



Committee on Transportation and Infrastructure
U.S. House of Representatives

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May 20, 2016

SUMMARY OF SUBJECT MATTER

TO: Members, Subcommittee on Highways and Transit
FROM: Staff, Subcommittee on Highways and Transit
RE: Subcommittee Hearing on “Improving the Safety and Reliability of the Washington Metro”

PURPOSE

The Subcommittee on Highways and Transit will meet on Tuesday, May 24, 2016, at 10:00 a.m. in 2167 Rayburn House Office Building to receive testimony related to how the safety and reliability of the Washington Metro (referred in this document as “Metro” or “Metrorail”) can be improved. The Subcommittee will hear from Members of Congress from the Washington, D.C. region, representatives of the Washington Metropolitan Area Transit Authority (WMATA), the Federal Transit Administration (FTA), and Metropolitan Washington Council of Governments.

BACKGROUND

WMATA is responsible for one of the largest public transportation systems in the United States. Today, Metrorail consists of 118 miles of track and 91 stations in D.C., Maryland, and Virginia.¹ Since the 1960s, the federal government has provided funding to WMATA primarily for capital improvements to Metrorail. In more recent years, the federal government has also provided additional funding for safety improvements. As WMATA’s significant safety issues persisted, the federal government’s role expanded to also include safety oversight of Metrorail.

WMATA’s Safety Record

Even before the system opened its doors, the National Transportation Safety Board (NTSB) found safety concerns for Metro. In 1970, the NTSB identified safety flaws in the design

¹ *Metro Facts 2016*, WMATA, available at http://www.wmata.com/about_metro/docs/Metro%20Facts%202016.pdf?

of the system, including the inadequacy of emergency exits from tunnels.² In 1982, a derailment at the Smithsonian Interlocking killed three people and injured 25. The NTSB determined that the probable cause was the failure of “the Operations Control Center (OCC) to stop movement of trains through [the area] while it ascertained the nature and corrected the switch mis alignment...contributing to the accident was WMATA’s management’s failure to put into place an adequate program of initial and recurrent training for OCC and Metrorail operating personnel and its failure to adopt adequate rules and procedures for safe operation of trains in manual mode.”³

During the 2000s, NTSB investigated six WMATA incidents,⁴ including the 2009 collision of two trains near the Fort Totten Station that killed nine people. One of the probable causes of the 2009 accident was WMATA’s failure to ensure that a test, which would have identified a faulty circuit, was used system wide.⁵ Additionally, NTSB determined the following contributed to the accident:

“(1) WMATA’s lack of a safety culture, (2) WMATA’s failure to effectively maintain and monitor the performance of its automatic train control system, (3) GRS/Alstom Signaling Inc.’s failure to provide a maintenance plan to detect spurious signals that could cause its track circuit modules to malfunction, (4) ineffective safety oversight by the WMATA Board of Directors, (5) the Tri-State Oversight Committee’s ineffective oversight and lack of safety oversight authority, and (6) the Federal Transit Administration’s lack of statutory authority to provide federal safety oversight.”⁶

On January 12, 2015, a yellow line train with about 400 passengers on board encountered heavy smoke in the tunnel between L’Enfant Plaza and the Potomac River Bridge and lost power to the third rail. One passenger died and 91 were injured as they waited to be rescued.⁷ The NTSB determined the probable cause to be “the failure of WMATA senior management to proactively assess and mitigate foreseeable safety risks, and the inadequate safety oversight by the Tri-State Oversight Committee and the Federal Transit Administration...contributing to the accident were WMATA’s failure to follow established procedures...and the District of Columbia Fire and Emergency Medical Services Department’s being unprepared to respond to a mass casualty event on the WMATA underground system.”⁸ NTSB’s findings include

² *Study of Washington Metropolitan Area Transit Authority’s Safety Procedures for the Proposed Metro System*, NAT’L SURFACE TRANSP. BD. (Sept. 28, 1970), available at <http://www.nts.gov/safety/safety-studies/Documents/RSS7001.pdf>.

³ *Derailement of Washington Metropolitan Area Transit Authority Train No. 410 at Smithsonian Interlocking*, NAT’L SURFACE TRANSP. BD. (Jan. 13, 1982), available at <http://www.nts.gov/investigations/AccidentReports/Reports/RAR8206.pdf>.

⁴ *Accident Reports*, NAT’L SURFACE TRANSP. BD., <http://www.nts.gov/investigations/AccidentReports.aspx> (last visited May 18, 2016).

⁵ *Collision of Two Washington Metropolitan Area Transit Authority Metrorail Trains Near Fort Totten Station*, NAT’L SURFACE TRANSP. BD. (July 27, 2010), <http://www.nts.gov/investigations/AccidentReports/Pages/RAR1002.aspx>.

