



WMSC Commissioner Brief: W-0105 – Collision, Customer Fatality – NoMa-Gallaudet Station – May 23, 2021

Prepared for Washington Metrorail Safety Commission meeting on September 21, 2021

Safety event summary:

A Metrorail customer jumped off the NoMa-Gallaudet U Station platform in front of an oncoming Red Line train at 1:46 p.m. on May 23, 2021. The person was struck by the train and killed. Metrorail later reenergized third-rail power in such a way that the person's body was electrified and smoldered.

The Train Operator notified the Rail Operations Control Center (ROCC) of the collision, and the ROCC notified other WMATA departments and called for D.C. Fire and EMS response.

Vehicle data from the lead cars of the train was not available for this investigation due to faulty data acquisition modules that did not record speed signals at the time of the collision, however this information was obtained from the third car of the train using the redundant systems in trailing cars (these modules were repaired after this event). The train was travelling 30 mph as it entered the station, which is within Metrorail rules. The train operator applied the maximum regular braking level (B5) around the time of the collision, but did not initiate emergency braking.

The person's body was trapped under the trucks (wheels and axles) of a railcar on the third-rail side, with severe trauma.

After the person had been declared dead, and without the fire department present, Metrorail re-energized power to move the train. At that point, the person's body became energized. There is no evidence Metrorail considered alternatives for moving the train such as coupling to a diesel-powered Prime Mover work unit.

A Rail Transportation (RTRA) Supervisor requested at 5:37 p.m. that third rail power be restored to move the train. Initially, personnel on the train including a Car Maintenance (CMNT) mechanic could not get the train to move. At 6:10 p.m., the Supervisor stated that the CMNT mechanic and the Train Operator who had been sent to move the consist were prepared to move the train and that it was safe for movement.

At 6:24 p.m., the Incident Management Official (IMO) log from the ROCC demonstrates that D.C. FEMS was called to return to the scene.

Power was de-energized for this second response, with power personnel who had gotten permission at to re-enter the roadway confirming at 6:49 p.m. that the third rail had been de-energized. After safety equipment was placed on the roadway, D.C. FEMS removed the person's body from the roadway at approximately 7:05 p.m.

Incident Command was not properly transferred with radio confirmation from the Metro Transit Police Department (MTPD) incident commander to RTRA following the second fire department response.

Probable Cause:

The probable cause of this event was a person intentionally placing themselves in the path of a train.

Corrective Actions:

There are no corrective actions associated directly with this report.



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In connection with the previous investigation into a customer evacuation near Fort Totten and Georgia Ave-Petworth stations in December 2021 (W-0084):

MTPD committed to developing an incident response checklist to identify responsibilities, equipment and processes upon arrival.

MTPD's roadway worker protection (RWP) training materials are to be reviewed by operational training departments

Metrorail is taking initial steps to define the role of the Incident Management Official (IMO). Which Metrorail implemented in spring 2021.

MTPD in-service training will include ROCC emergency SOPs.

MTPD will include RWP practices in its post-event hot washes.

ROCC and MTPD will conduct additional after-action reviews.

MTPD is to comply with procedures requiring an officer in the ROCC during emergencies.

MTPD incident commanders are to communicate the full section of track that is part of the incident.

WMSC staff observations:

The challenges in moving the train and in removing the person's body from the roadway do not appear to have contributed to the person's death. However, restoring power in such a way that it leads to smoke and fire, including a person's body, is concerning, particularly when done without consultation and presence of firefighters.

Inconsistent communication with external first responders, aspects of MTPD training and procedural compliance, the lack of definition of the Incident Management Official (IMO), and other items are being addressed through the WMSC's Emergency Management and Fire-Life Safety Audit (draft report expected in October).

Metrorail may consider additional options such as the use of diesel-powered units coupled to railcars or additional assistance from fire and EMS departments to avoid such a situation in the future.

The investigation into this event was partly restricted due to limited recording of communications tied to operations and emergency response. Corrective Action Plan C0051, in response to a finding in the 2020 ROCC Audit, addresses the requirement to fully record and adequately retain all communications that are tied to operations and emergency response. Metrorail's estimated completion date for this CAP is July 2022.

CAPs C0052 and C0053 related to fire liaison role and communication and to fire, smoke, calls for fire department response and related policies are scheduled to be completed in early 2023.

Staff recommendation: Adopt final report.



Washington Metro Area Transit Authority
Department of Safety and Environmental
Management (SAFE)
FINAL REPORT OF INVESTIGATION A&I E21209

Date of Event:	05/23/2021
Type of Event:	Collision
Incident Time:	13:46 hours.
Location:	NoMa-Gallaudet Station, Track 1
Time and How received by SAFE:	13:46 hours, IMO; 13:51 hours, SAFE On-Call Phone
WMSC Notification Time:	15:29 hours.
Responding Safety Officers:	WMATA: Yes WMSC: No Other: No
Rail Vehicle:	Train ID 113 [L3117-3116.3172-3173.3213-3212.3242-3243T],
Injuries:	Fatality
Damage:	Broken TWC antenna and cracked/broken fiberglass shroud on the collector shoe number three of the lead car 3117.
Emergency Responders:	DCFEMS, MTPD, SAFE, RTRA, ERT and CMNT
SMS I/A Number	20210523#93456MX

NoMa-Gallaudet Station
Collision
May 23, 2021

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Abbreviations and Acronyms

AIMS	Advanced Information Management System
ARS	Audio Recording System
CCTV	Closed-Circuit Television
CID	Criminal Investigation Division
CM	Chain Marker
CMOR	Office of Chief Mechanical Officer
COMM	Office of Systems Maintenance Communication Section
CSS	Crime Scene Search
DCFEMS	District of Columbia Fire Emergency Medical Services
DCOCME	District of Columbia Office of Chief Medical Examiner
DST	Daily Safety Tests
EMS	Emergency Medical Services
ETS	Emergency Trip Systems
ERT	Emergency Response Team
IC	Incident Commander
IIT	Incident Investigation Team
IMO	Incident Management Official
MC	Master Controller
MOC	Maintenance Operations Center
MSRPH	Metrorail Safety Rules and Procedures Handbook
MTPD	Metro Transit Police Department
NOAA	National Oceanic and Atmospheric Administration
PA	Public Address
ROCC	Rail Operations Control Center
ROIC	Rail Operations Information Center
RTC	Rail Traffic Controller
RTRA	Office of Rail Transportation
SAFE	Department of Safety and Environmental Management
SMS I/A	Safety Measurement System Incidents/Accidents
SOP	Standard Operating Procedure
TOC	Transportation Operations Center
VMS	Vehicle Monitoring System
WMATA	Washington Metropolitan Area Transit Authority
WMSC	Washington Metrorail Safety Commission

Executive Summary

On Sunday, May 23, 2021, at approximately 13:46 hours, a Train Operator operating Red Line Train ID 113 [L3117-3116.3172-3173.3213-3212.3242-3243T], in Glenmont Station's direction, notified the Rail Operations Control Center (ROCC) Radio Rail Traffic Controller (RTC), stating that their train had struck a person within NoMa-Gallaudet Station platform limits, Track 1. The ROCC initiated emergency notifications to the respective internal and external departments. The ROCC de-energized third rail power at NoMa-Gallaudet Station, Track 1, and began single-tracking between Union Station and Rhode Island Avenue Station, Track 2.

The District of Columbia Fire Emergency Medical Services (DCFEMS), Metro Transit Police Department (MTPD), Department of Safety and Environmental Management (SAFE), and the Office of Rail Transportation (RTRA) Supervisors were dispatched to the incident location. Based on Audio Recording System (ARS) playback, the responding RTRA Supervisor assisted with offloading the affected consist by performing a walk-through interior inspection of the out-of-service train and a ground walkaround. Unfortunately, after the RTRA Supervisor conducted a ground walkaround on Train ID 113, the RTRA Supervisor located the person underneath car 3116 and reported no signs of life. The person sustained fatal injuries and was pronounced deceased at the scene. Based on Closed-Circuit Television (CCTV) playback, the ROCC reported the person who ran on the platform from Track 2 to Track 1, jumped off the platform, and intentionally placed themselves within the train's dynamic envelope.

Based on the Advanced Information Management System (AIMS) playback, at approximately 13:47 hours, the Buttons RTC de-energized third rail power on Track 1. Based on ARS playback, [radio and ambient] at approximately 13:47 hours, the ROCC Radio RTC complied with Standard Operating Procedure (SOP) 1A per the Metrorail Safety Rules and Procedures Handbook (MSRPH). The ROCC Radio RTC assigned the RTRA Supervisor as the On-Scene Commander (OSC). RTRA removed the Train Operator from service for post-incident toxicology testing per RTRA's SOP 102-1 Removing an Employee from Service.

Based on the Office of Chief Mechanical Officer (CMOR) / Incident Investigation Team (IIT) post-incident analysis, the Vehicle Monitoring System (VMS) data on the married parried 3117-3116 was not obtained. This resulted in CMOR IIT personnel determining the train speed and distance covered when entering NoMa-Gallaudet Station, Track 1 using the VMS from the third car in the consist. CMOR IIT personnel reported this was due to the Data Acquisition Modules (DAM); VMS equipment in the married pair (DAM A and DAM B) not communicating in real-time and showed no speed during the incident time. The data showed Train ID 113 entered the NoMa-Gallaudet Station, Track 1, with a train speed of 30 MPH with the Master Controller (MC) in the B2 position. The train came to a complete stop after traveling 197 feet into the platform with the MC in the B5 position. The Train Operator did not initiate the consist emergency braking. Based on the CMOR IIT post-incident analysis, there was no data to support any anomalies with the consist that may have contributed to this incident.

