Service Update and Investigation Progress

Board Briefing
October 28, 2021
Preliminary Metrorail Service Strategy

**PHASE IA: BASIC SERVICE**

- 31 six-car trains
- Red Line every 15-20 minutes
- All other lines every 30-40 minutes (15-20 in core)
- Silver Line service operates between Wiehle-Reston East and Federal Center SW only

**PHASE IB: BASIC SERVICE with targeted improvements**

- Add eight six-car trains
- Priority for strategic deployment of trains ready to enter service to reduce crowding:
  - To Red Line to maintain consistent peak service
  - To Green Line where most crowded
  - To extend Silver Line to Largo

**PHASE II: INCREASE FREQUENCY**

- Add five six-car trains
- When additional trains become available:
  - Improve frequency
    - Red Line to 12-15 minutes
    - Green Line to 20-30 minutes
    - Yellow Line to 20-30 minutes
    - 10-15 minutes in core
  - Longer train lengths and additional trains
Metrorail Service Focused on Reducing Crowding

The Red Line highest loads are during the 5 PM hour at Metro Center (A01) and Judiciary Sq (B02) towards Glenmont

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Green Line has the highest loads during the 5 PM hour from L'Enfant (F03) to Waterfront (F04) towards Branch Ave

Average Passenger Per Car (PPC) Red and Green Lines
Initial Response Activities

- Train 407 Operator initially reported a stuck holding brake on railcar 7200 in approach to Arlington Cemetery track two
- As inspections and diagnostics proceeded it was confirmed that one wheel set on train car 7200 had derailed. The train remained upright with all cars in-line
- ROCC immediately took actions to ensure scene safety
- Arlington County Fire Department arrived on scene and assisted with the customer evacuation to Arlington Cemetery (~2000 feet) via the track bed
- 187 customers were evacuated from the train
  - No injuries were reported
  - One customer was transported for precautionary medical evaluation
- Notifications made to:
  - Washington Metrorail Safety Commission
  - Department of Transportation’s Operations Center
The NTSB launched an investigation into the blue line derailment

- NTSB automatically becomes the primary investigating entity; WMATA becomes a party to the investigation
- WMATA personnel have been instructed to fully cooperate with the NTSB and be governed by their process
- Metro subject matter experts will provide support and cooperate in a fully transparent manner
- WMATA-SAFE is responsible for the overall coordination of our support of the investigation
- Until the investigation is complete, WMATA will not comment further nor speculate on the potential cause(s) of the derailment itself
- The NTSB will identify the probable cause(s) and WMATA will take appropriate actions to prevent a similar accident in the future

**The NTSB Investigative Process**

**Current Phase**
- Initial Notification and decision to investigate
- On-site fact finding and data collection
- Analysis of facts and determination of probable cause
- Acceptance of final report
- Advocating for the acceptance of safety recommendations arising from the investigation
Parties to the Investigation

- WMATA
- WMSC
- Labor Union
- FTA
- Kawasaki
- ORX
7K Trucks (Bogies)

- Each train car has two trucks located near the ends of the cars which support the mass of the vehicle, use the wheels to guide it along the track and provide some degree of cushioning against the shocks transmitted from the track during motion.

- A pair of train wheels is rigidly fixed to an axle to form a wheelset. The wheels are pressed on to the axle so that they both rotate together. Two wheelsets are mounted in a truck, which is mounted under a railcar to support and guide the car along the track.
Equipment Inspection Process

- Derived from industry standards and the equipment manufacturer instructions

- Scope
  - Safety Critical Systems
  - Non-Safety Critical Systems

- Intervals
  - Daily
  - 30/90/180 day
  - Annual

- Actions
  - Monitoring
  - Restrictions
  - Removal from service
    - Enhanced process for securing nonconforming equipment

*A- Back to Back measurement gauge
Next Steps

- Continue to support the investigation

- Send affected wheelsets to an independent third party for examination

- Work with the Car Manufacturer to complete an analysis of the existing failures

- Draft mitigation plan under development which includes:
  - a test plan
  - a rigorous inspection program for the fleet to return to service
  - an enhanced process for securing non-compliant equipment

- Develop organizational structure and enhanced processes for reliability and quality management