document and define the safety risks of pupil transportation by transit buses.

As a result of its investigation, the Safety Board issued recommendations to the U.S. Department of Transportation, the National Association of State Directors of Pupil Transportation Services, the American Public Transit Association, and the Community Transportation Association of America.

The National Transportation Safety Board is an independent Federal agency dedicated to promoting aviation, railroad, highway, marine, pipeline, and hazardous materials safety. Established in 1967, the agency is mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The Safety Board makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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**COLLISION WITH A PEDESTRIAN  
BY A UTILITY TRUCK  
NEAR COSMOPOLIS, WASHINGTON  
NOVEMBER 26, 1996**

**HIGHWAY ACCIDENT/INCIDENT  
SUMMARY REPORT**

**Adopted: October 17, 1997  
Notation 6910**

**NATIONAL  
TRANSPORTATION  
SAFETY BOARD**

**Washington, DC 20594**





**NATIONAL TRANSPORTATION SAFETY BOARD**  
Washington, D C 20594-2000

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## **HIGHWAY ACCIDENT/INCIDENT SUMMARY**

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**Vehicle:** 1993 Ford F-350 utility truck

**Accident Type:** Collision with pedestrian

**Location:** Cosmopolis, Washington

**Date:** November 26, 1996

**Time:** 3:20 p.m.

**Owner/Operator:** Seldoim Tree Farm Company

**Occupants:** Driver and passenger

**Damage:** Minor damage to truck

**Injuries:** One pedestrian fatality

About 3:20 p.m. on November 26, 1996, near Cosmopolis, Washington, a utility truck collided with and fatally injured a 10-year-old child who darted from behind a transit bus that had transported him from school to his residence. The transit bus had stopped in the northbound lane of North River Road (opposite the residence) and had activated its headlights and four-way flashers. Meanwhile, a southbound utility truck proceeded around a curve in the road and approached the bus. (See figure 1.) When its driver saw the bus with its lights activated, he slowed the truck to a speed of about 20 mph. As the truckdriver came to a near stop, the lights on the transit bus were deactivated, and the busdriver began to drive away from the stop. At the same time the truckdriver began to accelerate, the child ran

out from behind the transit bus, and the utility truck struck him.

During its investigation, the National Transportation Safety Board determined that children riding transit buses to and from school are not provided an equivalent level of safety as those children who ride school buses. In addition, the Safety Board found no mechanism in place that documents the extent to which transit buses are being used to transport children to and from school.

The following discussion includes a narrative description of the accident, a consideration of the safety issues, a list of conclusions drawn from the Safety Board investigation, and a set of recommendations developed to help prevent a recurrence of incidents of this type.



**Figure 1 -- Photograph of accident scene**

## INVESTIGATION AND ANALYSIS

### Accident Narrative

A Gray's Harbor Transit bus was transporting 19 students, who were between the ages of 4 and 17 years, from the North River School to their homes on November 26. No other passengers were on board the bus. The sky was cloudy, and the temperature was about 50 °F at the time of the accident.

The busdriver stopped the bus about 3:20 p.m. in the northbound lane for a 10-year-old child to exit on North River Road across the street from his house. The road was wet because it had rained earlier in the day. The busdriver said that she activated the headlights and the four-way flashers and opened the front door. The child departed and walked toward the rear of the bus. A vehicle, according to its two occupants, was stopped between 60 and 100 feet behind the transit bus. They witnessed the child exit the bus and said that he went to the rear of the bus and was looking in their direction before he ran across the road.

In the meantime, a utility truck was southbound on North River Road. Its driver and a passenger were returning home from work at a logging site. They saw the transit bus with its headlights and four-way flashers activated as the truck rounded a curve in the road. The truckdriver said that he did not know the reason for the bus being stopped but thought that it might be having mechanical problems. He had slowed his truck speed to approximately 20 mph. He stated that when he was between 50 and 100 feet from the transit bus, the headlights and four-way flashers were turned off. He then began to accelerate his truck, when a child ran out from behind the bus in front of the

truck. He said that he immediately braked the truck and steered it to the right, striking the child with the left front of the truck. (See figure 2.) The child received fatal injuries on impact.

### Injuries

The 10-year-old child sustained skull fractures and lung lacerations. The accident involved no other injuries or fatalities.

