



## FTA WMATA Metrorail Safety Blitz Fact Sheet

### FTA WMATA SAFETY BLITZ

On March 16, 2016, U.S. Transportation Secretary Anthony Foxx announced that the FTA WMATA Safety Oversight Office would conduct a three-part [safety blitz](#) focused on key areas of safety concern: red signal overruns, track integrity and rail vehicle securement. These activities commenced immediately and will continue for several weeks, with final reports expected by early summer. These reports will include findings that may lead to FTA issuing new safety directives to WMATA with additional corrective actions. This fact sheet contains information on the three components of the safety blitz and the reason that FTA pursued them.

### FTA SAFETY OVERSIGHT ROLE

The responsibility for improving the safe operation of the Metrorail system, including the performance of daily inspections and preventative maintenance, sits squarely on WMATA. The Federal Transit Administration ([FTA](#)) [WMATA Safety Oversight Office](#)'s role is to verify WMATA's progress on implementing Corrective Action Plans and remedial actions, and to ensure that WMATA is effectively carrying out its own critical maintenance, operations, and training programs. This temporary role will continue until Virginia, Maryland and the District of Columbia create a new, stronger State Safety Oversight Agency that complies with federal law.

### RED SIGNAL OVERRUNS

#### Why red signal overruns?

Red signal overruns are a significant safety concern and a pervasive and serious problem at WMATA. Metrorail has experienced 50 red signal violations since 2012, and its trend line has been going in the wrong direction. WMATA had more red signal overruns in 2015 than in either of the preceding two years and these occurrences have continued into 2016.

Since FTA assumed temporary safety oversight responsibilities from the Tri-State Oversight Committee (TOC) in October 2016, WMATA has had five incidents of red signal overruns:

- October 23, 2015, Pentagon
- November 2, 2015, Brentwood
- November 11, 2015, New Carrollton Yard
- February 3, 2016, Smithsonian
- March 3, 2016, Silver Spring

As a result of FTA investigations into each of these five incidents, as well as FTA review of other red signal overrun investigations conducted by WMATA which were open when FTA assumed safety oversight responsibility, FTA is concerned that WMATA does not sufficiently examine or analyze probable and contributing causes.

Furthermore, FTA finds that previous corrective actions taken by WMATA to address red signal overruns have not reduced the frequency of occurrence. Previous WMATA actions taken to address this problem include: retraining operators, distributing maps, engaging in safety talks and stand-downs, and modifying operating procedures to ensure Rail Traffic Controllers and Rail Supervisors advise Train Operators when they are approaching a red signal.

### **What will FTA evaluate?**

FTA's objective is to evaluate WMATA's rules, training, practices, and technologies in place to prevent red signal overruns.

To ensure comprehensive data collection and to look for commonalities across events, FTA will review all 50 red signal overrun investigation reports, conduct site assessments, interview individuals involved, review Rail Operations Control Center records and assess previous corrective actions taken by WMATA. Some key areas of focus include: train operator and Rail Traffic Controller levels of experience, recent training and disciplinary history; track type, track design and signal placement; and quality of radio communications.

### **FTA Safety Directive 16-2: Red Signal Overrun findings**

In December 2015, FTA issued [Safety Directive 16-2](#) that requires WMATA to take corrective action to implement more than 200 open safety findings previously issued by the Tri-State Oversight Committee which now are being resolved under FTA's oversight. Among the list are included eight findings related to red signal overruns to which FTA established new corrective actions:

1. WMATA is not providing sufficient oversight regarding train speeds.
2. Radio communications must be improved to ensure focused attention on train movements.
3. Job briefings for equipment operators and pilots do not always reinforce situational awareness and territory familiarization for the segment of track to be operated over during the shift.
4. Train operators are insufficiently familiar with the location of signals on their routes and required train speeds.
5. Retraining for Train Operators, Equipment Operators and Pilots involved in first-time red signal overruns must be improved.
6. WMATA should implement the findings of its internal investigation to ensure that Train and Equipment Operators are prepared to approach red signals, have strategies for managing time pressure, and are sufficiently familiar with signal "hot spots" and on-standard locations.
7. WMATA Train Operators consistently feel pressure to rush through routes and speed up train movements.
8. Technology options may be available to reduce the occurrences of red signal overruns.

## **TRACK INTEGRITY**

### **Why Track Integrity?**

This action is an outcome of continuing issues with WMATA's track conditions and poor preventative maintenance.

Recent examples include:

- **March 2016**--Arcing insulator fire near McPherson Square Station and the subsequent system-wide shut down to perform emergency safety inspections of third rail jumper cable conditions.
- **February 2016**--FTA identified wide gauge (distance between rails which can lead to derailment) in two separate sections of track between Huntington and Metro Center along the Yellow/Blue/Orange Lines during a track geometry vehicle inspection.
- **August 2015**--FTA reviewed the WMATA investigation report into the derailment near Smithsonian Station on the Orange/Silver/Blue Lines and sent it back to WMATA for further action because it failed to appropriately assess the root cause of the track condition that was identified.

