



National Transportation Safety Board

Washington, DC 20594

Highway Accident Brief

Accident No.: HWY-01-FH008
Accident Type: School bus run-off-the-road and rollover
Location: Northbound State Highway 117 at milepost 6
Herndon, Kentucky
Date and Time November 30, 2000, about 7:10 a.m.
Vehicle: 1994 American Transportation Corporation
Genesis model 74-passenger transit-style school bus
Owner/Operator: Christian County (Kentucky) School District
People on Board: Forty-eight—driver and 47 passengers
Injuries: One fatal
Forty-seven minor

Accident Description

About 7:10 a.m. on November 30, 2000, a 1994 American Transportation Corporation 74-passenger transit-style school bus, owned and operated by the Christian County (Kentucky) School District, ran off the road and overturned near Herndon, Kentucky. The driver and 47 elementary school-age children were on board. The accident occurred in a rural area at milepost 6 on State Highway 117, a two-way, two-lane, 22-foot paved asphalt roadway; the speed limit was 55 mph.

Just before the accident, according to the busdriver, the school bus was traveling north at a speed of 53 mph and was approaching a 3-degree left curve, when a student touched the driver's right arm. The busdriver said that as she looked to the right, the bus veered to the right and she turned the wheel to the left. The busdriver recalled that the student fell toward the boarding door step well and she tried to grab the child.

The school bus traveled off the roadway at a 3- to 4-degree angle, hit a metal delineator about 3 feet from the pavement edge, struck a corrugated metal drainage culvert, and rotated counterclockwise about its vertical axis on the east roadside. The bus reentered onto the pavement, continued rotating along a 265-foot radius across the travel lanes, and overturned 180 degrees about its longitudinal axis. The bus continued rotating about its vertical axis; before coming to rest, the bus rolled back onto its right side. (See figure 1.)

The busdriver reported being unable to remember anything, after trying to grab the falling child, until the bus came to rest. She used her two-way radio to seek assistance and said that she then helped the children off the bus. The busdriver reported that she was wearing her seatbelt at the time of the accident. She stated that she experienced no problems with the bus's operation. The Kentucky State Police performed a mechanical inspection on scene and found that the steering, suspension, and tires were well maintained and the brakes were properly adjusted.