⁶ *Id.*

⁷ *Washington Metropolitan Area Transit Authority (WMATA) L’Enfant Plaza Station Electrical Arcing and Smoke Accident*, NAT’L SURFACE TRANSP. BD. (May 03, 2016), available at www.nts.gov/news/events/Documents/Abstract_DCA15FR004.pdf.

⁸ *Id.*

inadequate maintenance, inspection, training, standard operating procedures and poor guidance from the Operations Control Center.⁹

A list of NTSB investigations (as of April 2016) involving WMATA Metrorail incidents is attached.

Congressional Response to Public Transportation Safety Challenges

In 2012, Congress reformed federal transit safety oversight in Moving Ahead for Progress in the 21st Century Act (MAP-21; P.L. 112-141). MAP-21 grants FTA the authority to establish and enforce a new comprehensive framework to oversee the safety of public transportation throughout the United States. It also updates the State Safety Oversight Agency (SSOA) requirements to ensure that fixed guideway systems are meeting certain safety requirements. FTA issued the final rulemaking on SSOAs earlier this year. States have three years to become compliant. According to FTA, most SSOAs do not yet meet the requirements of the final rulemaking, including WMATA's SSOA, the Tri-State Oversight Committee (TOC).¹⁰ FTA found that the TOC "is incapable of providing adequate safety oversight consistent with the prevention of substantial risk of death or personal injury."¹¹

On February 25, 2016, Maryland, Virginia, and Washington, D.C. entered into a Memorandum of Understanding (MOU) for cooperating on the creation of the Metro Safety Commission (MSC), an entity that could meet the federal standards.¹² The MOU outlines the cost sharing arrangement, necessary actions, and timeline for establishing the new SSOA. Under the MOU, the goal is for the three jurisdictions to enact identical enabling legislation by 2017.¹³

In 2015, Congress further strengthened federal transit safety oversight in Fixing America's Surface Transportation Act (FAST Act; P.L. 114-94). The FAST Act grants FTA the authority to: provide temporary federal assumption of SSOA functions; issue nationwide safety directives; prohibit and restrict transit operations; and require the National Public Transportation Safety Plan to include minimum safety standards.

FTA's Response to WMATA's Safety Challenges

In February 2015, FTA initiated a safety management inspection of Metro, resulting in a corrective action plan and subsequent directives.¹⁴ Like the NTSB findings, the corrective

⁹ *Id.*

¹⁰ Lori Aratani, *FTA Audit Urges Quick Action on Independent Metro Oversight Board*, WASH. POST (June 18, 2015), https://www.washingtonpost.com/local/trafficandcommuting/fta-audit-urges-quick-action-on-independent-metro-oversight-board/2015/06/18/c83c1bde-15fa-11e5-9518-f9e0a8959f32_story.html.

¹¹ Letter from FTA to District of Columbia, Maryland and Virginia on WMATA Oversight (Feb. 08, 2016) (on file at <https://cms.fta.dot.gov/sites/fta.dot.gov/files/docs/FTA%20Ltr%20to%20VA%20MD%20DC%20%2802-08-16%29.pdf>).

¹² *Memorandum of Understanding for Cooperation in the Establishment of the Metro Safety Commission*, GOV. OF MD. (March 01, 2016), available at <https://governor.maryland.gov/wp-content/uploads/2016/03/Metro-Safety-Commission-MOU.pdf>.

¹³ *Id.*

¹⁴ *WMATA Corrective Action Plan (CAP) Tracking Table*, FED. TRANSIT ADMIN., available at <https://www.transit.dot.gov/regulations-and-guidance/safety/wmata-cap> (last updated April 21, 2016).

actions include addressing training, staffing, communications, maintenance, inspections, and standard operating procedures.

In October 2015, U.S. Department of Transportation Secretary Anthony Foxx directed FTA to assume temporary and direct safety oversight of the Metrorail system. From October 2015 through April 8, 2016, FTA conducted 107 inspections that covered the Rail Operations Control Center (ROCC), vehicle and system maintenance, automatic train control, and traction power. These inspections found 229 defects requiring 66 remedial actions and four safety directives.¹⁵

On May 7, 2016, following an explosion and smoke incident at the Federal Center Southwest Station, FTA released another safety directive to WMATA, which requires it to “prioritize safety...mitigate fire and smoke risk...improve emergency planning and preparedness...and conduct a safety stand down” to ensure personnel review safety procedures.¹⁶ On May 10, 2016, Secretary Foxx indicated that he may utilize his authority to shut down the Metro, if his concerns regarding safety are not addressed.¹⁷ In a letter dated May 11, 2016, FTA directed WMATA to carry out its track maintenance efforts by prioritizing three specific segments. The activities FTA ordered WMATA to perform include, “cleaning drains...removing mud and debris from tracks and safety walks...replacing insulators and third rail coverboards...and replacing corroded rail and defective tie plates.”¹⁸

