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W-0441 – Collision at Dunn Loring-Merrifield Station – February 15, 2023

Document Purpose

This WMSC written report on WMATA Metrorail's safety event investigation and review of Metrorail's findings in accordance with the WMSC Program Standard, in conjunction with the attached Metrorail investigation report that has undergone WMSC staff review, feedback, and Metrorail revision, describes the investigation activities, identifies factors causing or contributing to the accident, and sets forth ongoing, additional, or upcoming corrective actions and further oversight work (such as inspections and audits) as necessary or appropriate. The WMSC's ongoing oversight during the investigative process, including safety event reporting and verification, participation in investigative interviews, data review, consistent communication with the Metrorail investigations team, and feedback on Metrorail's reports leads to further improvements prior to consideration of the reports by WMSC Commissioners for adoption. The WMSC's safety event investigation oversight assures the sufficiency and thoroughness of Metrorail's investigations. The WMSC Commissioners are considering these documents (the WMSC review and Metrorail's investigation report) as a unified item for adoption at the Washington Metrorail Safety Commission meeting on September 15, 2026.

WMSC staff recommend adoption of this investigation.

When a fatality occurs within the Metrorail system, the WMSC, in collaboration with WMATA, conducts an investigation to determine causes and contributing factors so that, where possible, mitigations can be implemented to help prevent future occurrences. Between 2023 and 2024, there were 14 such fatalities on the Metrorail system. Of these fatalities, 13 investigations are being presented on September 15, 2026. Investigation reports for these incidents are being considered for adoption in 2026 due to the nature of the events and a review of the WMSC's process for collecting information related to these investigations.

Safety event summary:

On February 15, 2023, at 1:09 p.m., a customer at Dunn Loring Station reported to the Station Manager and a Metro Transit Police Department (MTPD) officer near the station kiosk that a passenger was stuck in the train doors and dragged as the train departed on track 1 toward West Falls Church Station.

At 1:17 p.m., an MTPD officer investigated from the platform and found the passenger conscious, with head injuries, lying on the roadway at the end of the platform a few feet from the third rail.

The responding officer immediately began life-saving measures, requested medical assistance, and ordered third rail power to be de-energized. MTPD officers were dispatched to intercept the involved train. The train was identified as Train 909 and was held at Clarendon Station and later transported to West Falls Church Rail Yard for investigation.

An investigative review of closed-circuit television footage showed that prior to the collision, the customer boarded Train 909 at Vienna Fairfax-GMU Station at 1:02 p.m. Train 909 traveled to Dunn Loring Station and the train operator manually opened the doors at 1:06 p.m. The customer exited the seventh car with a dog leash tied around their waist while the dog remained behind on the train. The leash became caught between the door leaves after the doors closed.

The passenger pulled on the leash for several seconds, causing a door fault and preventing the All Doors Closed Indicator from illuminating on the Train Operator's console. Before noticing the fault, the Train Operator attempted to enter propulsion mode. When the passenger stopped pulling against the door, the fault cleared, and the Train Operator entered propulsion mode, dragging the passenger into the end gate and stair railing.

Metrorail procedure requires train operators to immediately recycle the train doors if the door indicator lights fail to extinguish. Recycling the door causes train doors to reopen before closing again.

At the time of the event, the passenger was beneath the station canopy while the train operator was in full sunlight, creating a shadowed area where the passenger was located.

The radio rail traffic controller dispatched a Rail Supervisor from Ballston Station to Dunn Loring Station at 1:24 p.m.

At 1:25 p.m., fire department personnel arrived at Dunn Loring Station and performed life-saving measures. The station was closed, train service was terminated between West Falls Church and Vienna Station, and shuttle bus service was requested. The customer was removed from the roadway at 1:42 p.m. and succumbed to their injuries minutes later.

At 2:36 p.m., third rail power was restored at Dunn Loring Station on tracks 1 and 2 and normal service resumed.

The train operator and Train 909 were removed from service in accordance with Metrorail policy. WMATA's Drug and Alcohol Program determined that the train operator complied with the Drug and Alcohol Policy and Testing Program Policy.

A post-incident inspection by Car Engineering found no anomalies with the train doors or safety systems that contributed to the event. The involved doors on car 7493 passed the required obstruction tests and generated faults as designed.

Temporary repairs to the damaged end gate and railing were completed in April 2023 and were replaced with permanent structures in October 2024.

Metrorail's safety investigations and rail transportation personnel conducted two inspections at Dunn Loring Station in the days following this event to observe the view from the operator's cab window toward the canopy area. They observed the same shadowing and obstructed view present on the day of the event. They also noted that, despite the shadow, the exterior door indicator lights remained visible beneath the canopy.

The probable causes and contributing factors leading to this event included:

- The train operator's failure to fully adhere to established door operating and troubleshooting procedures.
- The environmental conditions, which obstructed the view of the customer on the platform beneath the station canopy.
- The customer securing the leash around their body with their dog trailing behind them loosely.

Investigation W-441 led to specific recommended corrective actions (RCA), including:

- WMATA created a safety campaign highlighting door operations

- Meytrorail added a review of this event to the train operator training curriculum
- WMATA developed and deployed a customer campaign focused on boarding and alighting the train safely and train door operations
- Metrorail performed a preliminary hazard analysis on canopy lighting conditions

Washington Metropolitan Area Transit Authority
Department of Safety (SAFE)
Office of Safety Investigations (OSI)

FINAL REPORT OF INVESTIGATION A&I E23105

Date of Event:	February 15, 2023
Type of Event:	A-1 Fatality
Incident Time:	13:14 hours
Location:	Dunn Loring Station, Track 1
Time and How received by SAFE:	13:44 hours – Mission Assurance Coordinator (MAC)
WMSC Notification Time:	15:14 hours
Responding Safety Officers:	OSI and OEP personnel
Rail Vehicle:	L7744x7745-7545x7544-7668x7669-**7493**x7492T
Injuries:	One (1) Fatal Injury
Damage:	Platform end gate, end gate stair railing
Emergency Responders:	Fairfax County Fire and Rescue Department (FCFRD), Metro Transit Police Department (MTPD)
SMS I/A Incident Number:	20230216#106230

Dunn Loring Station, Track 1 – Fatality

February 15, 2023

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Abbreviations and Acronyms

ADCL	All Doors Closed
ARS	Audio Recording System
CAP	Corrective Action Plan
CENV	Office of Vehicle Program Services
CCTV	Closed-Circuit Television
COMR	Office of Radio Communications
CSS	Crime Scene Search
EMM	Events Mirror Memory
ER	Event Recorder
DVEU	Digital Video Evidence Unit
FCFRD	Fairfax County Fire & Rescue Department
MAC	Mission Assurance Coordinator
MSRPH	Metrorail Safety Rules and Procedures Handbook
MTPD	Metro Transit Police Department
NOAA	National Oceanic and Atmospheric Administration
RTC	Rail Traffic Controller
RTRA	Office of Rail Transportation
ROCC	Rail Operations Control Center
ROCS	Rail Operations Control System
ROQT	Office of Rail Operations Quality Training
RSDAR	Rail Supervisor Daily Activity Report
RWP	Roadway Worker Protection

SAFE	Department of Safety
SMS	Safety Measurement System
SOP	Standard Operating Procedure
TCD	Train Control Display
WMATA	Washington Metropolitan Area Transit Authority
WMSC	Washington Metrorail Safety Commission
WSAD	Warning Strobe and Alarm Device
YPT	Yard Practical Training

Executive Summary

**Note that all times listed are approximate and may contain minor variations due to differences between systems of record. **

On February 15, 2023, at 13:09 hours, a customer at Dunn Loring Station reported that a passenger was stuck in the train's doors and dragged as it departed towards West Falls Church Station. The report was initially made to a Metro Transit Police Department (MTPD) officer near the station kiosk and the Station Manager.

At 13:13 hours, Digital Video Evidence Unit (DVEU) radioed MTPD dispatch, confirming that a passenger was dragged down the platform by a train on Track 1, striking the end gate. At 13:17 hours, an MTPD Officer investigated from the platform, observed the passenger lying on the roadway at the end of the platform, and reported that they were conscious with injuries to their head. The passenger was lying a few feet away from the third rail.

The responding officer took immediate life-saving measures, medical assistance was requested, and the removal of third rail power was ordered. MTPD Officers were dispatched from West Falls Church Station to the Orange Line to intercept the involved train. At 13:15 hours, MTPD requested the train involved to be held at Ballston Station for an MTPD Officer to meet with the Train Operator. The train was identified as ID 909 and held at Clarendon Station for investigation.

A review of all available Closed-Circuit Television (CCTV) video taken from inside the train and the station platform found that the passenger alighted from the seventh car in the consist with a dog leash tied around their waist and their dog trailing behind them as the doors closed. The dog remained onboard the car with the leash caught between the door leaves. After pulling on the leash for several seconds, which resulted in a door fault (All Doors Closed Indicator not illuminated) on the Train Operator's console, the Train Operator attempted to enter propulsion mode before they noticed the fault; the passenger stopped pulling against the door, and the fault cleared. The Train Operator then entered a propulsion mode, resulting in the passenger being dragged and striking the end gate and stair railing.

At the time of the event, the passenger was located beneath the station canopy while the Train Operator was in full sunlight, resulting in a shadow condition where the passenger was located.

The Train Operator of ID 910 arrived at Dunn Loring Station on Track 1 at 13:21 hours and reported to the Rail Operations Control Center (ROCC) that an MTPD Officer instructed them to hold on the platform at the eight-car marker due to a person on the roadway. The Radio Rail Traffic Controller (RTC) dispatched a Rail Supervisor from Ballston Station to Dunn Loring Station. At 13:25 hours, Fairfax County Fire and Rescue Department (FCFRD) arrived at Dunn Loring Station and took over life-saving measures. At 13:31 hours, Dunn Loring Station was closed, train service was terminated between West Falls Church and Vienna Station, and shuttle bus service was requested. At 13:35 hours, MTPD Command requested confirmation that third rail power was

de-energized. At 13:37 hours, the MTPD Forward Liaison reported that FCFRD confirmed third rail power was de-energized via hot stick and installed a Warning Strobe and Alarm Device (WSAD).

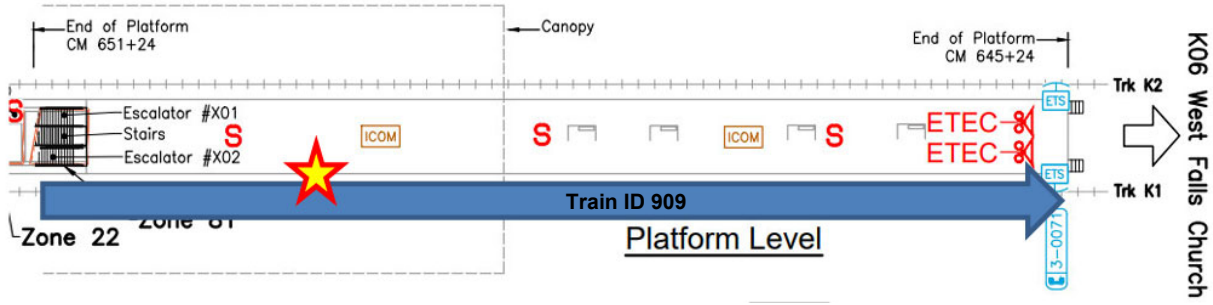
At 14:36 hours, third rail power was restored at Dunn Loring Station, track 1 & 2. The station reopened to customers, and the train on the platform was placed in revenue service. The incident train was sent into West Falls Church Rail Yard. At 14:46 hours, normal service resumed between Clarendon Station and Ballston Station, and Dunn Loring, tracks 1 & 2.

The root cause and contributing factors for the Fatality event was a combination of human and environmental factors. The Train Operator failed to adhere to the established door operating and troubleshooting procedure fully. The customer's actions, including securing the leash around their body and allowing their dog to trail behind them loosely, also likely contributed to this event. A contributing factor was environmental conditions, which obstructed the view of the customers on the platform beneath the station canopy.

Incident Site

Dunn Loring Station, Track 1

Field Sketch/Schematics



The above depiction is not to scale.

Purpose and Scope

The purpose of this accident investigation and candid self-evaluation is to collect and analyze available facts, determine the probable cause(s) of the incident, identify contributing factors, and make recommendations to prevent a recurrence.

