



W-0328 Collision – Forest Glen Station – August 18, 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 August 6, 2024.

WMSC staff recommend adoption of this investigation.

Safety event summary:

A person at Forest Glen Station deliberately placed themselves in the path of an oncoming train at approximately 11:56 a.m. on August 18, 2023 as the train was slowing down in the station. The Train Operator attempted to stop the train using emergency braking. The train struck the person. The Train Operator reported the collision.

Montgomery County Fire and Rescue Services and Metro Transit Police Department personnel responded.

The response was effective, however Metrorail personnel applied an outdated procedure regarding incident command that had been superseded the previous month by a process designed to better align with incident management requirements.

The first responders safely removed the person who was struck and took the person to a hospital for further treatment.

Corrective actions:

As a result of this investigation, Metrorail developed the following corrective actions:

- Metrorail conducted job briefings with control center staff on the new incident management procedures that had taken effect approximately one month earlier
- Metrorail began conducting job safety briefings during each shift in the control center as conditions change that involve the Rail 1 Operations Manager, Assistant Operations Manager (Rail 2/3), Rail Traffic Controllers, and Fire Liaison Officer.
- Metrorail is incorporating radio coordination, best routes for entrances into rail stations, and the inclusion of Metrorail's safety investigations team into its regular emergency drills for local first responders.

Related Open CAPs

- C-0162 addressing the finding that Metrorail does not follow the incident command system and National Incident Management System requirements, and that Metrorail's training requirements are insufficient to



750 First St. NE • Ste. 900 • Washington, D.C. 20002

Office: 202-384-1520 • Website: www.wmsc.gov

prepare personnel to respond to and/or manage emergencies, contributing to ineffective and improper emergency response and emergency management.

Metrorail is considering trialing platform screen doors at some stations through a pilot program.



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

FINAL REPORT OF INVESTIGATION A&I E23573

Date of Event:	August 18, 2023
Type of Event:	Collision
Incident Time:	11:56 Hours
Location:	Forest Glen Station, track 1
Time and How received by SAFE:	11:58 Hours – SAFE/MAC
WMSC Notification Time:	12:27 Hours
Responding Safety Officers:	WMATA: OEP WMSC: None Other: None
Rail Vehicle:	Train ID 110 L3133/32x3176/77x3152/53T
Injuries:	Serious, Life-Threatening Injuries
Damage:	Rail Car 3133: TWC Antenna and Brackets
Emergency Responders:	Montgomery County Fire & Rescue Service (MCFRS), Metro Transit Police Department (MTPD)
SMS I/A Incident Number:	20230818#110766

Forest Glen Station – Collision

August 18, 2023

Table of Contents

Abbreviations and Acronyms	3
Executive Summary	4
Incident Site	5
Field Sketch/Schematics	5
Purpose and Scope	5
Investigative Methods	5
Investigation	6
Chronological Event Timeline	8
Closed-Circuit Television (CCTV)	10
Office of Vehicle Program Services (CENV)	11
Office of Car Maintenance (CMNT)	12
Office of Rail Transportation (RTRA)	12
Interview Findings	13
Weather	13
Related Rules and Procedures	13
Human Factors	14
Fatigue	14
Post-Incident Toxicology Testing	14
Findings	14
Immediate Mitigation to Prevent Recurrence	14
Probable Cause Statement	15
Recommended Corrective Actions	15
Appendices	16
Appendix A – Interview Summary	16
Appendix B – RTRA Managerial Incident Investigation Report	17
Appendix C – Train Operator’s Incident Report and Manifest	20
Appendix D – Maximo Work Order	22
Appendix F – Why-Tree Analysis	23

Abbreviations and Acronyms

AOM	Assistant Operations Manager
AIMS	Advanced Information Management System
CM	Chain Marker
CTF	Carmen Turner Facility
CCTV	Closed-Circuit Television
IMF	Incident Management Framework
MAC	Mission Assurance Coordinator
MOR	Metrorail Operating Rulebook
MPH	Miles Per Hour
NOAA	National Oceanic and Atmospheric Administration
OM	Operations Manger
OSI	Office of Safety Investigations
RWP	Roadway Worker Protection
RTRA	Office of Rail Transportation
ROCC	Rail Operations Control Center
SAFE	Department of Safety
SMS	Safety Measurement System
SOCC	Security Operation Control Center
TWC	Train Wayside Communication
VMS	Vehicle Monitoring System
WMATA	Washington Metropolitan Area Transit Authority
WMSC	Washington Metrorail Safety Commission

**Washington Metropolitan Area Transit Authority
Department of Safety – Office of Safety Investigations**

Executive Summary

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

On Friday, August 18, 2023, at 11:56 hours, Train ID 110 (L3133/32x3176/77x3152/53T) was traveling toward Glenmont Station on track 1 when the Train Operator contacted Rail Operations Control Center (ROCC) and reported that a person had been struck by the train at Forest Glen Station on track 1, and that the train was stopped with three cars on the platform.

The Radio Rail Traffic Controller (RTC) inquired if the Train Operator would inspect the area for the person that was struck. At 11:58 hours, the Radio RTC granted foul time to the Train Operator. The Radio RTC instructed multiple Office of Rail Transportation (RTRA) Rail Supervisors to respond to Forest Glen Station to assist with the emergency.