WMATA’s Response to its Safety Challenges

On March 16, 2016, WMATA General Manager Paul Wiedefeld suspended Metrorail service for a full day in order to allow for track inspections following a smoke incident similar to the one on January 12, 2015.¹⁹ The cost of the shutdown to the system was \$2 million in lost revenue and \$500,000 in overtime.²⁰

¹⁵ FTA Letter to WMATA: Track Safety Blitz Immediate Actions (April 18, 2016) *available at* <https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA%20letter%20to%20Paul%20Wiedefeld%2004%2018%2016.pdf>.

¹⁶ *Safety Directive 16-3*, FED. TRANSIT ADMIN. (May 07, 2016), *available at* <https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA%20Safety%20Directive%2016-3%20to%20WMATA%20%2805-07-16%29.pdf>.

¹⁷ Ashley Halsey and Lori Aratani, *Foxx: We Aren’t Afraid to Shut down Metro for Safety*, WASH. POST (May 10, 2016), <https://www.washingtonpost.com/news/dr-gridlock/wp/2016/05/10/foxx-we-arent-afraid-to-shut-down-metro-for-safety/>.

¹⁸ Letter from Acting FTA Administrator Carolyn Flowers to Mr. Paul Wiedefeld, General Manager and Chief Executive Officer WMATA, on Urgent Metro Repairs Needed Before Start of SafeTrack Program (May 11, 2016) (on file at <https://www.scribd.com/doc/312296312/Letter-From-Acting-FTA-Administrator-Carolyn-Flowers-About-Urgent-Metro-Repairs-Needed-Before-Start-of-SafeTrack-Program>).

¹⁹ Nicholas Fandos, *Inspections Will Close Washington, D.C., Metro on Wednesday*, N.Y. TIMES (March 16, 2016), <http://www.nytimes.com/2016/03/16/us/washington-dc-metro-to-close-all-day-wednesday.html?action=click&contentCollection=U.S.&module=RelatedCoverage®ion=EndOfArticle&pgtype=article>.

²⁰ *Fiscal Year 2016 Third Quarter Financial Update*, WMATA, (May 12, 2016), *available at* http://www.wmata.com/about_metro/board_of_directors/board_docs/051216_4AQ3FY2016FinancialUpdateTOP%20ST.pdf.

WMATA recently debuted a track maintenance “surge,” which will require shutting down or single tracking segments of the system to provide more time for backlogged maintenance and track replacement activities.²¹ This track maintenance surge is expected to begin in early June and last through March 2017.

WMATA has approved both capital and operating budgets for its coming fiscal year, beginning on July 1, 2017. WMATA’s fiscal year 2017 capital budget has been approved at \$950 million, which includes \$500 million in federal funding, \$392 million in state and local funding, and \$58 million in long term debt.²² WMATA will spend almost its entire capital budget on state of good repair needs including \$354 million on railcars, \$218 million on bus and paratransit vehicles, \$133 million on stations, \$104 million on rail systems, and \$82 million on track rehabilitation.²³ Within those categories, WMATA plans to spend \$218 million of its capital budget on projects to advance specific NTSB recommendations and FTA corrective actions.²⁴ FTA has approved all but \$20 million of the proposed capital budget projects as safety related expenses. WMATA will fund projects not found to improve safety (station rehabilitation and automated fare collection) with local funding.

WMATA’s fiscal year 2017 operating budget is \$1.745 billion, which includes \$900 million in revenue and \$845 million in subsidies from the jurisdictions served by the system.²⁵ The subsidy amount is determined by a formula that takes into consideration miles of service, numbers of stations, number of passengers, and population served, and offset by the fare revenue generated.²⁶ Jurisdictions provide their subsidies from various revenue streams including local general funds, Virginia’s 2.1 percent regional gas tax, and state assistance received on a reimbursement basis.²⁷

WMATA Other Challenges

WMATA’s ridership declined by five percent between fiscal years 2009 and 2015.²⁸ Metrorail’s on-time performance fell from almost 91 percent in 2014 to 84 percent in 2015.²⁹ In the first quarter of calendar year 2016, Metrorail’s on-time performance fell to 74 percent.³⁰

²¹ Press Release, WMATA, Metro GM Releases Draft ‘SafeTrack’ Plan to Local Jurisdictions (May 07, 2016) (on file at http://www.wmata.com/about_metro/news/PressReleaseDetail.cfm?ReleaseID=6103).

