WMSC Commissioner Brief: W-0166 - Collision - Bethesda Station - January 29, 2022

Prepared for Washington Metrorail Safety Commission meeting on May 24, 2022

Safety event summary:

A Metrorail rider standing on the Bethesda Station platform deliberately left the platform and moved into the path of an oncoming train at approximately 1:58 p.m. on January 29, 2022.

The Train Operator reported this emergency to the Rail Operations Control Center (ROCC), and the ROCC Rail Traffic Controller dispatched Rail Supervisors and de-energized third rail power. The first transmission from the Train Operator was distorted, so the Rail Controller asked the Train Operator to calm down and repeat the message.

The train had entered the station at 26 mph with the master controller in B2 braking mode. One second later, the Train Operator moved the master controller to B5 (maximum level short of emergency) braking mode. After 165 feet, the Train Operator applied emergency braking.

Approximately four minutes after the collision, riders on the train pulled an emergency door release on the lead car and began exiting onto the platform. Two rear cars of the train remained off the platform in the tunnel. The Train Operator helped riders exit the train onto the station platform through the cars that were in the station.

Montgomery County Fire and Rescue Services (MCFRS) personnel properly placed Warning Strobe and Alarm Devices (WSADs), removed the person from the roadway, and took the person to the hospital with life-threatening injuries. The person survived.

After MCFRS departed, a Rail Transportation (RTRA) Supervisor suggested it was okay to move the train to allow Metrorail's Emergency Response Team (ERT) to inspect the track bed. However, a Metro Transit Police Department (MTPD) official was designated as the on-scene commander at that time, and said they had not yet authorized the restoration of third rail power. The MTPD hot wash though indicates that authorization had in fact been given at that time, suggesting deficiencies in Metrorail's incident command and communication process. The Mission Assurance Coordinator (MAC) and ROCC Controller stated that MTPD would have to release the scene to RTRA before third rail power could be energized. The On-Scene Commander stated that MTPD was still investigating. The On-Scene Commander authorized third rail power restoration approximately 20 minutes later, at 3:39 p.m., and the train was moved to Shady Grove Yard for further investigation. At 4:06 p.m., MTPD transferred command to RTRA.

The response (on-scene investigation, ERT inspections, and cleanup operations) concluded at approximately 4:18 p.m. Metrorail later repaired the damaged railcar.

Probable Cause:

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





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

WMSC staff observations:

Metrorail is required to address findings from the Emergency Management and Fire and Life Safety Audit (final report February 2022) through Corrective Action Plans (CAPs) that include improvements to Metrorail's incident command process and compliance with that process.



Washington Metro Area Transit Authority Department of Safety (SAFE) FINAL REPORT OF INVESTIGATION A&I – E22060

Date of Event:	01/29/2022
Type of Event:	A-3 Collision
Incident Time:	13:58 hours
Location:	Bethesda Station, Track 1
Time and How received by SAFE:	13:59 hours MAC Desk
WMSC Notification Time:	14:07 hours (Event Scene Release issued)
Responding Safety Officers:	WMATA: No
	WMSC: No
	Other: No
Rail Vehicle:	L3112-3113x3211-3210x3075-3074
Injuries:	Yes
Damage:	Minor
Emergency Responders:	Metro Transit Police Department (MTPD), Office of Rail Transportation (RTRA), Office of Car Maintenance (CMNT), Montgomery County Police Department (MCPD), Montgomery County Fire and Rescue Service (MCFRS), Emergency Response Team (ERT), Mission Assurance Coordinator (MAC)
SMS I/A Number	20220129#98115

Incident Date: 1/29/2022 Time: 13:58 hours

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Bethesda Station - Collision

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Abbreviations and Acronyms

AIMS Advanced Information Management System

ARS
Audio Recording System
CAP
CCTV
CCTV
CIosed Circuit Television
CMNT
Office of Car Maintenance
ERT
Emergency Response Team

FLO Fire Liaison Officer

IMO Incident Management Official

MCFRS Montgomery County Fire and Rescue Service

MCPD Montgomery County Police Department

MSRPH Metrorail Safety Rules and Procedures Handbook

MTPD Metro Transit Police Department

NOAA National Oceanic and Atmospheric Administration

OSC On-Scene Commander
RTC Rail Traffic Controller

RTRA Office of Rail Transportation

ROCC Rail Operations Control Center

SAFE Department of Safety

SMS Safety Measurement System
SOP Standard Operating Procedure

VMDS Vehicle Monitoring and Diagnostic System

WMATA Washington Metropolitan Area Transit Authority

WMSC Washington Metrorail Safety Commission

WSAD Warning Strobe and Alarm Device

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Drafted By: SAFE 703 – 03/24/2022 Reviewed By: SAFE 71 – 03/28/2022 Approved By: SAFE 71 – 03/29/2022 Page 3