The MTPD report revealed that at approximately 13:49 hours, MTPD Communications received a call for service from the Washington Metropolitan Area Transit Authority (WMATA), Incident Management Official (IMO), stating that a person had been struck by a train at NoMa-Gallaudet Station, Track 1. MTPD Criminal Investigation Division (CID), MTPD Crime Scene Search (CSS), and DCFEMS responded to the scene. The person was located underneath car 3116, which was the second car of the consist, showed no signs of life, and was pronounced deceased at

approximately 14:06 hours by DCFEMS. MTPD reported the person was trapped under the trucks of the rail car and was left in place until the District of Columbia Office of Chief Medical Examiner's Office (DCOCME) arrived on the scene. At approximately 15:03 hours, the DCOCME arrived on the scene. The person suffered severe head and body trauma and burns throughout their body. MTPD Detective interviewed the Train Operator and learned that Train ID 113 Train Operator entered NoMa-Gallaudet Station and indicated they saw the person sprinting and then jumped in front of the train. The Train Operator stated that they activated the horn and did not activate the emergency mushroom button, but instead pulled back on the brake, as it was too late when the person jumped, contacting the train. The Train Operator then notified ROCC Radio RTC of the incident. Due to the train being a 3000 series, video footage was not available. The MTPD's report also stated that a review of the NoMa-Gallaudet Station video revealed the person entered through the M Street fare gates at approximately 13:41 hours. The person walked to the platform, where they placed their black duffel bag on the ground. The camera footage showed the person run across the platform and jump in front of Train ID 113 at approximately 13:46 hours. MTPD reported the person appeared to land on the third rail and the running rail before getting run over by the train. See Appendix E.

Based on ARS playback, at approximately 18:41 hours, the Power Unit notified the ROCC Radio RTC and requested to enter the roadway to hot stick at CM B1-093+00 to CM B1-109+00. At approximately 18:45 hours, the ROCC Radio RTC contacted the Power Unit and granted them FT protection to enter the roadway to verify that third rail power was de-energized. At approximately 18:49 hours, the Power Unit notified the ROCC Radio RTC and reported that third rail power was confirmed de-energized at CM B1-104+00 and CM B1-109+00 and relinquished their FT protection. At approximately 18:58 hours, Emergency Response Team (ERT) contacted the ROCC Radio RTC and requested to enter the roadway to set up safety equipment for the fire department at NoMa-Gallaudet Station, Track 1. The ROCC Radio RTC granted ERT permission to enter the roadway to properly place safety equipment for the fire department. At approximately 19:06 hours, RTRA Supervisor Two contacted the ROCC Radio RTC and reported that the person was removed from the roadway onto the platform at NoMa-Gallaudet Station, Track 1. At approximately 19:20 hours, ERT notified the ROCC Radio RTC and reported that all personnel and equipment are clear of the roadway. At approximately 20:03 hours, Train ID 113 was re-blocked as a non-revenue train in the direction of Shady Grove Yard. At approximately 20:35 hours, ERT personnel notified the ROCC and reported that clean-up efforts were complete at NoMa-Gallaudet Station, Track 1, and deemed the track's infrastructure elements and area safe for rail vehicle movement. The ROCC resumed regular rail service at approximately 20:42 hours. **Note:** ROCC incident report indicated that at approximately 16:00 hours that DCFEMS transferred command to MTPD and departed the scene. At approximately 18:32 hours, ROCC Fire Liaison reported smoke emitting from the roadway at NoMa-Gallaudet Station, Track 1. The ROCC report revealed that DCFEMS was dispatched back to the scene. At approximately 19:27 hours, MTPD departed the scene and transferred command to RTRA. Based on the factual data captured and reviewed, the ROCC incident report could not be substantiated. See Appendix G.

After reviewing the ARS, there did not appear to be any communication deficiencies over the radio. The On-Call Safety Officer notified the Washington Metrorail Safety Commission (WMSC) On-Call representative via phone at 13:55 hours. Additionally, the On-Call Safety Officer notified the Transportation Operations Center (TOC) on May 23, 2021, at 15:29 hours, via email.

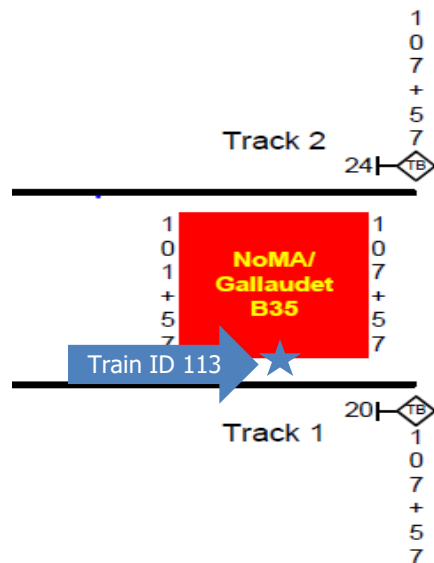
The probable cause of the person struck by a train event at the NoMa-Gallaudet Station on May 23, 2021, was the person jumped off the platform for unknown reasons and intentionally placed themselves in the dynamic envelope of the train. Based on a post-incident station inspection, SAFE did not identify any slip or trip hazards that may have contributed to this event.

After an analysis of data collected from systems of record and interviews with staff and MTPD's incident report review, SAFE concludes there were no safety deficiencies related to any WMATA station facility, vehicle, or human factor components identified as contributors to this event.

Incident Site

NoMa-Gallaudet Station, Track 1

Field Sketch/Schematics



Purpose and Scope

The purpose of this incident 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.

Investigation Methods

The preliminary investigative methodologies included the following:

- Physical Site Assessment
- Formal Interview – SAFE conducted one interview as part of this investigation. The interview included:
 - Train Operator
- Informal Interviews – Collected through conversations with individuals during the investigation to provide background and supporting information.
- Documentation Review – A collection of relevant work history information and process documentation in Metro systems of record. These records include:
 - Employee Training Procedures & Records
 - Certifications

- The 30-Day Work History
- Metrorail Safety Rules and Procedures Handbook (MSRPH)
- National Oceanic and Atmospheric Administration (NOAA)
- Rail Operations Control Center (ROCC) Procedures Manual
- Office of Systems Maintenance Communication Section (COMM)
- Office of Chief Mechanical Officer (CMOR) / Incident Investigation Team (IIT) post-incident analysis data
- Office of Car Maintenance (CMNT) post-incident inspection data
- Metro Transit Police Department (MTPD) executive briefing report
- Maximo
- System Data Recording Review – A collection of information contained in Metro Data Recording Systems. This data includes:
 - Audio Recording System (ARS) playback [Radio and Phone Communications]
 - Advanced Information Management System (AIMS) playback
 - Closed Circuit Television (CCTV)

Investigation

On Sunday, May 23, 2021, ARS playback revealed at 13:46 hours, the Train Operator of Train ID 113, L3117-3116.3172-3173.3213-3212.3242-3243T, Red Line train, notified the ROCC Radio RTC stating that their consist struck a person within the platform limits at NoMa-Gallaudet Station, Track 1. The MTPD's report revealed that a review of the NoMa-Gallaudet Station video revealed the person entered through the M Street fare gates at approximately 13:41 hours. The person walked to the platform, where they placed their black duffel bag on the ground. The camera footage showed the person running across the platform and jumping in front of Train ID 113 at approximately 13:46 hours. MTPD reported that the person appeared to land on the third rail and the running rail before being struck by the train. See Appendix E.

Chronological ARS Timeline

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

Time	Description
13:46:14 hrs.	<p><u>Train ID 113 Train Operator:</u> Repeated Emergency, Emergency, Emergency, three times consecutively and reported striking a customer within the platform limits at NoMa-Gallaudet Station, Track 1.</p> <p><u>ROCC Radio RTC:</u> Acknowledged and asked how many cars are on the platform?</p> <p><u>Train ID 113 Train Operator:</u> Responded, I have four cars on the platform.</p> <p><u>ROCC Radio RTC:</u> Acknowledged and asked, are you ok?</p> <p><u>Train ID 113 Train Operator:</u> Responded, yes.</p> <p><u>ROCC Radio RTC:</u> Acknowledged and instructed the Train Operator to make a good announcement to your customers and offload the train by keying customers onto the platform, then verify the train is clear of customers and perform a ground walkaround. [Ops 1]</p>
13:47:08 hrs.	The ROCC de-energized the third rail power at NoMa-Gallaudet Station, Track 1. (AIMS)

Time	Description
13:47:39 hrs.	<u>RTRA Supervisor:</u> Notified the ROCC Radio RTC and reported they are on scene, and there are two and a half cars on the platform. <u>ROCC Radio RTC:</u> Acknowledged and appointed the RTRA Supervisor as the OSC, SOP 1A is in effect. [Ops 1]
13:48:14 hrs.	<u>RTRA Supervisor Two:</u> Notified the ROCC Radio RTC and reported they are en route from Metro Center Station. <u>ROCC Radio RTC:</u> Acknowledged and indicated that upon arrival, you would be appointed the Incident Command Post (ICP) Liaison to manage emergency response. [Ops 1]
13:48:19 hrs.	<u>ROCC Radio RTC:</u> Notified the ROCC Assistant Superintendent and reported they received a report of a person struck by a train within platform limits at NoMa-Gallaudet, Track 1. [Phone]
13:48:53 hrs.	<u>ROCC RTC:</u> Notified the Fire Liaison and reported they received a report of a person struck by a train within platform limits at NoMa-Gallaudet, Track 1. <u>Fire Liaison:</u> Acknowledged. [Phone] Note: IMO Log chronology indicates ROIC notified DCFEMS at approximately 13:46 hours [IMO Log Timeline]
13:51:00 hrs.	<u>ROCC Assistant Superintendent:</u> Notified SAFE and reported they received a report of a person struck by a train within platform limits at NoMa-Gallaudet, Track 1. [Phone]
13:53:44 hrs.	<u>RTRA Supervisor:</u> Notified the ROCC Radio RTC and reported the train is verified clear of customers and requested Foul Time (FT) to enter the roadway to perform a ground walkaround inspection. <u>ROCC Radio RTC:</u> Acknowledged; and stated B03-02 signal is red, prohibit exits, block calls, cancellation of automatic signals, blue block, and human form status are in place. FT was granted for the RTRA Supervisor to enter the roadway to perform a ground walkaround. [Ops 1]
13:56:12 hrs.	<u>RTRA Supervisor:</u> Notified the ROCC Radio RTC and reported the customer was beneath the second car in the consist and said there are no signs of life. [Ops 1]
13:57:32 hrs.	<u>Executive Management:</u> Contacted the ROCC Assistant Superintendent and asked for an update at NoMa-Gallaudet, Track 1. <u>ROCC Assistant Superintendent:</u> Responded, the camera footage showed the person running across the platform and jumped in front of Train ID 113, and the Train Operator reported no signs of life. [Phone]
13:58:32 hrs.	<u>ROCC Radio RTC:</u> Alerted all Train Operators approaching the area and indicated an emergency at NoMa-Gallaudet Station, Track 1. We are single-tracking between Union Station and Rhode Island Avenue Station. Please make prescribed public address announcements to passengers on trains and in stations. [Ops 1]
13:58:53 hrs.	<u>NoMa-Gallaudet Station Manager:</u> Notified the ROCC Radio RTC and reported they are on the platform assisting customers and stated MTPD and DCFEMS arrived on the scene. [Ops 5]
14:00:53 hrs.	<u>RTRA Supervisor:</u> Notified the ROCC Radio RTC and reported DCFEMS arrived on the scene and established the ICP at the second street entrance at NoMa-Gallaudet Station. [Ops 1]
14:05:31 hrs.	<u>ERT:</u> Notified the ROCC Radio RTC and reported they arrived on the scene.