Montgomery County Fire and Rescue Services (MCFRS) and Metro Transit Police Department (MTPD) were notified and dispatched to Forest Glen Station. At 12:12 hours, MCFRS arrived at Forest Glen Station. At 12:14 hours, MTPD arrived on the scene. At 12:15 hours, an Incident Command Post was established at the Forest Glen Station Bus Bay, and Unified Command was initiated.

At 12:01 hours, the Radio RTC advised the Train Operator that they were the On-Scene Commander, a term used under Standard Operating Procedure (SOP) 1A, pending the arrival of MTPD. The Radio RTC instructed the Train Operator to offload passengers from the train by manually opening each door on the platform. There were three cars stopped within the platform limits.

The Advanced Information Management System (AIMS) revealed that third-rail power was de-energized at 11:58 hours.

Emergency responders located the struck person underneath the first car, 3133, with life-threatening injuries. At 12:27 hours, the struck person was rescued from underneath the train, removed from the roadway, and transported to MedStar for non-life threatening treatment.

At 12:34 hours, all emergency responders and equipment were cleared from the roadway.

At 12:49 hours, third rail power was restored. At 13:06 hours, control of the incident scene was returned to the ROCC. At 13:11 hours, Train ID 710 departed Forest Glen Station, track 1, towards Shady Grove yard for inspection.

At 13:46 hours, normal service resumed. Train ID 127 was the first train to service Forest Glen Station.

The Office of Rail Transportation (RTRA) removed the Train Operator from service for post-incident toxicology testing.

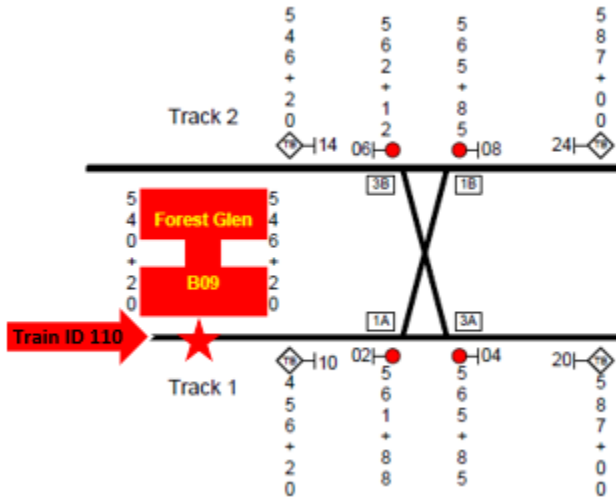
A review of Closed-Circuit Television (CCTV) cameras and interview statements from the Train Operator found that the person intentionally entered the rail right-of-way as the train was entering the platform.

The probable cause of the Collision at Forest Glen Station on August 18, 2023, was a person's intentional action to place themselves on the roadway. No mechanical deficiencies with the train were reported, and there were no human factors errors identified that would have contributed to this event.

Incident Site

Forest Glen Station, track 1, CM 540+20

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 document and video review
- Formal Interviews – SAFE interviewed one individual as part of this investigation. The 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 (Train ID 110)
- Informal Interviews – Collected through conversations with individuals during the investigation to provide background and supporting information. Written statements were reviewed from personnel present during the event.
- 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)
 - Metrorail Operating Rulebook (MOR)
 - National Oceanic and Atmospheric Administration (NOAA)
 - Rail Operations Control Center (ROCC) Incident Report
 - Maximo Data
- System Data Recording Review – Collection of information contained in Metro Data Recording Systems. This data includes:
 - Audio Recording System (ARS) playback [Radio and Landline Communications]
 - The Office of Chief Mechanical Officer (CMOR) Incident Investigation Team (IIT) Vehicle Monitoring and Diagnostic System (VMDS)
 - Closed-Circuit Television (CCTV)

Investigation

On Friday, August 18, 2023, a review of the Closed-Circuit Television (CCTV) revealed that at 11:56:26 hours, the person entered the rail right-of-way intentionally, as the train was entering the platform limits at Forest Glen Station on track 1.



Figure 1 - Train ID 110 at Forest Glen Station, track 1 at 11:56 hours.

Train ID 110 (L3133/32x3176/77x3152/53T) was traveling toward Glenmont Station when the Train Operator contacted the Rail Operations Control Center (ROCC) at 11:56:36 hours, and reported that a person had been struck by the train at Forest Glen Station on track 1 and that the train was stopped with three cars on the platform.

The Radio RTC asked the Train Operator to inspect the area. At 11:58 hours, granted the Train Operator foul time to enter the roadway and to check the condition of the person. The Radio RTC instructed multiple RTRA Supervisors to respond to Forest Glen Station to assist with the emergency and advised that SOP 1A was in effect. The Radio RTC did not follow IMF protocol at the event's outset. They responded under the previous procedure, SOP 1A; however, this did not harm the response.

The Advanced Information Management System (AIMS) playback revealed that third-rail power was de-energized at 11:57:40 hours.



Figure 2 – Third rail power de-energized at Forest Glen Station on track 1.

At 11:58 hours, Button RTC contacted MTPD and requested a response to Forest Glen Station. The Assistant Operations Manager contacted MCFRS and requested a response to Forest Glen Station. The Mission Assurance Coordinator (MAC) contacted OEP and requested a response to Forest Glen Station.

At 11:58:40 hours, AIMS playback revealed that blue block and human form were in place.