Executive Summary

On Saturday, January 29, 2022, at approximately 13:58 hours, a Red Line train [Train ID 114] was traveling inbound when the Train Operator contacted the Rail Operations Control Center (ROCC) to report they had an emergency. The Radio Rail Traffic Controller (RTC) asked the Train Operator to repeat their radio transmission. The Train Operator repeated. "Emergency. emergency, emergency, someone just jumped in front of the train." The Radio RTC instructed multiple RTRA Supervisors to respond to Bethesda Station to assist with the emergency and announced that Standard Operating Procedure (SOP) 1A was in effect. The Advanced Information Management System (AIMS) showed that third rail power was deenergized at approximately 14:00 hours. When Train ID 114 came to a stop, it was not properly berthed on the platform. The trailing two cars were still in the tunnel. At approximately 14:02 hours, the Train Operator informed the Radio RTC that customers pulled the emergency door release handle and started to self-evacuate to the platform from the lead car, 3112. The Train Operator started to assist customers alighting from the trailing cars. The Bethesda Station Manager responded and the Radio RTC designated them as the On-Scene Commander (OSC). At approximately 14:11 hours, personnel from the Montgomery County Police Department (MCPD) and Montgomery County Fire and Rescue Services (MCFRS) arrived on the scene. The Train Operator reported they were unable to conduct the ground walkaround.

At approximately 14:13 hours, the Radio RTC instructed the Station Manager to provide the lead MTPD Officer's badge number and name so they could transfer the OSC role to them. The Bethesda Station Manager was then designated as the RTRA Forward Liaison until an RTRA Supervisor arrived. The Unified Command Post was established at the station's bus bay. Emergency responders located the customer underneath the second car, 3113, with life-threatening injuries. The customer was removed from the roadway and taken to a local hospital for treatment. Train ID 114 was transported to Shady Grove Yard. At approximately 16:18 hours, the investigation and recovery ended and third rail power was reenergized. Train ID 109 was the first train to service Bethesda Station.

The probable cause of the person struck by a train event at Bethesda Station on January 29, 2022, was a person's action to place themselves on the roadway for unknown reasons. No carborne or human factors errors were identified that contributed to this event.

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Incident Site

Bethesda Station, Track 1

Field Sketch/Schematics

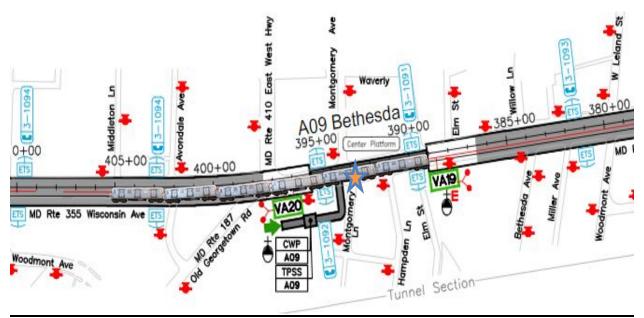


Figure 1: This image shows the approximate location where the customer was removed from underneath the second car, 3113.

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 preliminary investigative methodologies included the following:

- Physical Site Assessment
- Formal Interviews SAFE interviewed one (1) person as part of this investigation:
 - 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 contained in Metro systems of record. These records include:
 - Employee Training Procedures & Records

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- Metrorail Safety Rules and Procedures Handbook (MSRPH)
- National Oceanic and Atmospheric Administration (NOAA) data
- System Data Recording Review A collection of information contained in Metro Data Recording Systems. This data includes:
 - Audio Recording System (ARS) playback including OPS 1 Radio, Red Line-12051, MTPD-2X Radio
 - Closed-Circuit Television (CCTV)
 - Advanced Information Management System (AIMS)
 - Vehicle Monitoring and Diagnostic System (VMDS)
 - Office of Car Maintenance (CMNT) Post-Incident Inspection Data

<u>Investigation</u>

On Saturday, January 29, 2022 at approximately 13:58 hours, the Train Operator of Train ID 114 contacted the ROCC to report an emergency. The radio transmission was originally distorted. The Radio RTC asked the Train Operator to repeat their radio transmission. The Train Operator repeated, "Emergency, emergency, emergency, someone just jumped in front of the train." The Radio RTC instructed multiple RTRA Supervisors to respond to Bethesda Station and assist with the emergency and announced that SOP 1A was in effect. The AIMS playback showed that third rail power was deenergized at approximately 14:00 hours. ROCC established single-tracking operations and red line trains began bypassing Bethesda Station. Train ID 114 was not properly berthed on the platform when it stopped, and the trailing two cars were still in the tunnel. At approximately 14:02 hours, Train Operator informed the Radio RTC that customer pulled the emergency door release handle and started to self-evacuate to the platform from lead car. The Radio RTC followed the procedures of SOP 4A when passengers self-evacuated from the train. The Train Operator assisted customers alighting from the trailing cars to the lead (platform) cars. The Train Operator reported they were unable to conduct a ground walkaround. The Bethesda Station Manager responded and the Radio RTC designated them as the OSC. The Bethesda Station Manager attempted to locate the struck customer from the platform edge but was unsuccessful. At approximately 14:11 hours, MCPD and MCFRS arrived on the scene. The ROCC Fire Liaison Officer (FLO) was in communication with Unified Command throughout the response. The FLO reported that power was deenergized on track 1 and provided the estimated location of the injured person, beneath the second car of the consist. The Unified Commander granted their Recon team permission to enter the roadway and place WSADs at approximately 14:13 hours.

