



Customer Service, Operations and Security Committee

Information Item IV-B

October 13, 2016

SafeTrack: Midway Progress Reports

Washington Metropolitan Area Transit Authority

Board Action/Information Summary

☐ Action ☒ Information

MEAD Number:
201794

Resolution:
☐ Yes ☒ No

TITLE:

SafeTrack Midway Progress Report

PRESENTATION SUMMARY:

Present to the Board's Customer Service, Operations and Security Committee an update on the SafeTrack Program.

PURPOSE:

Provide an update to the Board regarding the work completed under the SafeTrack Program since the project began June 3, 2016.

DESCRIPTION:

On June 3, WMATA started the SafeTrack project, a comprehensive maintenance effort that will accelerate three years' worth of work into approximately one year. The plan significantly expands maintenance time on weekends, weeknights and midday hours and includes 15 "Safety Surges"--long-duration track outages for major projects in key parts of the system. The plan addresses Federal Transit Administration (FTA) and National Transportation Safety Board (NTSB) safety recommendations and deferred maintenance backlogs to restore track infrastructure to good health. While the original schedule of surges has been adjusted to accommodate additional scope and weather-related delays, significant progress has been made.

Key Highlights:

- Work is on schedule and productivity rates have met or exceeded planned.
- 8 of the 15 Safety Surges have been completed
- Over 17,000 ties have been replaced, more than done in any of the past 3 years
- Over 10,00 fasteners have been replaced

Background and History:

SafeTrack was developed to expedite critical track work needed to bring the system back into a state of good repair. It was developed in spring 2016 and finalized on May 19, following input from the FTA and local jurisdictions. The jurisdictions and the public have been supportive of the focused, sustained effort to repair the tracks despite the severe impacts to service.

Discussion:

Work has progressed significantly since the project started on June 3. The majority of work is being performed by WMATA force account labor, with some work contracted out to supplement our workforce. In addition to focusing on the work to be delivered, the team is also focused on learning and improving safety, quality and productivity within the work area.

The table below summarized the major track components that have been installed today within the surges areas.

	Total Surges 1-8	3-yr Avg	Surge Totals % of a typical year
Crossties	17,187	13,152	131%
Switches	4	8	52%
Insulators	3,130	7,860	40%
Fasteners	10,578	37,093	29%
Rail (lf)	12,729	66,412	19%

In addition to the work listed above, we have made significant advancements on inspecting ETS boxes (280 to date), replacing high voltage cables (534 to date), refurbishing signals (40 to date) and inspecting Intrusion Detection Warning (IDW) boxes (562 boxes to date). All of this work has been done by capitalizing on the outages to deliver other work that would have required a separate event to access the roadway.

Outside of the surges, significant work was made on the other areas identified within the Track Quality Improvement Plan (TQIP) in June and July. However, since August the crews have been focused on the red line and addressing speed restrictions and other urgent, unplanned work. These scopes of work leverage the expanded work window created by the early closures and late night single tracking scheduled as part of SafeTrack.

The red line between Medical Center and Dupont Circle continues to be an area requiring focused maintenance attention, as noted in our inspections and the FTA inspection reports. A crew has been dedicated to this area since July, and made significant progress towards improving the safety and reliability of this section of track. Work in this area has focused on improving drainage and removing debris, as these are the water and mud are a leading cause of deterioration of the track and underlying structure. Totals since the start of SafeTrack:

Red Line – Weeknights & Weekend Single Tracking	June-Sept
Leaks Repaired	748
Drain Rehabilitation (LF)	10,955
Mud & Debris Cleared (LF)	56,773
Track Bed Cleaned (LF)	29,090

Looking forward, the schedule for SafeTrack has been revised to accommodate the addition scope of work at the interlockings and the impact of the extreme heat this summer.

Revised SafeTrack schedule (dates confirmed through end of 2016)

	Dates	Impacted Lines	Impacted Stations	Type of Surge
9	9/15-10/26	OR	West Falls Church – Vienna	Single Tracking (weekend shutdowns)
10	10/29-11/22	RD	NoMa – Ft Totten	Closed
11	11/28 – 12/21	OR/SV	East Falls Church – West Falls Church	Single Tracking
12	*early Jan	YL/BL	Braddock Rd – Huntington/Van Dorn St	Single Tracking (weekend shutdown)
13	*late Jan – early Feb	BL	Rosslyn – Pentagon	Closed
14	*March	YL/BL	Braddock Rd – Huntington/Van Dorn St	Single Tracking (weekend shutdowns)
15	*late March – April	GR/YL	College Park – Greenbelt	Single Tracking (weekend shutdowns)

FUNDING IMPACT:

Continuation of the SafeTrack program will require additional budget and funding. A revised forecast is underway to update the estimated cost of the program based on the actual cost of Surges 1-8.