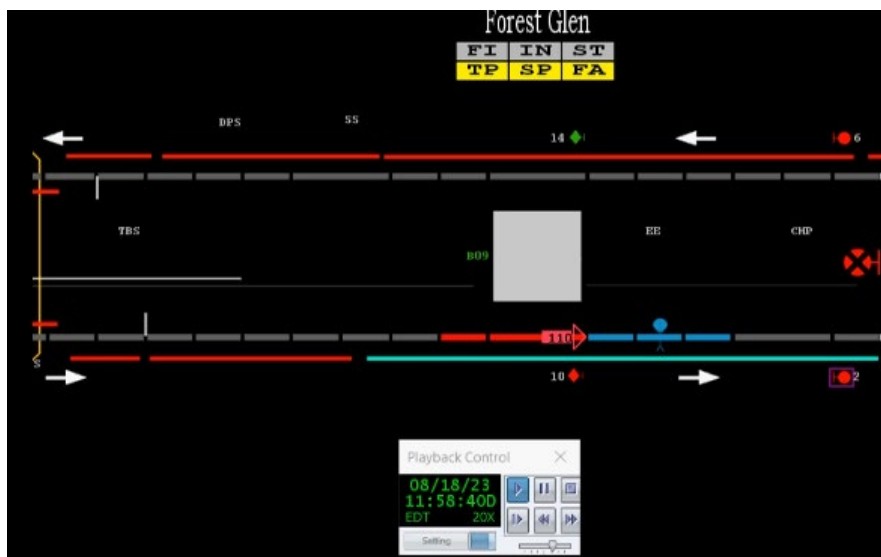


Figure 3 – Blue block and human form in place at Forest Glen Station on track 1.

At 11:58:46 hours, the Radio RTC granted the Train Operator foul time to enter the roadway and to check the condition of the person.

At 12:00 hours, the Button RTC instructed the Rail Supervisor located at Glenmont Station to report to Forest Glen Station

At 12:01 hours, the Train Operator returned to the platform, and then the Radio RTC advised the Train Operator that they were the On-Scene commander, pending the arrival of MTPD. The Radio RTC instructed the Train Operator to offload passengers from the train by keying each door on the platform.

At 12:12 hours, MCFRS arrived on the scene. At 12:14 hours, MTPD arrived on the scene. At 12:15 hours, an Incident Command Post was established at the Forest Glen Bus Bay. A Unified Command was implemented.

At 12:22 hours, OEP arrived on the scene.

At 12:25 hours, emergency responders located and rescued the struck person from underneath the first car, 3133. At 12:27 hours, the struck person was transported to a MedStar hospital with non-life-threatening injuries.

At 12:34 hours, all emergency responders and their equipment were cleared from the roadway.

At 12:49 hours, the third rail power was restored. At 13:06 hours, the incident scene was returned to the ROCC. At 13:11 hours, Train ID 710 departed Forest Glen Station, track 1, towards Shady Grove yard for inspection.

At 13:46 hours, normal service resumed. Train ID 127 was the first train to service Forest Glen Station.

Chronological Event Timeline

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

Time	Description
11:54:52 hours	The person exited the platform elevator at Forest Glen Station. [CCTV]
11:56:16 hours	Train ID 110 arrived at Forest Glen Station on track 1. [SPOTS]
11:56:26 hours	The person placed themselves on the roadway in the path of the train was struck as the train entered the platform. [CCTV]
11:56:36 hours	<u>Train ID 110</u> : Reported an emergency. <u>Radio RTC</u> : Inquired the Train ID and location. <u>Train ID 110</u> : Reported Train ID 110 was located at Forest Glen Station on track 1 and a person was struck by the train. <u>Radio RTC</u> : Acknowledged. Inquired how many cars were on the platform. <u>Train ID 110</u> : Responded, 3 cars. [Radio Ops 1]
11:57:16 hours	<u>ROIC Controller</u> : Notified BOCC of the event and advised to prepare for a bus bridge. [Phone ROIC Lead]
11:57:24 hours	<u>Radio RTC</u> : Inquired if the Train Operator could inspect the roadway for the person. <u>Train ID 110</u> : Responded that the person was two cars back. [Radio Ops 1]