At approximately 14:13 hours, the Radio RTC instructed the Station Manager to provide the lead MTPD Officer's badge number and name so they could transfer the OSC role to them. The Bethesda Station Manager was then designated as the RTRA Forward Liaison until an RTRA Supervisor arrived. The Unified Command post was at the top of the escalator at the station's bus bay. At approximately 14:20 hours, the first RTRA Supervisor arrived on scene and was designated as the RTRA Forward Liaison. The Radio RTC informed the RTRA Supervisor that they needed to conduct a ground walkaround. At that time, the RTRA Supervisor informed the Radio RTC that emergency responders located the customer underneath the second car, 3113, with life-threatening injuries. The RTRA Supervisor informed the Radio RTC that the customer was being removed from the roadway and would be transported to a local hospital to have their

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injuries treated. The Train Operator was also evaluated by medics before MTPD conducted an interview.

At approximately 15:27 hours, after the injured person was transported and MCFRS units cleared the roadway, the Emergency Response Team (ERT) requested that Train ID 114 be moved so they could complete an inspection. According to the ARS, the RTRA Supervisor responded that units were clear of the roadway, as if MTPD had relinquished command or authorized movement of the train for ERT. The Incident Management Official (IMO) overheard the transmissions and verified that no transfer of command had taken place. The Radio RTC then stated that MTPD had to release the scene to RTRA so they could reenergize third rail power so Train ID 114 could be moved. The OSC stated they were not releasing the scene to RTRA until their investigation was completed. At approximately 15:39 hours, the OSC authorized third rail power to be reenergized, and Train ID 114 was transported to Shady Grove Yard. At approximately 16:06 hours, MTPD transferred command to an RTRA Supervisor. The ERT completed their inspection and cleanup operations and reported that the tracks were safe for revenue service. At approximately 16:18 hours, third rail power was reenergized for revenue service. Train ID 109 was the first train to service Track 1 at Bethesda Station after service was restored.

On March 2, 2022, it was reported that the injured person was receiving long term physical therapy due to the injuries suffered.

Chronological Event Timeline

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

Time	Description	
13:58 hours	Train ID 114 Train Operator: Contacted the Radio RTC stating, 'Emergency,	
	Emergency, Emergency". Transmission distorted. [Radio]	
13:58 hours Radio RTC: Asked the Train Operator to calm down and re		
	transmission because it was distorted. [Radio]	
13:58 hours Train ID 114 Train Operator: Repeated that someone jumped in fr		
	train on Track 1 at Bethesda Station. [Radio]	
13:59 hours	Radio RTC: Made blanket announcement for RTRA Supervisors to report to	
	Bethesda for a possible jumper. [Radio]	
13:59 hours	Radio RTC: Instructed Train ID 110 to hold at White Flint Station. [Radio]	
14:00 hours	Radio RTC: Instructed RTRA Supervisor to board next train and head to	
	Bethesda Station. [Radio]	
14:00 hours	RTRA Supervisor: Advised the Radio RTC they were mobile and headed to	
	Bethesda Station. [Radio]	
14:01 hours	Assistant Operations Manager: Contacted Montgomery County 911 to report the	
	emergency and provided the known information. [Phone]	
14:02 hours	Radio RTC: Announced that SOP 1A was in effect. [Radio]	
14:02 hours	Train ID 114 Train Operator: Informed the Radio RTC that the customers pulled	
	the emergency handle and were self-evacuating from the lead car 3112. [Radio]	
14:02 hours	Radio RTC: Asked Train ID 114 Train Operator if the train was properly berthed?	
	[Radio]	
14:02 hours	Train ID 114 Train Operator: Responded they were not properly berthed, and	
	they were walking through the train to make sure there were no customers on	
	the last cars. [Radio]	

