



Safety and Operations Committee

Board Information Item III-B

Rail Safety Program Update

Washington Metropolitan Area Transit Authority

Board Action/Information Summary

☐ Action ☒ Information

Document
Number:
207803

Resolution:
☐ Yes ☒ No

Presentation Name:

Rail Safety Program Update

Project Manager:

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Project Department:

Operations

Purpose/Key Highlights:

This presentation provides an update on three parts of the Rail Safety Program:

- Revenue vehicle audit completed by the Washington Metrorail Safety Commission
- Train operator certification and program transition to Safety & Readiness
- Rail automation efforts including automatic door operation and automatic train operation

The program aligns with our Strategic Transformation Plan's goals of Service Excellence.

Interested Parties:

No Interested Parties for Rail Safety Program Update for the MEAD.

Background:

Revenue Vehicle Audit

The revenue vehicle audit was conducted by the Washington Metrorail Safety Commission (WMSC) as part of a regular two-year audit cycle. The WMSC started the audit in September 2023. Metro received a first draft of the report April 1, 2024, and provided comments back to the WMSC on May 1, 2024. The WMSC published the final audit report on May 21, 2024.

Train Operator Certification

Metro received an order from the WMSC on February 28, 2024 regarding train operator certification. Since, Metro has completed a thorough review of all certification records and has increased resources to provide additional oversight and expand quality control efforts. Metro is transitioning the certification program to Safety & Readiness on June 30, 2024 and planning for the transition is underway.

Rail Automation Updates

Metro has been working on several rail automation efforts including automatic train operation (ATO) and automatic door operation (ADO). ADO began on the Red Line in December 2023 and metro has completed extensive testing for ATO over the previous year.

Discussion:

Revenue Vehicle Audit

The final report included seven findings and three recommendations spanning several topics including facilities and equipment, documentation, personnel, and policies and procedures. Each finding and recommendation will require a corrective action plan to be developed.

Through collaboration with the WMSC, one finding related to Engineering Modification Instruction was removed from the draft report during the comment period as Metro was able to confirm full compliance. Other findings were previously identified by Metro and were already actively being addressed at the time of this audit.

Train Operator Certification

Until the transition of the certification program to Safety & Readiness, Metro has instated several comprehensive quality control measures for the train operator certification program. This includes comprehensive work instructions for the examiners to follow as well as ongoing independent review of all certification records.

The new program under Safety & Readiness will incorporate many process improvements to help ensure compliance with the updated program manual. The new program better aligns with industry standards and will utilize newly developed electronic forms. Safety & Readiness has also developed a robust quality control procedure. Throughout the transition, various stakeholders including ATU Local 689, the WMSC, and internal groups at Metro have been engaged on new requirements of the program.

Rail Automation Updates

Since Metro began ADO on the Red line in December 2023, there have been no safety critical errors to date. In fact, schedule adherence has increased improving reliability. ADO training and certification of Metrorail Train Operators for all other Metrorail lines is currently underway. Metro is expecting to complete this effort by mid-June 2024.

In May 2024, Metro conducted an ATO tabletop exercise and scenario and simulated service demonstration with the members of the WMSC and ATU Local 689. These exercises allowed Metro and stakeholders to see how Train Operators and Rail Traffic Controllers respond to various ATO scenarios.

Funding Impact:

No Funding Impact for Rail Safety Program Update for the MEAD.

Previous Actions:

No Previous Actions Parties for Rail Safety Program Update for the MEAD.

Next Steps:

Revenue Vehicle Audit

Many findings from the revenue vehicle audit are being addressed through ongoing initiatives, however, Metro will develop corrective action plans for each finding and recommendation through our regular process.

Train Operator Certification

Transition of the train operator certification program to Safety & Readiness will occur on June 30, 2024 incorporating a new Performance Standard for Train Operations, several process improvements, and robust quality control measures.

Rail Automation Updates

Once training and certification is complete, Metro will partner with the WMSC to finalize implementation of ADO on the Blue, Orange, Silver, Green, and Yellow lines. Currently, Metro anticipates a post-July 4th launch of ADO systemwide.

Training for ATO will utilize a phased approach starting on the Red line in July 2024. By October 2024, ATO training will be occurring systemwide. Metro expects Red line ATO to launch in December 2024.

Recommendation:

Information Only

Rail Safety Program Updates

Safety & Operations Committee



Service Excellence, a strategic goal from Your Metro, the Way Forward

Rail Safety Program Updates

Focus today



Service excellence

Deliver safe, reliable, convenient, equitable, accessible, and enjoyable service for customers.



Talented teams

Attract, develop, and retain top talent where individuals feel valued, supported, and proud of their contribution.



Regional opportunity & partnership

Design transit service to move more people and equitably connect a growing region.



Sustainability

Manage resources responsibly to achieve a sustainable operating, capital, and environmental model.