### Highway Information

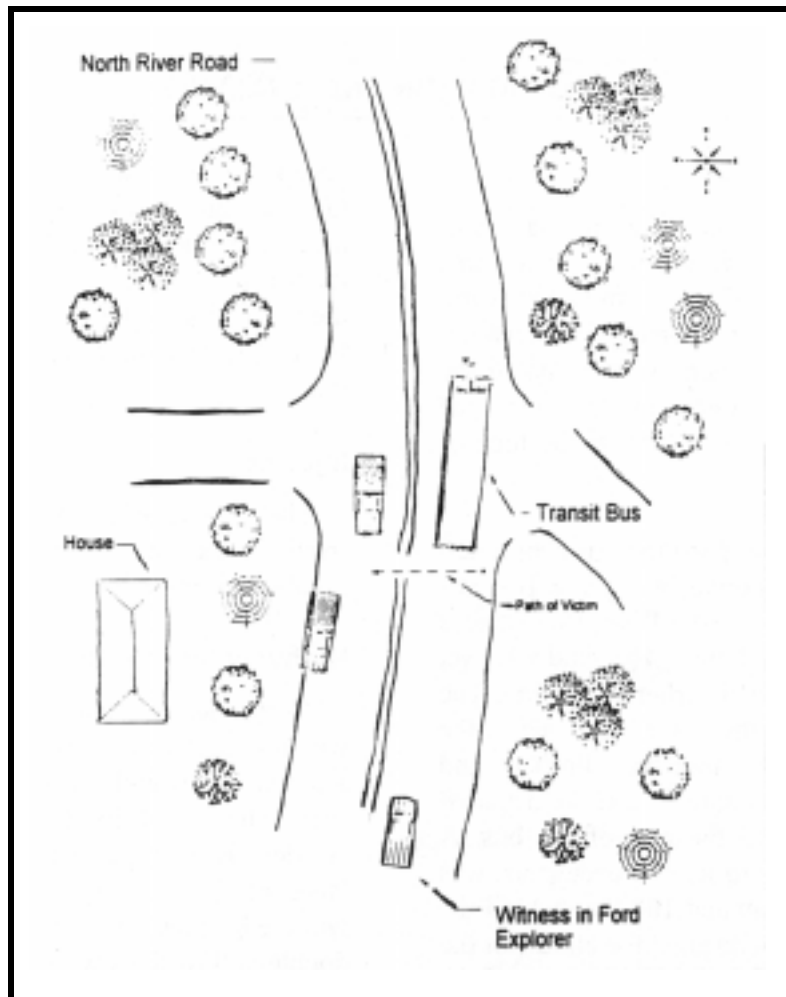
North River Road is a north/south, winding, asphalt road bordered by woods in a mountainous and sparsely populated rural area. The speed limit at the site of the accident is 35 mph. The two 12-foot-wide lanes of the road are bordered with solid white edgelines and separated by two solid double-yellow lines with intermittent yellow reflective markers.

### Truckdriver Information

The truckdriver, who was unfamiliar with the area, was returning home from work when the collision occurred. During their investigation at the accident scene and in their contact with the truckdriver, the police found no evidence that he was impaired by alcohol, drugs, or fatigue.

### Truck Information

The 1993 Ford F-350 utility truck was owned by its operator. The police conducted a mechanical inspection of the vehicle and found no deficiencies.



**Figure 2 – Diagram of accident scene**

### **Bus Operations**

The 1977 American General 41-passenger transit bus, which was not involved in the collision, was owned by the Gray's Harbor Transit in Aberdeen, Washington. The company operates 41 transit buses and 19 vans within a 2,000-square-mile area of Gray's Harbor County, Washington. It employs 48 full-time and 12 part-time drivers. The company requires its drivers to pass a driving evaluation test and periodic evaluations and provides them with an operator's manual that details the requirements and responsibilities of the position. It had no training available for the

drivers that was specific to the transportation of school children.

The accident bus was operating in "tripper service." Title 49 Code of Federal Regulations (CFR) 605.3 defines this service as:

[A] regularly scheduled mass transit transportation service which is open to the public, and which is designed or modified to accommodate the needs of school students and personnel, using various fare collections or subsidy systems. Buses used in tripper service must be clearly marked as open to the



public and may not carry designations such as “school bus” or “school special.” These buses may stop only at a grantee or operator’s regular route service as indicated in their published route schedules.

Transit buses operating in tripper service are prohibited under 49 CFR 605.3 from using certain equipment that school buses have, including the side-mounted stop sign, stop arm, and flashing red lights.

Gray’s Harbor Transit had verbal contracts with two school districts to transport children to and from school. The contract with the North River School District, in which the accident occurred, required the busdriver to make a head count every day to determine how much to charge the school district. The transit bus would pick up the children at the assigned stops, transport the students to school, and then be parked at the bus depot. Should other people flag the bus along its route, the busdriver would have to stop and allow them to board, and these riders would pay the normal transit bus fare.