Time	Description
	<u>ROCC Radio RTC</u> : Acknowledged; and appointed RTRA Supervisor Three as the RTRA Forward Liaison. <u>RTRA Supervisor Three</u> : Acknowledged. [Ops 1]
14:10:09 hrs.	<u>ROCC Radio RTC</u> : Granted, ERT FT protection to hot-stick and confirm third rail power was de-energized at NoMa-Gallaudet Station, Track 1. [Ops 1]
14:12:19 hrs.	<u>ERT</u> : Notified the ROCC Radio RTC and reported that third rail power was confirmed de-energized at CM B1-104+00. [Ops 1]
14:14:34 hrs.	<u>RTRA Supervisor Two</u> : Notified the ROCC Radio RTC and reported the OSC requested the trains to bypass NoMa-Gallaudet Station while they conduct their investigation. <u>ROCC Radio RTC</u> : Acknowledged; then alerted all Train Operators approaching the area and indicated that NoMa-Gallaudet Station was closed due to an MTPD investigation. All trains will be bypassing NoMa-Gallaudet Station until further notice. [Ops 1]
14:27:46 hrs.	<u>SAFE Facility Manager</u> : Notified the ROCC Assistant Superintendent and asked if the person struck by a train within platform limits at NoMa-Gallaudet, Track 1, an intentional incident. <u>ROCC Assistant Superintendent</u> : Responded, yes. Based on video footage, the person ran from the opposite side of the platform and jumped independently. [Phone]
14:44:00 hrs.	<u>DCFEMS</u> : Transfers scene command to MTPD and some units clear the station [IMO Log Timeline and CCTV]
15:55:00 hrs.	<u>DCFEMS</u> : Remaining personnel are clearing the scene [IMO Log Timeline]
16:42:00 hrs.	<u>CMNT Mechanic</u> : entered the roadway at NoMa-Gallaudet Station, Track 1. [IMO Log Timeline]
16:58:00 hrs.	<u>CMNT Mechanic</u> : cleared the roadway at NoMa-Gallaudet Station, Track 1. [IMO Log Timeline]
17:37:42 hrs.	<u>RTRA Supervisor Two</u> : Notified the ROCC Radio RTC and reported personnel and equipment were clear of the roadway and requested third rail power be restored at NoMa-Gallaudet Station, Track 1 to have the train clear the person on the roadway. [Ops 1]
17:41:22 hrs.	<u>ROCC Radio RTC</u> : Notified RTRA Supervisor Two and reported third power breakers were commanded closed, and third-rail power was restored at NoMa-Gallaudet Station, Track 1. [Ops 1]
17:50:37 hrs.	<u>RTRA Supervisor Two</u> : Notified the ROCC Radio RTC and reported that CMNT was troubleshooting the train due to not getting the train to move. [Ops 1]
18:10:25 hrs.	<u>RTRA Supervisor Two</u> : Notified the ROCC Radio RTC and reported that CMNT and the Train ID 713 Train Operator completed troubleshooting the train and deemed the train safe for movement. [Ops 1]
18:24:00 hrs.	<u>IMO Log</u> : DCFEMS requested to return to the scene to assist with retrieving the decedent's body [IMO Log Timeline]

Time	Description
18:41:28 hrs.	<u>Power Unit</u> : Notified the ROCC Radio RTC and requested to enter the roadway to hot stick at CM B1-093+00 to CM B1-109+00. <u>ROCC Radio RTC</u> : Acknowledged. [Ops 1]
18:45:15 hrs.	<u>ROCC Radio RTC</u> : Notified Power Unit and reported B03-02 signal is red, prohibit exits, block calls, cancellation of automatic signals, blue block, and human form status are in place. FT was granted to enter the roadway to verify that third rail power is de-energized and provide the ROCC a CM. <u>Power Unit</u> : Acknowledged. [Ops 1]
18:49:03 hrs.	<u>Power Unit</u> : Notified the ROCC Radio RTC and reported that third rail power was confirmed de-energized at CM B1-104+00 and CM B1-109+00 and will be relinquishing their FT protection. <u>ROCC Radio RTC</u> : Acknowledged. [Ops 1]
18:58:31 hrs.	<u>Power Unit</u> : Notified the ROCC Radio RTC and requested to enter the roadway to set up equipment for the fire department at NoMa-Gallaudet Station, Track 1. <u>ROCC Radio RTC</u> : Responded, the B03-02 signal is red; you have been granted permission to enter the roadway to place safety equipment for the fire department properly. [Ops 1]
19:06:52 hrs.	<u>RTRA Supervisor Two</u> : Notified the ROCC Radio RTC and reported the person was removed from the roadway onto the platform at NoMa-Gallaudet Station, Track 1. [Ops 1]
19:20:40 hrs.	<u>ERT</u> : Notified the ROCC Radio RTC and reported all personnel and equipment are clear of the roadway. [Ops 1]
19:25:01 hrs.	<u>ROCC Radio RTC</u> : Notified CMNT Mechanic and instructed them to board the next train at Union Station and ask the Train Operator to be key them off at NoMa-Gallaudet. <u>CMNT Mechanic</u> : Acknowledged. [Ops 1]
19:35:30 hrs.	<u>RTRA Supervisor Two</u> : Notified the ROCC Radio RTC and reported that all personnel and equipment were clear of the roadway at NoMa-Gallaudet, Track 1, and requested third rail power to be restored to send the incident train to Shady Grove Yard and then de-energized the power for cleaning efforts on the roadway. <u>ROCC Radio RTC</u> : Acknowledged. [Ops 1]
19:36:19 hrs.	<u>CMNT Mechanic</u> : Notified the ROCC Radio RTC and reported during their inspection of the incident train; they identified that they have to reset the circuit breaker for the battery on one of the cars and need the train to move a little bit off the platform to do it. <u>ROCC Radio RTC</u> : Responded, how long would that take to reset the battery? <u>CMNT Mechanic</u> : Responded, less than 30 seconds. [Ops 1]
19:45:45 hrs.	<u>ROCC Radio RTC</u> : Announced on Ops 1 that third rail breakers were commanded closed, and third-rail power was restored at NoMa-Gallaudet Track 1. [Ops 1]

Time	Description
20:00:57 hrs.	<u>ROCC Radio RTC</u> : Notified Train ID 713 Train Operator and indicated that they have a permissive block at B03-04 signal; their speed is not to exceed 5 mph and be governed by CMNT Mechanic. [Ops 1]
20:03:17 hrs.	<u>Train ID 713 Train Operator</u> : Notified the ROCC Radio RTC and reported that they got brakes off and are currently on the move, and the CMNT Mechanic still needs to reset the battery circuit breakers on the last two cars. [Ops 1]
20:03:18 hrs.	<u>RTRA Supervisor Two</u> : Notified the ROCC Radio RTC and reported Train ID 113 continued in non-revenue service to Shady Grove Yard. [Ops 1]
20:06:14 hrs.	<u>ERT</u> : Notified the ROCC Radio RTC and requested to enter the roadway under FT protection at NoMa-Gallaudet Track 1 for cleaning efforts. [Ops1]
20:11:53 hrs.	<u>CMNT Mechanic</u> : Notified the ROCC Radio RTC and reported that they are still on the move. <u>ROCC Radio RTC</u> : Acknowledged. [Ops 1]
20:14:45 hrs.	<u>RTRA Supervisor Two</u> : Notified the ROCC Radio RTC and reported we could service NoMa-Gallaudet Station, Track 2 at this time. [Ops1]
20:19:15 hrs.	<u>ROCC Radio RTC</u> : Notified ERT and granted them FT protection to enter the roadway at NoMa-Gallaudet Station, Track 1 to supervise cleaning efforts [Ops 1]
20:35:15 hrs.	<u>ERT</u> : Notified the ROCC Radio RTC and reported all personnel and equipment were clear of the roadway, relinquished FT protection at NoMa-Gallaudet Station, Track 1, and advised that third rail power could be restored at NoMa-Gallaudet Station, Track 1. ERT personnel deemed the area safe for rail vehicle movement. [Ops 1]
20:38:08 hrs.	<u>ROCC Radio RTC</u> : Announced on Ops 1 that third rail breakers were commanded closed, and third-rail power was about to be restored at NoMa-Gallaudet Track 1. [Ops 1]
20:42:53 hrs.	Announced on Ops 1 that normal service had resumed at NoMa-Gallaudet Station, Track 1, and Track 2. [Ops 1]

****Note:** Times above may vary from other system's timelines based on clock settings.

Advanced Information Management System (AIMS)



Diagram 1 - Based on the AIMS playback, Train ID 113 entered NoMa-Gallaudet Station, Track 1, at 13:46:12 hours, which appears to be when they reported making contact with a person on the roadway, per ARS.