Time	Description
11:57:40 hours	Third rail power was de-energized. [AIMS]
11:58:01 hours	<u>Button RTC</u> : Notified MTPD of a person struck by a train at Forest Glen Station. [Phone Ops 1]
11:58:05 hours	<u>Rail Supervisor #1</u> : Reported located at Takoma Station. <u>Rail Supervisor #2</u> : Reported located at Glenmont Station <u>Radio RTC</u> : Instructed Rail Supervisor #1 and Rail Supervisor #2 to report to Forest Glen Station. [Radio Ops 1]
11:58:24 hours	<u>MAC</u> : Dispatched OEP personnel to Forest Glen Station. [Phone MAC]
11:58:33 hours	<u>Radio RTC</u> : Requested a handheld radio check from the Train Operator. <u>Train ID 110</u> : Provided a radio check. [Radio Ops 1]
11:58:37 hours	<u>ROIC Controller</u> : Instructed the Station Manager to report to the platform. [Phone RCOM 1]
11:58:40 hours	Blue block and human form were in place at Forest Glen Station on track 1. [AIMS]
11:58:40 hours	<u>AOM</u> : Notified MCFRS of a person struck by a train at Forest Glen Station. <u>MCFRS</u> : Acknowledged. [Phone CTF ROCC]
11:58:46 hours	<u>Radio RTC</u> : Granted the Train Operator foul time to enter the roadway and to check the condition of the person. <u>Train ID 110</u> : Acknowledged. [Radio Ops 1]
12:00:13 hours	<u>Train ID 110</u> : Reported that they could not view the person struck by the train. <u>Radio RTC</u> : Acknowledged. [Radio Ops 1]
12:00:22 hours	<u>Radio RTC</u> : Instructed Train Operator to return to the operating cab and key the customers off the train and to not make a door operation. <u>Train ID 110</u> : Acknowledged and repeated. [Radio Ops 1]
12:00:36 hours	<u>Button RTC</u> : Instructed the Rail Supervisor located at Glenmont Station to report to Forest Glen Station. [Phone Ops 1]
12:01:57 hours	<u>Radio RTC</u> : Informed Train Operator SOP 1A is in effect. Appointed the Train Operator as the On Scene Commander. Instructed the Train Operator to advise when the train was clear of customers. [Radio Ops 1]
12:02:29 hours	<u>Radio RTC</u> : Contacted RTRA supervisor. Inquired if the RTRA supervisor had a working Hot Stick. <u>RTRA Supervisor</u> : Affirmed. Did have a working Hot Stick. [Radio Ops 1]
12:10:00 hours	<u>Train ID 110</u> : The Train Operator reported that Train ID 110 is clear of passengers. <u>Radio RTC</u> : Acknowledged. [Radio Ops 1]
12:10:07 hours	<u>Radio RTC</u> : Requested that the Train Operator place handbrakes on the entire train. <u>Train ID 110</u> : Acknowledged. Understood to place handbrakes on the train consist. [Radio Ops 1]
12:10:22 hours	MCFRS arrived on the platform at Forest Glen Station. [CCTV]
12:12:53 hours	<u>Train ID 110</u> : Reported that MCFRS was on scene. <u>Radio RTC</u> : Acknowledged. [Radio Ops 1]
12:13:14 hours	<u>Station Manager</u> : Reported to RTC for a radio check. <u>Radio RTC</u> : Acknowledged. Informed Station Manager they were now the on-scene incident command. <u>Station Manager</u> : Acknowledged.

Time	Description
12:13:39 hours	<u>Station Manager</u> : Reported to the RTC that the fire department found the struck person under the first rail car: 3133. <u>Radio RTC</u> ; Acknowledged. [Radio OPS 1]
12:15:47 hours	MTPD arrived on the platform at Forest Glen Station. [CCTV]
12:14:39 hours	<u>Radio RTC</u> : Informed the Station manager that once MTPD was on-scene, they would assume command. <u>Station Manager</u> : Advised that MTPD was on-scene. [Radio OPS 1]
12:22 hours	OEP arrived on the scene. [CCTV]
12:25 hours	The person was removed from the roadway. [CCTV]
12:27:09 hours	<u>MAC</u> : Reported that a person was struck by the train at Forest Glen Station. The person was rescued and transported to Med Star Hospital. Requested Event Scene Release from WMSC. <u>WMSC</u> : Acknowledged—released scene to WMATA. [Telephone, CTF, WMSC]
12:27:55 hours	<u>AOM</u> : Contacted the RTRA Assistant Superintendent of Shady Grove Division and informed them of the incident. <u>Assistant Superintendent</u> : Acknowledged. Advised enroute. [Telephone, CTF, ROCC]
13:04:28 hours	Train ID 110 departed Forest Glen Station. [SPOTS]
13:06:28 hours	<u>RTRA Supervisor</u> : Contacted Radio RTC and advised that the incident scene is cleared and MTPD has relinquished command. <u>Radio RTC</u> : Acknowledged. [Radio OPS 1]
13:52:14 hours	Train ID 127 arrived at Forrest Glen Station on track 1. [SPOTS]

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

Closed-Circuit Television (CCTV)



Image 1 – Image of Train ID 110 stopped after striking the person on the roadway at 11:56:26 hours..



Image 2 – Image of the Train Operator on the platform performing an inspection at 11:58:46 hours.

Office of Vehicle Program Services (CENV)

Adopted from CENV report with minor formatting and grammatical edits:

“VMS time is approximately 6 minutes behind actual time.

Per the VMS data, proper protocols were followed, Emergency Braking was initiated, and the Emergency Mushroom was activated.

The train took 4.412 seconds to stop in Emergency from 16 mph, resulting in a deceleration rate of 3.62 mphps (miles per hour per second).”

Time	Description
11:50:23 hours	Train ID 110 Entering Forest Glen Platform (61) (600 feet to 8 car marker) outbound (Track 1), 25 mph, Master Controller in COAST
11:50:25 hours	Speed 25 mph, Master Controller in B1, 95 feet into platform (505 feet to 8 car marker)
11:50:27 hours	Speed 23 mph, Master Controller in COAST, 165 feet into platform (435 feet to 8 car marker)
11:50:29 hours	Speed 23 mph, Master Controller in B1, 227 feet into platform (373 feet to 8 car marker)
11:50:35 hours	Speed 18 mph, 403 feet into platform (197 feet to 8 car marker). Data is consistent with Master Controller in EMERGENCY position – Notch showing B4 with TL 82 (Emergency TL) going low
11:50:36.248 hours	Speed 17 mph, Deadman handle released (possibly to activate mushroom), 425 feet into platform (175 feet to 8 car marker)
11:50:36.760 hours	Speed 16 mph, Emergency Mushroom on console is depressed, 434 feet into platform (166 feet to 8 car marker)
11:50:41.172 hours	Train is stopped, Speed 0 mph, 478 feet into platform (122 feet to 8 car marker)
11:52:57 hours	Car 3133 is Keyed Down.