### **School Transportation Oversight**

The Federal Transit Administration (FTA) within the U. S. Department of Transportation (DOT) administers grants to the transit industry. Federal regulations define the overall operation of transit authorities but do not specify operating rules, and the transit companies throughout the country establish their own operating rules. The FTA is prohibited from providing funds to transit companies who “engage in school bus operations exclusively for the transportation of students and school personnel, in competition with private school bus operations.” Although an industrywide set of standards by which transit districts pattern

their operating rules has not been established, the operating rules appear similar from district to district.

In 1995 the National School Transportation Association, an organization primarily of independent school transportation contractors, published the paper, “Keeping Children Safe: Yellow School Buses Vs. Transit Buses,” that states:

There are exceptions, but the basic principle is clear: transit operators are forbidden to provide pupil transportation services....transit providers may operate school buses if [according to the Federal Transit Act of 1964] “private school bus operators in the area are unable to provide adequate transportation, at a reasonable rate, and in conformance with applicable safety standards.”

The regulations are aimed at preventing unfair competition, not at keeping young people from riding on a regularly scheduled transit bus—especially if that route happens to be headed where they want to go.

Ironically enough, however, a great many school bus contractors also operate transit buses—and they are among the most adamant about the value of the yellow school bus in student transportation. The president of one such company was quoted recently as saying that when it comes to transporting children to and from school, transit buses are uneconomical, poorly designed and less safe.

The Washington Department of Public Instruction (WDPI) oversees school

transportation in the State of Washington. School buses and their operation are subject to Federal and State regulations specifically designed to protect the occupants. School buses are clearly distinguishable vehicles equipped with special safety features. Federal standards establish performance and use requirements for flashing lights and stop arm signals to minimize the possibility of vehicles passing a stopped school bus and striking pedestrians. Motorists in all States are required to stop while the children enter or leave a stopped school bus. Additionally in an effort to prevent pedestrian accidents, all school districts within the States have established operational requirements for school buses. For example, California requires school busdrivers in some circumstances to exit the school bus with the students and ensure that they cross the road

safely. Washington requires that any student exiting a school bus walk to the front of the bus around a 7-foot-long arm and wait for the busdriver to motion that it is safe to cross the road.

While school bus operational requirements actively protect passengers, transit bus operational requirements are passive and do not provide an equivalent level of safety for children riding to and from school. (See table 1 for a comparison of the bus requirements.) All States provide school busdrivers with initial and in-service training that pertains to safe operating practices concerning the children as well as safe driving practices. Transit bus operations do not provide this type of training to their busdrivers.

Table 1. *Comparison of school bus with transit bus requirements*

| School Bus  | Transit Bus             |
|---|-------------------------|
| Painted bright yellow   | All colors              |
| “School Bus” markings   | Different markings      |
| Red stop arms on left side  | None                    |
| Many have front walk-around gates   | None                    |
| Large red top-mounted flashing lights   | Amber four-way flashers |
| Laws require motorists to stop vehicles while children enter or leave a stopped bus | None                    |

Although Washington has specific procedures regarding school bus operations, no procedures or regulations have been established that pertain to children riding transit buses to and from school. In this accident, Gray’s Harbor Transit had written ridership rules for its transit buses. These rules are available for everyone, including students, who ride its transit buses.

Specifically, number 11 of Gray’s ridership rules states:

After the passenger has disembarked from the bus, he/she shall stand clear until it has pulled away. Never cross in front of nor directly behind the bus. Drivers are not responsible for passengers once they leave the bus.

All children who rode transit buses were provided with a copy of the ridership rules; however, they were not tested in the practice or on the knowledge of the rules. In addition, whether children too young to read have been taught these rules is not clear.

In April 1996 the National Association of State Directors of Pupil Transportation Services (NASDPTS) issued the position paper, "Transporting the Nation's School Children [School Buses - Transit Buses]" that states:

Over the past few decades, the largest school transportation safety problem has been in the school bus loading zone, where children get on and off the bus. The Federal requirement that school buses have flashing lights on the front and rear, and a stop signal arm on the left side, provide notice to passing motorists to stop their vehicles in accordance with State law. Stopping traffic in areas where children get on and off school buses, and are often crossing the street, has proven to be beneficial in protecting students who must cross the street to reach the bus or go home. Stopping traffic creates a safer environment for young children who are not as adept as adults with negotiating their way through traffic.

In most States, there is no mandate to provide students with transportation to or from school. Accordingly, funding for school transportation in those States does not always receive a high priority in budget decisions as mandated education programs, e.g., facilities, teacher salaries, computers, and books. Even in States where transportation of students to and from school is required by law, funding shortfalls in recent years have created problems in

maintaining an adequate school transportation program. As a result of budget constraints, many schools are being forced to seek alternative means of providing transportation services for students. A growing number of school districts are turning to public transit buses as a means of getting students to and from school each day.