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Time	Description
14:03 hours	Radio RTC: Asked Train ID 114 Train Operator how many cars were on the platform? [Radio]
14:03 hours	<u>Train ID 114 Train Operator:</u> Responded there were four cars on the platform. [Radio]
14:03 hours	Radio RTC: Instructed Train ID 114 Train Operator to escort customers through the bulkhead door. [Radio]
14:03 hours	Bethesda Station Manager: Advised the Radio RTC that Train ID 114 Train Operator was escorting customers off the train, there were four cars on the platform and two cars in the tunnel. [Radio]
14:04 hours	Radio RTC: Asked Train ID 114 Train Operator if they were able to conduct a ground walkaround. [Radio]
14:04 hours	<u>Train ID 114 Train Operator:</u> Stated they were still escorting customers off the train and could not conduct a ground walkaround. [Radio]
14:04 hours	Radio RTC: Instructed Train ID 114 Train Operator to stay on the platform after escorting the customers off the train and a RTRA Supervisor would conduct the ground walkaround. [Radio]
14:06 hours	<u>Train ID 114 Train Operator:</u> Informed the Radio RTC that the train was evacuated and they were escorting the last elderly customer to the front of the train. [Radio]
14:06 hours	Radio RTC: Gave 100% repeat back. [Radio]
14:08 hours	Radio RTC: Informed the Bethesda Station Manager they were the OSC until an RTRA Supervisor arrived on scene. [Radio]
14:09 hours	Bethesda Station Manager: Gave 100% repeat back. [Radio]
14:09 hours	Radio RTC: Asked Train ID 114 Train Operator if they were able to apply the handbrake on the train? [Radio]
14:09 hours	<u>Train ID 114 Train Operator:</u> Advised they were escorting the last elderly person out of the front car and they would be applying the handbrake to car 3112. [Radio]
14:09 hours	Radio RTC: Gave 100% repeat back. [Radio]
14:11 hours	Radio RTC: Asked the Bethesda Station Manager, standing from the platform if they had a visual of the customer, any signs of life? [Radio]
14:11 hours	Bethesda Station Manager: Stated negative, they could not see the customer. [Radio]
14:11 hours	Radio RTC: Informed the Bethesda Station Manager they had an update. They instructed the Bethesda Station Manager to go to the middle of the second car, 3113, and see if they could see or hear the customer. [Radio]
14:12 hours	Bethesda Station Manager: Informed the Radio RTC they were at the middle of car 3113 but could not see or hear the customer. Also, informed the Radio RTC that the Fire Department was on the scene trying to locate the customer as well. [Radio]
14:13 hours	Radio RTC: Instructed the Bethesda Station Manager to give them an MTPD Officer name and badge number and they would be the OSC and the Bethesda Station Manager would be the RTRA Forward Liaison until a RTRA Supervisor arrived. [Radio]

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Time	Description
14:13 hours	Recon Team: Requested permission to enter roadway to place WSADs and
	locate the injured person.
	<u>Unified Commander:</u> Acknowledges transmission and grants permission [Open
44441	Mhz]
14:14 hours	Bethesda Station Manager: Gave 100% repeat back and informed the Radio RTC they were walking to get the MTPD officer information. [Radio]
14:15 hours	Bethesda Station Manager: Provided the Radio RTC with the MTPD officer's
	information. [Radio]
14:17 hours	CMNT Unit: Informed the Radio RTC they were on the scene. [Radio]
14:18 hours	Radio RTC: Informed Train ID 101 they would not service Bethesda Station however they needed to properly berth the train and allow the RTRA Supervisor to key themselves off the train. Repeated, do not open the doors they need to bypass that station. [Radio]
14:18 hours	Train ID 101: Gave 100% repeat back [Radio]
14:18 hours	MTPD Personnel: Contacted the ROCC to inform them that MTPD officers were
	requesting trains to bypass Bethesda Station. They also requested an RTRA
	Supervisor and Bus Supervisor so a bus bridge could be established. [Phone]
14:20 hours	RTRA Supervisor #1: Contacted the Radio RTC to let them know they arrived at Bethesda Station. [Radio]
14:20 hours	Radio RTC: Informed the RTRA Supervisor #1 they were now the RTRA
	Forward Liaison and to give them an update when they got to the platform.
44.00.1	[Radio]
14:20 hours	RTRA Supervisor #1: Gave 100% repeat back. [Radio]
14:21 hours	Radio RTC: Informed the RTRA Supervisor #2 the Incident Command Post was at the top of the escalator at the bus bay. [Radio]
14:23 hours	Radio RTC: Informed RTRA Supervisor #1 they needed to conduct a ground
	walkaround because the train operator was unable too. They were going to grant them FT to enter the roadway to check for any signs of life. [Radio]
14:23 hours	RTRA Supervisor #1: Informed the Radio RTC that the Fire Department was in
	the roadway, they had signs of life, and they were trying to pull them onto the
44.00:	platform. [Radio]
14:23 hours	Radio RTC: Gave them a 100% repeat back but also told them they needed
	them to enter the roadway to confirm third rail power deenergized. Asked if they
14:23 hours	had a working hot stick? [Radio] RTRA Supervisor #1: Confirmed they had a working hot stick and advised the
14.20 110015	customer was from under the train and on a gurney on the platform. [Radio]
14:24 hours	Radio RTC: Asked RTRA Supervisor #1 if all personnel had cleared the roadway? [Radio]
14:24 hours	RTRA Supervisor #1: Responded, Negative the Fire Department was still in the roadway. [Radio]
14:26 hours	RTRA Supervisor #1: Advised the Radio RTC that all personnel were cleared
	from the roadway. [Radio]
14:26 hours	Bus Supervisor dispatched to Bethesda Station to manage the bus bridge. [Phone]