Investigative Methods

The investigative methodologies included the following:

- Site Assessment through a site visit, video, and document review.

- Informal Interviews – SAFE interviewed two individuals as part of this investigation. Collected through conversations with individuals during the investigation to provide background and supporting information. Written statements were reviewed from personnel present during the event.
    - Station Manager
    - MTPD Officer

- Formal Interviews – SAFE interviewed one individual as part of this investigation. Interview included persons present at, during, and after the incident, those directly involved in the response process, and representatives from the Washington Metrorail Safety Commission (WMSC). SAFE interviewed the following individual:
    - Train Operator

- Documentation Review – Collection of relevant work history information and process documentation contained in WMATA systems of record. These records include:
    - Train Operator Training Records
    - Train Operator Certifications
    - Train Operator 30-Day work history review
    - Metrorail Safety Rules and Procedures Handbook (MSRPH)
    - National Oceanic and Atmospheric Administration (NOAA)
    - Rail Operations Control Center (ROCC) Incident Report
    - Maximo Data
    - ER/Vent Log Analysis
    - Performance Standardization Program Manual – Train Operations
    - Rail Operations Control System (ROCS) SPOTS Report
    - Management Incident Report
    - Train Operations Guide & Procedural Checklist

- System Data Recording Review – Collection of information contained in Metro Data Recording Systems. This data includes:
    - ARS (Audio Recording System) playback includes OPS 4 Radio, MTPD 1X
    - Event Recorder (ER)/Event Mirror Memory (EMM)
    - Closed-Circuit Television (CCTV)
    - Rail Car Video Camera

Investigation

On February 15, 2023, at 13:09 hours, a customer at Dunn Loring Station reported to the Station Manager and an MTPD officer that a person was stuck in the train's doors and dragged as it departed toward West Falls Church Station. At 13:13 hours, DVEU personnel radioed MTPD dispatch, confirming that the train dragged a passenger down the platform.

A review of the systems of records established that before the event, the passenger rode Train ID 909 to Vienna Station on the lead car 7492, arriving at 12:51 hours on Track 1. While riding the train to Vienna Station, the passenger's dog was observed tied to a leash held by the passenger. The passenger was lying on the seat with their legs propped against the adjacent seat area. On arrival at Vienna Station, the passenger took several minutes to gather their belongings, including untying a bag from a stanchion pole. Before alighting car 7492, the passenger tied the dog leash around their waist.

The Train Operator walked to the lead end of the train and boarded car 7744. They prepared the cab for operation and reopened the platform side doors. The passenger boarded car 7493 with the leash still tied around their waist, with the dog trailing behind them, and sat down. The passenger lay on the seat, and the dog was beneath it. The train departed Vienna Station on Track 1 at 13:03 hours.

On arrival at Dunn Loring Station at 13:05 hours, the Train Operator properly berthed at the eight-car marking and operated the train doors on the platform side while observing the platform area from the operator's cab window. After opening the platform-side doors, the Train Operator was not observed from the platform or console cameras. The doors remained open for approximately fourteen seconds. The Train Operator observed the platform as the doors began to close but disappeared from view as the doors closed completely.

As the doors closed, the passenger alighted from car 7493 onto the platform with their dog trailing behind them, separated by several feet of the leash. The dog failed to alight the car before the doors closed, with the leash caught between the door leaves. The leash remained tied around the passenger's waist as the doors closed.

While on the platform, the customer attempted to pull the leash at several angles, and the door indicator light (above the train door) remained illuminated. The door obstruction resulted in a loss of the All Doors Closed and flashing Trouble Indicator lights on the operator's console. The Train Operator unsuccessfully attempted to move the train before observing the trouble light. Upon observing the trouble light, they interacted with the Train Control Display (TCD), which provided additional information on the trouble light.

The Operator then left their seat for several seconds, investigated the lead car through the Operator's Cab Door, and returned to their seat without going back to observe the platform. While they were out of the seat, the trouble light stopped flashing, and the All Doors Closed Indicator returned. The Train Operator then moved the Master Controller to propulsion mode. The train departed the station, dragging the passenger along the platform and striking the end gate before the leash detached from their body. The end gate was made of ¾” diameter polyvinyl chloride (PVC) piping.

At 13:18 hours, an MTPD Officer conducted an investigation from the platform and observed a passenger lying on the roadway at the end of the platform. The officer reported that the passenger was conscious but had head injuries. The passenger was located a few feet away from the third rail.

The responding officer immediately took life-saving measures and requested medical assistance. They also ordered the removal of power from the third rail. MTPD Officers were dispatched from West Falls Church Station to the Orange Line in order to intercept the train involved. At 13:15 hours, MTPD requested that train ID 909 be held at Ballston Station for an MTPD Officer to meet with the Train Operator. The train was subsequently held at Clarendon Station for investigation.

The Train Operator of train ID 910 arrived at Dunn Loring Station on Track 1 at 13:21 hours and reported to the ROCC that an MTPD Officer instructed them to hold on the platform at the eight-car marker due to a person on the roadway. The Radio RTC dispatched a Rail Supervisor from Ballston Station to Dunn Loring Station.

At 13:25 hours, the FCFRD arrived at Dunn Loring Station and took over life-saving measures. At 13:31, Dunn Loring Station was closed, train service was terminated between West Falls Church and Vienna Station, and shuttle bus service was requested. At 13:35 hours, MTPD Command requested confirmation that power to the third rail was de-energized. At 13:37 hours, the MTPD Forward Liaison reported that FCFRD confirmed the de-energization of the third rail using a hot stick and had installed a WSAD.

At 14:36 hours, power was restored to the third rail at Dunn Loring Station on tracks 1 and 2. The station reopened to customers, and the train on the platform was put back into revenue service. The incident train was sent to the West Falls Church Rail Yard. At 14:46 hours, normal service resumed between Clarendon Station and Ballston Station, including tracks 1 and 2 at Dunn Loring.

The passenger's dog exited the train at West Falls Church Station and was retrieved by a customer. The dog was then collected by MTPD personnel and transported to a local animal shelter, where it was ultimately returned to the passenger's family. No injuries were reported to the dog, which was wearing a vest with the words "Service Dog" printed on it.

A post-incident inspection of the train involved, performed by Car Engineering, found no anomalies with the doors or safety systems that would have contributed to this event. The involved doors on car 7493 passed the prescribed obstruction tests and generated faults as designed.

On Saturday, February 18, 2023, OSI investigators returned to Dunn Loring Station and performed field observations of the view from the Operator's cab window to the canopy area. They observed the same shadow and obstructed view that was present on the day of the event. They also observed that despite the shadow, the illuminated door indicator lights on the exterior of the train were visible under the canopy area.

Image 1 - View from the area of the Operator's cab window looking towards the rear of the train. The seventh car is under the station canopy in the shadowed area.

OSI and Rail Transportation personnel performed a second site visit on February 23, 2023, and made similar observations closer to the time and conditions of the event.

Image 2 - View from the area of the Operator's cab window looking towards the rear of the train. The seventh car is under the station canopy in the shadowed area.

Chronological Event Timeline

A review of ARS playback, i.e., phone and radio communications, revealed the following timeline:

Time	Description
12:56:34 hours	At Vienna Station: Several minutes after arriving at Vienna Station, the passenger collects their belongings and ties the dog leash around the exterior of their jacket. [Car video]
13:02:30 hours	At Vienna Station: Passenger boards car 7493 from the middle door, walked to the front of the car and lays down on the seat. Dog leash is secured around their waist. [Car video]
13:05:00 hours	The train entered the platform at Dunn Loring Train Station. [CCTV]
13:06:24 hours	The train doors open on the platform. [CCTV]
13:06:37 hours	Passenger steps off the train [CCTV]
13:06:40 hours	The train doors close. [CCTV]
13:09:00 hours	Passengers alert the Station Manager of the event. [CCTV]
13:10:00 hours	Passengers alert MTPD, who were standing topside by the kiosk. [CCTV]
13:10:23 hours	MTPD Unit #1: Patrons report that the last train that left Dunn Loring a few minutes ago had a person attached to the outside of the train and was stuck in the door when the train was leaving heading towards West Falls. MTPD Dispatcher: Is there a unit down the line that can check this train? MTPD Video Unit #1: Copy, reviewing Dunn Loring. [Radio MTPD1x]
13:11:20 hours	MTPD Unit #2: Copy, can you reach out to the ROCC and Rail and get more details? [Radio MTPD1x]
13:13:28 hours	MTPD Video Unit #1: We have a visual of an individual attempting to exit the train and being dragged down the platform. We are trying to locate an image of the person that passed the end gate at Dunn Loring. MTPD Unit #2: I will return to the station and investigate. [Radio MTPD1x]
13:16:00 hours	MTPD Unit #1 was observed running through the mezzanine toward the platform. [CCTV]
13:16:57 hours	MTPD Unit #2: Can the MAC reach out to the Station Manager and have them do a visual inspection while we have the units en route? [Radio MTPD1x]
13:17:44 hours	MTPD Unit #1: On the platform at Dunn Loring, conducting a track inspection. Priority, subject laying on the end of the platform on the ground, he is alive, have rescue one respond for an adult male. MTPD Dispatcher: Acknowledged and Repeated. MTPD Unit #1: Please remove the third rail power. The subject is laying about two feet from the third rail at the very end of the platform. MTPD Dispatcher: Acknowledge and Repeat. [Radio MTPD1x]
13:19:36 hours	MTPD Unit #2: I need that train held at Ballston, and the operator interviewed. [Radio MTPD1x]

Time	Description
13:19:50 hours	MTPD Unit #2: Transmits to the ROCC and MAC, we have a subject struck at Dunn Loring; that train is at Virginia Square; I need that train held until an officer arrives and that operator gets interviewed. ROCC: Acknowledged and Repeated. [Radio MTPD1x]
13:20:05 hours	Radio RTC #2: Train ID 909 at Virginia Square holding for Transit. Train Operator: I already pulled off; I am heading to Clarendon. Radio RTC #2: Affirm, let me call Transit. [OPS 4]
13:20:42 hours	MTPD Unit #3: Is that train at Virginia Square or Ballston? MTPD Dispatcher: The train is approaching Clarendon, I asked them to stop the train at Virginia Square, and I will call them back again. MTPD Unit #2: Next time you call, please get the name of the person you speak to. MTPD Supervisor #1: Was this someone who was struck or someone riding the train? MTPD Unit #1: We have a fifty-year-old male with a head injury that I can see right now. MTPD Dispatcher: Do we know if he was riding the train or struck by the train? MTPD Unit #1: There is damage to the railing and damage to the back of his head at the end gate of the platform. Video Unit #1: The individual was stuck in the doorway and dragged down the platform. MTPD Unit #2: With video review, the train is not to leave once we make contact, and can we notify CID? [Radio MTPD1x]
13:22:05 hours	Train Operator: Train ID 910, track 1, Dunn Loring. There is a Police Officer at the eight-car marker with a customer, and they told me to stop all train movement. [OPS 4]
13:24:00 hours	Station Manager was observed walking on the platform towards the Vienna end of the platform with an Automated External Defibrillator. [CCTV]
13:24:48 hours	Radio RTC: Dispatched RTRA Supervisor from Ballston Station to Dunn Loring Station. [OPS 4]
13:24:52 hours	MTPD Unit #3: FCFRD engine 413 on scene. [Radio MTPD1x]
13:26:00 hours	Arlington County Fire Department arrives. [CCTV]
13:29:30 hours	Radio RTC #1: Train ID 909 off load your train and have your customers move to track 2. Trains will single track from Ballston to Clarendon. RTRA Station Supervisor: I am here at Ballston and can assist with that offload. [OPS 4]
13:30:38 hours	Train Operator: Train 910 MTPD request no train movement on tracks 1 & 2. Radio RTC #1: 100% repeat back given to Trian 910 and instructed to offload passengers at Dunn Loring Station. [OPS 4]