Objectives of Service Excellence

Safety & security | Ensure all customers and employees feel safe and secure using and delivering services

Reliability | Provide dependable service that the community trusts

Convenience | Deliver frequent and accessible service that modernizes and enhances the customer experience

Agenda

Rail Program Safety Updates



Rail Car Maintenance Audit



Train Operator Certification



Rail Automation Updates

Rail Car Maintenance Audit

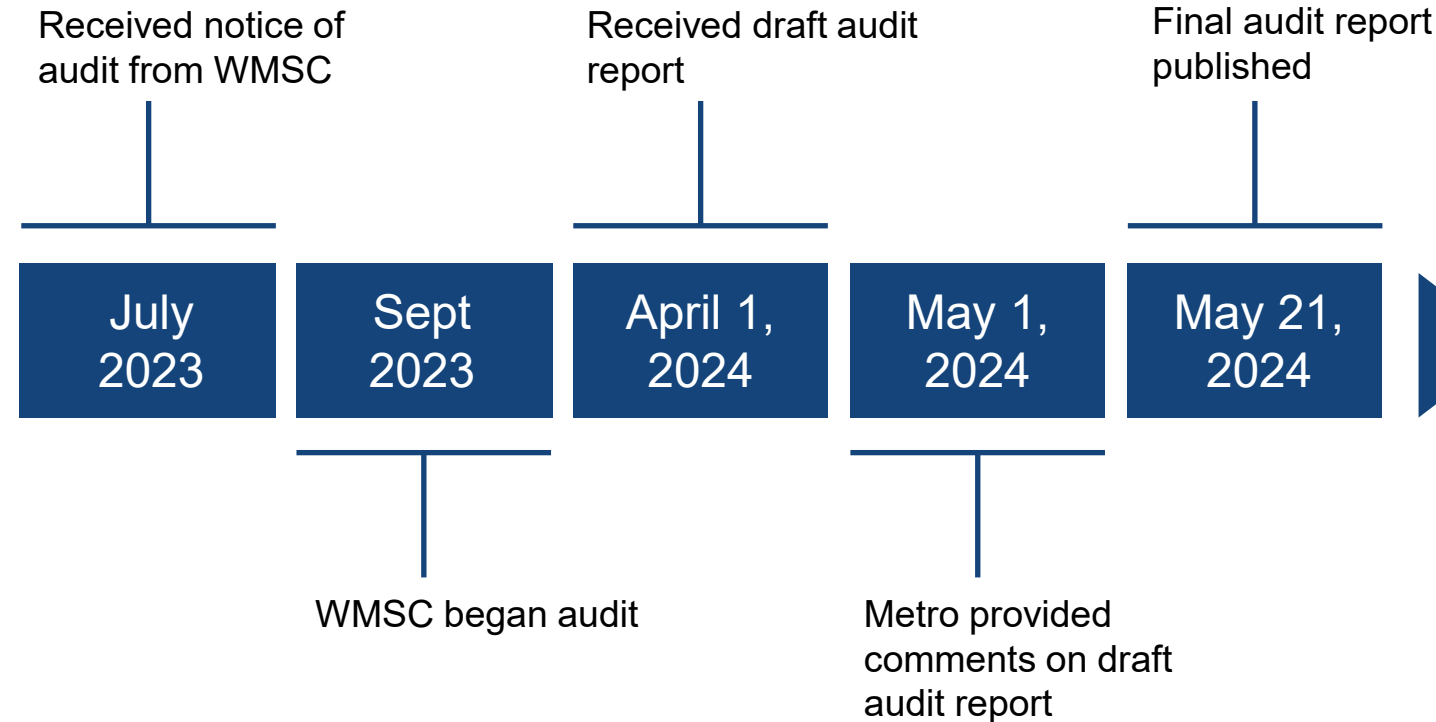
Rail Safety Program Updates

Report Findings

- 7 findings; 3 recommendations
- Many findings are already being addressed by Metro through various initiatives which were discussed during the audit

Ongoing Auditing Practice Concerns

- Overbroad language of findings; lack of specific metrics for closure of Corrective Action Plans
- Lack of evidence and specific details in support of findings and recommendations beyond interviews with “multiple personnel”
- Metro’s complete comments are not included in the final report



Metro will continue to progress ongoing actions and will develop corrective action plans through our standing review process with WMSC

Train Operator Certification Update

Rail Safety Program Updates

Program transition to Safety & Readiness will incorporate process improvements



Actions Taken

- Received WMSC order February 28, 2024
- Certification record review
- Increased resources and expanded quality control
- All active staff with certifications have undergone recertification



Quality Control

- Established comprehensive work instructions
- Ongoing independent review of all certification records



Program Transition

- New program aligns with industry standards
- Robust quality control and electronic forms
- Extensive Stakeholder Engagement to Promote Inclusion and Accessibility

Automatic Door Operations Update

- Automatic door operations began on the Red Line in December 2023 and there have been no safety critical errors (wrong-side door openings, doors opening off platform, etc.) to date with over 1.2 million door openings
- All reliability metrics have been met or exceeded since December 2023. Additionally, improvements in schedule adherence (OTP) experienced since implementation on the Red Line
- Automatic door training and certification are nearly completed on all Metrorail lines
- Final Safety Certification Reviews will take place over the next week
- Anticipated systemwide launch post-July 4th



Automatic Train Operations Update

Rail Safety Program Updates

Preparation



- Pilot training and simulator sessions were conducted
- Tabletop Scenario Exercises and Training Scenario Demonstrations occurred in May 2024
- Metro's leadership team attended the demonstrations which took place overnight across the Red Line

Training & Certification



- Metro will continue coordinating with stakeholders and revising training based on feedback
- Interim Safety Certification package to support training and certification on the Red Line planned for submittal to WMSC end of June (training to take place over the summer)

Next Steps



- Safety Certification Submittal to WMSC of Operational Readiness planned for early fall to enable revised scheduling and staffing
- Expecting Red line ATO to launch in December 2024