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Time	Description
14:27 hours	Radio RTC: Asked RTRA Supervisor #1 what car was the customer removed
	from under? [Radio]
14:27 hours	RTRA Supervisor #1: Responded, 3113, the second car. [Radio]
14:27 hours	Radio RTC: Gave 100% repeat back. [Radio]
14:28 hours	RTRA Supervisor: Advised all medics were attending to the injured customer but
	there was a medic coming downstairs that should be able to check the train
14:36 hours	operator. [Radio] RTRA Supervisor #1: Informs the Radio RTC that the struck person is being
14.30 110013	transported to Suburban Hospital. [Radio]
14:36 hours	Radio RTC: Gave 100% repeat back. [Radio]
14:51 hours	Radio RTC: Contacted RTRA Supervisor #1 to ask about an update on the train
	operator; if they were transported. [Radio]
14:52 hours	RTRA Supervisor #1: Responded, "Negative," they were in the kiosk with
15:01 hours	detectives, kiosk 11. [Radio]
15:01 hours	Radio RTC: Asked RTRA Supervisor #1 if Track 2 at Bethesda Station could be serviced? [Radio]
15:01 hours	RTRA Supervisor #1: Stated they would check with MTPD and provide an
10.01110013	update. [Radio]
15:05 hours	Radio RTC: Asked RTRA Supervisor #1 which jurisdiction fire department
	responded to the scene? [Radio]
15:05 hours	RTRA Supervisor #1: Responded Montgomery County Fire Department. [Radio]
15:07 hours	RTRA Supervisor #1: Informed the Radio RTC that MTPD authorized that Track
	2 at Bethesda Station could be serviced. [Radio]
15:07 hours	Radio RTC: Affirmed. [Radio]
15:21 hours	RTRA Supervisor #1: Informed the Radio RTC that MTPD was concluding their
	investigation then was going to allow ERT to complete their ground walkaround.
	[Radio]
15:21 hours	Radio RTC: Gave a 100% repeat back. [Radio]
15:27 hours	ERT Unit: Contacted the Radio RTC to request Train ID 114, Track 1 be moved
45.05.1	to complete inspection. [Radio]
15:27 hours	Radio RTC: Gave a 100% repeat back and told ERT Unit to stand by. [Radio]
15:27 hours	Radio RTC: Asked RTRA Supervisor #1 to notify ROCC when MTPD turns the
45.07 h a	scene over to RTRA. [Radio]
15:27 hours 15:31 hours	RTRA Supervisor #1: Gave a 100% repeat back. [Radio]
15.51 110018	RTRA Supervisor #1: Informed the Radio RTC that all personnel and equipment were cleared from the roadway and the train could be moved so ERT could
	complete their inspection. [Radio]
15:37 hours	IMO: Contacted the OSC because they were informed they had permission to
	restore third rail power but wanted to verify if MTPD was turning the scene over.
	OSC informed the IMO that MTPD was maintaining control of the scene. [Radio]
15:39 hours	Third rail power was reenergized so Train ID 714 could be moved. [Radio]
15:46 hours	Radio RTC: Informed the RTRA Supervisors that Train ID 714 is to clear the
	Friendship Heights interlocking then transport to Shady Grove Yard. [Radio]
15:52 hours	RTRA Supervisor #2: Informed Radio RTC that the OSC was requesting third
	rail power be deenergized. [Radio]

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Time	Description
15:52 hours	Radio RTC: Gave a 100% repeat back and stated third rail power was
	deenergized. [Radio]
15:56 hours	ERT Unit: Informed the Radio RTC that third rail power was deenergized and
	provided the CMs. [Radio]
15:56 hours	Radio RTC: Gave a 100% repeat back. [Radio]
15:57 hours	Radio RTC: Contacted RTRA Supervisor #2 to inform them that third rail power
	was deenergized and asked if MTPD had any other requests. [Radio]
15:58 hours	RTRA Supervisor #2: Advised the Radio RTC that MTPD did not have any more
	requests. [Radio]
16:06 hours	RTRA Supervisor #2: Informed the Radio RTC that MTPD was turning the scene
	over to RTRA. [Radio]
16:15 hours	ERT Unit: Informed the Radio RTC that all personnel and equipment were
	cleared from the roadway and third rail power could be restored at their
	discretion. [Radio]
16:15 hours	Radio RTC: Gave a 100% repeat back. [Radio]

^{**}Note: Times above may vary from other system's timelines based on clock settings and reporting source.