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

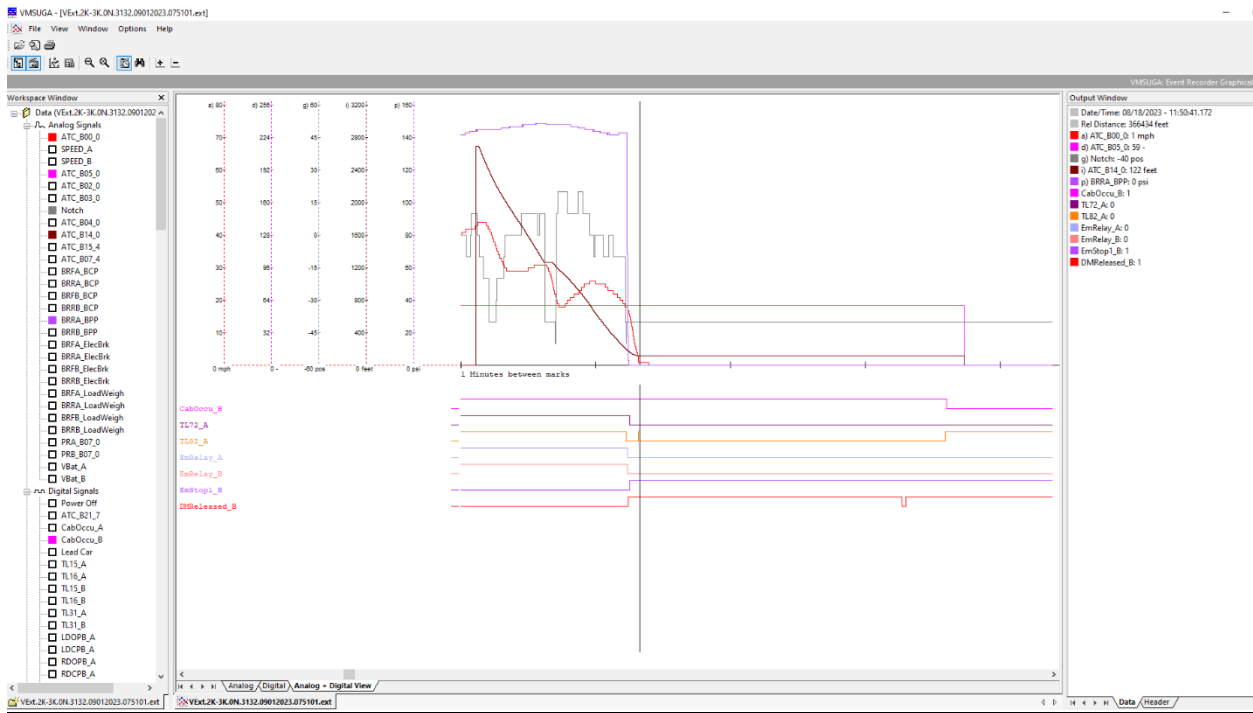


Image 3 - Train Event Recorder graphical display

Office of Car Maintenance (CMNT)

CMNT inspected lead car 3133 and reported damage to the TWC Antenna and brackets. The TWC Antenna was replaced, and rail car 3133 was approved for service.

Office of Rail Transportation (RTRA)

Adopted from RTRA report with minor formatting and grammatical edits:

“August 18, 2023, at 11:57 am, the Train Operator was operating train ID 110 track 1 Forest Glen when a customer standing in the middle of the platform jumped and made contact with the train. The Train Operator immediately stopped their train and contacted ROCC. The Train Operator was permitted to perform a ground walk-around to locate the customer. The customer was found underneath the 2nd car with signs of life. The Train Operator made good announcements, off-loaded the train, and verified it was clear of customers. The Train Operator applied handbrakes on 3 cars.

Based on the information provided, it was alleged the patron intentionally placed himself in the path of train ID 110, and there was a sign of life from the customer when they were removed from the roadway.”

Interview Findings

As part of the investigation launched into the event, SAFE interviewed one person. 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 stated that they were entering the platform on track 1 at Forest Glen Station and stated they were operating the train at 27 mph.
- The Train Operator observed a customer standing near the middle, close to the edge of the platform.
- The Train Operator observed the customer mimicking jumping in front of the train.
- The Train Operator stated that as the train was slowing down, the customer jumped in front of the train, making an impact.
- The Train Operator stated that they placed the train into an emergency brake application, and the train came to a complete stop.
- The Train Operator stated that they immediately announced an emergency, over the radio on OPS 1 to advise the ROCC of the incident.
- The Train Operator was on their fifth trip of the day.

Weather

At the time of the incident, NOAA recorded the temperature at 79°F, with clear skies, winds 11mph, and 45% humidity. This event occurred within a tunneled section of the rail system. Weather was not a contributing factor in this incident (Weather source: NOAA – Location: Forest Glen, MD.)

Related Rules and Procedures

- Incident Management Framework
- SOP #26 – Person Hit by a Train
- MSRP Rule 3.82.3 – Train Operators, operating in manual mode while in revenue service, shall enter the station at a speed no greater than 40 MPH and be prepared to properly berth the train at the “8” car marker.

Human Factors

Fatigue

Signs and Symptoms of Fatigue

Conditions at the time of the incident were evaluated to distinguish whether evidence of fatigue was present. Video of the incident was not available to ascertain whether evidence of fatigue was present. The Train Operator reported feeling fully alert at the time of the incident.

