

Washington Metropolitan Area Transit Authority

## Board Action/Information Summary

☐ Action ☒ Information

MEAD Number:  
201777

Resolution:  
☐ Yes ☒ No

### TITLE:

Briefing on FTA Directive 16-5, Signal Overrun

### PRESENTATION SUMMARY:

The Department of Safety & Environmental Management (SAFE) will brief the Board on the FTA Directive 16-5, Stop Signal Overrun and current and planned actions to mitigate the potential hazard.

### PURPOSE:

The Board will receive an briefing on FTA Directive 16-5, Stop Signal Overrun, corrective actions, both current and pending, based on analysis conducted. Further, the presentation provides transparency to our stakeholders, employees and public in the Washington metropolitan area community.

### DESCRIPTION:

WMATA continues to work and is committed to identifying and mitigating hazards that pose a safety issue to our employees and customers. Red signal overrun are a lapse in safety that violate one of Metro's cardinal rules and pose potential for serious injury and property damage.

### Key Highlights:

- FTA Safety Directive 16-5 resulted from FTA investigation into red signal overrun, part of the FTA Safety Blitzes
- Directive issued August 15, 2016, contains six Findings and 11 required actions
- WMATA has 30-days to respond and 60-days to submit corrective action plans; formal response under development
- FTA issued Industry-wide Safety Advisory on April 6, 2016 regarding "Stop Signal Overrun" and indicated that further industry-wide requirements may be forthcoming
- Many safety actions already underway

### Background and History:

Red signal violations are a serious safety lapse that violate WMATA's cardinal rule that:

"Rail vehicles shall not be operated past or closer than a point 10 feet in approach of an interlocking signal or lamp displaying a red aspect, a red glad, or a dark interlocking signal except at a bump post or entering a pocket track, or unless authorized by Rail

Operations Control Center (ROCC) or the interlocking operator and the move is consistent with customer safety as specified in Rule 3.1.”

Red signal violations are primarily caused by human factor related errors such as inattention and distraction, inexperience or unclear communications between operator and controller.

Last month in the Safety Committee, leadership presented information on red signal (stop signal) overrun and many pending and current actions to prevent them from re-training, notices to operators, safety blitzes and stand-downs and installed new signs on operator consoles and additional signs in areas to identify upcoming signals. Staff is also preparing a more comprehensive analysis of red signal overrun trends that will be reported to the Board when complete.

#### **Discussion:**

As part of FTA oversight role of WMATA, "safety blitzes" were conducted by oversight personnel in the areas of track integrity, vehicle securement and stop signal overrun. The stop signal overrun investigation report and subsequent FTA Directive 16-5 is the byproduct of this investigation. The FTA findings require WMATA to develop corrective action plans to minimize or alleviate these findings. Many of the corrective actions to address the findings are already underway.

#### **FUNDING IMPACT:**

Define current or potential funding impact, including source of reimbursable funds.	
Project Manager:	CSO - Pat Lavin
Project Department/Office:	SAFE

No additional funding is necessary at this time.

#### **TIMELINE:**

<b>Previous Actions</b>	<ul style="list-style-type: none"><li>• Safety Committee briefing on Red Signal Overrun on July 28, 2016</li></ul>
<b>Anticipated actions after presentation</b>	<ul style="list-style-type: none"><li>• Submit formal response to FTA Safety Directive 16-5</li><li>• Continue implementing corrective actions to eliminate red signal overrun</li></ul>

#### **RECOMMENDATION:**

To inform the Board's Safety Committee of the status of red signal overruns and steps taken to address the issue.



**Washington Metropolitan Area Transit Authority**

# **FTA Safety Directive 16-5, Stop Signal Overrun Briefing**

Special Board Meeting  
August 25, 2016



# Background

- Report resulted from investigation conducted by FTA
- Directive issued August 15, 2016
- Contains six findings and 11 required actions
- 30-days to respond / 60-days to submit corrective actions
- FTA issued Industry-wide Safety Advisory on Stop Signal Overruns





# FTA Safety Directive 16-5

- **Category 1: Mainline and Yard Familiarity**
  - Finding: Operator familiarity with mainline/yard characteristics (FTA-RED-16-001 A/B/C)
  - Actions:
    - Validated and provided mainline, yard and signal reference maps to all operators
    - Revised pre-operational checklists
    - Line familiarization training being developed
    - Developing SOP for encountering red signal



# FTA Safety Directive 16-5

- **Category 2: Movement with Zero Commands**
  - Finding:
    - Verify lunar signal aspect/speed commands (FTA-RED-16-002 A/B)
    - Protection against unauthorized movement of trains (FTA-RED-16-003 C/D/E)
  - Actions:
    - Developed Line/Yard familiarization
    - Developing new operator training curriculum
    - Developing efficiency/compliance testing
    - Installing Point-of-Power stickers
    - Developing engineering solutions
    - Ongoing fatigue awareness education

# FTA Safety Directive 16-5

- **Category 3: Communication with Personnel**
  - Finding:
    - Lack of consistent understanding among personnel (FTA-RED-16-004 A)
    - Improve radio quality (FTA-RED-16-005 A)
  - Actions:
    - Implemented standardized radio communication course; 100% repeat back
    - Distributed Temporary Order on radio protocol
    - Updated radio coverage report
    - Continue working towards radio upgrade solution



# FTA Safety Directive 16-5

- **Category 4: Stop Signal Overrun Investigation**
  - Finding: Conduct sufficient investigations into stop signal overruns (FTA-RED-16-006 A)
  - Actions:
    - Establishing an investigation unit within SAFE
    - Updating the Safety Measurement System to capture more specific information about overruns for more effective analysis