



**Massachusetts Bay
Transportation Authority**

Safety Updates

Timothy Lesniak

MBTA Chief Safety Officer

MBTA Board of Directors Meeting

July 25, 2024



Discussion Topics

- Recent Incidents and Corrective Actions
- Advanced Mobile Flagger Update
- Safety Performance Indicators and Trend Analysis

Recent Incidents and Corrective Actions



Advanced Mobile Flagger Update

- MBTA restarted the Advanced Mobile Flagging (AMF) program on the Orange and Green Lines on Monday, July 8.
- Program was implemented to improve safety for on-track personnel performing maintenance and inspections.
- AMF, over the last few months, has evolved to remove ambiguity, formalize communication protocols, and increase accountability for everyone on and off the track.
- In addition to the existing mandatory work crew PPE, train headlights, and radio communication requirements, MBTA formalized protocols to protect on track personnel:
 - Require the vehicle to come to a complete stop and await a signal to proceed past the on-track personnel.
 - Temporary reduced vehicle speed to 10mph through areas.
 - Increased use of the horn to alert on-track workers of oncoming car movement.

Safety Performance Indicators and Trend Analysis Highlights May 2024

Bus

- Notable downward trend in Bus vs. Pedestrian Collisions.
- Target for MBTA Bus NTD Safety Events has not been met since February 2023.
- Significant improvement in Bus System Reliability performance.

Heavy and Light Rail

- Continued success reported in system reliability for *Heavy Rail Mean Miles Between Mechanical Failures* performance.
- Continued success for Blue Line in meeting all of its Collision Targets (has met all targets since July 2023.)
- All Smoke/Fire Incident targets were met again in May for rail, making this two months in a row.

Commuter Rail

- Commuter Rail's May accident frequency ratio stands at **1.3**, indicating better performance compared to the year-to-date ratio of **2.7**.

Questions?

Appendix

Safety Performance Indicators and Trend Analysis - *Bus*

- **Second** month in a row where Bus performed at target or better in Bus vs Pedestrian Collisions Rate (**1.13** vs. Target Rate of 1.49 in May).
- There were **16** *Bus NTD Reportable Safety Events*, exceeding the monthly performance target of **7.33**.
- There were **41** *Bus NTD Reportable Injuries* (this includes both customer and employee transported injuries) in May, exceeding the monthly target of **21**.
- Significant improvement in *Bus System Reliability* with May's *Mean Miles Between Mechanical Failures* at **39,565**, performing better than target of **28,500**.





Safety Performance Indicators and Trend Analysis – *Heavy Rail*

- Significant improvement in *Heavy Rail NTD Reportable Safety Events* in May, with only **4** incidents compared to 11 in April, however still falling short of target (**1.92**).
- There were **21** *NTD Reportable Injuries* on Heavy Rail, falling short of the performance target of **14**.
- There were **0** Main Line or Yard *derailments* on heavy rail, however there were **4** Maintenance Vehicle *derailments*.
- The **Orange Line** had a Customer Injury rate of **1.88** *customer injuries per one million passenger trips*, performing below target (**2.12**) for the first time since November 2023.
- The **Red Line** has met the *Reportable Smoke/Fire incident* performance target of **5.88** or fewer three months in a row, with only **2** incidents in May.
- *Heavy Rail Mean Miles Between Mechanical Failures* performance in May was **130,680** compared to the target of **49,000**.



Safety Performance Indicators and Trend Analysis – *Light Rail*

- There were **2** *Light Rail NTD Reportable Safety Events* in May, compared to the target **2.25**.
- There were **5** *Light Rail NTD Reportable Injuries*, compared to the monthly performance target of **6.58**.
- There were **0** *derailments*.
- Continued success in system reliability for Light Rail. *Light Rail Mean Miles Between Mechanical Failures* performance in May was **9,018** compared to the target of **7,900**. This is the **2nd** month in a row meeting this target.
- After missing the *Customer Injuries Rate* performance target in April, the Green Line fell within the target rate of **2.41** in May with **1.54** customer injuries per million passenger trips.

Safety Performance Indicators Trend Analysis *Commuter Rail and Ferry*

- Commuter Rail's May accident frequency ratio stands at **1.3**, indicating better performance compared to the year-to-date ratio of **2.7**.
- Commuter Rail reported **3** Reportable and **0** Non-Reportable employee injuries, with **1** passenger injury recorded.
- There were **0** Commuter Rail derailments.
- There was **1** reportable rule violation.
- Ferry had **0** Reportable and **2** Non-Reportable employee injuries, with **0** passenger injuries reported.

