



National Transportation Safety Board
Washington, DC 20594

Highway Accident Brief

Accident No.: HWY-01-F-H012
Accident Type: 15-passenger van median crossover and impact with truck
Location: Interstate 55 near milepost 250 in Will County, Illinois, 6.5 miles southwest of Joliet, Illinois
Date and Time: January 26, 2001, about 9:35 a.m.
Vehicle One: 2000 Dodge, 15-passenger, Ram Maxiwagon 3500
Operator: The Salvation Army, Chicago, Illinois
Operation: Correctional facilities visitation trip
Vehicle Two: 1985 Mack model RS688LST truck tractor, pulling 1990 Lufkin model TFV-IP-ST 48-foot loaded (42,480 pounds of telephone books) van semitrailer
Operator: Double L Trucking, Kanakee, Illinois
Vehicle One Damage: Destroyed
Vehicle Two Damage: Destroyed
People on Board Van: Eleven—driver and 10 passengers
Injuries: Eleven fatal
People on Board Truck: One—truckdriver
Injuries: Minor

Accident Description

About 8:30 a.m. on January 26, 2001, a 2000 Dodge, 15-passenger, Ram Maxiwagon 3500 van, owned and operated by the Salvation Army, departed a Salvation Army facility in Chicago, Illinois, with the driver and 10 passengers, en route to correctional institutions in Dwight and Pontiac, Illinois, approximately 83 miles southwest of Chicago. The trip was sponsored by the Salvation Army's Correctional Services Program, and the service was provided to family members of offenders incarcerated in the correctional facilities.

About 9:35 a.m., after having traveled some 32 miles, the van was involved in a fatal crash. Witnesses reported that the van was traveling in the southbound left lane of Interstate 55 (I-55) near milepost (MP) 250 when it slid out of control on the icy road surface, crossed the 40-foot-wide median, and was struck by a tractor trailer traveling in the northbound left lane of I-55. Witnesses reported the roadway appeared to have "black ice"¹ with blowing snow. Winds were 13 mph, with gusts of 20 mph. The sky was overcast, and the temperature was about 20° Fahrenheit. One witness stated that he thought the maximum safe speed for the conditions near the accident site was 35 mph. The van was traveling at a witness-estimated speed of 60 to 65

¹ Defined as dark-colored glacial ice formed by the freezing of silt-laden water.

mph near MP 252. The posted speed limit was 65 mph.

The Illinois Department of Transportation (IDOT) had an established snow and ice control program and procedures. Plow operations on the I-55 route began about 7:00 a.m., and two passes at the accident site had been made before the accident occurred. According to the plow operators, because of the windy conditions, they had been spot spreading a chemical deicing material during those passes. The plows were in the process of performing a third pass, dispensing a continuous application of the deicing material, but had not yet reached the accident site when the accident occurred.

Prior to the accident site, near MP 250, witnesses had observed other vehicles losing control on the highway. One witness said that he saw 5 to 10 accidents along the southbound lanes of I-55. Another witness stated that he had seen several vehicles that had lost control and run off the roadway in the southbound lanes of I-55 before he witnessed the accident van swerve hard to the left, go out of control, cross the median,² and roll on its right side into the northbound lanes. This witness had been traveling in the southbound left lane about 100 to 150 yards behind the accident van.

Evidence at the scene indicated that the van yawed³ counterclockwise about its vertical axis as it entered the center median at approximately an 18° angle. As the van traveled for 102 feet through the median, the rotation continued, and the van began to roll about its longitudinal axis. When the van encroached into the northbound left lane of I-55, it was struck by a truck tractor pulling a loaded 48-foot van semitrailer. The truckdriver reported that he was traveling about 50 mph and that he braked his vehicle but was unable to avoid the van.

At collision, the truck's front grill impacted the roof of the van, crushing it down to the seat cushion level. Both vehicles departed the impact area to the right, traveled across the northbound lanes, struck a light pole, and came to rest in a gore⁴ area, approximately 325 feet from the impact area. During the postimpact movement, four van occupants were ejected. (See figure 1.) The accident resulted in fatal injuries to all 11 van occupants; the truckdriver received minor injuries. Both vehicles were destroyed.