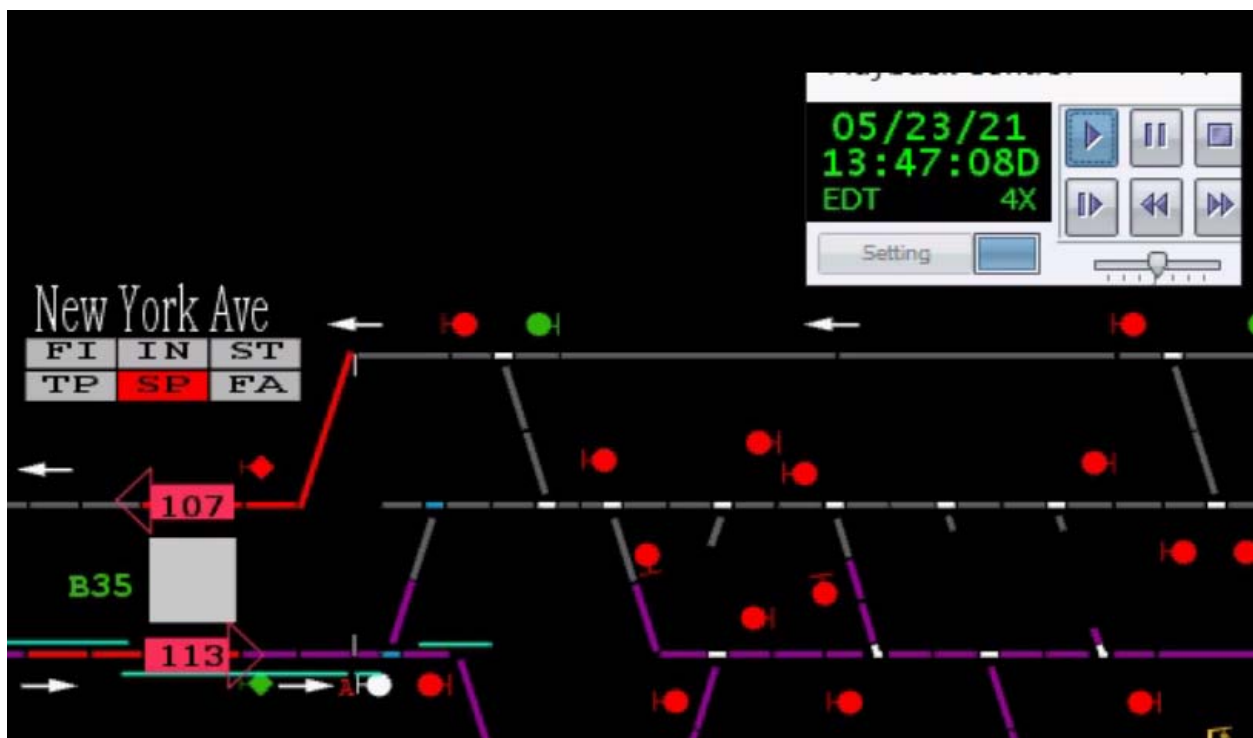


Diagram 2 - Based on the AIMS, the teal color on the AIMS power display shows ROCC subsequently de-energized third rail power at NoMa-Gallaudet Station, Track 1 at 13:47:08 hours.

Closed Circuit Television (CCTV)



Figure 1 - Based on the CCTV, at approximately 13:42 hours, the person appeared to be traveling alone.



Figure 2 - Based on the CCTV, at approximately 13:46 hours, as the train entered the station, the person jumped into the dynamic envelope, intentionally placing himself in the path of the approaching train.



Figure 3 - Based on the CCTV, at approximately 13:46 hours, as the train entered the station, the person jumped into the dynamic envelope, intentionally placing himself in the path of the approaching train.

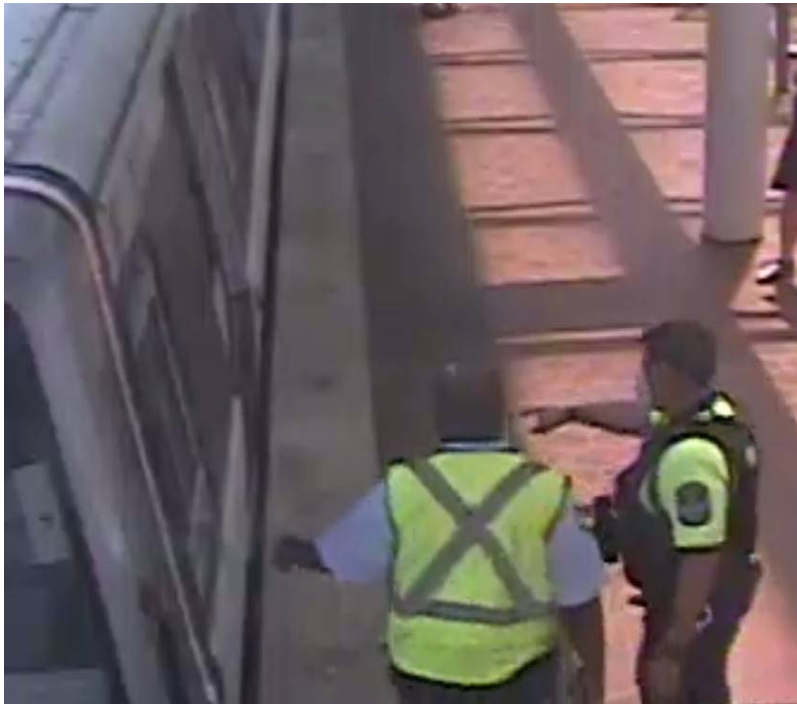


Figure 4 - Based on the CCTV, at approximately 13:57 hours, MTPD arrived on scene.



Figure 5 - Based on the CCTV, at approximately 13:58 hours, the fire department arrived on scene.



Figure 6 - Based on the CCTV, at approximately 14:33 hours, several DCFEMS units departed the scene at NoMa-Gallaudet Station, Track 1.



Figure 7 - Based on the CCTV, at approximately 18:49 hours, DCFEMS units returned to the scene.



Figure 8 - Based on the CCTV, at approximately 19:05 hours, the fire department extricated the person from the roadway.

Metro Transit Police Department (MTPD)

The MTPD report revealed at 13:49 hours, MTPD Communications received a call for service from the WMATA IMO, stating that a person had been struck by a train at NoMa-Gallaudet Station, Track 1. MTPD, MTPD CID, MTPD CSS, and DCFEMS responded to the scene. The person was located underneath car 3116, which was the second car of the consist and showed no signs of life and was pronounced at 14:06 hours by DCFEMS. MTPD reported the person was trapped under the trucks of the rail car and was left in place until the DCOCME arrived on the scene. At 15:03 hours, the DCOCME arrived on the scene. The person suffered severe head and body trauma and burns throughout their body. MTPD Detective interviewed the Train Operator and learned that Train ID 113 Train Operator entered NoMa-Gallaudet Station and indicated they saw the person sprinting and then jumped in front of the train. The Train Operator stated that they activated the horn and did not activate the emergency mushroom button, but instead pulled back on the brake, as it was too late when the person jumped, making contact with the train. The Train Operator then notified ROCC Radio RTC of the incident.

MTPD Detective interviewed a witness who works for the Office of Plant Maintenance (PLNT) and was cleaning the platform at the time of the incident. The PLNT employee stated that they saw the person standing on the platform and asked them how they were doing. The person did not respond and ignored the PLNT employee. The PLNT employee indicated that they walked away from the person with their back towards them, and the next thing they heard was the train horn. The PLNT employee turned around and no longer saw the person and noticed that the train had stopped halfway down the platform.

MTPD CSS Officers processed the scene and incident train. The person's private property was found on the roadway and on the platform, which MTPD CSS recovered for processing. The train was moved to Shady Grove Yard for further processing, escorted by MTPD CSS. However, due to the train being a 3000 series, there was not video footage available. The MTPD's report also stated that a review of the NoMa-Gallaudet Station video revealed the person entered through the M Street fare gates at 13:41 hours. The person walked to the platform, where they placed their black duffel bag on the ground. The camera footage showed the person run across the platform and jump in front of Train ID 113 at 13:46 hours. MTPD reported the person appeared to land on the third rail and the running rail before getting run over by the train. See Appendix E.

Office of Car Maintenance (CMNT)

Upon arrival at the scene, at approximately 16:42 hours, the CMNT Mechanic entered the roadway at NoMa-Gallaudet Station, Track 1, to perform an on-site exterior and interior inspection of the affected consist. **Note:** Per ARS playback, at approximately 14:12 hours, ERT confirmed third rail power was de-energized. At approximately 18:10 hours, the CMNT Mechanic confirmed the consist was safe for rail vehicle movement while assisting the DCOCME with retrieving the decedent's body.. At Shady Grove Yard, CMNT repaired the damage sustained to the Train to Wayside Communication (TWC) antenna and collector shoe number three fiberglass shroud cracked/broken on lead car 3117. Additionally, CMNT performed an under-car cleaning and a post-incident inspection on the brake system, propulsion system, and MC operational checks. CMNT found these subsystems worked as designed. CMNT did not identify any abnormal conditions that contributed to the collision event. See Appendix B and C.

