



PRELIMINARY REPORT

HIGHWAY

HWY17MH007

The information in this report is preliminary and will be supplemented or corrected during the course of the investigation.

About 6:30 a.m. (local time) on Tuesday, November 1, 2016, a 2015 IC 64-passenger school bus was traveling east in the 4000 block of Frederick Avenue in Baltimore, Maryland. The school bus was occupied by a 67-year-old driver and an adult teacher aide. No student passengers were on the bus at the time. After the school bus had traveled through the intersection of Frederick Avenue and Loudon Street, it struck the rear of a 2012 Ford Mustang passenger car, which was also traveling east on Frederick Avenue. The Ford Mustang then struck the south curb of Frederick Avenue and collided with a brick wall and a metal fence before coming to rest in the eastbound lane.

After striking the Ford Mustang, the school bus continued traveling east on Frederick Avenue, departed the eastbound travel lane, crossed through the center turn lane, and entered the westbound travel lane, where it collided with the left side of a 2005 New Flyer transit bus operated by the Maryland Transit Administration (MTA). The extent of the school bus's impact ran along the left side of the transit bus and terminated near its rear axle (see figure 1).

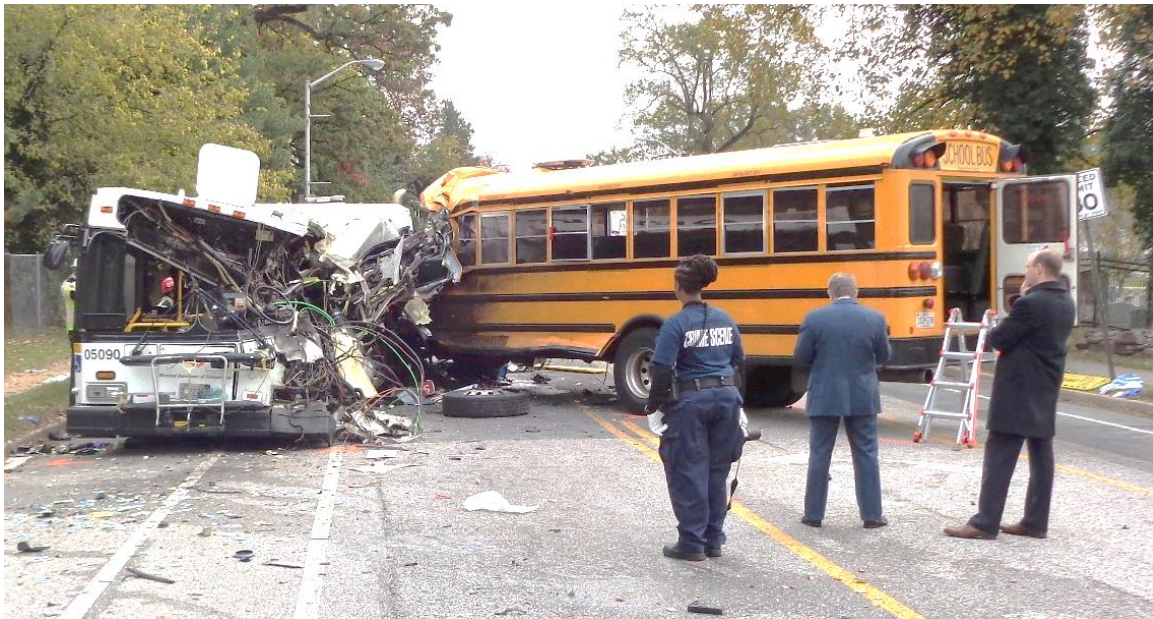


Figure 1. Final rest position of buses, looking east on Frederick Avenue. The damaged transit bus is shown at the left. The school bus is shown at the right, rotated outward from its striking position. (Source: Maryland Transportation Authority Police)

The transit bus was occupied by a 33-year-old driver and 13 passengers. As a result of the crash, the drivers of both buses and four passengers on the transit bus were killed. Seven transit bus passengers were seriously injured. Two transit bus passengers and the teacher aide on the school bus sustained minor injuries. The driver of the Ford Mustang also sustained minor injuries.

At this location Frederick Avenue was comprised of one travel lane in each direction for eastbound and westbound traffic, divided by a double yellow center line. As Frederick Avenue continued east, the double yellow center line transitioned into a center turn lane. Bike lanes were also present on either side of the travel lanes. The posted speed limit in the area was 30 mph.

Preliminary information suggests that neither bus driver was using a cell phone at the time of the crash. Both bus drivers had been driving for less than 3 hours when the crash occurred. Mechanical inspections were completed on both buses, and no mechanical defects were identified.

Surveillance cameras in the area captured images of the school bus as it traveled east on Fredrick Avenue. In addition, the transit bus was equipped with an onboard video system that captured the crash. Preliminary information from these videos indicates that the school bus was traveling approximately 57 mph just before striking the Ford Mustang. The airbag control module on the Ford Mustang recorded that it was traveling approximately 16 mph when it was struck from behind. After colliding with the Ford Mustang, the school bus continued east for more than 800 feet and was traveling about 45 mph before it struck the MTA transit bus, which was traveling about 39 mph.

The school bus was operated by AAAfordable LLC of Baltimore, Maryland, which had contracts to run seven Baltimore City school bus routes and three Howard County school bus routes; it also conducted for-hire charter services. The school bus driver had been driving for various school bus companies since 2008. He began his employment at AAAfordable in May 2014, but he had an employment hiatus there between April and August 2016; during this period, he worked for another bus company.

The school bus driver had a history of hypertension, diabetes, and seizures. In the past 5 years, he had been involved in at least 12 crashes or incidents while operating a school bus or personal vehicle. Reports from a number of these cases described seizure-like episodes. In addition, the week before the crash, paramedics were called to AAAfordable because the school bus driver was experiencing what witnesses described as a seizure. Investigators interviewed the teacher aide who was on the school bus at the time of the crash. The teacher aide recalled asking the school bus driver what had happened after the impact with the Ford Mustang, but the school bus driver did not respond. The school bus then struck the transit bus.

At the time of the crash, the school bus driver held a current medical certificate; however, it was not on file with the Maryland Motor Vehicle Administration (MVA). About 2 months before the crash, the MVA notified the school bus driver that, because his medical certificate was not on file, he was no longer authorized to operate a commercial motor vehicle.

All aspects of the crash, including the school bus driver's medical condition and medical certification to drive, remain under investigation by the NTSB and the Baltimore Police. The NTSB will continue to work toward determining the probable cause of the crash, with the intent of issuing recommendations to prevent similar crashes.