Time	Description
13:31:10 hours	Radio RTC #1: Blanket announcement – Rail service will terminate at West Falls Church Station, and shuttle bus service will be requested from West Falls Church Station to Vienna Station. [OPS 4]
13:31:22 hours	MTPD Supervisor #2: Which unit assumed command? MTPD Unit #2: [Unit ID] has assumed command. [Radio MTPD1x]
13:31:30 hours	Radio RTC #1: Train ID 611, you will be the first train through the single tracking area. Train Operator: Acknowledged with 100% repeat back [OPS 4]
13:32:23 hours	Radio RTC #1: Blanket announcement – Rail service will terminate at West Falls Church Station and shuttle bus service will be requested from West Falls Church Station to Vienna Station. [OPS 4]
13:32:50 hours	MTPD Unit #2: The command post is down the platform at the New Carrollton side. The Fire Department is requesting that the power be brought down. [Radio MTPD1x]
13:33:34 hours	Radio RTC #1: Train ID 910 what is your lead car? Train Operator: Lead car 7742. Radio RTC #1: Acknowledged - [OPS 4]
13:36:05 hours	Radio RTC: Train ID 775 re-block your ID to 950 and continue in revenue service from West Falls Church Station to New Carrollton Station. Train Operator: Train ID 775 acknowledged with 100% repeat back [OPS 4]
13:37:16 hours	MTPD Forward Liaison: The fire department hot-sticked and confirmed that power is down on tracks 1&2. [Radio MTPD1x]
13:39:27 hours	MTPD Command (Dunn Loring): Tac changed to MTPD2x. The command post is moved to the Kiss and Ride parking lot. [Radio MTPD1x]
13:39:58 hours	Radio RTC #1: Blanket announcement – Rail service will terminate at West Falls Church Station and shuttle bus service will be requested from West Falls Church Station to Vienna Station. [OPS 4]
13:40:50 hours	Power Desk Controller: Dispatched two power personnel to Dunn Loring Station tie breaker #1 for support [Phone]
13:42:47 hours	MTPD Forward Liaison: FD performed CPR and removed the patron on a stretcher. [Radio MTPD2x]
13:45:20 hours	Dunn Loring Command: Unit #4 is assuming command from Unit #2. [Radio MTPD2x]
13:46:18 hours	Dunn Loring Forward Liaison: Both WSAD's have been removed by FCFRD on tracks one and two. Dunn Loring Command: Acknowledged and repeated. The fire chief is waiting until all his personnel are clear and out of the roadway, are all MTPD personnel clear of the roadway? Dunn Loring Forward Liaison: All personnel are clear. [Radio MTPD2x]

Time	Description
13:49:12 hours	MAC: Can we single track on track #2? Dunn Loring Command: Negative, both tracks one and two need to be down to continue crime scene efforts. MAC: Acknowledged and repeated. [Radio MTPD2x]
13:53:02 hours	RTRA Supervisor #1: I am on the scene. Radio RTC #1: Acknowledged and instructed to see the designated MTPD OSC. [OPS 4]
13:54:08 hours	Dunn Loring Forward Liaison: Requested a Bus Bridge for customers at Dunn Loring. MAC: Acknowledged and repeated. We are getting it established. [Radio MTPD2x]
13:58:02 hours	Dunn Loring Forward Liaison: Provided the chain marker for the event. CM K1 645+00. Dunn Loring Command: Acknowledged and repeated. [Radio MTPD2x]
13:58:55 hours	Power Unit Personnel #1: Standing by K07 tie breaker #1 for support. Power Desk Controller: Acknowledged [OPS 6]
14:00:31 hours	RTRA Rail Supervisor #2: I am here at Clarendon. Radio RTC #2: Acknowledged, you are needed to staff track 1. [OPS 4]
14:03:28 hours	Dunn Loring Command: The fire department is clearing. We are moving the command to the mezzanine. [Radio MTPD2x]
14:05:19 hours	Radio RTC #2: Blanket announcement – Single tracking by way of track 2 between Clarendon Station and Ballston Station due to a Police situation at Clarendon Station [OPS 4]
14:07:53 hours	Dunn Loring Command: For the record, we have the victim pronounced at 14:03 hours. [Radio MTPD2x]
14:08:42 hours	Dunn Loring Command: Grants CID permission to enter the roadway to further their investigation. CID Unit #1: Acknowledged and repeat. [Radio MTPD2x]
14:14:06 hours	OSI (Office of Safety Investigations) #1: Arrived at Clarendon Station [OPS 4]
14:16:28 hours	Power Unit Personnel #2: Standing by K07 tie breaker #2 for support. Power Desk Controller: Acknowledged [OPS 6]
14:20:11 hours	Dunn Loring Command: Unit #3, send the RTRA supervisor, Superintendent, and the power department down. CID has completed their investigation. MTPD Unit #3: Acknowledged and repeat. [Radio MTPD2x]
14:27:43 hours	RTRA Supervisor #1: Tracks 1 & 2 have been turned over to RTRA, ready for re-energization, and ready to move the train off the platform at Dunn Loring Station. Radio RTC #2: Acknowledged with 100% repeat back; make certain all personnel and equipment are clear from the roadway. RTRA Supervisor #1: All personnel and equipment are back on the platform. [OPS 4]

Time	Description
14:28:51 hours	Radio RTC #2: Blanket announcement – Third rail power restoration announcement for Dunn Loring Station track 1 & 2. [OPS 4]
14:31:41 hours	Dunn Loring Command: Notifies the MAC that all personnel and equipment are clear of tracks 1 & 2 and requests power to be restored. MAC: Acknowledged and repeated at 14:32 hours.
14:32:08 hours	RTRA Supervisor #1: We now have permission to energize tracks 1 & 2 from Dunn Loring Station to Clarendon Station. Radio RTC #2: Acknowledged and repeated. [OPS 4]
14:32:15 hours	MAC: Dunn Loring Command, can we service the station? Dunn Loring Command: Yes, we are clear. We are turning the scene to RTRA now. [Radio MTPD2x]
14:36:10 hours	Radio RTC #2: Blanket announcement – Consider third rail power hot and energized Dunn Loring Station track 1 & 2. [OPS 4]
14:38:04 hours	Power Desk Controller: Received permission to restore power track 1 & 2 from K07 traction track 1 breaker 31, 41 to K07 track 2 breaker 32, 42 [Phone]
14:39:12 hours	RTRA Supervisor #1: The station has been opened do you want this train on the platform placed back in-service towards New Carrollton Station? Radio RTC #2: Re-block that train to ID 910 and go in-service right there on the platform. RTRA Supervisor #1: Acknowledged and 100% repeat back. [OPS 4]
14:45:14 hours	Radio RTC #2: Train 709 sent into West Falls Church rail yard RTRA Supervisor #2: Acknowledged [OPS 4]
14:46:45 hours	Radio RTC #2: Blanket announcement – Normal service between Clarendon Station and Ballston Station as well as Dunn Loring tracks 1 & 2 [OPS 4]

Note: Times above may vary from other systems' timelines based on clock settings

ROCS SPOTS REPORT

ROCS SPOTS REPORT

based on up-to-the-second operational performance data from the Rail Operations Control System

Current date/time: Wed Feb 15 15:02:24 2023

Select Platform: and/or Select ID: 909 Leave blank to remove criteria

Select Date: Feb 15 2023 Select Times (0-24HRS): From 12:00 To 14:00

Generate Report

ID	Platform	length	dcode	Right door open	Right door close	dwell	Left door open	Left door close	dwell	Head Arrived	Tail cleared	Travel Time door open to door open
909	D08-2	8	23				12:03:33	12:03:48	15	12:02:57	12:04:13	-
909	D07-2	8	23				12:05:35	12:05:53	18	12:04:59	12:06:18	2:02
909	D06-2	8	23				12:07:39	12:07:56	17	12:06:56	12:08:22	2:04
909	D05-2	8	23				12:09:27	12:09:45	18	12:08:46	12:10:10	1:48
909	D04-2	8	23				12:11:12	12:11:28	16	12:10:36	12:11:59	1:45
909	D03-2	8	23				12:12:42	12:12:59	17	12:12:06	12:13:24	1:30
909	D02-2	8	23	12:14:18	12:14:34	16				12:13:47	12:14:57	1:36
909	D01-2	8	23				12:15:53	12:16:08	15	12:15:13	12:16:36	1:35
909	C01-2	8	23				12:17:20	12:17:40	20	12:16:42	12:18:07	1:27
909	C02-2	8	23	12:19:08	12:19:25	17				12:18:36	12:19:50	1:48
909	C03-2	8	23	12:20:38	12:20:54	16				12:20:02	12:21:20	1:30
909	C04-2	8	23				12:22:25	12:22:42	17	12:21:47	12:23:07	1:47
909	C05-2	8	23				12:25:08	12:25:24	16	12:24:29	12:25:54	2:43
909	K01-2	8	23				12:27:47	12:28:02	15	12:27:12	12:28:28	2:39
909	K02-2	8	23	12:29:26	12:29:44	18				12:28:54	12:30:09	1:39
909	K03-2	8	23	12:31:02	12:31:20	18				12:30:29	12:31:43	1:36
909	K04-2	8	23	12:32:50	12:33:10	20				12:32:15	12:33:41	1:48
909	K05-2	8	23				12:40:20	12:40:36	16	12:39:38	12:41:01	7:30
909	K06-2	8	23				12:43:44	12:44:03	19	12:43:06	12:44:31	3:24
909	K07-2	8	23				12:47:32	12:47:52	20	12:46:55	12:48:18	3:48
909	K08-1	8	20	12:52:00	13:01:02	542	13:01:03	13:02:50	107	12:51:18	13:03:15	4:28
909	K07-1	8	20				13:06:28	13:06:42	14	13:05:49	13:07:24	14:28
909	K06-1	8	20				13:10:28	13:10:44	16	13:09:49	13:11:07	4:00
909	K05-1	8	20				13:13:51	13:14:07	16	13:13:15	13:14:32	3:23
909	K04-1	8	20	13:18:23	13:18:42	19				13:17:50	13:19:03	4:32
909	K03-1	8	20	13:20:05	13:20:21	16				13:19:33	13:20:43	1:42

Select Platform: and/or Select ID: 709 Leave blank to remove criteria

and/or Select 4-digit car number: Leave blank to remove criteria

Select Date: Feb 15 2023 Select Times (0-24HRS): From 13:00 To 14:00

Generate Report

ID	Platform	length	dcode	Right door open	Right door close	dwell	Left door open	Left door close	dwell	Head Arrived	Tail cleared	cars	Travel Time door open to door open
709	K02-1	8	74	13:21:36	14:41:06	4770	13:37:59	14:40:50	3771	13:21:03	14:41:37	7492-7493.7669-7668.7544-7545.7745-7744	-

Figure 1 - ROCS SPOTS Report

Office of Car Engineering Vehicles (CENV)

Adopted from CENV Incident Report Draft with minor formatting edits

"CENV inspected car 7493, reviewed & analyzed Event Recorder/Events Mirror Memory (ER/EMM) data (downloaded from lead car 7744) and reviewed the door event logs for doors 7/8 from car 7493. CENV also downloaded the forward facing & cab video from the lead & trailing cars, all interior video from the incident car (7493), as well as interior video from 7669.

The following information was taken from ER/EMM from car 7744 and the Door Event Logs from car 7493 (See Figures 2 and 3). NOTE: There is a 7 second offset between the ER and Door Event Log data (i.e., event log was 7 seconds ahead the ER). Door Event Log times have been adjusted in the table below.