The Office of Chief Mechanical Officer (CMOR) / Vehicle Monitoring and Diagnostic System (VMDS) Timeline

Adopted from CMOR Incident Investigation Team (IIT) report:

"On January 29, 2022, Train ID 114 travelling red line inbound track #1, car 3112 leading. CENV downloaded and completed VMS data analysis for this incident:

- 1 13:49:02 Train entered the A10-01 platform (Bethesda) with 26mph, MP in B2 position
- 2 13:49:03 After traveled for around 35-40 feet master controller was moved to B5 position.
- 3 13:49:09 After 165 feet, train slowed down to 5mph, dead man was released and Emergency push button was depressed, emergency brake applied.
- 4 Train come to full stop after 2.1sec. (time 13:49:11)

NOTES:

- 1 Time shows above is the VMS time
- 2 The VMS time is 9 minutes behind Verizon time (real time)."

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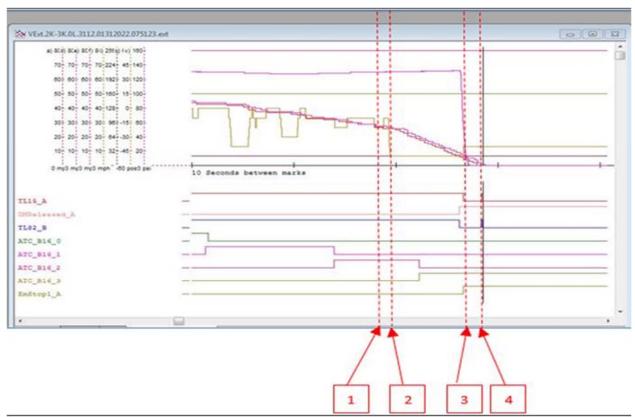


Figure 2: According to the data analysis train reacted as it is designed to do. No train anomalies related to the incident shown.

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Advanced Information Management System (AIMS)



Figure 3: This image shows when third power was initially deenergized.



Figure 4: This image shows when third rail power was reenergized to move Train ID 714 so ERT could complete their inspection.

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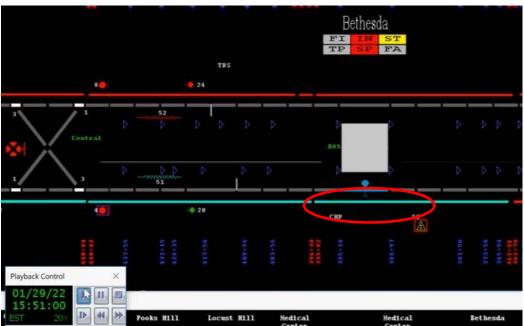


Figure 5: This image shows when third rail power was deenergized so the ERT could complete their inspection.



Figure 6: This image shows when third rail power was reenergized at the conclusion of the event.

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Interview Findings

During the virtual interview, the Train Operator stated they experienced no issues prior to the event. On entering the station, the Train Operator reported that it was odd when they saw a customer walking towards the roadway as they were entering the station. The Train Operator stated the customer was about 20 feet from the train when they realized the customer was going to enter the roadway. The Train Operator immediately depressed the emergency brake. The Train Operator reported feeling fully alert just prior to the incident. The Train Operator reported entering Bethesda Station under the 40 mph maximum. The Train Operator stated they did not experience any mechanical issues with Train ID 114 prior to the person being struck. The Train Operator stated they received medical attention while MTPD detectives interviewed them.

Weather

On January 29, 2022, at the time of the incident, NOAA recorded the temperature as 27°F, with clear skies throughout the afternoon. The event occurred within a tunneled section of the rail system. Weather was not a contributing factor in this incident (Weather source: NOAA) – Location: Washington, DC.)

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 involved person was not available to ascertain whether evidence of fatigue was present. The Train Operator 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

Incident data was evaluated for fatigue risk factors. There were no major risk factors for fatigue identified. The incident time of day (13:58 hours) does not suggest an increased risk of fatigue-related impairment. With the exception of one (1) evening shift, the employee worked day shifts in the days leading up to the incident, including three (3) 12-hour shifts. Based on the employee's reported bed and wake times, the employee slept a total of 9 hours in the sleep period preceding the incident and was awake for 8.9 hours at the time of the incident. The off-duty period preceding the incident was 12.6 hours long, which provided the opportunity for 7-9 hours of sleep. The employee reported usual workday sleep durations of eight hours and no issues with sleep.

Post-Incident Toxicology Testing

WMATA's Drug and Alcohol Program determined that the Train Operator tested in relation to this event was not in violation of the Drug and Alcohol Policy and Testing Program 7.7.3/6.

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Findings

- Train ID 114 entered Bethesda Station at 26 mph, which is in compliance with Permanent Order T-21-02 MSRPH, Section 3.
- The Train Operator reported feeling fully alert at the time of the incident.
- The Train Operator reported no mechanical issues with Train ID 114 prior to the incident.
 Post-incident vehicle analysis did not identify any deficiencies with the train's propulsion or braking systems.
- Third rail power was deenergized within approximately two minutes of the reported event.
- The customer sustained serious injuries and was transported from the scene for treatment.
- Post-incident inspection identified damage to the lead car's TWC antenna.

Immediate Mitigation to Prevent Recurrence

- Train Operator removed from service.
- Train ID 114 was removed from service for inspection.
- ERT inspected the tracks for any hazards prior to restoring revenue service. None were observed.