Office of Chief Mechanical Officer (CMOR) / Incident Investigation Team (IIT)

Event Recorder (ER) Data Graph/Sequence of Events

Based on IIT CMOR analysis of the downloaded VMS and ER, details from the data analysis are as follows:

TIME	Description
13:42:40 hrs.	Train ID 113 departed Union Station in the direction to NoMa-Gallaudet Station, Track 1, traveling at speeds that did not exceed 44 MPH.
13:48:08 hrs.	Train ID 113 Train Operator placed the Master Controller (MC) in B1 position at 100 feet from NoMa-Gallaudet Station at a speed of 34MPH.
13:48:09 hrs.	Train ID 113 Train Operator placed the MC in B1 position, 31 feet before NoMa-Gallaudet Station at a speed of 32MPH.
13:48:10 hrs.	Train ID 113 entered NoMa-Gallaudet Station, Track 1, with the MC in B1 position in the transition to B5 position at 31MPH. At 11 feet into the NoMa-Gallaudet Station platform, the MC was placed to B5 position at 31MPH.
13:48:19 hrs.	Train ID 113 came to a complete stop at the NoMa-Gallaudet platform with the MC in the B5 position. The Train Operator did not activate the emergency braking function.
13:49:55 hrs.	Train ID 113 was keyed down.

Note: The VMS data on the lead married pair 3117-3116 was not available. This resulted in CMOR IIT personnel not determining the train speed and distance covered when entering the NoMa-Gallaudet Station, Track 1 from the lead car. CMOR IIT personnel reported this was due to the DAM; VMS equipment in the married pair (DAM A and DAM B) was not communicating in real-time and showed no speed during the incident time. Speed analysis was performed using the trailing cars in the consist, as noted in Diagram 3 below from car 3172. Based on the CMOR IIT post-incident analysis, there was no data to support any anomalies with the consist that may have contributed to this incident.

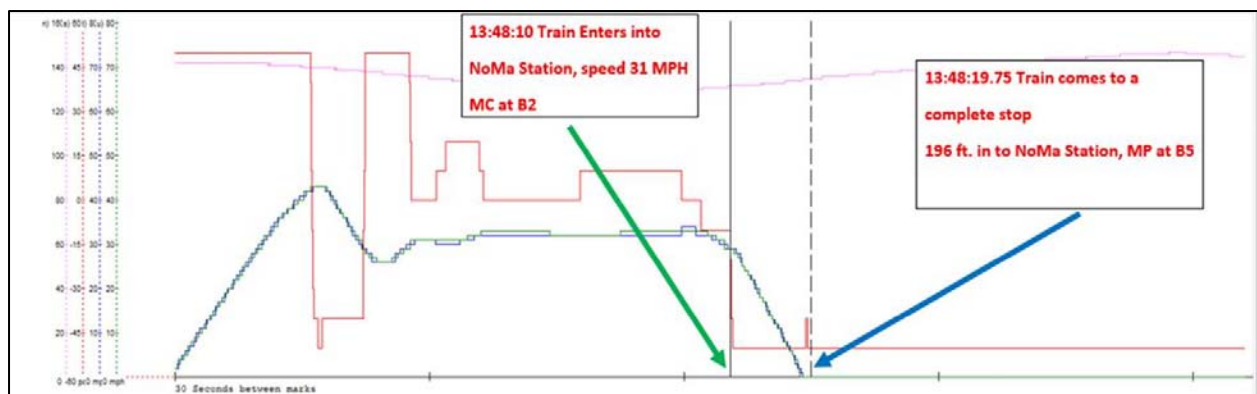


Diagram 3 - ER Graphical Analysis from Car 3172

Office of System Maintenance Communication Section (COMM)

COMM personnel performed a comprehensive radio operational test between Union Station and Brookland Station. The test was successful, and COMM found no issues to report. See Appendix D.

After reviewing the Audio Recording System playback, there did not appear to be any communication deficiencies over the radio.

SAFE Station Site Assessment

SAFE performed an inspection of the station after the incident. There were no adverse safety concerns that contributed to the incident. All the station's Emergency Trip Systems (ETS) and Public Address (PA) systems were reported operational.



Figure 8 – NoMa-Gallaudet Station, Track 1 incident scene.

Interview Findings

Based on the investigation into the reported person being struck by train event, SAFE conducted one investigative interview and identified the following key findings associated with this event as follows:

During the virtual interview, the Train Operator reported they were feeling alert at the time of the incident. The employee reported experiencing no symptoms of fatigue in the time leading up to the incident.

While in approach to NoMa-Gallaudet, Track 1, the Train Operator reported that they were coming up a hill and was operating the train at 32 MPH. As the train became level with a clear view of NoMa-Gallaudet Station, Track 1 platform, the Train Operator reported that they could see a person on the Track 2 side of the platform at NoMa-Gallaudet Station. Suddenly, the person ran from Track 2 to Track 1 and jumped and hit the top window of the train. The Train Operator reported that they immediately pressed the horn, placed the MC in the B4, then B5 position, and then placed it in the emergency position. The Train Operator also reported that the person on the roadway was within 50 feet of their line of sight. The Train Operator reported no discrepancies with the train console or any distractions in the cab area.

Weather

At the time of the incident, NOAA recorded the temperature at 91°F with scattered clouds and 34% humidity. (Weather source: National Oceanic Atmospheric Administration – Location: Washington DC.)

Human Factors

Fatigue

Based on SAFE's review of the Train Operator's 30-day work history, the employee's 30-day work schedule leading up to the incident was compliant with WMATA'S Policy/Instruction 10.6/1 Hours of Service Limitations for Prevention of Fatigue. It did not present a risk of impairment due to fatigue.

Evidence of Fatigue

The incident data was evaluated for signs, and symptoms of fatigue were examined that may have been present at the time of the incident. No signs or symptoms of fatigue were detected from the available data. 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. The employee was awake for 7.76 at the time of the incident. The employee reported eight hours of

sleep in the 24 hours preceding the incident. The off-duty period was 11.25 hours which provides an opportunity for 7-9 hours of sleep. The employee reported no issues with sleep.

Since fatigue evidence and risk factors were not present, the biomathematical fatigue modeling application (SAFTE-FAST Web SFC) was not applied.

Post-Incident Toxicology Testing

After reviewing the Train Operator's post-incident testing results, it was determined that the Train Operator was not in violation of the Drug and Alcohol Policy and Testing Program 7.7.3/6.

Findings

- The ROIC Incident Report and IMO Log Timeline indicated that DCFEMS was notified at approximately 13:47 hours. See Appendix F.
- ROCC incident report and IMO Log indicated that at approximately 16:00 hours DCFEMS transferred command to MTPD and some units departed the scene. DCFEMS was dispatched back to the scene at approximately 18:24 hours to assist with retrieval efforts. At approximately 19:27 hours, MTPD departed the scene and transferred command to RTRA. See Appendix G.
- The 3000 series are not equipped with Network Video Recording devices.
- MTPD's report revealed a review of the NoMa-Gallaudet Station video showed the person entering through the M Street fare gates at 13:41 hours. The person walked to the platform, where they placed their black duffel bag on the ground. The camera footage showed the person ran across the platform and jumped in front of Train ID 113 at 13:46 hours.
- The AIMS display shows that third rail power was de-energized at NoMa-Gallaudet Station, Track 1 at 13:47 hours.
- The person sustained fatal injuries and was pronounced deceased at the scene.
- The decedent's body was pinned under car 3116 on the third rail side, causing the DCOCME representative to be unable to retrieve the body without moving the train. To move the train, the third rail power was restored, causing the decedent's body to become energized and react to the third rail, at which time third rail power was deenergized and DCFEMS were requested back to the scene to assist with retrieval efforts.
- Based on a post-incident station inspection, SAFE did not identify any slip or trip hazards that may have contributed to this event.
- Based on ARS, CMNT Road Mechanic personnel performed an under-car visual inspection and determined the consist was safe for movement.
- CMNT personnel identified damage sustained to the TWC Antenna and collector shoe three fiberglass shrouds cracked/broken on lead car 3117, which CMNT repaired. Additionally, CMNT performed an under-car cleaning and a post-incident inspection on the brake system, propulsion system, and MC operational checks. CMNT found these subsystems worked as designed.
- The VMS data on the married parried 3117-3116 was not obtained. This resulted in CMOR IIT personnel unable to determine the train speed and distances covered when entering NoMa-Gallaudet Station, Track 1 from the lead car.
 - The VMS data analysis from the third car in the consist 3172 was performed due to the unavailability of lead car 3117.
- CMOR Manager, Compliance and Safety, reported that the DAMs communicated with the VMS. However, the DAM A speed signal and the DAM B speed signal were not recorded at the time of the incident. DAMs speed is just one of several signals monitored and recorded by the DAMs. The Daily Inspection (DI) procedure does not require an inspection

to be performed for this component, as there are redundancies in place, such as using the data from another car in the consist, to measure train speed in the event of a similar failure.

- The emergency stop push button was not applied by the train operator.
- Based on ARS, ERT notified the ROCC, confirmed a good visual track inspection, and reported that all personnel were clear of the roadway prior to restoring the track to revenue service.
- During the virtual interview, the Train Operator reported they were feeling alert at the time of the incident. The employee reported experiencing no symptoms of fatigue in the time leading up to the incident.

Immediate Mitigation to Prevent Recurrence

- The ROCC de-energized third rail power at NoMa-Gallaudet Station, Track 1, so MTPD can enter the roadway to conduct their incident investigation.
- RTRA removed the Train Operator from service for post-incident toxicology testing.
- The ROCC removed Train ID 113 from service for post-incident investigative processes.

Non-Contributory Findings and Additional Actions Taken

- The CMOR Manager, Compliance and Safety reported it is an infrequent event when both DAM units do not function simultaneously. This was an unusual circumstance; however, does not impact the vehicle's safety performance. In scenarios such as this one, data from the three trailing VMS's are available to complete the investigation. Pertinent recommendations were supplied to CMNT to correct the failure by CENV.
 - After CMNT applied the CMOR IIT group recommendations, the DAMs were able to record the speed signal, and CMNT technicians were able to monitor the system from the DAM viewer, indicating speeds were being monitored in real-time.

Probable Cause Statement

The probable cause of the person struck by a train event at the NoMa-Gallaudet Station, Track 1 on May 23, 2021, was the person jumped off the platform for unknown reasons and intentionally placed themselves in the dynamic envelope of the train. Based on a post-incident station inspection, SAFE did not identify any slip or trip hazards that may have contributed to this event.