Event #	Date	Time	Description of the Event
1	2/15/23	13:06:07	Train ID 909 arrives at Dunn Loring (7744 ER EMM Data)
2	2/15/23	13:06:17	Left Door open PB depressed, Door Open T/L goes high (7744 ER EMM Data)
3	2/15/23	13:06:18	All Doors Closed and Locked (ADCL) signal goes low, **left side doors open** (7744 ER EMM Data)
4	2/15/23	13:06:30	Left Door Closed PB depressed, Door close T/L goes high (7744 ER EMM Data)
5	2/15/23	13:06:32	Doors 7&8 DMCU receives door Close command (7493 Door 7 & 8 Event Logs)
6	2/15/23	13:06:34	**Doors 7&8 closing** and Right & Left close switches ON detected (7493 Door 7&8 Event Logs)
7	2/15/23	13:06:35	**Doors 7&8 reopens** and Right & Left close switches OFF detected (7493 Door 7&8 Event Logs)
8	2/15/23	13:06:36	**Doors 7&8 closing** and Right & Left close switches ON detected (7493 Door 7&8 Event Logs)
9	2/15/23	13:06:37	Obstruction Detected (7493 Door 7&8 Event Logs)
10	2/15/23	13:06:40	Automatic Door Obstruction Recycle Operation - **Doors 7&8 reopens** and Right & Left close switches OFF detected (7493 Door 7&8 Event Logs)
11	2/15/23	13:06:41	Automatic Door Obstruction Recycle Operation - **Doors 7&8 closing** and Right & Left close switches ON detected (7493 Door 7&8 Event Logs)
12	2/15/23	13:06:41	Left side door panel close switch OFF detected (7493 Door 7&8 Event Logs)

Event #	Date	Time	Description of the Event
13	2/15/23	13:06:41	Left side door panel close switch ON detected (7493 Door 7&8 Event Logs)
14	2/15/23	13:06:42	Operator moves the MC (Master Controller) handle to P5, LCU remains in IDLE mode (train does not move), due to prerequisite conditions not being met. (7744 ER EMM Data)
15	2/15/23	13:06:45	Operator then moved MC handle to B5 (7744 ER EMM Data)
16	2/15/23	13:06:45	Obstruction Eliminated (7493 Door 7&8 Event Logs)
17	2/15/23	13:06:45	ADCL Achieved (7744 ER EMM Data)
18	2/15/23	13:06:54	Operator moves MC handle to P5, train leaves the station (7744 ER EMM Data)

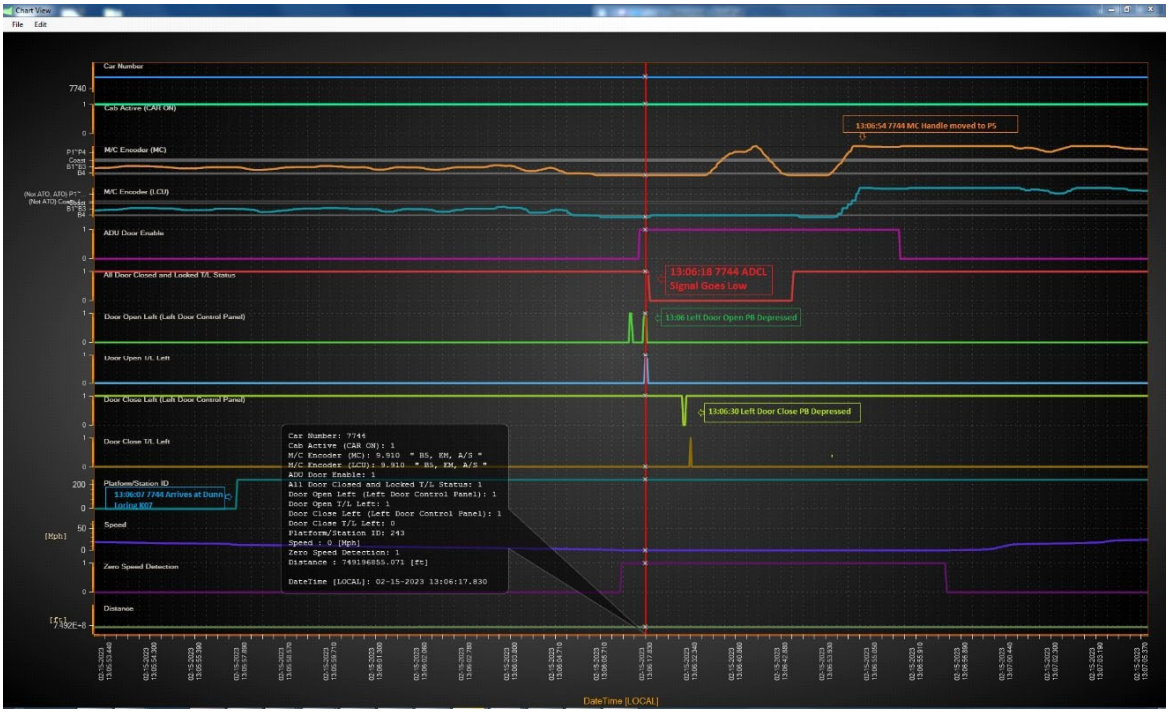


Figure 2 - ER/EMM Data Analysis Car 7744

ER/EMM Data provides a graphical representation of the signals (i.e., Master Controller position, Door status, Door commands, Station ID, and Real Time) used for analysis of train behavior during this incident. For sequence of events/times, refer to the ER/Event Log Analysis table above

Car No	7493	Location	0708	
No	Date	Time	Code	Description
501	02-15-2023	13:10:41	0071	L-side Panel Close SW ON
500	02-15-2023	13:10:41	0061	R-side Panel Close SW ON
499	02-15-2023	13:10:39	0100	Close Command OFF
498	02-15-2023	13:10:39	0101	Close Command ON
497	02-15-2023	13:10:24	0060	R-side Panel Close SW OFF
496	02-15-2023	13:10:24	0070	L-side Panel Close SW OFF
495	02-15-2023	13:10:24	0050	Door Lock SW OFF
494	02-15-2023	13:10:24	0090	Open Command OFF
493	02-15-2023	13:10:24	0091	Open Command ON
492	02-15-2023	13:06:52	0080	Obstruction Eliminated
491	02-15-2023	13:06:52	0051	Door Lock SW ON
490	02-15-2023	13:06:48	0071	L-side Panel Close SW ON
489	02-15-2023	13:06:48	0070	L-side Panel Close SW OFF
488	02-15-2023	13:06:48	0071	L-side Panel Close SW ON
487	02-15-2023	13:06:48	0061	R-side Panel Close SW ON
486	02-15-2023	13:06:47	0060	R-side Panel Close SW OFF
485	02-15-2023	13:06:47	0070	L-side Panel Close SW OFF
484	02-15-2023	13:06:44	0081	Obstruction Detected
483	02-15-2023	13:06:43	0071	L-side Panel Close SW ON
482	02-15-2023	13:06:43	0061	R-side Panel Close SW ON
481	02-15-2023	13:06:42	0060	R-side Panel Close SW OFF
480	02-15-2023	13:06:42	0070	L-side Panel Close SW OFF
479	02-15-2023	13:06:41	0071	L-side Panel Close SW ON
478	02-15-2023	13:06:41	0061	R-side Panel Close SW ON
477	02-15-2023	13:06:39	0100	Close Command OFF
476	02-15-2023	13:06:39	0101	Close Command ON
475	02-15-2023	13:06:25	0070	L-side Panel Close SW OFF
474	02-15-2023	13:06:25	0060	R-side Panel Close SW OFF
473	02-15-2023	13:06:25	0050	Door Lock SW OFF
472	02-15-2023	13:06:24	0090	Open Command OFF
471	02-15-2023	13:06:24	0091	Open Command ON

Figure 3 - Door 7 & 8 Event Logs (Car 7493)

The Event Log provides a record of door commands and events, for specific door panels. The Event Log was used to analyze the behavior of doors 7/8 on car 749.

Figure	Date	NVR (Network Video Recorder) Time	Description
4	2/15/23	13:06:45	ADCL light extinguished, trouble indicator flashing (on console)/Acknowledge button flashing on Train Control Display (TCD) screen.
5	2/15/23	13:06:45	All Doors Closed indicator off. Operator moves master controller. Train does not move
6	2/15/23	13:06:46	Operator interacts with TCD screen. The acknowledge button stops flashing.
7	2/15/23		TCD Screen Examples (Operating Screen/Acknowledge button, Trouble Screen)
8	2/15/23	13:06:51	Console ADCL light illuminates while the operator is in the process of walking to the left side of cab

Figure 4 - All Doors Closed (ADCL) indicator off. Trouble indicator flashing on console and operator taking a point of power on the Master Controller.

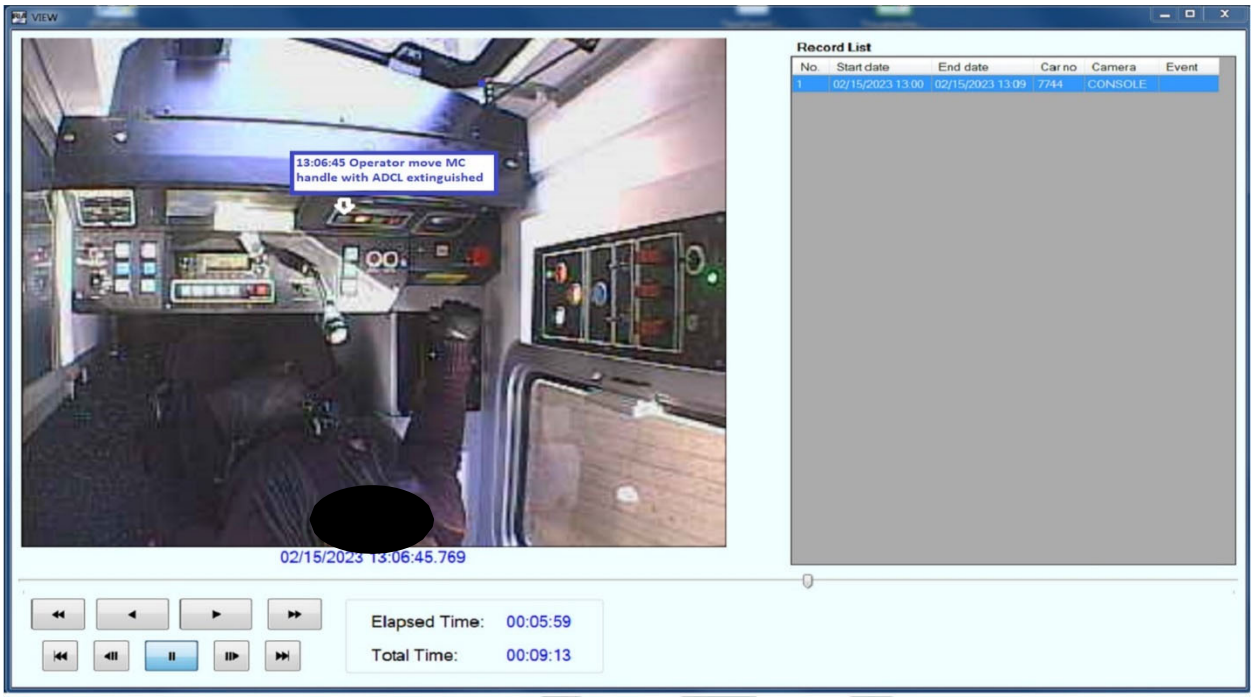


Figure 5 - All Doors Closed indicator off. Operator moves Master Controller. The train does not move.

*Figure 6 - Operator checks TCD screen. All Doors Closed indicator off. Trouble indicator. *Note- Depressing acknowledge button changes display to the Trouble Screen.*

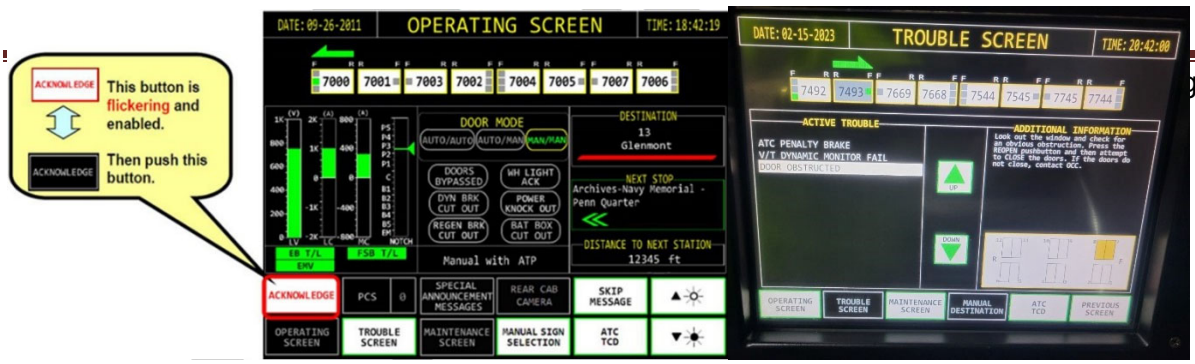


Figure 7 – (Left) Example of TCD Screen Operating Screen and acknowledge button, (Right) Example of Trouble Screen showing Door obstruction and instruction for troubleshooting.

Figure 8 - All Doors Closed indicator is illuminated after Train Operator leaves seat and looks into passenger area.

CENV Actions Taken

1. All doors in 7493 were visually inspected to ensure they were in the correct V-shape, only the incident doors 7&8 were not in the required V-Shape. In addition, the door hangar brackets for doors 7&8 were inspected for damage. No damage or abnormalities were found.