Project Manager:	Laura Mason
Project Department/Office:	RAIL Services

TIMELINE:

SafeTrack continues through May 2017.

RECOMMENDATION:

No recommendation, information only.



Washington Metropolitan Area Transit Authority

SafeTrack Midway Progress Report

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SafeTrack Overview



- 1 year expanded maintenance windows
- 15 Safety Surges
- 14 non-surge areas



3 years worth of work

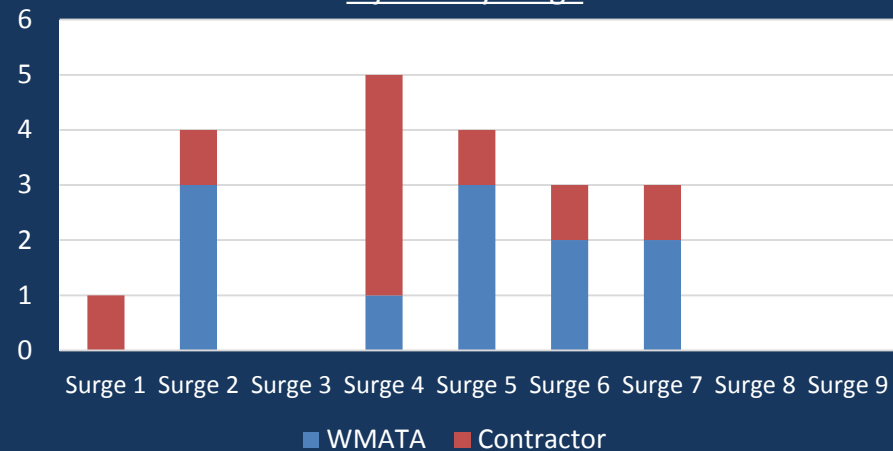


Safety First

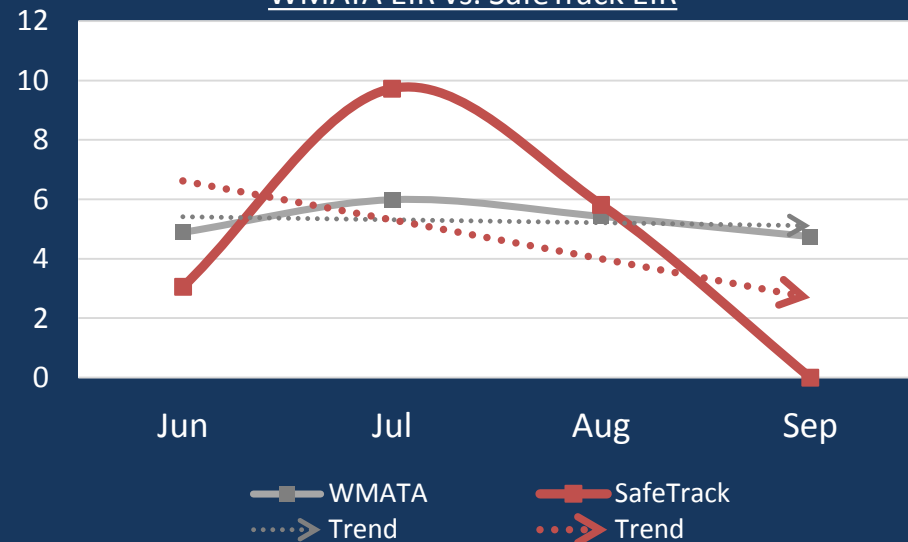
- Improving Compliance with Safety Requirements
 - ✓ Work Zone Set-up – 99%
 - ✓ Safety Vest – 94%
 - ✓ Safety Glasses – 94%
 - ✓ Housekeeping – 94%
- Positive Trend in Safety Performance
 - Zero injuries reported in September, Surge eight & nine
 - 44% of July/August injuries were due to two non-preventable collisions (four injuries)