After an analysis of data collected from systems of record and interviews with staff and MTPD's incident report review, SAFE concludes there were no safety deficiencies related to any WMATA station facility, vehicle, or human factor components identified as contributors to this event.

SAFE Recommendations/Corrective Actions

As the person intentionally fouled the dynamic envelope of the train and trespassed onto the right-of-way, there are no recommendations for the event. For findings related to post-incident response and coordination, Corrective Actions are in progress, as noted from Event Report E20488 (Customer Evacuation at Fort Totten Station). Corrective Actions relevant to this event are copied below for reference:

Corrective Action Code (E20488)	Description (E20488)
90755_SAFECAPS_MTPD_002	Shall develop an incident response / IC quick [tick] checklist to identify responsibilities, respective equipment, processes upon arrival

Corrective Action Code (E20488)	Description (E20488)
90755_SAFECAPS_SAFE_004	MTPD RWP training materials shall be reviewed at least annually by OPMS, to ensure process changes and rule updates are reflected in the material.
90755_SAFECAPS_SAFE_005	OEM instructors shall be evaluated and approved by OPMS training leadership. The approval process would mirror that followed by SAFE's contractor RWP instructors. Approval would ensure RWP material is presented in a consistent manner regardless of instructor group.
90755_SAFECAPS_SAFE_006	The newly-created Incident Management Official's role shall be clearly defined when emergency response procedures are enacted. This includes supporting the Incident Commander when SOP 1A is followed.
90755_SAFECAPS_MTPD_007	Annual MIRs shall include reviews of the ROCC emergency SOPs, which are covered during new recruit training.
90755_SAFECAPS_MTPD_008	MTPD Hot Washes shall include an evaluation of RWP practices.
90755_SAFECAPS_MTPD_009	ROCC and MTPD shall conduct after action reviews after each emergency response incident; this is in addition to MTPD's field Hot Wash reviews. Lessons learned will be documented, as well as mitigations that would address issues experienced.
90755_SAFECAPS_MTPD_010	Until all IMO personnel have been trained in MTPD procedures, an MTPD officer should be deployed to the ROCC to ensure proper communications are maintained in the event of an emergency.
90755_SAFECAPS_MTPD_011	The Incident Commander shall communicate to ROCC the full section of track that is part of their oversight when SOP 1A is enacted.

In addition, the following table lists other internal and external Corrective Actions currently in progress that address the Root Cause and/or Contributing Factors identified in this investigation:

Corrective Action Plan	Source	Short Description	Estimated Closure:
WMSC-20-C0051	WMSC	Metrorail must fully record and adequately retain all communications that are tied to operations and emergency response.	July 2022
WMSC-20-C0052	WMSC	Metrorail must make the fire liaison's role and responsibilities clear to all ROCC employees. Metrorail must establish redundancies and direct communication paths to ensure information from the fire liaison is properly communicated to the relevant controllers, first responders and others, particularly information regarding initial reports of emergencies and the location of personnel prior to power restoration.	February 2023

Corrective Action Plan	Source	Short Description	Estimated Closure:
WMSC-20-C0053	WMSC	Metrorail must rewrite smoke, fire and related alarm policies including specific responsibilities for calling and dispatching the fire department and immediate communication with the Fire Liaison.	January 2023

Appendices

Appendix A – Interview Summary

Office of Rail Transportation

Train Operator

The Train Operator is a WMATA employee with 11 years of service. The Train Operator started as a Bus Operator and has been a Train Operator for one year. The Train Operator's last rail certification date was on April 14, 2020.

Based on the interview with SAFE, the Train Operator reported they were feeling alert at the time of the incident. The employee reported experiencing no symptoms of fatigue in the time leading up to the incident. The Train Operator stated they departed Union Station at 13:40 hours, with a destination to Glenmont Station. While in approach to NoMa-Gallaudet, Track 1, the Train Operator reported that they were coming up a hill and was operating the train at 32MPH. As the train became level with a clear view of NoMa-Gallaudet Station, Track 1 platform, the Train Operator reported that they could see a person on the Track 2 side of the platform at NoMa-Gallaudet Station. Suddenly, the person ran from Track 2 to Track 1 and jumped and hit the top window of the train. The Train Operator reported that they immediately pressed the horn, placed the MC in the B4, then B5 position, and then placed it in the emergency position. The Train Operator then stated they could hear the impact of the train striking the person on the roadway.

The Train Operator also reported that the person on the roadway was within 50 feet of their line of sight. The Train Operator stated there were no discrepancies with the train console or any distractions in the cab area. The Train Operator reported that their train was at a speed of no more than 32 MPH in approach to NoMa-Gallaudet Station. After making contact with the person on the roadway, ROCC asked if the Train Operator was ok and if they could complete a ground walkaround and report any signs of life; the Train Operator stated that they reported they were ok. ROCC then instructed the Train Operator to walk the customers through the bulkhead doors to offload the train. The Train Operator indicated they felt comfortable enough to complete those tasks. However, as they were safely exiting the customers off the train, an RTRA Supervisor took over their responsibilities. MTPD personnel approached the Train Operator and told them to standby. The Train Operator was then interviewed by MTPD.

Appendix B– CMNT Car 3116 Work Order Details



Washington Metropolitan Area Transit Authority Maintenance and Material Management System Work Order Details

Page 2 of 2
MX76PROD

Work Order #: 16345350
Type: CM



Status: INPRG
05/24/2021 01:36

Work Description: Train struck customer at NoMa track one, train offloaded third rail power de-energized.
Job Plan Description:

Work Information			
Asset: R3116	3116, RAIL CAR, BREDA, 3000 AC, A CAR	Owning Office: CMNT-CMNT-CMNT	Parent:
Asset Tag: R3116		Maintenance Office: CMNT-SDYG-INSP	Create Date: 05/24/2021 01:36
Asset S/N: 3116		Labor Group: CMNT	Actual Start: 05/24/2021 01:36
Location: 1136	A99, SHADY GROVE YARD	Crew:	Actual Comp:
Work Location: 1136	A99, SHADY GROVE YARD	Lead:	Item:
Failure Class: CMNT001	RAIL CAR	GL Account: [REDACTED]	
Problem Code: 2649	PASSENGER RELATED PROBLEM	Supervisor:	Target Start:
Requested By:		Requestor Phone: [REDACTED]	Target Comp:
Chain Mark Start:		Chain Mark End:	Scheduled Start:
Create-Mileage: 2574047.0		Complete-Mileage: 0.0	

Task IDs											
Task ID											
10											
INSPECTED UNDERCAR FOR DAMAGE. NO DAMAGE FOUND AT THIS TIME.											
BRAKE RATES...											
FRONT: B5=69.39; B4=56.11; B3=49.46; B2=42.81; B1=24.89; CST=0; SN=6.38; EMER=73.58											
REAR: B5=68.74; B4=53.62; B3=47.41; B2=44.22; B1=24.79; CST=0; SN=6.71; EMER=69.68											
ALL BRAKE RATES WITHIN SPECS ALLOWED FOR 2K/3K FRICTION BRAKE SYSTEM											
000-300-B01 CAR BODY: UNDER CAR STRUCTURE											
Component: GROUP; 2K/3K/6K/7K											
Work Accompl: INSPECTED											
Reason: NO TROUBLE FOUND											
Status: APPR											
Position:											
Warranty?: N											
Actual Labor											
Task ID	Labor			Start Date	End Date	Start Time	End Time	Approved?	Regular Hours	Premium Hours	Line Cost
Total Actual Hour/Labor:											
Failure Reporting											
Cause	Remedy					Supervisor			Remark Date		
Remarks:											

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05/25/2021 08:44

Attachment 1 – Page 1 of 1.

Date: 05/23/2021 Time: 13:46 hours.
Final Report – Collision Rev. 1
E21209

Rev. 1 Drafted By: SAFE 705 – 06/08/2021
Rev. 1 Reviewed By: SAFE 70 – 07/22/2021
Rev. 1 Approved By: SAFE 71 – 09/02/2021

Page 25

Appendix C– CMNT Car 3117 Work Order Details



Washington Metropolitan Area Transit Authority Maintenance and Material Management System Work Order Details

Page 2 of 3
MX76PROD

Work Order #: 16345255
Type: CM



Status: INPRG
05/23/2021 21:53

Work Description: Train struck customer at NoMa track one, train offloaded third rail power de-energized.
Job Plan Description:

Task IDs		Work Information		Parent:	
Asset: R3117	3117, RAIL CAR, BRED A, 3000 AC, B CAR	Owning Office: CMNT-CMNT-CMNT		Create Date: 05/23/2021 21:49	
Asset Tag: R3117		Maintenance Office: CMNT-SDYG-INSP		Actual Start: 05/23/2021 21:53	
Asset S/N: 3117		Labor Group: CMNT		Actual Comp:	
Location: 1136	A99, SHADY GROVE YARD	Crew:		Item: L18060002	
Work Location: 1136	A99, SHADY GROVE YARD	Lead:		Target Start:	
Failure Class: CMNT001	RAIL CAR	GL Account: V		Target Comp:	
Problem Code: 2649	PASSENGER RELATED PROBLEM	Supervisor:		Scheduled Start:	
Requested By:		Requestor Phone:			
Chain Mark Start:		Chain Mark End:			
Create-Mileage: 2574047.0		Complete-Mileage: 0.0			

Task ID	Description	Component	Work Accomplished	Reason	Status	Position	Warranty?
10	INSPECTED UNDERCAR FOR DAMAGE. FOUND TWC ANTENNA RIGHT REAR 90 DEGREE ELBOW BROKEN COMPLETELY OFF, WIRING INSIDE PVC INTACT. ALSO FOUND COLLECTOR SHOE #3 FIBERGLASS SHROUD CRACKED/BROKEN. BRAKE RATES: FRONT: B5=68.50; B4=51.69; B3=46.39; B2=40.26; B1=23.98; CST=0; SN=6.38; EMER=73.58 REAR: B5=65.03; B4=52.01; B3=46.88; B2=40.65; B1=24.46; CST=0; SN=6.08; EMER=69.49 ALL RATES WITHIN SPECS ALLOWED FOR 2K/3K FRICTION BRAKE SYSTEM	000-300 RAIL CAR; 2K/3K/6K/7K	INSPECTED	FOREIGN OBJECT DAMAGE	APPR		N
20	CONTINUATION REMOVED AND REPLACED TWC ANTENNA PERFORMED AND PASSED DST. 000-300-S04 ATC: TWC TRANSMIT ANTENNA;	UNIVERSAL FIT; 2K/3K/6K	REPLACED NEW	FOREIGN OBJECT DAMAGE	APPR		N

Planned Materials		Storeroom	Issue Unit	Quantity	Unit Cost	Line Cost
Task ID	Item Description					
	M18590005 COIL ELECTRICAL TRANSMIT	253	EA	1	\$0.00	\$0.00
				Total Planned Materials:		\$0.00

Actual Labor									
Task ID	Labor	Start Date	End Date	Start Time	End Time	Approved?	Regular Hours	Premium Hours	Line Cost

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Attachment 2 – Page 1 of 1.