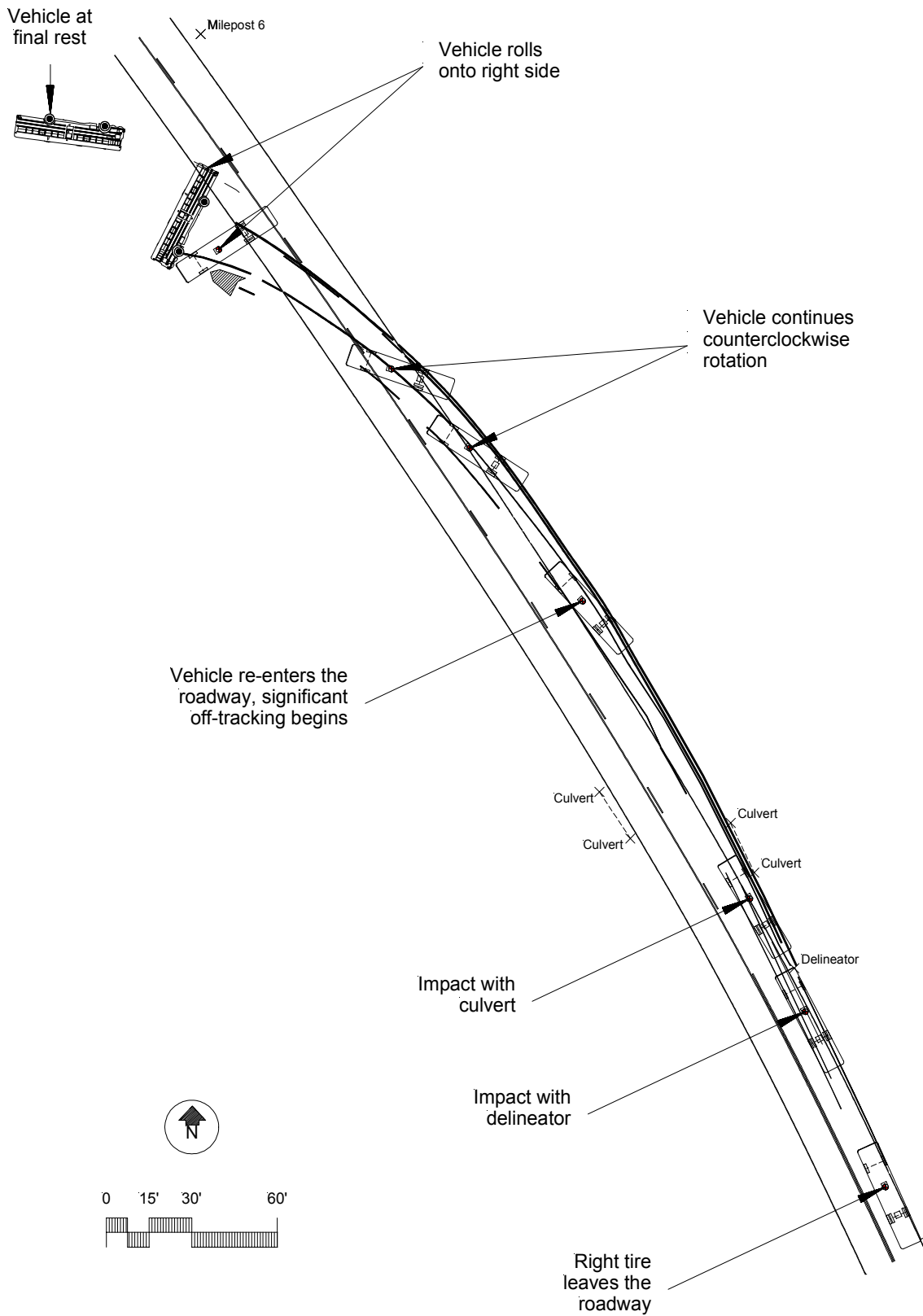


Figure 1. Diagram showing school bus loss of control and overturn.

During the rollover sequence, a 5-year-old student was fatally injured. Based on the evidence, supported by witness statements, the medical examiner determined that the victim “sustained massive head trauma” resulting from ejection through the front roof hatch opening. The busdriver and the other 46 students sustained minor injuries.

Vehicle Damage

The bus’s interior received damage running horizontally and parallel to the bottom edge of the right-side window frames. The roof was deformed downward on the right about 8 inches and on the left about 12 inches. The interior roof panels, sides, and floor remained intact. The passenger boarding door was deformed upward and inward about 7 inches and jammed closed. The boarding door windows and the windshield were broken. (See figure 2.) The remaining windows, emergency window exits, and left-side and rear emergency doors were intact and functional.

The bus's exterior sustained impact damage to the roof, right side, and right front corner. The roof was displaced vertically about 6 inches downward and 11 inches to the left and about 16 feet behind the right front corner near seat row 4. The left side of the bus was intact; it sustained minor damage about 7 inches horizontally along the window bottoms. Two circumferential gouge marks were found above the left seat, row 7, where the roof and sidewall met.

The forward and rear emergency hatches installed along the roof centerline above seat rows 4 and 8, respectively, were missing (see figure 3); both hatches were found in the grass near the bus. The hatches were sheared off along the hinge line; the hatch openings remained intact.



Figure 2. Postaccident front view of school bus.



Figure 3. Postaccident interior view of roof, showing absence of emergency roof hatches.

Busdriver Information

The 36-year-old busdriver held a valid Kentucky class D/B commercial driver's license, with passenger endorsement, issued on November 4, 1999; she possessed a valid medical examiner's certificate issued on September 12, 2000. She began driving for the Christian County School District in September 1999 and met all requirements and certifications to operate the bus. According to the busdriver, she was in good health and was not taking any prescription or over-the-counter medications at the time of the accident. The busdriver told Safety Board investigators that she retired at 9:30 p.m. on November 29 and awoke at 6:10 a.m. on November 30. She was off duty on November 28.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the school bus driver's failure to control the school bus before it left the road after the busdriver had been distracted by one of the student passengers.

Adopted August 21, 2002