Medical examinations of the victims and evidence from the vehicle's interior indicated that a lap/shoulder belt had restrained the driver of the van and that he was the only occupant who used a restraint. All seating positions in the van were equipped with restraint mechanisms. Illinois statutes do not require adult bus⁵ occupants to be belted other than in the front-seat positions. Section III of the Salvation Army's Fleet Safety Program states:

² According to the current American Association of State Highway and Transportation Officials' guidelines on median design warrants, a barrier at the center median, where the accident occurred, was optional. Since this accident, IDOT has evaluated the crossover problem and indicated that it plans to install a median barrier there.

³ Turned by angular side-to-side motion.

⁴ The term "gore" refers to the area between a through roadway and an exit ramp or the area between a through roadway and a converging entrance ramp.

⁵ The National Highway Traffic Safety Administration certifies 12- and 15-passenger vans to be either buses—not school buses or school buses. The *Uniform Vehicle Code* and all States define a bus as a vehicle with occupant seating positions for more than 10 passengers.

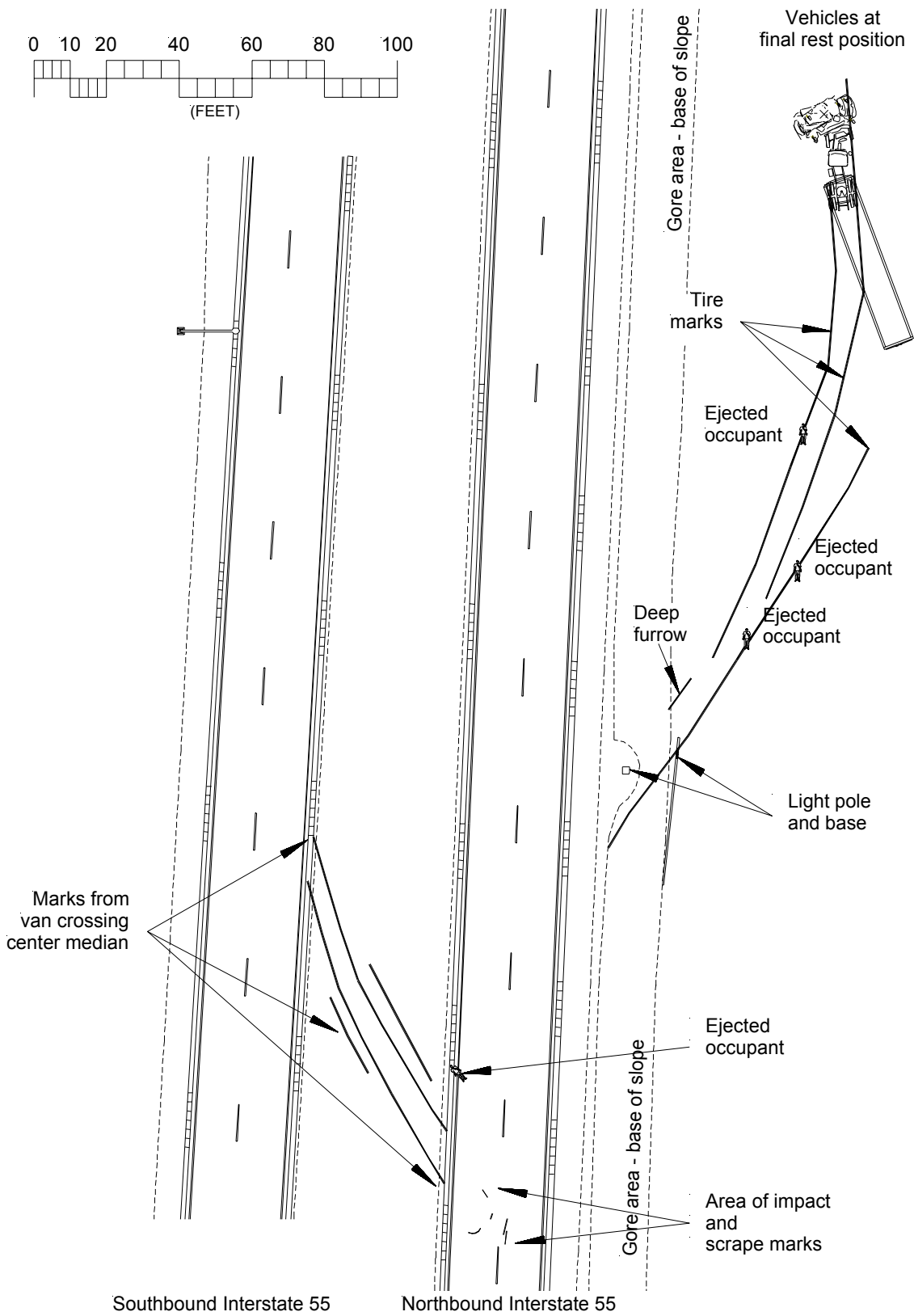


Figure 1. Van median crossover, impact with truck, and final rest position of vehicles.

[S]afety belts will be used by all occupants of every Salvation Army-owned

vehicle or any vehicle used for the Salvation Army regardless of ownership. It will be the vehicle operator's responsibility to ensure all vehicle occupants properly engage available safety belts prior to operating the vehicle.

Van Driver Information

According to Salvation Army officials, the van driver had worked his regular weekday schedule January 22 through 24, 2001. He was off duty on January 25, 2001, due to illness, suffering from an apparent cold. Coworkers reported that when he returned to work on the morning of the accident, he appeared to be in good spirits and normal in all respects.

At the time of the accident, the van driver was experienced in the operation of 15-passenger vans. He had regularly driven such vehicles, as well as the accident route, for 6 years in all types of weather and highway conditions. The Salvation Army reported that it has a policy on driving in inclement weather, which indicates that the driver determines whether conditions warrant canceling the trip. On previous occasions, the accident driver had reportedly departed on trips and then canceled them after he determined that it was unsafe to continue.