Fatigue Risk

We evaluated incident data 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. The employee reported some variations in the sleep schedule in the days leading up to the incident. The employee worked the morning shift in the days leading up to the incident. The employee was awake for 9 hours and 43 minutes at the time of the incident. The employee reported ten hours of sleep in the twenty-four hours preceding the incident. The employee reported no issues with sleep.

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

- Based on CCTV playback, the person was standing on the platform before intentionally entering the incoming train's path.
- The AIMS display shows that at 11:57 hours, third rail power was de-energized at Forest Glen Station, track 1, within one minute of the reported event.
- After initiating response under previous SOP 1A guidelines, WMATA personnel complied with IMF procedures upon establishing a Unified Command.
- No mechanical defects were found with the train that would have contributed to this event.
- There were no radio communication deficiencies observed.
- The Radio RTC did not follow IMF protocol at the outset of the event. They responded under previous procedure SOP 1A; however, this did not have an adverse impact on the response.

Immediate Mitigation to Prevent Recurrence

- Third rail power was de-energized for MTPD and other emergency services personnel to enter the roadway to rescue the person and conduct their investigation at Forest Glen Station, track 1.
- RTRA removed the Train Operator from service for post-incident toxicology testing.
- RTRA removed Train ID 110 from service for post-incident testing.
- The Operations Manager counseled the RTC on IMF procedures and conducted job briefings with ROCC staff on replacement of SOP 1A with IMF, which was in effect.

Probable Cause Statement

The probable cause of the collision at Forest Glen Station on August 18, 2023, was a person's action to place themselves on the roadway for unknown reasons. No mechanical deficiencies or human factors errors were identified that contributed to this event.

Recommended Corrective Actions

Corrective Action Code	Description	Responsible Party	Estimated Completion Date
110766_SAFE CAPS_ROCC _001	Rail 1 Operations Manager conducts job safety briefings with AOM-RTC-MAC and Fire Liaison Officers during each shift and as job conditions change.	ROCC	Completed
110766_SAFE CAPS_OEP_0 02	Conduct emergency training drills throughout the rail network with county emergency responders that entail radio coordination, best routes for entrances onto rail stations, and include representatives from OSI.	OEP	Completed

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.

The Train Operator is a nine-year and 10-month employee of WMATA, currently a Train Operator for the last seven years and eight months. The Train Operator holds an RWP Level 2 certification. The Train Operator was last certified as an operator on July 11, 2022 (QL-2).

The Train Operator advised that they arrived for work at 04:20 hours and were operating the Red Line Train ID 110. As they were entering the platform on track 1 at Forest Glen Station, they were operating the train at 27 mph. The Train Operator observed a male customer standing near the middle of the platform, near the edge. As the train was slowing down the customer jumped from the platform into the front of the train and into the roadway. The Train Operator immediately applied the emergency brake and notified the ROCC of the collision.

The Radio RTC inquired if the Train Operator was comfortable performing signs of life inspection for the customer strike. Also, the Train Operator was instructed to secure the train with handbrakes, make announcements to the passengers on Train ID 110, and act as incident commander until emergency personnel arrived.

The Train Operator reported observing the customer under the second car. The Train Operator was directed to return to assist with offloading passengers by opening each train door manually.

The Train Operator performed the duties as instructed but stated that the tasks were overwhelming.

The Train Operator was asked if there were anything that could have been done to prevent the incident, they stated that the lighting at Forest Glen platform could be brighter so that the Train operators could see the faces of the people on the platform.

Additionally, the Train Operator was asked if they were trained on how to interact with a suicidal situation or trespasser strikes. The Train Operator stated that from what they can remember, there was no training other than how to operate the emergency brake and to announce emergency, emergency, emergency over the train radio.

Appendix B – RTRA Managerial Incident Investigation Report



Washington Metropolitan Area Transit Authority



Office of Rail Transportation: Managerial Incident Investigation Report

Incident Status: FINAL

GENERAL INCIDENT INFORMATION

Incident Type:	Person Struck by a Train	Delay (Minutes):	67 Minutes
Incident Date:	Friday, August 18, 2023	Vehicles Involved:	L-3133-3176-3152
Incident Time:	11:57 AM	First Reported By:	Train Operator [REDACTED]
Location:	Forest Glen Track 1		

BRIEF DESCRIPTION:

August 18, 2023, at 11:57 am, Train Operator [REDACTED] was operating train ID 110 track 1 Forest Glen when a male customer standing in the middle of the platform jumped and made contact with his train. Train Operator [REDACTED] immediately stopped his train and contacted ROCC. Train Operator [REDACTED] was given permission to perform a ground walk-around to locate the customer. The male customer was found underneath the 2nd car with signs of life. Operator [REDACTED] made good announcements and off-loaded his train and verified it was clear of customers. Operator [REDACTED] applied handbrakes on 3 cars.

Key Employees Involved & Employee Statements:

-Train Operator [REDACTED] wrote in his incident report that "I enter Forest Glen platform in a braking mode. Platform was empty except for one [REDACTED] male in the middle of the platform. The [REDACTED] male was pretending to jump on the roadway. I had about 2 cars on the platform. The [REDACTED] male stood up straight and as soon as I got close to him, he jumped in front of the train".