2. Task 90 (section 90.5 CHECK PASSENGER DOOR V-SHAPE MEASUREMENT) was performed, and the check failed. The upper measurement was recorded as 112mm (about 4.41 in), while lower measurement was recorded as 118mm (about 4.65 in), which is 6mm (about 0.24 in) difference, criterion states difference cannot exceed 3.2mm (about 0.13 in).

3. Task 90 (section 90.7 CHECK DOOR NOSE SEAL RUBBER DISTANCE) was performed, and the door gap measured at 61mm (about 2.4 in), which exceeds criterion of 57mm (about 2.24 in) +1.5mm (about 0.06 in) -2.5mm (about 0.1 in)

4. Task 90 (section 90.17 PERFORM DOOR OBSTRUCTION TEST) was performed with a 3/8 in. thick paddle. Detection of the obstruction was confirmed. Upon detecting the obstruction, the door panels reopened 8-12 in. each and then attempted to close one

With the obstruction remaining in place, we verified door operator continues to attempt to power closed. It was verified that the ALL DOORS CLOSED indicators were not illuminated and the TCD displayed the door obstruction indication.

NOTE: It is unknown if the door check failures [noted in 'CENV Actions Taken' 2 and 3 above] are attributed to the accident.

CENV Recommendations

1. Perform door adjustments on doors 7 & 8.

CENV Conclusion

By design, the door obstruction system is sufficiently sensitive to detect the presence of a 1/4-inch thick by 3-inch-high flat bar. The system will also detect a 3/8-inch diameter object. As denoted in the ER/Event Log Analysis table, a door obstruction was detected at 13:06:37. The obstruction was eliminated eight (8) seconds later at 13:06:45. Once the obstruction was cleared and the doors fully closed, the train received the All Doors Closed and Locked (ADCL) signal, which allowed the train to move/exit the Dunn Loring station.

As part of the investigation, the Door Obstruction test was conducted and was found to be in compliance. Based on the most recent, both the V-Shape Measurement and Door Nose Seal Distance checks passed the prior Periodic Inspection (W/O# 17509998). The Train functioned as designed. However, additional door inspections were performed, resulting in two of the tests not meeting the required specification. Force applications to door leaves can cause the V-Shape to fall out of adjustment."

CCTV and Train Interior Video Review Summary

A review of all available station CCTV and train video and comparison with railcar data revealed the following:

- The passenger was onboard car 7492 on its arrival at Vienna Station just before 13:00 hours. Their dog is wearing a red vest. The passenger was lying down and attempting to rest their legs on the other seat as the train arrived at the station. Before exiting, they detached a bag that was clipped to a stanchion pole and tied the dog leash around the exterior of their jacket.
- After exiting the train onto the platform, the passenger boards car 7493, walks to the front end of the car and lays down on a seat. The leash remains tied around their jacket and the dog lays down on the floor.
- After arriving at Dunn Loring Station (one station from Vienna), the passenger slowly sits up and exits the car as the doors are closing. The dog is trailing behind them on the leash. The doors close with the leash in between the door leaves. The dog is onboard, and the passenger is on the platform.
- The train doors were open for about 16 seconds. The passenger exited the train approximately 14 seconds after they opened.
- While on the platform, the passenger pulls on the leash at several angles for approximately five seconds. They then knock on the door with their open hand several times and wave towards the front of the train. One other customer is on the platform near them but takes no discernible action. Approximately 15 seconds later, the train begins to move.
- At Vienna Station, the Train Operator enters lead car 7744 at 13:00 hours and prepares their operating cab area for operation. They have a backpack, which they store on the left side of the cab area, and a second bag over their shoulder, tightened against their body. They converse with another employee who was already on the car. The second employee then alights to the platform and the Train Operator secures the cab door.
- The Train Operator's cab appears to be in clean working order with no items of distraction visible. The Train Operator has a purse or bag closely secured to their body while operating. They appear to be paying full time and attention to their operation.
- On stopping at Dunn Loring Station, the Train Operator places the Master Controller in the B5 position and leaves the view of the console camera for approximately eight seconds before returning to acknowledge the door opening command. They then leave view of the console camera for another 24 seconds. Their actions during this time are not visible from the console camera. The station platform video indicated that the Train Operator looked out of the cab window as they opened the platform-side doors.
- As they return to the operator’s seat, the Trouble Indicator light begins flashing. The Train Operator does not notice and immediately places the Master Controller in the P5 position; however, the train does not move.
- The Train Operator interacts with the TCD screen, likely pressing the “Acknowledge”

icon and observing the Trouble Screen, which displays more details about the Door Obstruction fault.

- The Train Operator then leaves view of the console camera for approximately five seconds. Interior car video shows them look through the cab door window, but they did not return to the platform side operator's cab window. While they are out of view, the Trouble Indicator light ceases to flash. When the Train Operator returns to the seat, they immediately placed the Master Controller in the P5 position, and the train begins to move. They operate normally after departing the station.

Office of Systems Maintenance, Office of Radio Communications (COMR)

On February 16, 2023, COMR performed a comprehensive communication testing from Clarendon Station to East Falls Church Station, details from the testing are as follows:

"All radio checks made from track 1 & 2 in specified areas were loud and clear."

Office of Rail Operations Quality Training (ROQT)

On February 24, 2023, SAFE interviewed personnel from the Office of Rail Operations Quality Training (ROQT) regarding how newly hired and refreshed Train Operators are instructed on SOP 40 Door Operations.

As Students, Train Operators are provided with three participant manuals: 1. *WMATA Rail Systems*, 2. *WMATA Incidents & Emergencies* and 3. *WMATA Railcars*. They also receive a printed copy of the MSRPH and the Troubleshooting Guide.

Train Operators are introduced to SOP 40 initially during the Rail System Incidents & Emergencies module. The module consists of two days of classroom training. At the conclusion of the module, the Student Train Operators are assigned a random SOP to explain in their own words as an end of module exercise. This is not a graded exercise.

The WMATA Railcars module introduces the parts of the train and the procedures of SOP 40. Student Train Operators are taught the door open procedures and what to look for when trouble shooting. Troubleshooting is discussed and SOP 40 is applied during this classroom activity. The Student Train Operators are taught to look for the five primary console indicators; Brake Cylinder Pressure (20-80 psi), All Doors Closed, Brakes On, Automatic or Manual Mode Operations, and Brake Pipe Pressure (130-150 psi). If the five primary console indicators are not available, student train operators are instructed to refer to their troubleshooting guide. The instructor advised that the first step is to keep your head out of the window until all trainline doors are closed and the door signal lights have extinguished. After closing all the train line doors and still not having All Doors Closed, the Student Train Operator is to recycle the train door on the platform.

Training Summary

- The instructor estimated that between thirty minutes and an hour are spent reading and discussing SOP 40 in the classroom.
- There is a difference between the legacy railcars and the 7000 series train. The door opening procedures vary but do not change the SOP 40 procedures.
- Train Operator Lifeline Assessment Test 1 requires a passing score of 75% or higher with two attempts to pass. *note this test has no SOP 40 related questions. (50 total questions)
- Train Operator Lifeline Assessment Test 2 requires a passing score of 75% or higher with two attempts to pass. *note this test has (2) SOP 40 related questions. (96 total questions)
- The Train Operator Midterm Test has two (2) questions related to SOP 40 or door operations generally. (30 total questions)
- Lifeline Test 1 & 2 and Midterm Test are conducted during the eight weeks of Yard Practical Training.
- Following the classroom portion, each train operator receives eight hours of stick time during Yard Practical Training (YPT) with an ROQT Instructor and SOP 40 is taught hands-on. After YPT, the Train Operators receive an additional thirty hours of practical experience operating with a Line Platform Instructor and performing door operations under supervision.

Office of Rail Transportation

As a result of their investigation into the event, RTRA determined that the Train Operator would be disqualified from the position for a period of two years.

Interview Findings

As part of the investigation launched into the event, SAFE interviewed three employees. The interview identified the following key findings associated with this event. Findings detailed below include reported information from involved personnel and may conflict with other data sources contained in the report.

Train Operator

- The Train Operator reported for duty at 04:47 hours on February 15, 2023. They were on their second to last trip of the day departing Vienna Station and before being relieved at West Falls Church Station at 15:07 hours. They reported approximately 6.5 hours of sleep the previous night, which was a normal sleep pattern.

- The Train Operator stated during the interview that while looking out the cab window and initiating the door closed button, all the door signal lights extinguished. However, when they returned to the operator seat and attempted to go to a point of power the "doors open" trouble light appeared on the console.

- The Train Operator stated that they checked the lead car for threshold lights by looking through the cab door window into the train car and placing their head out the cab window to look along the platform for door signal lights.[1] No lights were found.

- The Train Operator read the Trouble Screen and believed that the door open indication was on the lead car (7744).

Station Manager

- The Station Manager stated they were the last to be notified of an incident at their station.
- The Station Manager stated a passenger exiting the escalator onto the mezzanine level reported the incident to MTPD, who responded to the platform.
- The Station Manager stated a passenger requested the First Aid kit, and they responded to the platform with the Automated External Defibrillator (AED) and First Aid kit.
- The Station Manger stated that the customer's backpack was turned in to them, which was later given to MTPD.

MTPD Officer

- The investigating MTPD Officer returned to Dunn Loring Station with SAFE and performed field observations of the view from the Operator's cab window to the canopy area. They observed the same shadow and obstructed view that was present on the day of the event. They also observed that despite the shadow, the illuminated door indicator lights on the exterior of the train were visible under the canopy area.
- No further concerns were identified or discussed.

Related Rules and Procedures

OR - SOP – 3.116 – Rail vehicle operators shall immediately inform ROCC when an equipment malfunction occurs on the mainline that affects safe and/or efficient train movement, shall be guided by ROCC's instructions.

OR - SOP – 3.119 – Failure of train doors to open or close properly must be reported to ROCC immediately.

SOP 40 – 6.1.5 – When the Door Mode Selector is in the Manual/Manual position, the Train Operator shall:

a. Use extreme caution before depressing the Car's Open Doors button.
b. Ensure the train is properly berthed on the platform for the number of cars in the Train.

[1] This statement was not verified by CCTV or cab video. The Train Operator did not return to the platform-side cab window to observe the platform after losing an All Doors Closed indication.

c. Make eight-car stops with all trains unless otherwise directed by the RTC (Rail Traffic Controller).
d. Verify the platform side of the train by placing their head out of the cab window and first look and identify the platform.
e. Look at the doors on the platform side of the train to observe any activity in front of the doors, with hands to their side for five (5) seconds.
f. Depress the Car's Open Doors button on the platform side of the train.

SOP 40 6.2.1.3 – Visually monitor the platform area for the following:

a. Senior citizens and customers with disabilities (i.e., visually or mobility impaired, customers using wheelchairs, canes, crutches, or service animals).
b. Strollers, small children, bicycles.
c. Intoxicated customers or any unusual behavior, and;
d. Gap areas between the granite edge and train.

SOP 40 – 6.3.3 - When passenger flow has subsided, the Train Operator shall initiate the Car's Close Door button while constantly observing the train doors closing and passengers on the platform.

SOP 40 – 6.3.4 – If any object /customer is caught in the train doors or the door indicator lights fail to extinguish, immediately recycle train doors. **NOTE: Be aware that small items such as clothing can be caught in the doors and not cause a loss of All Doors Closed Indication.**

SOP 40 – 6.3.7.1 – At center platform stations, the Train Operator shall use extra care checking the platform for door obstructions or articles caught in the doors.

Weather

On Wednesday, February 15, 2023, at the time of the incident, NOAA recorded the temperature as 56° F, with Cloudy skies. A review of the CCTV and lighting at this time of day found that the shadow conditions caused by the sun were a contributing factor in this incident (Weather source: NOAA) – Location: Fairfax, VA).

