



**Massachusetts Bay  
Transportation Authority**

# Safety Update: Safety Investigations

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Fiscal and Management Control Board

May 10, 2021

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# Investigation Training Accomplishments

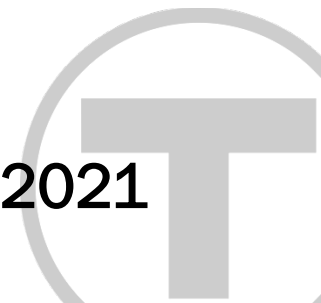
## Training Module Name

- |                                      |  |
|--------------------------------------|--|
| 1. Executive Management              | 13. Power Familiarization                    |
| 2. Employee Injury Response          | 14. Bus Transportation Familiarization       |
| 3. Safety Event Response Team (SERT) | 15. Rail Transportation Familiarization      |
| 4. On-Scene Signals                  | 16. Rail Vehicle Maintenance Familiarization |
| 5. On-Scene MOW                      | 17. On-Scene Safety Responder                |
| 6. On-Scene Power                    | 18. Photographing the Scene – Part A         |
| 7. On-Scene Bus Transportation       | 19. Photographing the Scene – Part B         |
| 8. On-Scene Rail Transportation      | 20. Sketching the Scene                      |
| 9. On-Scene Rail Vehicle Maintenance | 21. Post-On-Scene Investigation Activities   |
| 10. Effective Interviewing           | 22. Causal Factors and Root Cause Analysis   |
| 11. Signals Familiarization          | 23. Report Writing and Mitigating Actions    |
| 12. MOW Familiarization              |  |

## Training Roll Out

- General Manager/Deputy General Manager
  - December 2020 – Modules 1 & 2
- MBTA Safety Employees
  - January to April 2021 – All Modules
- All MBTA Departments
  - April to June 2021– Area Specific Modules

**Full Implementation of new Safety Event Investigation Manual to begin in July 2021**



# Investigation Team – Overview

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- *Past* – MBTA Safety was limited to only one (1) recognized Subject Matter Expert (SME).
- *Past* – A majority of the department worked 1<sup>st</sup> shift hours and limited weekend coverage.
- *Present* – MBTA Safety has added seven (7) SME's that cover multiple disciplines raising the level of expertise for investigations and field presence.
- *Present* – MBTA Safety has 24/7 shift coverage including weekends.
- *Fast Fact* – The five (5) member Overnight Safety Team has over 110 years of experience in their respective fields.



# Investigation Team – Lead by Example

- Deputy Director Charles Murphy (33 yrs. exp.) – Overnight Team Field Manager
- Field Duty - Christmas Eve, 2020, 3:30am: Roadway Hazard
- MBTA Safety identified a motor vehicle facing the wrong way in the Sullivan Square Upper
- The driver of the pickup truck was unresponsive and had his engine running with the shifter in drive
- Police blocked the vehicle, gained entry into the vehicle, woke the driver and moved the vehicle to a safe location.



# Investigation Team – Lead by Example

- Deputy Director Kathleen Murphy (18 yrs. exp.) – Daytime Team Field Manager
- Hot Line Call – Monday, January 14, 2021, 1:11pm: Homeless groups built an encampment in the area near the Red Line.
- Employee safety concern for those accessing the Foot Gate to the Right Of Way (ROW).
- A swift and humane coordinated response from Safety, Transit Police, E&M, and Transportation ensured employee safety was prioritized, as the encampment along with any debris and trash were removed.
- As is standard practice, Transit Police offered those that are displaced transportation to a local shelter or medical facility where they can get the assistance that they need.



# Investigation Team – Track

- Track Safety Lead Investigator (SLI) Amanda Fletemeyer (17 yrs exp) – Overnight Team
- Emergency Response – Thursday, December 17, 2021, 8:34am: Orange Line Wellington Yard weather-related derailment.
- SLI Fletemeyer heard over-the-air that a train derailed on the northside of the yard while working on the southside.
- MBTA Safety was on scene within 3 minutes and started the scene safety assessment and investigation.
- Due to the snow levels, the 3<sup>rd</sup> Rail was covered at key locations around the train. SLI Fletemeyer ensured MBTA Safety’s 3<sup>rd</sup> Rail tester was placed in the power section to allow safe recovery and investigation efforts.



# Investigation Team – Power

- Power SLI Chis Peach (20 yrs. exp.) – Overnight Team
- Emergency Response - Saturday, February 6, 2021, 4:30am: Fire and/or Smoke Event in a power utility room.
- SLI Peach heard of a fire event at a Red Line Traction Power Station 600 VDC transformer while monitoring radio transmissions.
- SLI Peach arrived on-site within 9 minutes to collect firsthand information of the event from the Power Department and Boston Fire.
- MBTA Safety updated key stakeholders that a 600 VDC breaker issue occurred during planned work.
- MBTA Safety was able to obtain real-time photographs and investigate extent of damage.



# Investigation Team – Bus

- Bus SLI Ronnie Neff (22 yrs. exp.) – Daytime Team
- Emergency Response – Monday, January 25, 2021, 4:10am: Infrastructure Damage.
- SLI Neff responded to Forest Hills within 15 mins. for a pipe burst in the upper busway that created a slip, trip, and fall hazard for customer and employees.
- SLI Neff used his bus expertise to coordinate Officials and work crews to ensure bus, busway, and station egress safety,
- The areas were monitored and coned-off, as an E&M lift truck cleared the overhead hazards and sanded/salted the area while the plumbers repaired the broken pipe.





# Investigation Team – Diversion Safety

- Light Rail SLI Thomas Maher (22 yrs. exp.) – Day/Night Team
- Diversion Oversight - Wednesday, February 17, 2021, 9:21pm: Green Line Construction Diversion Power Issue.
- SLI Maher was assisting with the implementation of an Early Access Diversion when a 600 VDC power issue interfered with the process.
- SLI Maher assisted in determining the live/dead power sections, offloading trains, shutting trains down, and a coordinating a bus shuttle.
- The diversion was canceled when it was determined the overall coordination would benefit from a stand down and after action.
- The next day, with all responsible parties debriefed and coordinated, a successful Early Access Diversion was implemented.