Appendix D – COMM Work Order Details



Washington Metropolitan Area Transit Authority Maintenance and Material Management System Work Order Details

Page 1 of 1
MX76PROD

Work Order #: 16345811
Type: GS



Status: COMP
05/24/2021 14:30

Work Description: B35 SAFETY REQUEST RADIO OPERATIONAL TEST BETWEEN B03 AND B05 TRACKS 1&2
Job Plan Description:

Work Information									
Asset: COMMB35 COMM, B35, COMMUNICATIONS SYSTEM				Owning Office: COMM-TSSM			Parent:		
Asset Tag:				Maintenance Office: COMM-TSSM-AFLD			Create Date: 05/24/2021 11:11		
Asset S/N: COMM B35				Labor Group: COMMR3RADO			Actual Start: 05/24/2021 14:30		
Location: 7605 B35, NEW YORK AVENUE, STATION, PLATFORM, ROOM 213, COMMUNICATIONS ROOM				Crew: COMMR3RADO			Actual Comp: 05/24/2021 14:30		
Work Location: 8483 B35, NEW YORK AVENUE, WAYSIDE, TRACK 1				Lead: [REDACTED]			Item: R6000001		
Failure Class: COMR003 RADIO COMMUNICATIONS SYSTEMS				GL Account: [REDACTED]					
Problem Code: [REDACTED]				Supervisor: [REDACTED]			Target Start:		
Requested By: [REDACTED]				Requestor Phone: [REDACTED]			Target Comp:		
							Scheduled Start:		
Create-Mileage: 0.0				Complete-Mileage: 0.0					
Task IDs									
Task ID									
10 Performed radio tests B03 to B05									
Component: 100-112-201 UHF RADIO SYSTEMS (CRCS) Work Accomplish: Reason: Status: COMP Position: 360 Warranty?: N									
20 Performed radio tests B03 to B05									
Component: 100-112-201 UHF RADIO SYSTEMS (CRCS) Work Accomplish: Reason: Status: COMP Position: Warranty?: N									
Actual Labor									
Task ID	Labor	Start Date	End Date	Start Time	End Time	Approved?	Regular Hours	Premium Hours	Life Cost
[REDACTED]	[REDACTED]	05/24/2021	05/24/2021	12:00	13:00	Y	[REDACTED]	[REDACTED]	[REDACTED]
Total Actual Hour/Labor:							[REDACTED]	[REDACTED]	[REDACTED]
Failure Reporting									
Cause	Remedy			Supervisor			Remark Date		
2771 RADIO RECEPTION PROBLEM	3191 TESTED - NO TROUBLE FOUND								
Remarks:									

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05/25/2021 00:25

Attachment 3 – Page 1 of 1.

Appendix E - MTPD Executive Briefing Report



METRO TRANSIT POLICE DEPARTMENT

CRIMINAL INVESTIGATION DIVISION

EXECUTIVE BRIEFING



Person Struck by Train:

MTP: [REDACTED]

CFS: [REDACTED]

Location: 200 M St NE, Washington, DC 20002

Date: May 23, 2021

Time: 1349 hours

Lead Agency:

Metro Transit Police Department (MTPD)

Patrol Command:

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Patrol Officers:

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

CID Detectives:

[REDACTED]
[REDACTED]
[REDACTED]

Reporting Officers:

[REDACTED]
[REDACTED]

NON-LAW ENFORCEMENT SENSITIVE

Attachment 4 – Page 1 of 3.



METRO TRANSIT POLICE DEPARTMENT



CRIMINAL INVESTIGATION DIVISION

EXECUTIVE BRIEFING

Crime Scene Officer:

[REDACTED]
[REDACTED]
[REDACTED]

Train Operator:

[REDACTED]
[REDACTED]
[REDACTED]

Witness:

[REDACTED]
[REDACTED]
[REDACTED]

Case Summary:

At approximately 1349 hours MTPD Communications received a call for service from the WMATA IMO stating that a person had been struck by a train at the NOMA Metro Station. MTPD POB units, CID units, and DCFD responded to the scene. The victim was reported as showing no signs of life and was pronounced at 1406 hours by DCFD [REDACTED]. The victim was trapped under the trucks of the rail car and was left in place until the OCME arrived on the scene.

Further investigation revealed:

Detective [REDACTED], Detective [REDACTED], and Detective [REDACTED] responded to the NOMA Metro Station to assist with the investigation.

DCFD and EMS units responded, and the victim was located under train car 3116, which was the second car, showing no signs of life. DCFD Captain [REDACTED] 7 advised that DCFD [REDACTED] pronounced the victim at 1406 hours. DC OCME was notified and asked to respond at 1412 hours by Detective [REDACTED]. At approximately 1503 hours, Medical Examiner [REDACTED] arrived on the scene. The decedent suffered severe head and body trauma, and burns throughout his body.

Detective [REDACTED] interviewed the train operator and learned that incident train #113 was a revenue train en route to Glenmont. The operator reported that as he was pulling into the NOMA Metro Station, he had entered the platform area and he saw the decedent sprinting and then jumped in front of the train. The operator activated the horn and stated that he did not hit the mushroom button, but rather pulled back on the brake, as it was too late when he jumped. The operator notified ROCC.

NON-LAW ENFORCEMENT SENSITIVE

Attachment 4 – Page 2 of 3.



METRO TRANSIT POLICE DEPARTMENT



CRIMINAL INVESTIGATION DIVISION

EXECUTIVE BRIEFING

Detective [REDACTED] interviewed a witness, who works for PLNT, and was cleaning the platform at the time of the incident. The witness stated that he saw the decedent standing on the platform and asked him how he was doing. The witness stated that the decedent ignored him. The witness said he walked away from the decedent with his back towards him and the next thing he heard was the train horn. The witness looked back and no longer saw the decedent and noticed the train that was stopped halfway down the platform.

Crime Scene Search (CSS) [REDACTED], [REDACTED], and [REDACTED] processed the scene and incident train. Personal property belonging to the victim was found on the trackbed and on the platform, which was recovered by CSS for processing. The train was moved to Shady Grove Rail Yard for further processing, escorted by MTPD [REDACTED]. CSS Officer [REDACTED] responded for the additional processing, however, due to the train being a 3000 series, there wasn't video footage available.

A preliminary review of the NOMA Metro Station video revealed the decedent entered through the M Street fare gates at 1341 hours, processing [REDACTED]. The decedent walks to the platform where he places his black duffel bag on the ground. The camera views are obstructed but the decedent is seen running across the platform and jumping in front of a Glenmont bound train at 1346 hours. The decedent appears to have landed on the third rail and the running rail before being run over by the train. The decedent was located wrapped up in the first truck of the second rail car #3116.

The decedent's black duffel bag contained clothing, numerous pieces of mail, Behavioral Health paperwork, a Birth Certificate, and a Washington, DC ID card.

Notification:

Detective [REDACTED] spoke with the Medical Examiner, [REDACTED], who stated that an autopsy would be performed Monday, May 24, 2021. [REDACTED] will be provided all documents that she requests from MTPD. [REDACTED] will be memorializing the event in case [REDACTED]

Next of Kin:

Detective Sergeant [REDACTED] to attempt to make Next of Kin notification. A business card was left, and the [REDACTED] of the decedent later called back. Detective Sergeant [REDACTED] and Detective [REDACTED] responded back to the residence and made notification to the [REDACTED] and the decedent's [REDACTED]. The [REDACTED] stated that the decedent had been battling mental health issues for a long time. The decedent was also involved in smoking synthetic drugs (K2). The decedent had moved to various states to include CA, PA, MD, and DC, however, was getting into trouble and was turned away. [REDACTED]

NON-LAW ENFORCEMENT SENSITIVE

Attachment 4 – Page 3 of 3.