(EIR) Employee Injury Rate – Injuries per 200k hours

Injuries by Surge

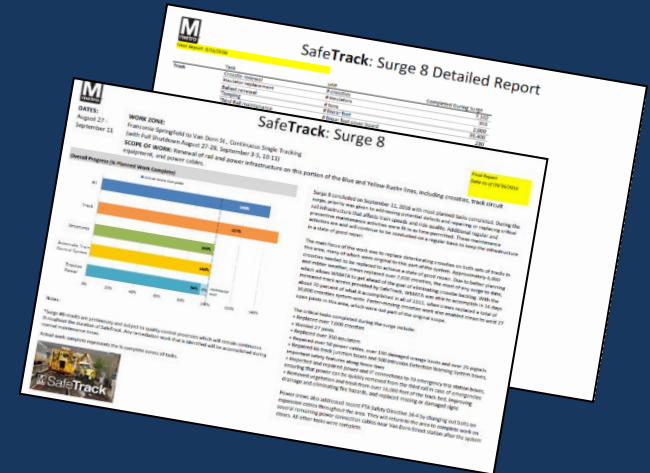


WMATA EIR vs. SafeTrack EIR



Work Accomplished to Date

- Eight Surges Completed
 - ✓ Six surges completed 100%+ planned work
 - ✓ Remaining work rescheduled and tracked to completion
- Program on track to deliver ~3 years worth of work





Safety Surge Primary Scope

SafeTrack prioritizes Track & Structures work:

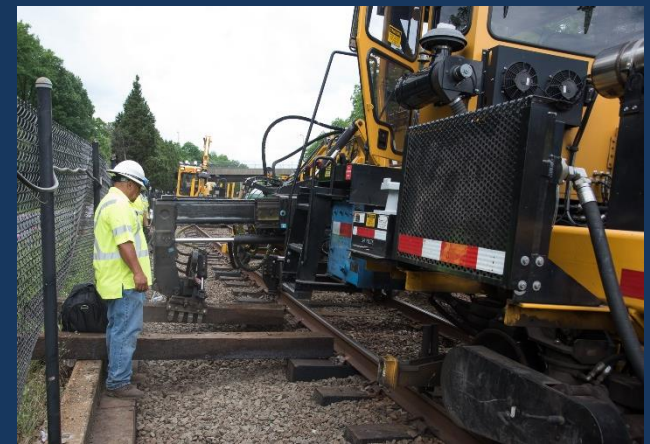
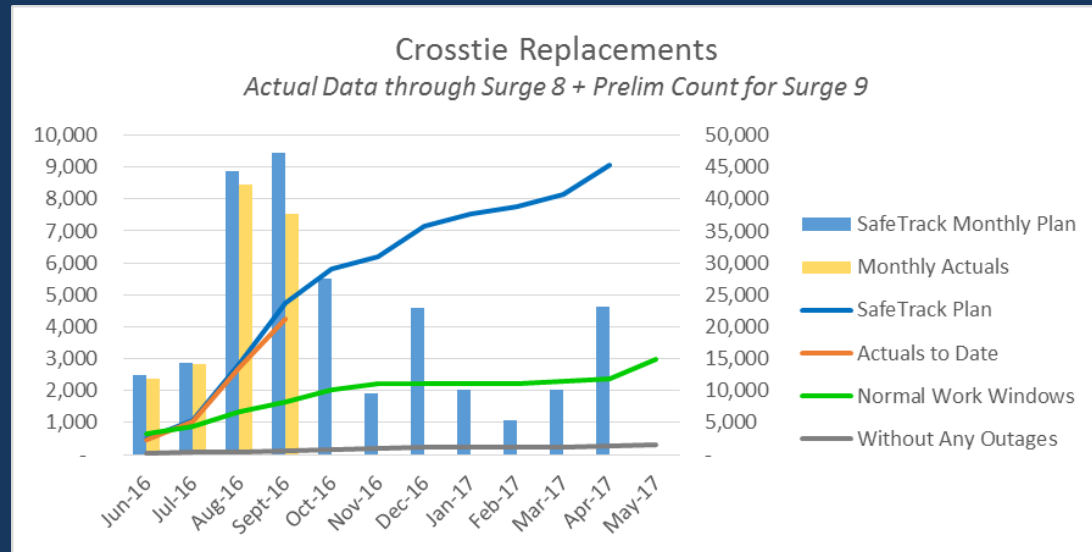
- Critical Maintenance Activities → State of Good Repair
- FTA Correction Action Plans
- Tasks Requiring Most Track and/or Mobilization Time
 - Switch Replacement
 - Interlockings
 - Crossties
 - Grout Pads
 - Rail Replacement
 - Fasteners