²² *Approval of FY2017 Capital Budget and FY2017-2022 Capital Improvement Program*, WMATA (April 14, 2016), available at

http://www.wmata.com/about_metro/board_of_directors/board_docs/041416_3BFY2017CapitalBudgetandCIP.pdf.

²³ *Id.*

²⁴ *Id.*

²⁵ *Approval of FY2017 Operating Budget*, WMATA (March 10, 2016), available at

https://www.wmata.com/about_metro/board_of_directors/board_docs/031016_2BFY2017OperBudgetandPHStaffReportFORPOSTING.pdf.

²⁶ *WMATA Subsidy Allocation Methodology*. WMATA, available at

http://www.wmata.com/about_metro/docs/subsidy_allocation.pdf (last visited May 18, 2016).

²⁷ *Funding the NVTC Jurisdictions’ Obligations to WMATA*, (N. VA. TRANSP. COMM’N (May 05, 2016), available at <http://www.novatransit.org/uploads/LinkedDocs/2016/NVTC%20Issue%20Brief%20-%20VA%20funding%20of%20WMATA%20final%205-4-16%20V2.pdf>.

²⁸ *Fiscal Year 2017 Budget Ridership and Revenue*, WMATA (Oct. 08, 2015), available at

http://www.wmata.com/about_metro/board_of_directors/board_docs/100815_4BFY2017BudgetRidershipandRevenue.pdf.

Following an FTA audit in 2014 that uncovered material weaknesses and significant deficiencies within WMATA's financial management systems, FTA has restricted WMATA's ability to draw down on federal transit funding without prior FTA approval.³¹ Restricted drawdown requires a manual process to verify all expenses. WMATA is currently working through FTA's Financial Management Oversight Testing and Validation Plan (Plan). As of March 31, 2016, 16 of the 20 action items that are required by the Plan have been submitted on time to FTA. Of the 16 action items submitted to FTA, five have been confirmed closed based on FTA's testing and validation results.³² Once WMATA has submitted the remaining action items and all of the action items have been tested and validated by FTA, WMATA will no longer be subject to restricted drawdown.

Current Federal Funding

In 2008, Congress provided WMATA with a \$150 million annual authorization for the following 10 fiscal years for WMATA's use on capital projects and preventive maintenance (P.L. 110-432). Congress also required WMATA to provide access to cellular service throughout the system. This requirement's deadline has been extended in subsequent appropriations bills.³³ According to FTA documents shared with the Committee, the Washington, D.C. region is estimated to receive \$1.87 billion in federal transit formula funding for the five years of the FAST Act. WMATA is the largest recipient of that funding. In March 2016, the U.S. Department of Transportation estimated that WMATA has a balance of \$783 million of unexpended federal transit funding from previous authorizations and appropriations.³⁴ Federal funding is reserved for designated projects and federal acquisition rules prevent the release of that funding until the work is completed, and documentation is submitted to and approved by FTA.

²⁹ *2015 Vital Signs Report*, WMATA (Jan. 2016), available at

http://www.wmata.com/about_metro/docs/VitalSignsReport2015FINAL.pdf.

³⁰ *Vital Signs January-March 2016*, WMATA (May 2016), available at

http://www.wmata.com/about_metro/scorecard/documents/Vital-Signs-Rpt_2016-Q1.pdf.

³¹ *Washington Metropolitan Area Transit Authority: Steps Taken to Address Financial Management and Safety Recommendations, but Financial Management Internal Controls Need Strengthening*, GOV'T ACCOUNTABILITY OFFICE (July 15, 2015), available at <http://www.gao.gov/assets/680/671408.pdf>.

³² *Information Item IV-B FMO Update*, WMATA (May 12, 2016), available at

http://www.wmata.com/about_metro/board_of_directors/board_docs/051216_4BFMOPROGRESSREPORTMAY2016TOP OST.pdf.

³³ Paul Duggan and Faiz Siddiqui, *Metro Nears New Deal for Cell Service Throughout Tunnel System*, THE WASH. POST (Sept. 21, 2015), https://www.washingtonpost.com/local/trafficandcommuting/metro-nears-new-deal-for-cell-service-throughout-tunnel-system/2015/09/21/9653d3da-5d41-11e5-9757-e49273f05f65_story.html.

³⁴ *The Appendix, Budget of the United States Government, Fiscal Year 2017*, DEP'T OF TRANSP. (April 20, 2016), available at <https://www.whitehouse.gov/sites/default/files/omb/budget/fy2017/assets/dot.pdf>; E-mail from Kate Webb, Fed. Transit Admin., (April 20, 2016) (on file with author).

WITNESS LIST

Panel I

The Honorable Steny Hoyer
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The Honorable John Delaney
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The Honorable Gerry Connolly
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Panel II

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