Post Incident Testing & Employee History:

- Train Operator [REDACTED] was removed from service and transported for Post Incident Testing.
- Train Operator [REDACTED] was hired October 15, 2013.
- Train Operator [REDACTED] has been a train operator since December 12, 2015.
- Train Operator [REDACTED] certified as a Train Operator on July 11, 2022. (QL-2)
- Train Operator [REDACTED] had a STOV on May 8, 2023 (1 Door Leaf)



Washington Metropolitan Area Transit Authority



Office of Rail Transportation: Managerial Incident Investigation Report

SIGNIFICANT INCIDENT TIMELINE:

11:57 AM – ROCC was notified by Train Operator [REDACTED] on ID 110 track 1 Forest Glen that a customer had jumped in front of his train and made contact.

11:58 AM – ROCC asked Operator [REDACTED] was he ok to perform a ground walk-around and locate the customer.

12:00 PM – Train Operator [REDACTED] informs ROCC that the customer is under the 2nd car and showing signs of life.

12:02 PM – Train Operator [REDACTED] is instructed make good announcements to his customers and off-load his train and verify clear of customers.

12:14 PM – The scene is turned over to Cruiser [REDACTED]

12:28 PM – The male customer is removed from under the train with signs of life and transported to MedStar Washington Hospital Center by Medic Unit [REDACTED]

1:16 PM – Train Operator [REDACTED] is released by MTPD and transported for Post Incident Testing.

SIGNIFICANT FINDINGS & PENDING ISSUES:

1. Based on the information provided, it is alleged the patron intentionally placed himself in the path of train ID 110 and there was sign of life from the customer when he was removed from the roadway.

CORRECTIVE ACTIONS:

Investigation is ongoing / pending.

Document 2 - Managerial Incident Investigation Report, Page 2 of 3

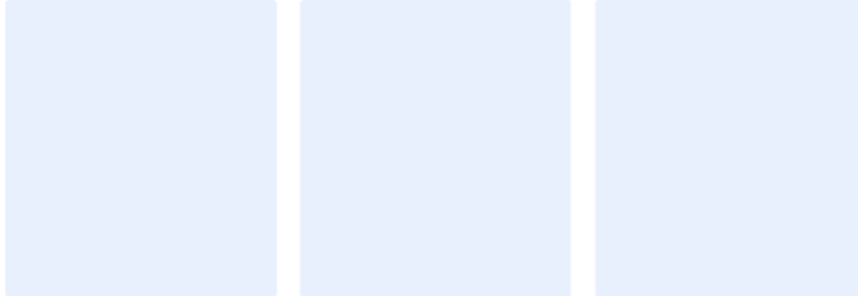


Washington Metropolitan Area Transit Authority



Office of Rail Transportation: Managerial Incident Investigation Report

INCIDENT PHOTOS: ATTACH ANY SIGNIFICANT PHOTOS BASED ON THE INITIAL INCIDENT INVESTIGATION.



Report Prepared by: ██████████ Assistant Superintendent Shady Grove 8/18/2023

Report Reviewed by: _____

Appendix C – Train Operator’s Incident Report and Manifest

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

Incident Information: This page must be completed for all incidents

Date: 8/18/23 Incident Time: 11:57 AM Time Reported: 11:58 AM Reported by: Customer Employee ROCC Other

Location

Station: FOREST GLEN Mezzanine #: _____ Track #/Destination: TRACK 1 (GLENMONT) 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 **LIGHT CONDITIONS (natural lighting)** **LIGHTING (artificial lighting)**

Clear Rain Dawn/Dusk Daylight Lights On Lights Off
 Snow Sleet/Ice Dark Tunnel/Underground Lights Not Working

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

Elevator/Escalator #: _____ AFC #: _____ Room Number/Location: _____

Failure Number(s): _____

Parking Lot Paid Area Free Area Garage Station Entrance Stairway # _____ Platform Ancillary Room

Injury/Illness reported aboard Train Other

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

TRAIN INCIDENTS

Train ID: #110 Destination: GLENMONT Car Numbers (list all cars in consist): 3133, 3176, 3152 Lead Car: 3133

Name of Responding Supervisor: Supv. [REDACTED] 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.

APPROXIMATELY 11:57 AM ON 8/18/23, I ENTER FOREST GLEN PLATFORM IN A BRAKING MODE, PLATFORM WAS EMPTY EXCEPT FOR ONE (BAKER MALE) IN MIDDLE OF PLATFORM. AS I WAS COMING DOWN THE PLATFORM, THE YOUNG BLACK MALE WAS PRETENDING TO JUMP ON THE ROAD WAY. I HAD ABOUT (2) CARS ON THE PLATFORM. THE YOUNG BLACK MALE STOOD UP STRAIGHT AND AS SOON AS I GOT CLOSE TO HIM, HE JUMPED IN FRONT OF THE TRAIN. I IMMEDIATELY WENT TO A BS EMERGENCY BRAKING MODE, AND THEN HIT THE MUSHROOM. I CALL EMERGENCY TO CENTRAL COMMAND, CENTRAL COMMAND ASKED IF I WAS OK, AND IF I COULD GO CHECK FOR SIGNS OF LIFE. I KEYPED DOWN AND GAVE THEM A RADIO CHECK. I MADE ANNOUNCEMENT TO CUSTOMERS AND THEN WALK DOWN THE PLATFORM SIDE LOOKING BETWEEN CARS AND THE PLATFORM. I WAS YELLING TO THE JUMPER IF HE WAS OK, AND GOT NO RESPONSE. ROCC CALLED AND ADVISED ME TO OFF LOAD THE TRAIN. I OFF LOADED THE TRAIN AND APPLIED HAND BRAKES TO ABOUT (3) CARS. MPD ARRIVED AND HAD ME FOLLOW THEM TO THE STATION MANAGER KIOSK. I WAS INTERVIEWED BY MPD AND TWO DETECTIVES. I THEN WAITED FOR SUPV. [REDACTED] AND SUPERINTENDENT [REDACTED] TO ARRIVE. I WAS ESCORTED TO HQ.