Key Component: Crossties

Greatest benefit
from Surge

- Regular Night:
5-10 ties
- 24-hr Surge:
200+ ties



Safety Surge Secondary Scope

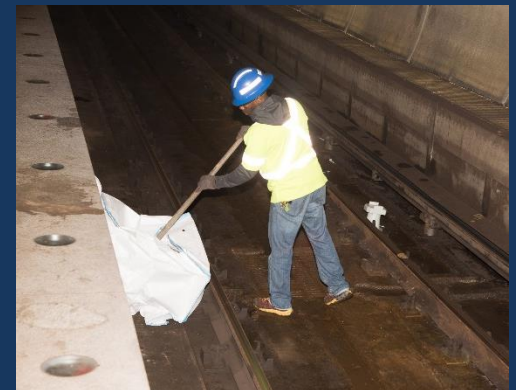
- Maximize work within surges, where **safe** and **efficient**
 - Traction Power Cable Replacement
 - Emergency Trip Station Inspection & Repair
 - Intrusion Detection Warning System
 - Fence & Gate Repairs



SafeTrack Non-Surge Work

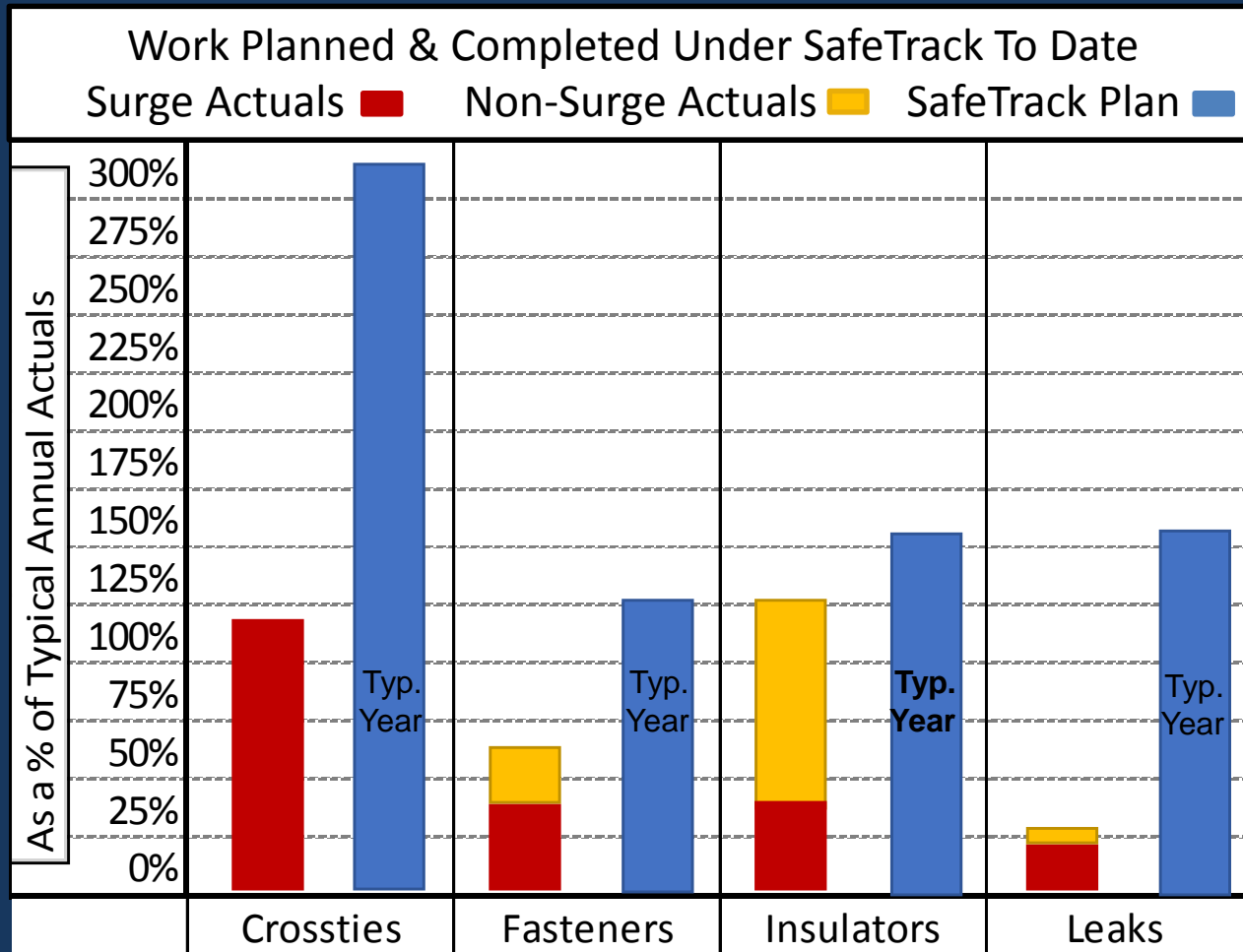
- Equally important to safe and reliable service
 - Improving drainage reduces water damage
 - Removing mud & debris reduces risk of fire & delays
 - Torqueing bolts maintains structural integrity
- Address speed restrictions and urgent repairs
- One crew dedicated to Red Line underground section