Probable Cause Statement

The probable cause of the Collision event at Bethesda Station on January 29, 2022, was an intentional action to enter the roadway while the train was entering the Bethesda Station Platform.

SAFE Recommendations/Corrective Actions

There are no recommendations for this collision event, as the struck person intentionally placed themselves onto the roadway fouling the train's dynamic envelope. The Train Operator, vehicles, and infrastructure did not contribute to the event.

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Appendices

Appendix A – Interview Summary

*The below transcript is a summary of the SAFE interview conducted with the train operator. It reflects statements made by them and may conflict with other systems of record.

The Train Operator is a WMATA employee with six and a half (6.5) years of service with five (5) years as a train operator. The Train Operator is RWP Level 2 certified and last certified as a train operator on 2/29/2020. The Train Operator mentioned feeling fully alert right before the incident. The Train Operator stated it was a regular Saturday morning. They took their initial train from Shady Grove Yard. Everything was fine, they were using caution because of some inclement weather. The Train Operator stated they relieved an operator at Shady Grove, at the end of the line, when they came off their meal break. They got on the train and made sure everything was good. The Train Operator stated there were no mechanical issues with Train ID 114 prior to the incident. The Train Operator stated when entering a station, they make announcements to the customers and check their speed. Your speed should not be greater than 40 mph and they are always lower than 40 mph, especially on the weekends. The Train Operator stated they tend to be more mindful of people on the platform because there tend to be a lot of little toddlers without their parents. The Train Operator stated they don't hold their hands, so when they enter the platform, they are already looking for kids that might be running around on the platform. "Upon me entering the station. Uh, I saw the customers you know at station but at a distance. I proceeded to the platform. I saw some people standing there so I was dropping my speed. I was already down to 30 mph I believe. And you know it was a little crowded on the platform because we were running like 12 minutes apart on the red line. So that time of day, people are out there doing whatever and I saw some kids on the platform. Then I saw a lady walking towards the train. That's not normal. People don't normally come towards the train once the train starts coming into the platform. I noticed the lady walking and suddenly, she just jumped off the platform straight down to the roadway. She just like dipped right off the edge of the platform." The Train Operator stated the customer was maybe 20 feet or so, when they noticed them heading towards the roadway. The Train Operator stated they pressed the emergency brake. The Train Operator was not able to complete a ground walkaround after the person was struck by the train. The Train Operator received medical attention while MTPD was interviewing her.

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Appendix B - MTPD Hot Wash Summary



Metro Transit Police Department **Hot Wash Summary**



ADMINISTRATION HANDLING INSTRUCTIONS

This report will be completed after a debriefing or "hot wash" in accordance with applicable department policies/directives and procedures; at the request of the Chief of Police or designee or following any incident or event requiring the activation of the Incident Command System (ICS). The purpose of the report is to provide information, assess response, identify training, equipment needs, and to identify areas that may require improvement. After completion of this report, it should be forwarded to the Deputy Chief through the chain of command for review.

This report and any attachments are classified as For Official Use Only. This report may be used for emergency incidents, special events, and exercises. Items marked with an asterisk (*) will be completed by the last official designated as the Incident Commander (IC) as there may be more than one IC during the incident.

	II.	NCIDENT	SUMMARY	And the second second
Incident Requiring ICS	Activation:	Person St	ruck by Train	
*Incident Commander (IC):			
MTPD CCN:	2022-00412		Local CCN:	
*Date ICS Initiated:	1/29/2022		*Time ICS Initiated:	1414 Hours
*Date ICS Terminated:	1/29/2022		*Time ICS Terminated:	1606 Hours
*Duration of Incident:	Two Hours and Eight Minutes		*Service Disrupted (Type and Time):	Single Tracking 1405 Hours
Incident Location:	(Bethesda Metro) 7451 Wisconsin Ave, Bethesda, MD		Command Post Location:	Bus Bay 7451 Wisconsin Ave, Bethesda, MD
MTPD On-Scene Commander (OSC):			Command Aid for OSC:	
Forward Liaison:			Unified Command:	Yes
OCC Liaison:	N/A		Alternate Channel:	MTPD 2X
Single Tracking (Time & Track No.):	1405 hours 1	Frack 2	Bus Bridge Established (From /To):	No
Inner and/or Outer Perimeter:	Yes		Power De-energized:	Yes. Track 1
OSC Relinquished Scene Command to Name Dept:			Medical Attention Required/Requested:	Yes

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Approved By: SAFE 71 – 03/29/2022

Metro Transit Police Department Hot Wash Summary

	OBSERVATIONS
1401 Hours- Rail report Bethesda and power ha	ted that an individual had been struck by train 114 on the Track 1 side of ad been taken down.
	ew was conducted by Criminal Investigation Division and the with the individual purposefully placing themselves in the path of the train as it on.
1405 Hours- Rail begar	n single tracking on Track 2.
1411 Hours- Montgome on scene.	ery County Police Department and Montgomery County Fire Department arrive
	made contact with the Fire Department command post in the bus bay mand. Officer made contact with the operator of the striking train and
1417 Hours- Officer	was made the accountability officer and began entry/exit log
	ras switched over to radio channel MTPD 2X. Sergeant arrived on s Incident Command. Sergeant responded and was made Forward
	arrived on scene and began interviewing the train operator. Once the ed the operator was released from the scene.
Train 114. The individu	Department extricated the struck individual from under the second train car of all was taken to Suburban Hospital with life threatening injuries. Officer ind the ambulance. Detective responded to attempt to interview the e was taken in for emergency surgery.