Human Factors

Employment History and Training

- The Train Operator was hired by WMATA on December 7, 2015. They have been a Train Operator since September 30, 2018.
- The Train Operator holds a Roadway Worker Protection (RWP) level 2 certification that expires March 2023.
- The Train Operator's latest recertification as a Train Operator was on December 6, 2022. The Train Operator scored 84% on the Metrorail Safety Rules and Procedures Handbook (MSRPH), 83% (75% minimum passing score) on Train Vehicle Operator Instruction Manual (TVOIM) and Quality Level – 1 on the practical portion of the exam. (QL-1 = Met specifications for level 1 of 3 levels)
- On February 5, 2021, the Train Operator recertified on a 7000-series train. The Train Operator scored 82% on the MSRPH, 81% on TVOIM and was assessed at a Quality Level – 1 on the practical portion of the exam. As part of the practical exam a troubleshooting problem of a passenger door open was given and was mitigated within 5 minutes of the allotted 10 minutes. (QL-1 10 mins or less, QL-2 10.1 to 15 mins, & QL-3 greater than 15 mins)

Evidence of Fatigue

The conditions at the time of the incident were evaluated to distinguish whether evidence of fatigue was present. No sign of fatigue was indicated by the available data. Video of the incident was reviewed for behaviors suggesting fatigue. No indications of fatigue were evident from the video. The employee reported feeling fully alert at the time of the incident. The employee reported experiencing no symptoms of fatigue in the time leading up to the incident.

Fatigue Risk

The incident data was evaluated for fatigue risk factors. Risk factors for fatigue were not present. The incident time of day did not suggest an increased risk of fatigue-related impairment. Employee reported some variation in the sleep schedule in the days leading up to the incident. The employee performed day and night work in the days leading up to the incident. The employee was awake for 9.73 hours at the time of the incident. The employee reported 6.5 hours of sleep in the 24 hours preceding the incident. The off-duty period was 59.86 hours (about 2 and a half days) which provides an opportunity for 7-9 hours of sleep. The employee reported no issues with sleep. The employee worked day shift in the days leading up to the incident.

Post-Incident Toxicology Testing

WMATA's Drug and Alcohol Program determined that the Train Operator complied with and was not in violation of the Drug and Alcohol Policy and Testing Program 7.7.3/6.

Findings

- The Train Operator did not fully adhere to Door Operations procedures listed in SOP 40.
- The Train Operator attempted to move the train prior to observing the "All Door Closed" indicator light extinguished and Trouble Indicator light flashing on the console.
- The Train Operator misread the Trouble Screen and believed that the door open indication was on the lead car (7744).
- The passenger exited from the seventh car in the consist approximately 14 seconds after the doors opened. The doors were closing as they alighted the train with the leash secured around their waist and their dog trailing loosely behind them.
- The Train Operator did not recycle the train doors by reopening and closing them on the platform side after experiencing a loss of an All Doors Closed indication.
- Shadow conditions beneath the canopy likely obscured the Train Operator's view of the passengers on the platform from the trailing cars.
- The car door indicator light remained illuminated for several seconds after the doors closed on car 7493, the seventh railcar in the consist.
- The car door indicator light extinguished at about the same time the passenger stopped pulling on the leash, which was caught between the doors.
- Approximately six minutes passed from the first report until the passenger was located.

Immediate Mitigation to Prevent Recurrence

- The incident train was removed from service.
- RTRA management discussed with Train Operators the importance of SOP 40 and documented within the RSDAR (Rail Supervisor Daily Activity Reports) application.

Probable Cause Statement

The probable cause for the Fatality event was combination of human and environmental factors. The Train Operator failed to fully adhere to established door operating and troubleshooting procedures. The customer's actions, including securing the leash around their body and allowing their dog to trail behind them loosely, also likely contributed to this event. A Contributing Factor were environmental conditions, which obstructed the view of customers on the platform beneath the station canopy. As of this report, no vehicle defects were identified as contributory. The root cause and any additional contributing factors will be included as part of the final investigation report.

Recommended Corrective Actions

Corrective Action Code	Description	Responsible Party	Estimated Completion Date
106230_SAFECAPS_RTRA_001	Create a SOP #40 campaign highlighting 6.3.3 & 6.3.4 – (RSDAR)	RTRA	Completed
106230_SAFECAPS_ROQT_001	A review of this event will be included as part of Train Operator training curriculum and highlight SOP #40 rules 6.3.3 & 6.3.4 and use of the door indicator lights as point of reference for door closure status.	ROQT	11/30/2023
106230_SAFECAPS_CSCM_001	Develop and deploy a Customer Campaign focused on boarding and alighting safely and train door operations	CSCM	11/30/2023
106230_SAFECAPS_SAFE_001	Perform a Preliminary Hazard Analysis on canopy lighting conditions and develop recommended solutions	SAFE	7/31/2023

Appendices

Appendix A – Interview Summary

The below narratives summarize the incident and represent the statements made by the involved individual. As such, times and details may present a conflict with the data contained in systems of record.

Train Operator

The Train Operator is a WMATA employee with seven years of service and five years of experience as a Train Operator. The Train Operator holds a Roadway Worker Protection (RWP) Level 2 certification that expires in March 2023. The Train Operator's latest recertification as a Train Operator was on December 6, 2022. The Train Operator scored 84% on the Metrorail Safety Rules and Procedures Handbook (MSRPH), 83% on (75% minimum passing score) on Train Vehicle Operator Instruction Manual (TVOIM) and Quality Level – 1 on the practical portion of the exam. (QL-1 = Met specifications for level 1 of 3 levels)

Train Operator reported feeling fully alert before the event. The Train Operator stated they did not observe anything unusual on the platform. The Train Operator does not wear corrective lenses. The Train Operator stated they normally look at the lights along the platform to check for a clear sight line.

The Train Operator stated they serviced Dunn Loring Station and waited for the train doors to close, and lights extinguish. They sat down in the operator seat and went to a point of power. The Train Operator then heard a birdy sound and checked the trouble screen, which read a door was open. The Train Operator stated the train will not take a point of power with the door open and that the door trouble was reading on the lead car. They then looked out the operator cab window[1] along the platform and did not see anyone screaming or waving their arms on the platform. The Train Operator stated they looked through the operators' cab window into the railcar (lead car) and by then the door trouble had cleared giving the train an "All Doors Closed."

The Train Operator continued operating to the next station. They stated when they arrived at Virginia Square Station the Rail Traffic Controller attempted to hold the train for MTPD. However, they finished servicing that station and continued to the next station. The Train Operator stated the RTC took the lunar signal at Clarendon Station, and asked, "why did you take my lunar, I was going to hold for MTPD here at Clarendon."

The Train Operator stated they began listening to the train radio and heard someone was dragged by the train and that the train that reported the incident was directly behind me.

[1] This statement does not align with station CCTV or interior camera video. They did not return to the platform-side operator's cab window.

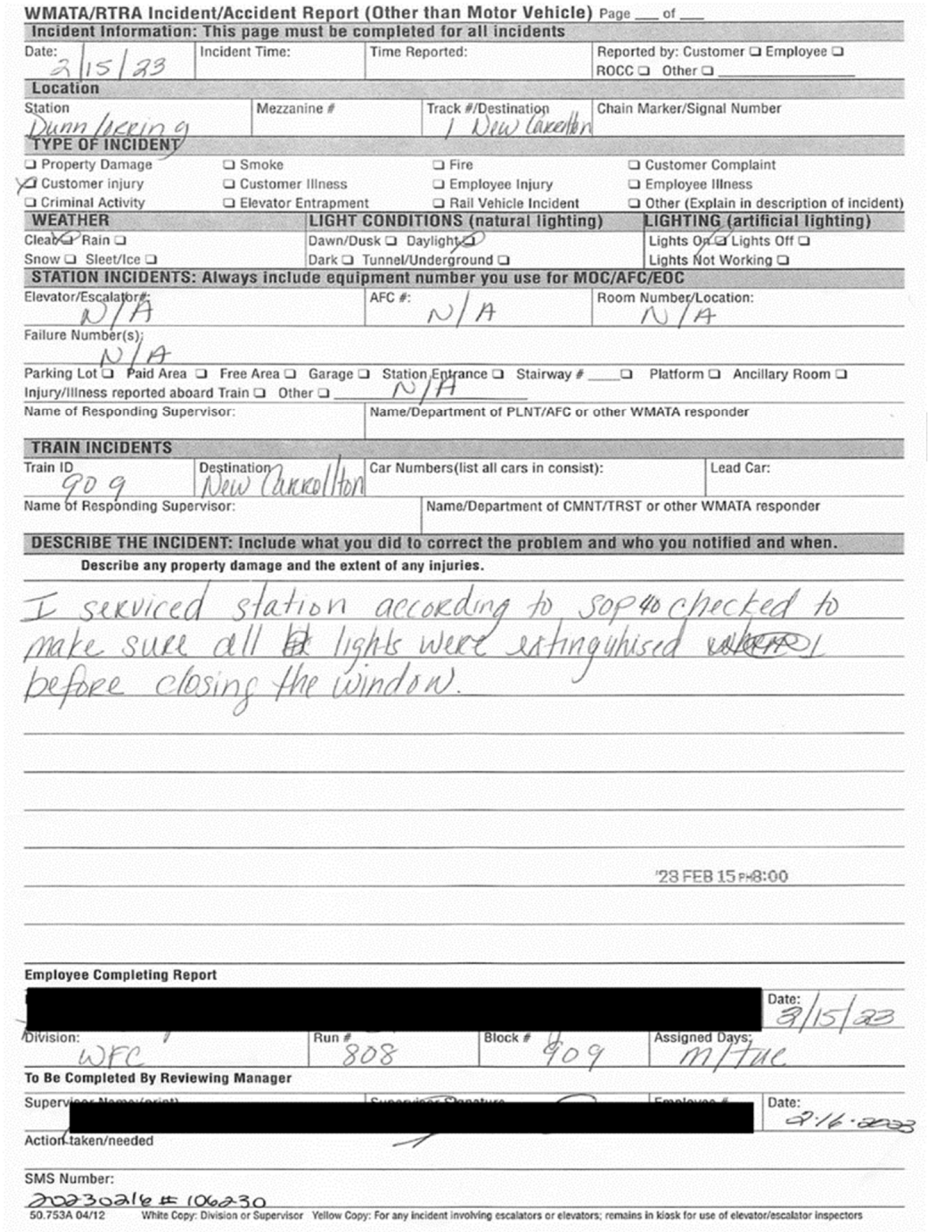
Station Manager

In an informal interview, the Station Manager stated they were the last to be notified of an incident at their station. A passenger exited the escalator on the mezzanine level and reported the incident to MTPD, who responded to the platform. A passenger then requested the First Aid kit, and they responded to the platform with the AED (Automated External Defibrillator) and First Aid kit. Another passenger left the victims' backpack with them, which was later given to MTPD.

MTPD Investigating Detective

In an informal interview, MTPD returned to Dunn Loring Station and performed field observations of the view from the Operator's cab window to the canopy area. They observed the same shadow and obstructed view that was present on the day of the event. They also observed that despite the shadow, the illuminated door indicator lights on the exterior of the train were visible under the canopy area. No further concerns were identified or discussed.

Appendix B – Incident Train Operator Statement



WMATA/RTRA Incident/Accident Report (Other than Motor Vehicle) Page ___ of ___

Incident Information: This page must be completed for all incidents

Date: 2/15/23 | Incident Time: | Time Reported: | Reported by: Customer ❑ Employee ❑ ROCC ❑ Other ❑ _____

Location

Station: Dunn Loring | Mezzanine # | Track #/Destination: 1 New Carrollton | Chain Marker/Signal Number

TYPE OF INCIDENT

❑ Property Damage ❑ Smoke ❑ Fire ❑ Customer Complaint
☒ Customer injury ❑ Customer Illness ❑ Employee Injury ❑ Employee Illness
❑ Criminal Activity ❑ Elevator Entrapment ❑ Rail Vehicle Incident ❑ Other (Explain in description of incident)

WEATHER

Clear ☒ Rain ❑ Snow ❑ Sleet/Ice ❑

LIGHT CONDITIONS (natural lighting)

Dawn/Dusk ❑ Daylight ☒ Dark ❑ Tunnel/Underground ❑

LIGHTING (artificial lighting)

Lights On ☒ Lights Off ❑ Lights Not Working ❑

STATION INCIDENTS: Always include equipment number you use for MOC/AFC/EOC

Elevator/Escalator#: N/A | AFC #: N/A | Room Number/Location: N/A

Failure Number(s): N/A

Parking Lot ❑ Paid Area ❑ Free Area ❑ Garage ❑ Station Entrance ❑ Stairway # ____ ❑ Platform ❑ Ancillary Room ❑
Injury/Illness reported aboard Train ❑ Other ❑ N/A

Name of Responding Supervisor: | Name/Department of PLNT/AFC or other WMATA responder

TRAIN INCIDENTS

Train ID: 909 | Destination: New Carrollton | Car Numbers(list all cars in consist): | Lead Car:

Name of Responding Supervisor: | Name/Department of CMNT/TRST or other WMATA responder

DESCRIBE THE INCIDENT: Include what you did to correct the problem and who you notified and when.