Appendix F – ROIC Chronology of Event/Notifications Report



RAIL OPERATIONS INFO CENTER: Unusual Occurrence
Washington Metropolitan Area Transit Authority

Department of Operations: RAIL
Rail Operations Control Center

DATE 05/23/21 TIME 1347 LINE RED INCIDENT NO. 21143703 ITEM NO. 03
TYPE OF INCIDENT PERSON STRUCK BY A TRAIN
LOCATION REPORTED NOMA-GALLAUDET U (B35) MEZZANINE #109 LOCATION OCCURRED TRACK #1
REPORTED BY ROC ASST. SUPT. [REDACTED] REPORTED TO RSL [REDACTED]
TROUBLE CODE JUMP RESPONSIBILITY CODE PUB
INCIDENT DURATION 6 HOURS 19 MINUTES NOTIFIED SAFE

CHRONOLOGY OF EVENTS/NOTIFICATIONS

TIME EVENTS/NOTIFICATIONS

1347 ASSISTANT SUPERINTENDENT [REDACTED] NOTIFIED ROIC THAT A CUSTOMER WAS STRUCK BY TRAIN #113,
ON TRACK #1, AT NOMA-GALLAUDET U
NOTIFIED DCFD DISPATCHER [REDACTED]
NOTIFIED FIRE LIAISON [REDACTED]
NOTIFIED STATION MANAGER [REDACTED]
RTRA SUPERVISOR [REDACTED] ARRIVED ON THE SCENE
1347 CRITICAL RAIL NOTIFICATION MESSAGING INITIATED
1348 NOTIFIED MTPD DISPATCHER [REDACTED] ATTEMPTED TO NOTIFY MREL TO NO AVAIL
1350 THIRD RAIL POWER WAS DE-ENERGIZED ON TRACK #1
REQUESTED BUS BRIDGE WITH BOCC REPRESENTATIVE [REDACTED]
1351 NOTIFIED SAFETY OFFICER [REDACTED]
1401 DCFD ENGINES #4 AND #13 ARRIVED ON THE SCENE
1404 DCFD MEDIC #2 ARRIVED ON THE SCENE
1406 RED LINE TRAINS BEGAN SINGLE TRACKING BETWEEN UNION STATION AND RHODE ISLAND AVENUE
1420 MTPD [REDACTED] ARRIVED ON THE SCENE
1422 RED LINE TRAINS BEGAN BYPASSING NOMA-GALLAUDET U
1424 DCFD ENGINES #4 AND #13 AND DCFD MEDIC #2 DEPARTED THE SCENE
1505 DC MEDICAL EXAMINER ARRIVED ON THE SCENE
1510 EOD ON SCENE TO SCAN A BAG LEFT ON THE PLATFORM BY THE CUSTOMER STRUCK BY TRAIN
1536 EOD BEGINS SCAN OF THE BAG
1554 EOD DEEMED THE BAG CLEAR OF DANGER
1906 CUSTOMER WAS REMOVED FROM THE ROADWAY
1947 THIRD RAIL POWER WAS RE-ENERGIZED ON TRACK #1
2006 INCIDENT TRAIN #113 WAS TRANSPORTED TO SHADY GROVE YARD

CUSTOMER INFORMATION:

SEE MTPD REPORT

INFORMATION CONTROLLER:

RS LIAISON / ASSISTANT SUPERINTENDENT: [REDACTED]

Attachment 5 – Page 1 of 1.

Appendix G – ROCC Incident Report

View Approved Incident Report

INCIDENT ID: 2021143RED1

DATE 2021-05-23	TIME 1346	LINE Red	ITEM 1
LOCATION (STATION/YARD) NoMa-Gallaudet (B35)	LOCATION/CHAIN MARKER (If Applicable)		REPORTED BY [REDACTED]
TRAIN ID 113	DIRECTION O/B	TRACK NUMBER 1	DEPTS NOTIFIED Everbridge Alert/Messaging
CAR NUMBERS (XXXX-XXXX)			
Lead Car			
3117-3116	3172-3173	3213-3212	3242-3243
Caused Issue <input checked="" type="checkbox"/>	Caused Issue <input type="checkbox"/>	Caused Issue <input type="checkbox"/>	Caused Issue <input type="checkbox"/>
TRBL CODE JUMP-JUMPER: PERSON HIT BY TRAIN	RESP CODE PUB		

TYPE INCIDENT
Customer Struck by Train

ACTION PLAN
Dispatch RTRA Supervisors, De-energize Third Rail Power, Offload Train, Establish Single Track Operations, Implement SOP 1A

DELAYS IN MINUTES					
LINE	INCIDENT	TRAIN	TOTAL DURATION		
16	16	360	0		

TRIPS MODIFIED					
PARTIAL	GAP TRAIN	LATE DISPATCHES	REROUTED	NOT DISPATCHED	OFFLOADS
1	0	0	0	0	1

FIVE PRIMARY CONSOLE INDICATIONS				
BCP	BRAKES ON ILLUMINATED	ALL DOORS CLOSED ILLUMINATED	AUTO\MANUAL ILLUMINATED	BPP
			AUTO	

Attachment 6 – Page 1 of 3.

View Approved Incident Report

INCIDENT CHRONOLOGY	
TIME	DESCRIPTION
1346	Train 113 Operator [REDACTED] reported the train made contact with a customer at NoMa-Gallaudet University track one. Operator [REDACTED] reported having four cars on the platform at NoMa-Gallaudet University track one and was instructed to offload the train by keying customers onto the platform. SOP 2 was implemented; third rail breakers were commanded open and third rail was de-energized at NoMa-Gallaudet University track one. Single track operations was established from Union Station to Rhode Island Avenue utilizing track two. Unit 4, RTRA Supervisor [REDACTED] and [REDACTED] RTRA Supervisor [REDACTED] was dispatched to NoMa-Gallaudet University to assist. ROCC Assistant Superintendent, ROIC, MTPD, MOC, SAFE and other concerned personnel were notified.
1348	Supervisor [REDACTED] reported on the scene at NoMa-Gallaudet University and was appointed as the on scene commander.
1354	Supervisor [REDACTED] was granted foul time protection to perform a ground walk around inspection at NoMa-Gallaudet University track one. Train 114 was the first train to single track between Union Station to Rhode Island Avenue utilizing track two.
1357	Supervisor [REDACTED] reported the customer was beneath the second car in the consist and report no signs of life.
1402	Train 114 serviced the incident train's customer at NoMa-Gallaudet University track two and continued in revenue service to Glenmont ending the longest customer delay. ERT [REDACTED] and ATC arrived on the scene to assist.
1404	Washington D.C. Fire Department (platoon 1) arrived on the scene and established the incident command post at the second street entrance at the NoMa-Gallaudet University station.
1406	Supervisor [REDACTED] arrived on the scene and assumed the role as the RTRA Incident Command Liaison and was instruct to respond to the incident command post.
1410	ERT [REDACTED] was granted foul time protection to hot-stick and confirm third rail power was de-energized at NoMa-Gallaudet University track one.
1411	ERT [REDACTED] reported third rail power was confirmed de-energized at chain marker B1-004+00.
1415	The On Scene Commander requested trains to bypass NoMa-Gallaudet University while they conduct their investigation. Appropriate announcement were conducted to inform all personnel NoMa-Gallaudet University was closed due an MTPD investigation.
1517	ROCC fire Liaison reported the customer left a bag on the platform and the Washington D.C. Fire Department deemed the bag suspicious and halted all work until the scene was pronounced safe.
1555	MTPD x-rayed the suspicious bag and pronounced the scene safe at NoMa-Gallaudet University to continue the investigation.
1600	Washington D.C. Fire Department departed the NoMa-Gallaudet University and turn the scene over to MTPD.
1730	Supervisor [REDACTED] reported all personnel/equipment were clear the roadway and requested third rail power to be restored at NoMa-Gallaudet University to have the train clear the customer on the roadway.
1738	SOP 2 was implemented; third rail breakers were commanded closed and third rail power was restored at NoMa-Gallaudet University track one.
1828	Train 113 operator was granted permission to move the train at speeds no to exceed five miles-per-hour to clear the customer on the roadway.
1832	ROCC Fire Liaison reported smoke emitting from the roadway at NoMa-Gallaudet University. SOP 2 was implemented; third rail breakers were commanded open and third rail was de-energized at NoMa-Gallaudet University track one. Washington D.C. Fire Department was dispatched to NoMa-Gallaudet University.

Attachment 6 – Page 2 of 3.

View Approved Incident Report

1907	RTRA Supervisor [REDACTED] reported the customer was removed from the roadway and onto the platform at NoMa-Gallaudet University track one.
1927	MTPD departed the scene the scene at NoMa-Gallaudet University and turned the scene over to RTRA. RTRA Supervisor [REDACTED] assumed the role as the on scene commander.
1935	Supervisor [REDACTED] reported all personnel/equipment were clear the roadway at NoMa-Gallaudet University track one and requested third rail power to be restored to send the incident train to Shady Grove Yard for storage.
1947	SOP 2 was implemented; third rail breakers were commanded closed and third rail power was restored at NoMa-Gallaudet University track one.
2001	Train 113 continued in non-revenue service to Shady Grove Yard for storage. Supervisor [REDACTED] requested third rail power to be de-energized at NoMa-Gallaudet University track one to allow PLT personnel to clean the incident scene.
2015	Supervisor [REDACTED] reported NoMa-Gallaudet University was re-open for revenue service. Train 105 was the first train to service NoMa-Gallaudet University track two and continued in revenue service to Shady Grove track two.
2016	Third rail power was de-energized at NoMa-Gallaudet University track one to allow PLT personnel to clean the incident scene. ERT [REDACTED] was given foul time to enter the roadway to supervise the cleaning on track one.
2035	ERT [REDACTED] reported all personnel/ equipment were clear the roadway, relinquished his foul time protection at NoMa-Gallaudet University track one and advised that third rail power could be restored at NoMa-Gallaudet University track one.
2042	SOP 2 was implemented; third rail breakers were commanded closed and third rail power was restored at NoMa-Gallaudet University track one.
2051	Train 114 was the first train to continue in revenue service from NoMa-Gallaudet University to Rhode Island Avenue track one. Normal service was resumed.

MAXIMO TICKET#
8540521

REPORT PREPARED BY	NAME	CLICK TO SIGN
RADIO CONTROLLER 1	[REDACTED]	
BUTTON CONTROLLER 1	[REDACTED]	
RADIO CONTROLLER 2	[REDACTED]	
BUTTON CONTROLLER 2	[REDACTED]	

SUPERINTENDENTS OR ASSISTANTS SECTION

ADDITIONAL FOLLOW-UP CORRECTIVE ACTIONS OR REMARKS

FOLLOW-UP INFORMATION OBTAINED FROM SUPPORT DEPARTMENTS

NOTIFICATIONS/PAGE GROUPS

#1/CEO ☐ #2/DGM & BELOW ☒

ADDITIONAL NOTIFICATIONS MADE BY PHONE

SAFE [REDACTED]

APPROVED BY	NAME	CLICK TO SIGN
REPORT APPROVED BY SUPT. OR ASST SUPT.	[REDACTED]	

Attachment 6 – Page 3 of 3.

Appendix H - Root Cause Analysis

