



**WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY**

# Metro Update: Rail Safety Issues

Maryland Senate Finance – Transportation Subcommittee  
October 15, 2009



# Status of June 22<sup>nd</sup> Accident Investigation

- Accident investigation communications
  - Federal regulations prohibit Metro from releasing information about an investigation headed by the National Transportation Safety Board (NTSB)
- Status update
  - Investigation continues
  - NTSB concluded on-scene track testing in August
  - Released accident site to Metro
  - Metro has completed repairs and the Red Line service has resumed full operating capacity



# Status of June 22<sup>nd</sup> Accident Investigation

NTSB issued recommendations on September 22, 2009 to Metro, FTA, FRA and Alstom.

NTSB recommended that Metro:

- Work with manufacturer(s) to examine track circuits that may be susceptible to parasitic oscillation.
- Develop program to periodically assess components of train control system.



**National Transportation Safety Board**  
Washington, D.C. 20594

## Safety Recommendation

**Date:** SEP 22 2009

**In reply refer to:** R-09-17 and -18 (Urgent)  
R-09-19

The Honorable Peter M. Rogoff  
Administrator  
Federal Transit Administration  
1200 New Jersey Avenue, SE  
East Building  
Washington, D.C. 20590

The recommendations in this letter are derived from the National Transportation Safety Board's (NTSB's) ongoing investigation of the recent collision between two Washington Metropolitan Area Transit Authority (WMATA) Metrorail trains on the Red Line near the Fort Totten station in Washington, D.C. The NTSB would appreciate a response from you within 30 days addressing the actions you have taken or intend to take to implement our recommendations.

On Monday, June 22, 2009, about 4:58 p.m., eastern daylight time, southbound WMATA Metrorail train 112 was traveling in a curve when it struck the rear end of Metrorail train 214 before reaching the Fort Totten station. There was no communication between the train operators and the Metrorail Operations Control Center before the collision. During the collision, the lead car of train 112 telescoped and overrode the rear car of train 214 by about 50 feet. Examination of the track and wreckage indicated that the emergency brake on train 112 was applied before impact. The District of Columbia Fire and Emergency Medical Service reported 9 fatalities and transported 52 persons to local hospitals.

Although the investigation is ongoing, postaccident testing showed that the track circuit at the accident site lost detection of train 214 when it stopped at the location where the collision occurred. Because the automatic train protection (ATP) system was not detecting train 214's location, the following train (train 112) did not receive a command to slow or stop in order to maintain train separation. Maximum authorized speed in the accident area is 59 miles per hour.

Train operations on all Metrorail mainline routes can be carried out in either automatic train control (ATC) or manual control by a train operator. ATC consists of three control subsystems: ATP, automatic train supervision, and automatic train operation. On the Metrorail system, ATP is designed to provide protection against collisions and overspeed conditions in both automatic and manual train operations. The system detects trains and transmits speed commands

8133A

- Steps taken to ensure safest system possible
  - Manual train operation
  - Inspection of 3,000 track circuits and daily testing
  - Independent, external review of the Automatic Train Control system
  - Oldest cars in the belly of the trains
  - ARINC, and other outside vendors, are developing a real-time monitoring system that would detect circuit failures and generate alerts.





# Increased Customer Communications

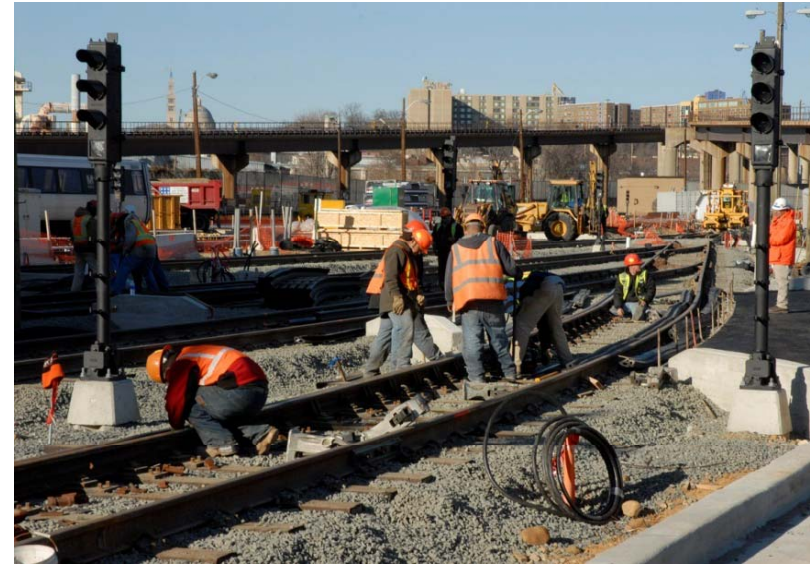
Metro used numerous methods to keep customers informed:

- Web page dedicated to accident information
- Provided staff at high-volume Red Line stations at rush hours to help with crowds
- Publicized Metrobus alternatives to Red Line service
- Flyer distribution
- Operator and station announcements
- Passenger information display signs
- E-alerts
- Press releases
- Twitter and Facebook



# Ongoing Safety and Security Initiatives

- Track circuit monitoring and maintenance
- Safety stand down
  - Increased safety training for employees and contractors
  - General Manager and Deputy General Manager field visits
- Employee hiring practices and disciplinary actions
- Metro Transit Police security grants





# Capital Needs Identified

Metro has identified \$11.4B of capital needs over the next ten years

- For the first time, Metro is faced with replacing hundreds of older railcars
- Many system components are at the end of lifecycle and must be replaced
- \$7.6 billion of the capital needs are focused on performance and safety of the system
- Major projects require multi-year funding commitment



Metro is working with jurisdictional partners to develop the next capital program



# Stay Connected

[www.metroopensdoors.com](http://www.metroopensdoors.com)