Describe any property damage and the extent of any injuries.

I serviced station according to SOP 40 checked to make sure all ~~the~~ lights were extinguished ~~when~~ I before closing the window.

'23 FEB 15 PM 8:00

Employee Completing Report

[redacted] Date: 2/15/23

Division: WFC | Run #: 808 | Block #: 909 | Assigned Days: M/Tue

To Be Completed By Reviewing Manager

Supervisor Name(print) | Supervisor Signature [redacted] | Employee # | Date: 2/16/2023

Action taken/needed

SMS Number: 20230216 # 106230

50.753A 04/12 White Copy: Division or Supervisor Yellow Copy: For any incident involving escalators or elevators; remains in kiosk for use of elevator/escalator inspectors

Figure 6 - Incident Train Operator statement

Appendix C – Train Operator Performance History

From Date: Feb 12, 20
To Date: Feb 15, 23
Employee: [redacted]

WMATA
Performance by Employee

Performance Type	Description	Charged Date	Charged Time	Severity	Perf Value	Action Date	Admin Action	Supevisor	Supervisor Comments	Employee Comments
99	Miscellaneous	Dec 12, 20	7:55	99 Misc	1	Jan 08, 21	No Action Req (Not Applicable)	[redacted]	Violation of GR 1.3,1.5,1.46, Operator Rule 3.76 and Safety Rule SR-4.166, Level II Safety Violation; Used 2- Positive Performance Points; Written Warning	

Appendix D – Certification

TRAIN OPERATOR AND ROAD SUPERVISOR
JOB TASK PROFICIENCY EVALUATION

RTRA OFFICE OF RAIL TRANSPORTATION

Name: [redacted]	Emp.No: [redacted]	Division: West Falls	Date: 12-06-2022

Reason for Certification: *Please place a check in an area below.*

☐ Certification: Student ☐ Pre-certification: Student ☐ Division Request ☑ Re-Certification ☐ Return to Duty ☐ Other_____

Exam Administered	Score	Date Taken
MSRPH version #:	84 %	12-6-22
TVOIM/TOIM	83 %	12-6-22
Supervisor Combination	%	
Practical attempt #: 1	QL- 1	12-6-22

Equipment *(current/working condition)*	Yes	No
MSRPH	✓	
Perm/Temp/Special Orders	✓	
Troubleshooting Guide	✓	
Flashlight	✓	
Safety Vest	✓	
Footwear	✓	
Identification (One Badge, RWP)	✓	

Comments

Signatures:	Date:
Employee: [redacted]	12/6/22
Examiner: [redacted]	12-06-2022

RTRA-906-01-00 TRAIN OPERATOR AND ROAD SUPERVISOR JOB TASK PROFICIENCY EVALUATION Page 1

TRAIN OPERATOR AND ROAD SUPERVISOR JOB TASK PROFICIENCY EVALUATION (continuation sheet) Emp No.: [redacted] Date: 12-06-2022

CATEGORIES / SUBCATEGORIES	QUALITY LEVEL	REMARKS (*Remarks are required for a quality level score of 2 or 3*)
I. Preparation for Service	/	Cars Used: 7154 x 7104
1. Exterior Inspection	/	# 7155 Rotary Drum, # 7105 Barrier Unit, # 7104 BCO c/o
2. Interior Inspection - Trailing Cab	/	# 7154 Missing Paddles
3. Interior Inspection - Each Car	/	# 7155 Horn c/o, # 7105 Tail-Marker TCCB
4. Interior Inspection – Oper. Cab	/	# 7104 Missing EEK
5. Rolling Test / Rolling Brake Test	/	
		Time Allotted: 35:00 / Actual Time: 25:00
II. Mainline Operation	/	
6. Communications	/	
7. Door Oper. & Station Stopping	/	
8. Use of Horn	/	
9. Speed Adherence/Manual Oper.	/	
10. Turn Back Moves	/	Location: K04 Time Allotted: 02:00 / Actual Time: 00 :55
11. Manual Route Selection	/	Location: K06'18
12. EV Shutoff	/	Time Allotted: 00:30 (1:00) / Actual Time: 00 :15
III. Yard Operation	/	
13. Communications	/	
14. Yard Movements	/	
15. Coupling	/	Time Allotted: 08:00 (12) / Actual Time: 6 :00 Cars Used: 7317 +7495
16. Uncoupling	/	Time Allotted: 05:00 (7.5) / Actual Time: 5 :00 Cars Used: < 7494 > 7154
17. Isolation (Self-Recovery)	/	Time Allotted: 15:00 (22.5) / Actual Time: 13 :45 Cars Used: 7494 x 7154
18. Manual Switch Operation	/	#313
IV. Miscellaneous	/	
19. Recovery Train Operation	/	Time Allotted: 12:00 (18) / Actual Time: 11 : 00 Cars Used: 7154 +7494
20. Troubleshooting	/	#1. NO Brakes OFF (Friction Brake TCCB) 10 min
		#2. Individual Car Isolation (Bodily Fluids) 5 min

RTRA-906-01-00 TRAIN OPERATOR AND ROAD SUPERVISOR JOB TASK PROFICIENCY EVALUATION Page 2

Figure 12 - Train Operator last certification 2 of 2

Appendix E – Train Operator's latest SOP 40 Observation record (RSDAR)

Employee #	Employee Name	Division	Position	Train ID	Rpt Date	Spot Check ID	RSDAR Rpt ID
[redacted]	[redacted]	West Falls Church	Train Operator	108	2/5/2023	TSC-20298	RSDAR-8417

Boarding Time	Boarding Location	Departing Time	Departing Location	Procedure Review
3:40 AM	B01 - Gallery Place	3:42 AM	B02 - Judiciary Square	Door Ops/Station Stop - SOP 40

Train Announcements	Satisfactory
Station Stopping	
Door Operations	Satisfactory
Headway Adherence	
ATO/Manual Ops	Satisfactory
Uniform Appearance	
Personal Protection Equipment	
Radio Communications	
General Comments	Made clear and concise announcements
Spot Check Completed By:	[redacted]

33 2/21/2023 3:31:14 PM

Figure 9 - Train Operator's last Rail Supervisor Daily Activity Report (RSDAR) on SOP 40

Appendix F – MTPD Executive Briefing

Metro Transit Police Department
Criminal Investigation Division
Executive Briefing Form

PURPOSE
This form shall be completed by a Metro Transit Police Department (MTPD) Criminal Investigation Division (CID) official for the following incidents: homicides; rape/first and second degree sexual assaults; deaths on Metro property; persons struck by trains; police shootings (not related to animals); shootings, assaults with serious bodily injury that require hospital admission related to the assault; found explosive devices; bombings; terrorism attacks; employee arrests resulting from a CID investigation; employee arrests on Metro property (related or unrelated to Metro); and when requested by a CID commander or above. By the end of the CID official's shift, the completed form shall be emailed to the Chief of Police, Assistant Chief, Deputy Chiefs, and all CID officials. When directed by the CID Commander, the form will be emailed to Metro Media Relations (MREL@wmata.com). *The information contained in this form is preliminary, known at the time of form completion and subject to change during the investigation.* ***This form is Non-Law Enforcement Sensitive.***

Incident Details	
Classification:	**Injured Person to the Hospital – Death Investigation**
MTP#:	2023-01278
Date:	February 15, 2023
Time:	1307 Hours
Station/Address:	Dunn Loring-Merrifield Metro Station 2700 Gallows Road, Vienna, VA 22180
How was MTPD notified?	MTPD notified by ROCC. Initial call for train individual possibly surfing train.
Primary MTPD Unit(s):	Detective [redacted] Detective [redacted] Officer [redacted] Officer [redacted] Officer [redacted] Officer [redacted] Officer [redacted] Officer [redacted] Officer [redacted] Crime Scene Search Coordinator [redacted] Crime Scene Search Officer [redacted] Crime Scene Search Officer [redacted] Crime Scene Search Officer [redacted]
Official(s) on Scene:	Lieutenant [redacted] Lieutenant [redacted] Detective Sergeant [redacted] Detective Sergeant [redacted] Sergeant [redacted] Sergeant [redacted] Sergeant [redacted]
Notifications *(Medical Examiner, etc.)*:	FFX Police Department (FFXPD) FFX Fire & Rescue (FFXFR) VA Medical Examiner TSOC - # TSA-[redacted]
Metro Specific Information (Bus/Train Information):	Train #[redacted] / Rail Car 7493

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Incident Synopsis

On Wednesday, February 15, 2023 at 1310 hours, MTPD units responded to Dunn Loring Metro Station for the report of an individual "surfing" on the exterior of an Orange Line train. The MTPD Digital Video Evidence Unit quickly reviewed video and learned that the victim was not train surfing but appeared to have been dragged down the platform by train [redacted] as it was departing the station, traveling in the direction of New Carrollton. Additionally, DVEU advised that the victim had released from the train after his body struck and went past the end gate. Responding units canvassed and located the victim on the gravel area beyond the end gate. Fairfax County Fire & Rescue was immediately notified and responded. Fairfax County Police officers also responded. Officers initiated CPR. EMS personnel with Fairfax Fire & Rescue #413 arrived on scene and assumed patient care. The victim sustained a significant head laceration and apparent skull fracture, a laceration to his back, and abrasions all over his body. The victim was ultimately transported to Inova Fairfax Hospital where he succumbed to his injuries and was pronounce deceased at 1403 hours by [redacted]

Train movement into and out of Dunn Loring Station was halted and the request to establish a bus bridge was made. In lieu of a bus bridge, ROCC single tracked on Track 2 through the affected area. DVEU determined and notified that the incident train was train [redacted]. Train [redacted] was contacted by ROCC and held on Track 1 at Clarendon Metro Station. While engaged with the scenes at Dunn Loring Station and Clarendon Station, Communications dispatched a call for service for a loose dog at West Falls Church Station. An investigation revealed that the dog belonged to the victim. An MTPD K9 unit responded to West Fall Church Station to secure the dog. The scene at Dunn Loring Station was secured. The train at Clarendon Station was also secured. CSS and CID were notified and responded to both scenes as well as Inova Fairfax Hospital. SAFE Investigator [redacted] also responded to the scene.

Detectives met with the operator of train [redacted] at Clarendon Station. The operator was not aware that anyone had made contact with her train. After describing the victim to the operator, she advised she believed that she had seen the victim board her train at Metro Center Station earlier in the afternoon. The operator reported she traveled to Vienna Station with the victim in the lead car and saw the victim still aboard the train as she walked to the opposite operator cab to take the train back toward New Carrollton Station. The operator advised she was unaware that anything had happen until she was instructed to take her train out of service at Clarendon Station. The operator advised she did not see anyone on the tracks during her trip. The operator was asked specifically about what she recalled from Dunn Loring Station. The operator reported she followed her normal procedures when servicing the station. The operator reported she ensured that all the doors were clear and continued on. The operator reported she did not see the victim or the dog. The operator was lucid, and her condition appeared to be normal. After providing a statement to detectives, the operator was turned over to a rail supervisor for administrative procedures.