The State Directors Association realizes that the transit industry is a major provider of home-to-school transportation, and the number of students using public transportation will continue to increase in the future due primarily to budgetary decisions. Accordingly, the State Directors Association strongly urges members of the pupil transportation and public transportation communities to join forces to mutually ensure the safe transportation of students on transit vehicles.

An inequity exists between the safety of children transported on school buses and the safety of children transported on transit buses. Those children transported on school buses have an adult (the school busdriver) responsible for their safety, even as a pedestrian boarding and exiting the bus. On the other hand, those children riding transit buses are responsible for their own safety. Although a 9- or 10-year-old child may be able to follow certain rules, expecting a 4- to 6-year-old child to follow rules about crossing roads as well as to judge vehicle speeds and distances to determine when it is safe to cross a road is not realistic. To expect young children to be responsible for their safety in this type of environment is not reasonable.

In the 104<sup>th</sup> U.S. Congress, Senator Frank R. Lautenberg and Representative James Traficant introduced legislation covering a number of school bus safety issues. No action, however, was taken on this legislation.

Additionally, Congressman Traficant introduced H.R. 1993 – School Bus Safety Act to Congress on June 19, 1997. Part of this proposed act requires the Secretary of the DOT to enter into an agreement with the Transportation Research Board of the National Academy of Sciences to study relevant safety issues involving school children that would encompass analyzing transportation modes, including the public transit used to transport students to and from school. The study is to consider available crash injury data and, if it is unavailable or insufficient, recommend a new data collection regimen and implementation guidelines.

The Safety Board recognizes that the use of transit buses and alternative modes of transporting children may be practical, and even necessary, in certain situations. However, the Safety Board concludes that existing Federal regulations and prohibitions are clearly designed to afford school children the highest level of safety while being transported to and from school. Should these alternative modes be used primarily to transport children to and from school each day, safety practices must be developed to provide the same level of safety that the children would obtain while riding on a school bus. The Safety Board also concludes that had safety practices similar to those for school buses been in place, the fatality in this accident may not have occurred. Therefore, the Safety Board believes that the DOT, the NASDPTS, the American Public Transit Association (APTA), and the Community Transportation Association of America, together, should

work to collect accident data involving school children riding on transit buses and determine the most appropriate means to ensure that school children riding on transit buses in tripper service are afforded an equivalent level of operational safety as school children riding on school buses.

### **Postaccident Actions**

After the accident, the North River School District purchased a school bus with the financial assistance of the WDPI. This bus, operated by school district personnel, is being used to transport the children who live along North River Road to and from school. A Gray's Harbor Transit bus continues to transport children living in Aberdeen and Cosmopolis, as well as Artic Store, Washington, to and from school; however, these routes do not have stops that require the children to cross the street at unprotected locations.

### **Extent of Situation**

As a result of this accident, the Safety Board attempted to determine the number of students who are transported on transit buses, the number of children transported by tripper service compared with by mass transit, and the number of accidents that involved transit buses. Washington has 25 school districts, 18 of which use transit vehicles to transport children. The State, however, makes no distinction between transit buses transporting children in tripper service and children using mass transit service.

In the United States, approximately 400,000 school buses transport 22.5 million children daily to and from school, which is a total of 10 billion student rides a year. This number represents an average of only 55.2

percent of all students attending school. The remaining students either walk, ride bicycles, or use some other mode of transportation. There are no definitive statistics on the number of transit buses used in tripper service.

According to the NASDPTS, the APTA estimates that transit buses provided over 900 million student-related passenger trips in 1994. This figure translates into approximately 2 million students (8 percent of all public school students) who rode transit buses to and from school each school day. Out of the total student rides, 15 percent of all pupil transportation is accomplished through public transit, which includes shuttle buses, taxis, public ferries, and light rail.

### **Tripper Service Safety Practices**

The differences in the operational practices and equipment between school buses and transit buses in tripper service can be critical. This accident probably would not have occurred had markings identified the transit bus as carrying school children to motorists, had a law required motorists to stop, and had the transit busdriver been responsible to assist the child. In contrast, had this child been transported by a school bus: 1) the truckdriver would have known that the stopped bus in the road was carrying students, and he would have been required to stop; 2) the child would have crossed the road in front of the school bus while it was stopped with flashing lights and possibly a stop arm and stop bar activated; and 3) the school busdriver would have watched the child until he was safely across the road.

