

Multivehicle Work Zone Crash on Interstate 95

Cranbury, New Jersey

June 7, 2014

HWY14MH012

This three-dimensional (3D) animated reconstruction shows the multivehicle accident that occurred about 12:55 a.m. on Saturday, June 7, 2014 on the New Jersey Turnpike (Interstate 95) near Cranbury, New Jersey.

In the accident, a Walmart Transportation truck (a 2011 Peterbilt truck-tractor in combination with a 2003 Great Dane semitrailer operated by Walmart Transportation LLC) traveling northbound encountered traffic that had slowed because of construction. The Walmart Transportation truck struck the left rear of a slowly moving 2012 Mercedes Benz 2500 series high-roof extended Sprinter limo van that was in the center lane. The impact from the Walmart Transportation truck accelerated the limo van forward and caused it to turn to the right. The limo van collided with a 2006 Freightliner tractor-trailer traveling in the right lane. Contact from the Freightliner and Walmart Transportation trucks forced the limo van to roll over one quarter turn onto its left (driver) side. During its roll, the limo van struck the rear of a 2011 Buick Enclave, which then struck the rear of a 2011 Ford F 150 pickup truck. The limo van came to rest overturned onto its left (driver) side across the center lane. After striking the limo van, the Walmart Transportation truck continued into the left lane and struck a 2005 Nissan Altima in the rear before colliding with a guardrail and stopping on the shoulder against a concrete barrier.

The animation illustrates the overall accident sequence of the collision among the multiple vehicles. The motions of the vehicles shown in the animation are based on a reconstruction of the accident from physical evidence, including recorded data and three-dimensional survey data of tire marks, ground scars and vehicle final rest positions, coupled with physics-based computer simulations. These computer simulations used models of the vehicles and their interactions during the accident to calculate the best match of the simulation to the physical evidence and reconstruct the sequence of events. The animation only shows the vehicles that were directly involved in the collision; data was not available to place other vehicles that might have been in the traffic backup. The animation does not depict the weather or visibility conditions at the time of the accident. The animation includes a brief voice-over narration.

The animation of the crash sequence is shown from three different views. The first view is from in front of the vehicles, looking south at the Walmart Transportation truck approaching the slowed traffic. The accident occurred just beneath an overpass, and in the first view the overpass is removed to allow a better perspective of the accident sequence. The second view is from the position of the driver in the Walmart Transportation truck. The third and final view is from behind the Walmart Transportation truck, showing that the driver of that truck applied the brakes and steered to the left just before colliding with the limo van.

Narration

First view: This view shows the truck approaching the slow traffic, striking the limo van and other vehicles.

Second view: This view shows that the truck driver would have seen as he approached the slow traffic.

Third view: This view shows that the truck driver steered to his left and applied the brakes just before the collision.

Note: Animation is available upon request to Office Record Management Division (CIO-40)