



NTSB

Highway Report Summary



Anaheim, California: School Bus Single-Vehicle Crash

Proper use of lap/shoulder belts on the school bus reduced passenger injuries.

WHAT HAPPENED: A 24-year-old male school bus driver was in the process of completing his afternoon route driving middle school-aged children home from school when he lost consciousness as a result of a medical condition. The unconscious driver lost control of the school bus on a downhill graded and leftward curving roadway in a 35-mile per hour zone. The school bus departed the roadway to the right at a video estimated speed of 43-miles per hour. The school bus then mounted the curb, where it struck and dislodged a concrete light post. The bus continued up the embankment where the front of the bus struck and uprooted a tree. The bus also scraped along a large tree on the left side of the bus from the front axle backward to the rear axle. The bus came to rest at an angle on the embankment, leaning onto the large tree. The tree caused extensive intrusion into the school bus especially in the region near the left side emergency exit door.

MAIN FINDINGS: In addition to passenger lap/shoulder belts, the school bus was also equipped with a continuous audio and video recording system. The videos showed that the driver was not wearing his seat belt at the time of the crash and that about three-fourths of the students visible in the recordings were wearing the lap/shoulder belts while the bus was in motion. Importantly, two students seated in the area of maximum crush were wearing their seatbelts at the time of the crash. An occupant kinematics simulation study characterized potential outcomes for these two students comparing three simulated configurations: unbelted, lap-only belted, and lap/shoulder belted.

PROBABLE CAUSE: The probable cause of the crash was the driver's loss of consciousness, resulting in his loss of control of the school bus, which departed the roadway and collided with a light pole and trees. Reducing the severity of passenger injuries in the area of maximum intrusion was the proper use of the available lap/shoulder belts by the student passengers seated in this area.

LOCATION

Anaheim, California

DATE, TIME

April 24, 2014 / 3:37 pm

VEHICLE(s)

2012 Bluebird 78-passenger School Bus

FATALITIES / INJURIES / EJECTIONS

0 Fatal
5 Serious, 5 Minor, 2 Uninjured
0 Ejections

You should know:

Injuries were reduced in the area of maximum intrusion because students wore the passenger lap/shoulder belts properly.

Lap/shoulder belts provide the highest level of protection for school bus passengers; states and school districts should consider lap/shoulder belts when purchasing seat belt-equipped school buses.

Students and parents should be educated about the importance of the proper use of all seat belts on school buses.

Any onboard video system in a school bus should provide visibility of the driver and of each occupant seating location and visibility forward of the vehicle.

The full report can be found at: <http://www.nts.gov/schoolbuses>