Focus Area: Red Line, Medical Center to Farragut North	Work Completed June-Sept
Leaks Repaired	748
Drain Rehabilitation (LF)	10,955
Mud & Debris Cleared (LF)	56,773
Track Bed Cleaned (LF)	29,090





Work Completed to Date



Quality Improvement

- Multiple levels of Quality Control & Quality Assurance
- Key Lessons Learned
 - Work Planning
 - Quality Control Processes
 - Surge Area Isolation
 - Return to Revenue Service
 - Mitigating Extreme Heat
 - Improving Material Laydown & Clean-up





Ridership Impacts

- Achieved needed diversion rates for Surges 1-5
- Residual losses abating after 1-2 months
- System-wide rail ridership down 11-15% since SafeTrack began

Ridership Impacts from SafeTrack Surges



	Change in Rail Ridership at Stations Directly Impacted			Shuttle Bus	Metrobus Alternatives	Parking at Directly Impacted Stations
	AM Peak Hour Needed (estimate)	All-Day Actual	All-Day Actual			
Surge 1	n/a	-25%	-19%	n/a	+9%	unknown
Surge 2	-60%	-82% ✓	-53%	18,000/day	+10%	-65% to -85%
Surge 3	-70%	-68% ✓	-13%	17,000/day	+98%	-60% to -70%
Surge 4	-70%	-69% ✓	-22%	25,000/day	+103%	-63% to -73%
Surge 5	-25%	-31% ✓	-21%	900/day	+10%	unknown
Surge 6	-50%	-11% ✗	-10%	1,700/day	+7%	-40% to -52%
Surge 7	0%	-35% ✗	-35%	1,700/day	-13%	-56%

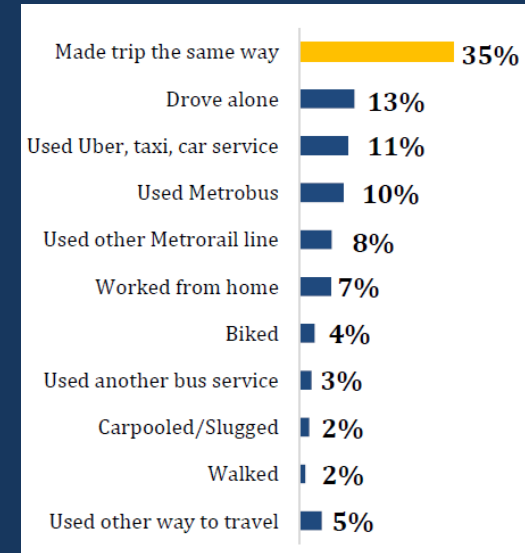
Notes

1. SafeTrack impacts shown for weekdays only
2. Assumes a "background" loss of 8-10% that would have occurred without SafeTrack
3. Loss of approximately 12,000 trips per weekend after midnight



Amplify Online Community Survey (July 2016)

- 69% impacted by at least one surge
- 65% abandoned Metrorail during surges but returned for at least some of their trips.
- Key Comments:
 - Increased crowding experienced but anticipated
 - Adequate Metro staff and signage at impacted stations
 - Few have used the Metrobus shuttles, but those that have report the shuttles were easy to locate



Looking Ahead

- Surge 10 begins October 29
 - 25 day shutdown
 - Significant impacts to Red Line service
 - Plan includes replacement of double crossover, ties and structural repairs to Rhode Island Ave. Station
- Customer Outreach
 - Surge 10 begins Oct 15
 - Next Amplify survey:
- Continued focus on safety, quality & productivity