Employee Completing Report

Employee Name: (print) [REDACTED] Employee Signature: (sign) [REDACTED] Employee #: [REDACTED] Date: 8/18/23

Division: SHADY GROVE Run #: 26 Block #: _____ Assigned Days: MON / TUES

To Be Completed By Reviewing Manager

Supervisor Name: (print) [REDACTED] Supervisor Signature: [REDACTED] Employee #: [REDACTED] Date: 8/18/23

Action taken/needed: SMS / Filed

SMS Number: SMS 20230818 # 110766

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

Document 4 - Train Operator’s Incident Report, Page 1 of 1

Incident Date: 08/18/2023 Time: 11:56 hours
 Final Report – Collision Rev. 1
 E23573

Drafted By: SAFE 708 10/08/2023
 Reviewed By: SAFE 71 – 10/17/2023
 Approved By: SAFE 71 – 10/17/2023

**WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
OPERATORS MANIFEST**

PUNCH MARK <input type="checkbox"/>		DIV: SHADY GROVE		SIGNUP: June 2023 Pick for TO		IF WORK WAS PERFORMED ON ASSIGNED DAY OFF PUNCH HERE <input type="checkbox"/>		
NEW EMPLOYEE NUMBER AND NAME IF OTHER THAN BELOW				RUN DATE: FRIDAY		RUN NUMBER: 420026	ACTUAL TIME: 9 38	
PLEASE HANDPRINT BLOCK LETTERS ABC, ETC.								
EMPLOYEE NUMBER		OPERATORS NAME						
IF ACTUAL IS MORE OR LESS THAN SCHEDULED TIME STATE REASON								
Call for trouble: 202-962-1811 (bus). 202-962-1652 (rail)								
Transit Police: 202-962-2121						TOTAL	9 38	
<input type="checkbox"/> CONTRACT RUN		IF ANOTHER MANIFEST HAS BEEN USED ENTER RUN NUMBER OF ADDITIONAL WORK						
TRAIN CONDITION		VEHICLE NO.	BLOCK NO.	TIME OF STARTING			LEAVING POINT	ROUTE NO.
O.K.	DEF.			SCHEDULED TRIPS	RUN TIME	ACT FROM	STOP SCHED TRIPS	A.M. or P.M.
				HRS.	MIN.	LTR.	HRS.	MIN.
		00004	105	4	23			A
				4	33			
				5	01			
		00004	105	5	12	B		
				6	30	P		
				7	48	P		
				9	06	B		
				10	16			
								BREAK
		00004	110	10	46			
				10	54	B		
				12	04			P
		00004	111	12	18	B		
				1	28			
				1	38			
								OFF DUTY

Appendix D – Maximo Work Order

Maximo Work Order.png

Work Order: **18076310** PERSON STRUCK BY TRAIN/ TWC BROKEN

Asset: **R3133** > 3133, RAIL CAR, BREDA, 3000 AC, B CAR

Work Location: **1136** > A99, SHADY GROVE YARD

Status: **CLOSE**

Last PI: **CMNT: A4 INSPECTION; 2/3K SERIES: STATUTORY ****

Last Rel. Failure: @ 05/02/2023

Maint. Alert?

Work Type: **CM**

Failure Class: **CMNT018** > AUTOMATIC TRAIN CONTROL (ATC)

Problem Code: **2613** > OVERHAUL / TIME CHANGE OUT (ATC SYSTEM)

Job Plant:

Incident Info:

[Attachments](#)

Parent WO: >

Failure Details

Remarks should list all components repaired/replaced on this work order.
Component Code below should reflect root cause of failure.

Remarks: **REPLACED TWC ANNETENA AND BRACKETS. NO OTHER DEFECTS PART OBTAINED FROM MRO**

Remark Date: **8/24/23 13:48**

Supervisor: [REDACTED]

Component: **000-300-504** > ATC: TWC TRANSMIT ANTENNA; UNIVERSAL FIT; 2K/3K/6K

Pos. Req.?

Position Code:

Failure Class: **CMNT018** > AUTOMATIC TRAIN CONTROL (ATC)

Failure Codes **1 - 3 of 3**

Type	Failure Code	Description
PROBLEM	2613	OVERHAUL / TIME CHANGE OUT (ATC S
CAUSE	1929	FOREIGN OBJECT DAMAGE
REMEDY	0004	REPLACED

[Select Failure Codes](#)

Incident Date: 08/18/2023 Time: 11:56 hours
 Final Report – Collision Rev. 1
 E23573

Drafted By: SAFE 708 10/08/2023
 Reviewed By: SAFE 71 – 10/17/2023
 Approved By: SAFE 71 – 10/17/2023

Page 22

Appendix F – Why-Tree Analysis

Problem Statement	Major Cause	Causes	Causes	Root Causes
-------------------	-------------	--------	--------	-------------



5 Root Cause Analysis

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

