Case Study: The 2009 DC metro Tragedy

At least nine people died and 80 were injured when a Washington DC metro train crashed into the rear of another at the height of the city's evening rush hour on June 22, 2009.

One of the trains had stopped and was waiting for another train ahead to move out of a station when the second train crashed into it from behind. The front end of the second train jack-knifed into the air and fell on top of the first.

Investigators also said the striking train was in automatic mode, which means onboard computers should have controlled its speed and stopped it before it got too close to the stationary train. The Metro was designed with a computerized signal system that is supposed to prevent trains from colliding. The system is supposed to detect the position of trains to maintain a safe distance. If the trains get too close, the computers automatically apply the brakes, stopping the trains.

NTSB inspectors said they had warned Metro officials in 2006 that older trains -- such as the one that struck the stopped train -- either should be retrofitted with updated safety features or retired.

According to records, a similar crash was avoided March 2 only after the subway train's operator used an emergency brake to avoid hitting another train. A review of computer logs later determined there had been a problem with the Automatic Train Protection system, the same system which failed on June 22.

This article is a current example of a near miss and the consequences of ignoring it.

Had the Metro officials acted on the near miss in March, along with the 2006 recommendation to update safety features or retire unsafe trains, this tragedy could have likely been prevented.