### **What will FTA inspect?**

The Track Integrity component of the safety blitz will inspect and assess the general condition of the track infrastructure and WMATA's:

- Track Inspection & Maintenance Programs;
- Training and supervision of track inspection and track maintenance personnel;
- Use and performance of its Track Geometry Vehicle; and
- Documentation and management of information regarding track defects.

In addition, based on the March 14, 2016 track fire near McPherson Square and WMATA's subsequent decision to completely shut down the Metrorail system for emergency inspections on March 16, 2016, FTA will assess the condition of the third rail, including the contact rail, supporting insulators, jumper cables, cable connecting boots, and the environment around the cables, including water, debris, and previous evidence of arcing or electrical/fire damage.

Finally, FTA will verify progress reports submitted by WMATA that address several required corrective actions arising from the [FTA Safety Management Inspection](#) that relate to track inspection, track access, and the level of resources available to carry out these programs.

### **Where and how will FTA inspect?**

FTA will inspect numerous locations throughout the Metrorail system and on segments of all six lines. This includes track walking inspections at FTA identified track segments of concern and as part of WMATA's regular track inspection program. In addition, there will be automated inspections by the WMATA Track Geometry Vehicle and a comprehensive records review. The inspections will occur during day, evening and overnight hours.

The comprehensive track safety blitz includes walking inspections of 10 specific FTA-identified track segments of concern based on their unique location (difficulty of access), the history of track defects and incidents/issues and recommendations from FTA WMATA Safety Oversight Office inspectors. FTA will also inspect all 27 locations that needed emergency repairs during the WMATA ordered system-wide Metrorail shut down on March 16, 2016.

The 10 FTA-identified track segments of concern include:

- Medical Center to Friendship Heights (Red)
- Rosslyn to Clarendon (Orange/Silver)
- McPherson Square to Foggy Bottom (Orange/Silver/Blue)
- Metro Center to Federal Triangle (Orange/Silver/Blue)
- Mount Vernon Square to Gallery Place (Yellow/Green)
- L'Enfant Plaza to Smithsonian (Orange/Silver/Blue)
- Waterfront to Navy Yard (Green)
- Silver Spring to Forest Glen (Red)
- B&E Connector<sup>1</sup> to West Hyattsville (Yellow/Green)
- Stadium-Armory to D&G Junction<sup>2</sup> (Orange/Silver/Blue)

*1—B&E Connector is near Ft. Totten Station where the Red and Green Lines (+ Yellow Rush) can connect.*

*2—D&G Junction is east of Stadium-Armory Station where the Orange Line branches from Silver/Blue Lines.*

## **RAIL VEHICLE SECUREMENT**

### **Why rail vehicle securement?**

Applying park brakes, handbrakes, derails, and chocks to prevent unintended movement of railcars in the yard is a common safety practice in the rail transit industry. Railcar handbrakes are designed to provide a critical safety redundancy in the event that primary braking function is lost due to power failure in the yard, the freezing of railcar airlines, improperly coupled railcars, multiple compressor failures, or other malfunctions.

Over the last couple of years, the rail transit industry has experienced several incidents where unsecured and unattended trains or equipment rolled on the mainline track through stations and intersections, creating the high-risk potential for collisions with the other trains, motor vehicles, and pedestrians. These incidents (Sacramento, Boston, and Chicago) raise serious safety concerns regarding the proper application of safety devices, parking brakes, handbrakes and chocks to prevent unintended train movement.

Since 2014, WMATA has also experienced instances of unintended train movement, including the following:

- **April 21, 2014:** an unsecured flatbed car rolled down the Red Line track for approximately 500 feet in a work zone between Van Ness and Friendship Heights.
- **January 9, 2015:** a flatcar uncoupled from another maintenance vehicle, rolled away and collided with an unoccupied rail vehicle which was fouling storage track.
- **April 3, 2015:** a Red Line train experienced brakes-in-emergency between Cleveland Park and Van Ness. While the train was being recovered, two cars in the train consist uncoupled, which allowed a portion of the recovered train to roll free.
- **December 4, 2015:** in New Carrollton Yard, during uncoupling operations, one consist started rolling back towards the storage tracks.

Recent FTA inspections at WMATA's rail yards have raised concerns regarding general compliance with rules specified to ensure the securement of unattended vehicles. Specifically, FTA found that WMATA was not setting handbrakes in accordance with its own rules and procedures. As a result of this finding, FTA requested WMATA conduct an internal audit of its compliance with its rules at all rail yards which found that requirements for setting handbrakes on revenue vehicles in the rail yard are "knowingly not adhered to."

#### **What will FTA evaluate?**

FTA's objective is to assess WMATA's current practice to secure rail vehicles movement versus its own rule requirements and the vehicle manufacturer recommendations. Specifically, FTA will review each element of WMATA's current train preparation and storage practices during layovers between rush hours, during nighttime layovers and for longer-term storage, and document existing practices to prevent unintended rail vehicle movement.

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