# PRELIMINARY REPORT

# RAILROAD

## DCA16FR007

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

On Sunday, April 3, 2016, at 7:50 a.m., National Railroad Passenger Corporation (Amtrak) passenger train 89 struck a roadway maintenance machine (backhoe) at milepost 15.7 on the Amtrak Northeast Corridor near Chester, Pennsylvania.[1] The train consisted of one locomotive, eight passenger cars, one café car, and one baggage car. Amtrak train 89 was operating on main track 3 at 106 mph, within the maximum authorized speed of 110 mph. The locomotive struck the backhoe, and the debris struck and damaged the passenger cars. The backhoe operator and a supervisor died. The train had 7 crewmembers and 337 passengers on board at the time of the accident, including two employee passengers; 41 people were transported to local hospitals.

The weather at the time of the accident was scattered clouds, winds from the west at 38 mph gusting up to 50 mph, and a temperature of 37°F. Amtrak estimated damages of $2.2 million.

The locomotive engineer stated to National Transportation Safety Board (NTSB) investigators that immediately prior to the accident, he initiated an emergency brake application after "seeing something" on main track 3.

At the time of the accident, roadway workers were performing maintenance on main track 2 at the accident site over a planned 55-hour window, beginning on April 1, 2016, at 10:00 p.m. and extending to 5:00 a.m. on April 4, 2016. The work included ballast cleaning and remediating fouled ballast (mud spots) on main track 2.[2] During the maintenance window, main track 2 was removed from service and intermittent foul time was granted on main tracks 1, 3, and 4 to protect the backhoe as it was used to assist in cutting away the fouled ballast.[3] NTSB investigators are confirming what roadway worker protections were in place at the time of the accident.

[1] In this report, all times are eastern daylight time.

[2] *Ballast* degrades over time and can cause poor drainage and mud to appear in the track structure, compromising track surface and stability.

[3] *Foul time* is a method of establishing working limits on controlled track in which a roadway worker is notified by the train dispatcher that no trains will operate within a specific segment of track until the roadway worker reports clear of the track.


**Figure 1.** Damage to Amtrak passenger train 89.

Parties to the investigation include the Federal Railroad Administration, Amtrak, Brotherhood of Locomotive Engineers and Trainmen, International Association of Sheet Metal, Air, Rail and Transportation Workers, the Brotherhood of Maintenance of Way Employes Division, and the American Railway and Airway Supervisors Association.