This incident is not an isolated case. In February 1995 in Austin, Texas, another 10-year-old child exited a transit bus, walked in front of it, and was crossing the road a few

feet from the crosswalk when a vehicle collided with and fatally injured him. In January 1997 in Dallas, Texas, a 9-year-old child departed a transit bus that then struck and killed her when she was returning home from school. Consequently, the Safety Board concludes that transit buses do not provide an equivalent level of operational safety when transporting school children.

### **Accident Reporting**

The DOT FARS (Fatal Accident Reporting System) reported that in 1995 less than 0.3 percent of all fatal traffic collisions were school bus-related. Between 1985 and 1995, a total of 456 school bus-related fatalities occurred; of which 156 fatalities had been bus occupants and 300 fatalities had been pedestrians. No statistics on pupil-related transit bus collisions exist because no reporting system is in place that codes transit bus (in tripper service) accidents as pupil transportation. The transit industry indicates that traveling by transit buses is one of the safest modes of transportation; however, a lack of specific reporting data makes defining the safety issue of pupil transportation by transit buses difficult. Therefore, the Safety Board concludes that the lack of existing data concerning accidents involving transit buses makes it difficult to assess the safety risks associated with transporting children on transit buses to and from school.

Accidents involving transit buses in pupil transportation can be significant, as demonstrated in a September 8, 1993, transit bus collision in Oakland, California, that was reported in the *Oakland Chronicle* the next day. A county transit bus, carrying 53 people, of which 50 were school children going home from school, went out of control and crashed, and all 50 students received varying degrees

of injuries (no fatalities). This accident was reported as a transit bus accident and not as a pupil transportation-related accident. As a result of this accident, the California Highway Patrol recommended that legislation be enacted that would require transit bus companies to meet the same operating rules and regulations currently in place for school bus and special pupil activity bus programs; however, to date, no action has been taken.

As noted earlier, transit buses used in tripper service transportation, by definition, are functionally similar to school bus transportation but with significantly different types of operating requirements. Accident

reporting data are currently collected for school bus-related accidents; therefore, transit bus-related accident data should be collected to ensure that an accurate assessment can be made of the safety risks associated with children riding transit buses to and from school. Consequently, the Safety Board believes that the DOT should collect accident data involving school children riding on transit buses, including pedestrian accidents, to assist development of appropriate means to ensure that school children riding on transit buses are afforded an equivalent level of operational safety as school children riding on school buses.

## CONCLUSIONS

### Findings

1. Existing Federal regulations and prohibitions are clearly designed to afford school children the highest level of safety while being transported to and from school.
2. Had safety practices similar to those for school buses been in place, the fatality in this accident may not have occurred.
3. Transit buses do not provide an equivalent level of operational safety when transporting school children.

4. The lack of existing data concerning accidents involving transit buses makes it difficult to assess the safety risks associated with transporting children on transit buses to and from school.

### Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the lack of adequate safety procedures and equipment (similar to those in place for school bus operations) to ensure the safety of children being discharged from transit buses in tripper service.

## RECOMMENDATIONS

### **--to the U. S. Department of Transportation:**

Collect accident data involving school children riding on transit buses, including pedestrian accidents, to assist development of appropriate means to ensure that school children riding on transit buses are afforded an equivalent level of operational safety as school children riding on school buses. (H-97-26)

Work with the National Association of State Directors of Pupil Transportation Services, the American Public Transit Association, and the Community Transportation Association of America to determine the most appropriate means to ensure that school children riding on transit buses in tripper service are afforded an equivalent level of operational safety as school children riding on school buses. (H-97-27)

### **--to the National Association of State Directors of Pupil Transportation Services:**

Work with the U.S. Department of Transportation, the American Public Transit Association, and the Community Transportation Association of America to collect accident data involving school children riding on transit buses and determine the most appropriate means to ensure that school children riding on transit buses in tripper service are afforded an equivalent level of operational safety as school children riding on school buses. (H-97-28)

### **--to the American Public Transit Association:**

Work with the U.S. Department of Transportation, the National Association of State Directors of Pupil Transportation Services, and the Community Transportation Association of America to collect accident data involving school children riding on transit buses and determine the most appropriate means to ensure that school children riding on transit buses in tripper service are afforded an equivalent level of operational safety as school children riding on school buses. (H-97-29)

### **--to the Community Transportation Association of America**

Work with the U.S. Department of Transportation, the National Association of State Directors of Pupil Transportation Services, and the American Public Transit Association to collect accident data involving school children riding on transit buses and determine the most appropriate means to ensure that school children riding on transit buses in tripper service are afforded an equivalent level of operational safety as school children riding on school buses. (H-97-30)

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