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Effective: 12/30/20

Metro Transit Police Department Hot Wash Summary

1447 Hours- The Fire Department determined the incident to no longer be life safety and cleared the
scene. Unified command was broken down and the Command post was moved to the kiosk.
1502 Hours- Crime Scene Search Officer. began processing the incident train and scene
1520 Hours- ERT Units were given permission to renergize Track 1 so the incident train could be
noved and a walk around conducted. Officer accompanied the train to Shady Grove Rail Ya
Crime Scene Search Officer responded to the rail yard to process the train.
1540 Hours- ERT Units concluded their walk around. Power was deenrgized to Track 1 so Crime
Scene Search Officer could finish processing the scene.
1602 Hours- Crime Scene Search Officer
completed.
1606 Hours- Incident was turned over to RTRA Supervisor Power was reenergized on Tra
for normal service to resume.
1705 Hours- Crime Scene Search Officer concluded processing of the incident train at the Shace
Grove Rail Yard. The train was released to Supervisor
Jse separate sheet if additional space is required.
NOTES
Hot Wash Participants:
of proof-only the first out began as off
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Appendix C - Maximo Work Order



Washington Metropolitan Area Transit Authority

Maintenance and Material Management System

Work Order Details



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Status: CLOSE 02/02/2022 04:45

Work Description: PERSON STRUCK BY TRAIN TRACK 1 Job Plan Description:

Work Information Asset: R3112 3112, RAIL CAR, BREDA, 3000 AC, A CAR Owning Office: CMNT-CMNT-CMNT Parent: Asset Tag: R3112 Maintenance Office: CMNT-NEWC-INSP Create Date: 01/29/2022 17:18 Asset S/N: 3112 Labor Group: CMNT Actual Start: 01/29/2022 17:19 Location: 1230 D99. NEW CARROLLTON YARD Crew: Actual Comp: 02/01/2022 08:50 Work Location: 1136 A99, SHADY GROVE YARD Item: L18050002 Lead: Failure Class: CMNT001 RAIL CAR GL Account: WMATA-02-33393-50499160-041-****** Problem Code: 1025 ACCIDENT/COLLISION/DERAIL Supervisor: Target Start: Requested By: Requestor Phone: Target Comp: Chain Mark Start: Chain Mark End Scheduled Start: Create-Mileage: 2598182.0 Complete-Mileage: 2596517.0 Task ID 10 SEE DETAILS 000-300-E00 SUBSYSTEM; FRICTION BRAKE; 2K/3K/ T/S MAIN RESERVOIR PRESSURE FAILURE TO MAIN RES PRESSURE SWITCH. NEED R/R. PRESSURE SWATCH IS AT THE TRAIN. Reason: ERROR DISPLAYED Work Accomp: TROUBLE SHOT Status: CLOSE Position: Warranty?: N SEE DETAILS REMOVED MAIN.PRS.SW AND REPLACED. NO AIR LEAKS AND GOOD BRAKE CYLINDER PRESSURE, GOOD FOR SERVICE. 000-300-F07-002-004 MAIN PRESSURE SWITCH Component: (ACAR ONLY); 2K/3K Work Accomp: REPLACED REBUILT Reason: INOPERATIVE Status: CLOSE Position: Warranty?: N DETAILS 30 IN SHOP RIR TWC ANNTENNA GOOD FOR SERVICE 000-300-S04 ATC: TWC TRANSMIT ANTENNA; Work Accomp: REPLACED NEW Component: UNIVERSAL FIT; 2K/3K/6K Reason: INCIDENT//ACCIDENT Status: CLOSE Position: Warranty?: N 40 DETAILS CONSOLE AND FDU STILL READING 14D PSI AT BRAKES.

MAIN PRESSURE SWITCH READING IS 130PSI ON AND 150PSI OFF AT AIR COMPRESSOR
PNUMATIC HIA PRESSURES ARE CORRECT AND IN SPEC.

NO FAULTS ON HIA ELETRONICS

PSI READING IN B OAR ARE CORRECT AT CONSOLE

RECOMMEND REPLACING PRESSURE GUAGE FOR FAULT ISOLATION SEE WIO 16856975 FOR REPAIR DETAIL. THIS WIO COMPLETED.

TIME AND DATE CORRECT ON VMS

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