Detectives conducted a thorough review of video related to the incident. Video from multiple stations, the rail car the victim was in, and the operator cab of train [redacted] was reviewed. The following events can be observed on camera: At 1305 hours, train [redacted] pulls into Dunn Loring Station. The operator stops the train at the eight-car marker and the doors open. Just before the doors close, the victim exits rail car #7394. The victim quickly turns and looks back at toward the train, realizing the doors had closed prior to his dog exiting the rail car. The dog's leash can be observed tethered to the victim's waist. The victim pulls

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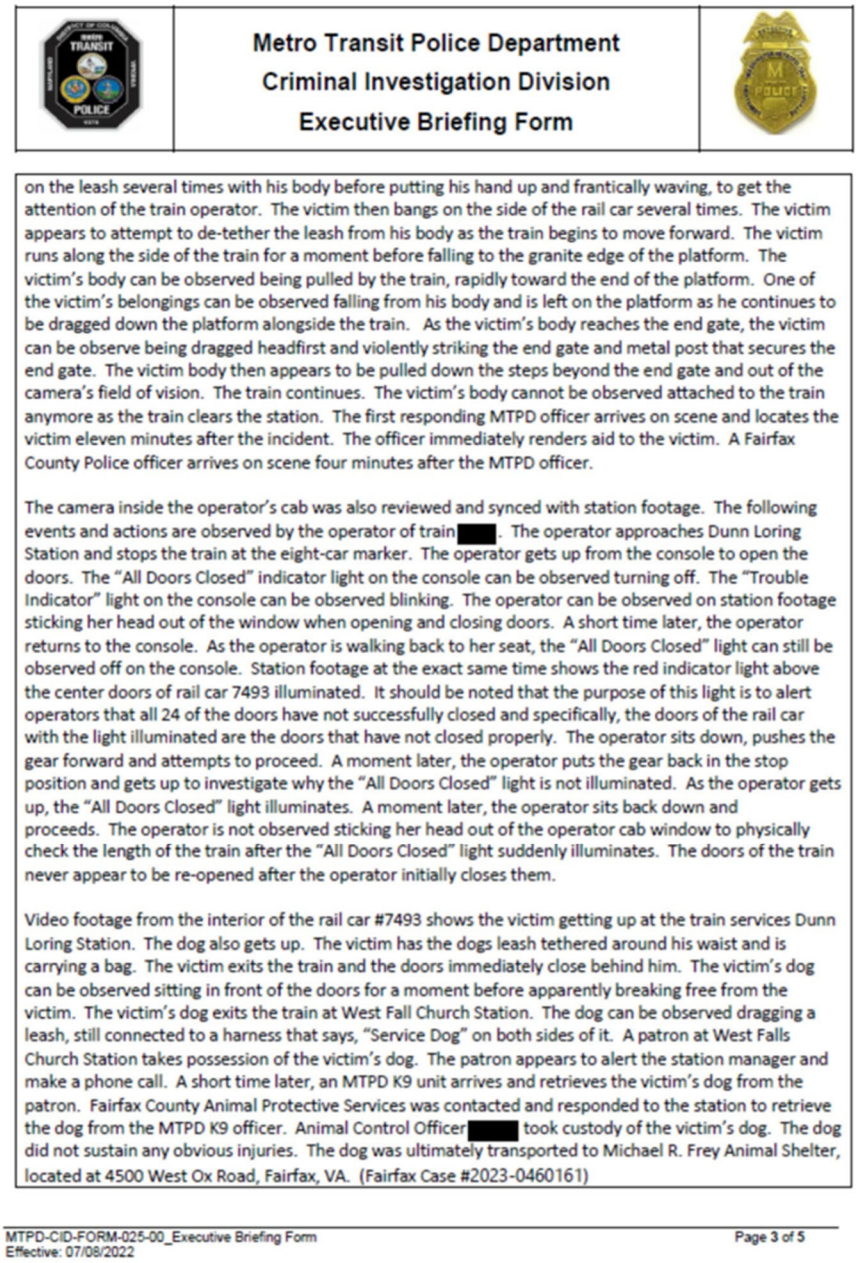
Figure 14 - MTPD Executive Briefing 2 of 5



Metro Transit Police Department
Criminal Investigation Division
Executive Briefing Form

on the leash several times with his body before putting his hand up and frantically waving, to get the attention of the train operator. The victim then bangs on the side of the rail car several times. The victim appears to attempt to de-tether the leash from his body as the train begins to move forward. The victim runs along the side of the train for a moment before falling to the granite edge of the platform. The victim's body can be observed being pulled by the train, rapidly toward the end of the platform. One of the victim's belongings can be observed falling from his body and is left on the platform as he continues to be dragged down the platform alongside the train. As the victim's body reaches the end gate, the victim can be observe being dragged headfirst and violently striking the end gate and metal post that secures the end gate. The victim body then appears to be pulled down the steps beyond the end gate and out of the camera's field of vision. The train continues. The victim's body cannot be observed attached to the train anymore as the train clears the station. The first responding MTPD officer arrives on scene and locates the victim eleven minutes after the incident. The officer immediately renders aid to the victim. A Fairfax County Police officer arrives on scene four minutes after the MTPD officer.

The camera inside the operator's cab was also reviewed and synced with station footage. The following events and actions are observed by the operator of train [redacted]. The operator approaches Dunn Loring Station and stops the train at the eight-car marker. The operator gets up from the console to open the doors. The "All Doors Closed" indicator light on the console can be observed turning off. The "Trouble Indicator" light on the console can be observed blinking. The operator can be observed on station footage sticking her head out of the window when opening and closing doors. A short time later, the operator returns to the console. As the operator is walking back to her seat, the "All Doors Closed" light can still be observed off on the console. Station footage at the exact same time shows the red indicator light above the center doors of rail car 7493 illuminated. It should be noted that the purpose of this light is to alert operators that all 24 of the doors have not successfully closed and specifically, the doors of the rail car with the light illuminated are the doors that have not closed properly. The operator sits down, pushes the gear forward and attempts to proceed. A moment later, the operator puts the gear back in the stop position and gets up to investigate why the "All Doors Closed" light is not illuminated. As the operator gets up, the "All Doors Closed" light illuminates. A moment later, the operator sits back down and proceeds. The operator is not observed sticking her head out of the operator cab window to physically check the length of the train after the "All Doors Closed" light suddenly illuminates. The doors of the train never appear to be re-opened after the operator initially closes them.

Video footage from the interior of the rail car #7493 shows the victim getting up at the train services Dunn Loring Station. The dog also gets up. The victim has the dogs leash tethered around his waist and is carrying a bag. The victim exits the train and the doors immediately close behind him. The victim's dog can be observed sitting in front of the doors for a moment before apparently breaking free from the victim. The victim's dog exits the train at West Fall Church Station. The dog can be observed dragging a leash, still connected to a harness that says, "Service Dog" on both sides of it. A patron at West Falls Church Station takes possession of the victim's dog. The patron appears to alert the station manager and make a phone call. A short time later, an MTPD K9 unit arrives and retrieves the victim's dog from the patron. Fairfax County Animal Protective Services was contacted and responded to the station to retrieve the dog from the MTPD K9 officer. Animal Control Officer [redacted] took custody of the victim's dog. The dog did not sustain any obvious injuries. The dog was ultimately transported to Michael R. Frey Animal Shelter, located at 4500 West Ox Road, Fairfax, VA. (Fairfax Case #2023-0460161)

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Figure 14 - MTPD Executive Briefing 3 of 5

Metro Transit Police Department
Criminal Investigation Division
Executive Briefing Form

CSS processed both scene as well as responded to Fairfax Hospital. The scene was processed and photographed. The victim's injuries were also documented and photographed. There was no notable evidence recovered from the scene however, the victim's belongings were collected and left with him at the hospital.

Detectives at the hospital met with emergency room staff who had been able to identify the victim via a medical card found on his person. Detectives utilized a law enforcement database to confirm the victim's identity. The emergency staff also notified the victim's next of kin of the incident. Detectives obtained the next of kin information from the emergency room staff and confirmed that proper notification had been made. Notification was made to the victim's daughter by the hospital and confirmed by detectives. The victim's daughter was also provided with information on the whereabouts of the victim's dog. The victim advised that she would be traveling from several hours away but would be responding to the area to meet with the emergency room staff and retrieve the victim's dog. Detectives followed up with animal control several hours after the incident and learned that the dog had been picked up by a family member.

Detectives contacted Investigator [redacted] of the Office of the Chief Medical Examiner for the Commonwealth of Virginia. Detectives briefed Investigator [redacted] on the investigation and video review. Investigator [redacted] advised that arrangements would be made for the victim's body to be transported to the Medical Examiner's office for an autopsy. Detectives advised Investigator [redacted] that MTPD will bring a copy of the station video footage to the autopsy, scheduled for Thursday, February 16, 2023.

Victim #1	
Name *(How identified)*:	[redacted]
Injuries / Condition:	Deceased – Significant Head Injury, Back Injury, Multiple Abrasions and Contusions

Next of Kin	
Was a Next of Kin Notification Made:	Yes
If So, Who Was Contacted:	Daughter

Witness #1	
Name *(How identified)*:	[redacted]
If Employee, Work Assignment and Contact Number:	Train Operator – WEFC RY

Witness #2	
Name *(How identified)*:	[redacted]
If Employee, Work Assignment and Contact Number:	N/A

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Figure 14 - MTPD Executive Briefing 4 of 5

	Metro Transit Police Department **Criminal Investigation Division** **Executive Briefing Form**	

Crime Scene Details	
Indoor / Outdoor Scene:	Outdoor – Dunn Loring Platform
Evidence Located *(weapons. casings, blood, damage to property, etc.):*	No notable evidence recovered. Victim property only.
Results of canvass *(civilian witnesses, CCTV, cameras, etc.):*	N/A
Street Closures or Trains Held:	• Single tracking on Track 2 between VENN & WEFC • Single tracking on Track 2 between BALL & CLRN

Submitting Official	**Date**
Detective Sergeant [redacted]	February 15, 2023

Figure 14 - MTPD Executive Briefing 5 of 5

Appendix G – Photographs

Image 4 - Track 1 end gate. Damaged area circled

Image 5 - Closer view of damaged end gate and railing

Image 6 - View of the damaged end gate and railing from the track bed.

Image 7 - Operator's Console of car 7744. Taken at Clarendon Station 2/15/2023.

Image 8 - Car 7744's Left Door Control Panel

Appendix H - Why-Tree Analysis

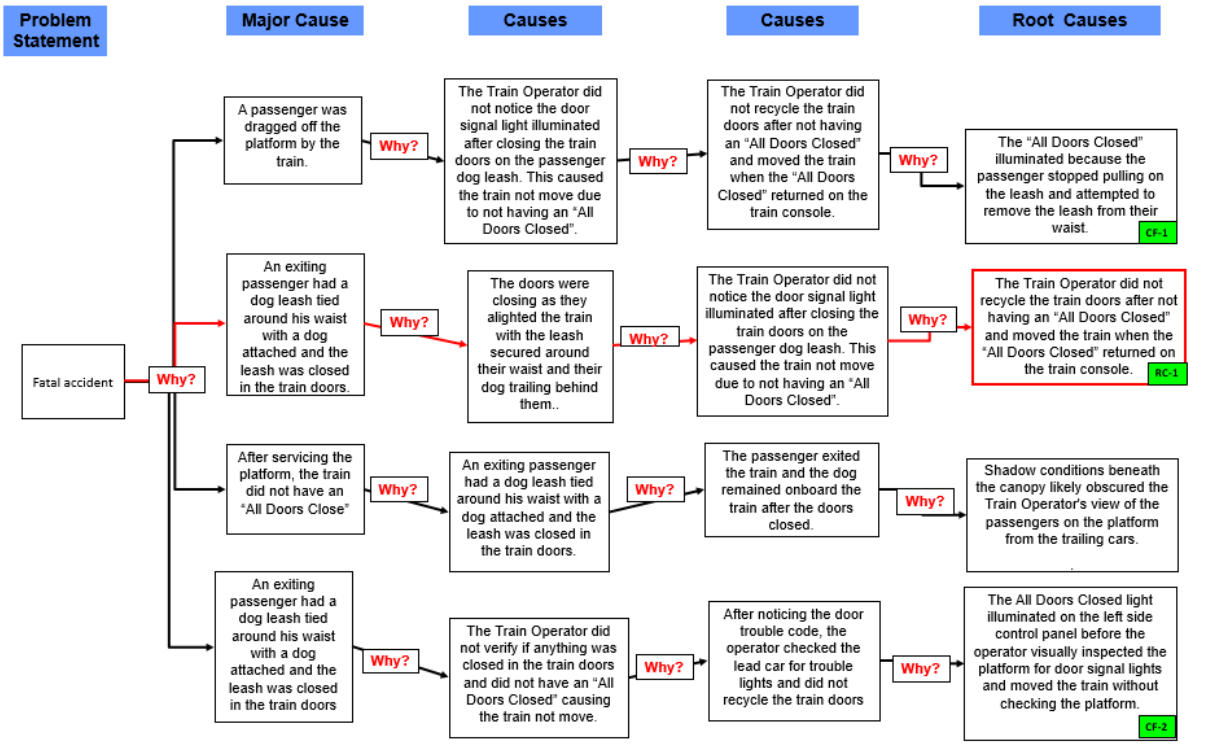

Image 9 - Root Cause Analysis