The van driver was not, and was not required to be, a licensed commercial driver. He held a valid Illinois class 1 driver's license issued on December 30, 1997, and due to expire on January 13, 2002.

The analyses of postmortem blood and urine specimens obtained from the van driver were negative for alcohol and drugs of abuse. The toxicological examination revealed the presence of chlorpheniramine, a sedating over-the-counter antihistamine found in many cold and allergy preparations. In therapeutic doses, chlorpheniramine commonly results in drowsiness and can have measurable effects on performance of complex cognitive and motor tasks, such as driving a vehicle. Reduced performance has been demonstrated even in individuals who feel normal after ingesting the drug. The level detected in the driver was that expected from a normal single dose of the medication taken within 4 hours; however, the drug has a long half-life, and the level detected could represent an accumulation from doses taken in the days before the accident.

In addition, acetaminophen was detected in the van driver's postmortem specimens. This over-the-counter painkiller/fever reducer⁶ is found in many multisymptom cold and allergy preparations, often in combination with an over-the-counter antihistamine, such as chlorpheniramine. Acetaminophen alone does not typically impair performance. The finding of acetaminophen in the urine is consistent with ingestion of a medication containing the substance within the previous 12 hours.

In light of the toxicological findings for the van driver and the witness observation of the driver operating the van at a speed greater than prudent under the existing conditions on the highway, the van driver's judgment may have been impaired by the effects of an over-the-counter antihistamine.

⁶ Often known by the trade name Tylenol.

Probable Cause

The National Transportation Safety Board determines that the probable cause of the accident was the Salvation Army van's loss of lateral stability when it encountered icy roadway conditions. Contributing to the loss of stability was the driver's failure to reduce his speed after passing several other accidents and slower moving traffic on the icy roadway surface. The driver's use of an over-the-counter antihistamine may have contributed to this operational error.

Adopted: February 22, 2002