



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

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

WMSC Commissioner Brief: W-0104 – Collision, Customer Fatality – White Flint Station – May 14, 2021

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

Safety event summary:

A Metrorail customer exited an inbound train at White Flint Station on May 14, 2021, walked to the end of the outbound platform, then jumped into the roadway ahead of an oncoming outbound Red Line train traveling toward Shady Grove. The train struck the person as the individual was lying across the tracks.

The Train Operator reported the event to the Rail Operations Control Center (ROCC), rail controllers dispatched appropriate response personnel, and a ROCC Assistant Superintendent called the Montgomery County Fire and Rescue Service (MCFRS).

The Train Operator was distraught about the event and was therefore not able to perform a ground walkaround. An Office of Rail Transportation (RTRA) Supervisor on scene performed the ground walkaround after assisting with offloading the train.

MCFRS removed the person who was struck from the roadway and took them to Suburban Hospital. The person died on June 5, 2021.

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 with this report.

Staff recommendation: Adopt final report.



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

Date of Event:	5/14/2021
Type of Event:	A-3: Collision- Serious Injury
Incident Time:	13:01 hours
Location:	White Flint Station, Track 2
Time and How received by SAFE:	5/14/2021 at 13:04 hours SAFE On-Call Phone
WMSC Notification Time:	5/14/2021 at 13:52 hours via Phone
Rail Vehicle:	Train ID 107 L3163-62X3134-35X3260-61X3238-39T
Injuries:	Yes
Damage:	None
Emergency Responders	Office of Rail Transportation (RTRA), Montgomery County Fire & Rescue Service (MCFRS), Metro Transit Police Department (MTPD), Department of Safety and Environmental Management (SAFE)
SMS I/A Incident Number:	20210514#93304MX

White Flint Station – Collision - Serious Injury

May 14, 2021

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Abbreviations and Acronyms

ARS	Audio Recording System
CAP	Corrective Action Plan
CCTV	Closed-Circuit Television
CMNT	Office of Car Maintenance
CMOR	Office of Chief Mechanical Officer
FT	Foul Time
IIT	Incident Investigation Team
MC	Master Controller
MCFRS	Montgomery County Fire & Rescue Service
MSRPH	Metrorail Safety Rules and Procedures Handbook
MTPD	Metro Transit Police Department
NOAA	National Oceanic and Atmospheric Administration
ROCC	Rail Operations Control Center
RTC	Rail Traffic Controller
RTRA	Office of Rail Transportation
SAFE	Department of Safety and Environmental Management
T/O	Train Operator
VMS	Vehicle Monitoring System
WMATA	Washington Metropolitan Area Transit Authority
WMSC	Washington Metrorail Safety Commission

Executive Summary

Closed Circuit Television (CCTV) revealed that on Friday, May 14, 2021 at approximately 12:55 hours, an unknown person arrived at White Flint Station on Train ID 101 in the direction of Glenmont Station. The unknown person exited the train and fixed something with their backpack. The unknown person proceeded to walk to the end of the platform of Track 2, where they stood until the next the train arrived. The unknown person did not appear to talk to anyone in person or use any cellular devices but continuously looked around. At approximately 13:01 hours, a Red Line train [Train ID 107 consist L3163-62X3134-35X3260-61X3238-39T] on Track 2, traveling outbound towards Shady Grove Station entered White Flint Station platform limits when the unknown person jumped in the roadway and intentionally threw their body across the tracks.

The Vehicle Monitoring System (VMS) data revealed Train ID 107 entered White Flint Station at 28 MPH, which complied with Rail Transportation's (RTRA) Permanent Order T-21-02 MSRPH Section 3.82.3. The Train Operator (T/O) notified the Rail Operations Control Center (ROCC) Radio Rail Traffic Controller (RTC) of the event. The Radio RTC acknowledged the transmission. The Radio RTC proceeded to dispatch RTRA Supervisors, Metro Transit Police Department (MTPD), and Department of Safety and Environmental Management (SAFE) personnel to White Flint Station to assist with the incident response. The ROCC Assistant Superintendent called Montgomery County Fire & Rescue Service (MCFRS) to have emergency personnel dispatched to the scene.

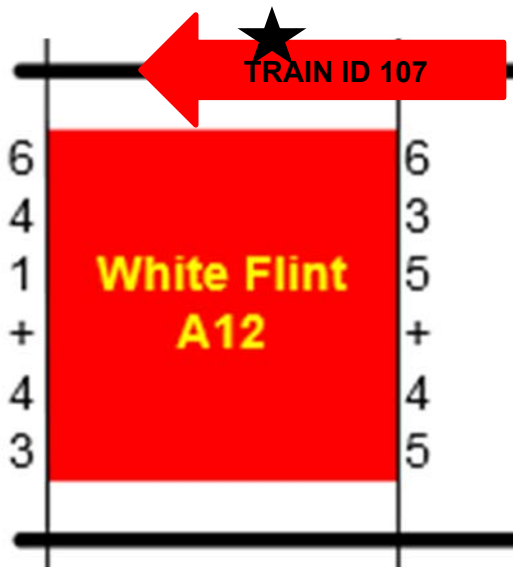
Based on ARS playback, the Radio RTC requested that the T/O conduct a ground walkaround, however the RTRA Supervisor advised that the T/O was unable to perform the task. The RTRA Supervisor reported that they would conduct the ground walkaround once they cleared the passengers from the consist. The RTRA Supervisor was granted foul time (FT) to conduct the ground walkaround when they located the person underneath car 3162, the second car from the lead. Initially, the RTRA Supervisor did not observe signs of life, however the struck person started to move. MCFRS removed the person from underneath car 3162 and transported them to Suburban Hospital for treatment. Car Maintenance (CMNT) personnel performed an inspection of the consist to make sure it was safe to be moved. The MTPD released Train ID 107 to be transported back to Shady Grove Yard for additional inspections. The person later succumbed to their injuries on June 5, 2021.

The probable cause of the person struck by a train event at White Flint Station on May 14, 2021, was the person's intentional action to place themselves on the roadway within the dynamic envelope of the train. As the person placed themselves on the roadway, the T/O activated the Emergency Push button and placed the Master Control (MC) handle in B5. Unfortunately, the T/O was unable to prevent contact with the person, resulting in serious bodily injuries. Based on a post-incident station inspection, SAFE did not identify any slip or trip hazards that may have contributed to this event.

Incident Site

White Flint, Track 2

Field Sketch/Schematics



Purpose and Scope

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

Investigative Methods

The investigative methodologies included the following:

- Physical Site Assessment
- Formal Interview – SAFE interviewed one individual as part of this investigation. The interview included the person present at and during the incident. SAFE interviewed the following individual:
 - Train Operator
- Documentation Review – Collection of relevant work history information and process documentation contained in WMATA systems of record. These records include:
 - Train Operator Training Records
 - Train Operator Certifications
 - Train Operator 30-Day Work History Review
 - Metrorail Safety Rules and Procedures Handbook (MSRPH)
 - National Oceanic and Atmospheric Administration (NOAA)
 - Rail Operations Control Center (ROCC) Incident Report
 - Maximo Data

- System Data Recording Review – Collection of information contained in Metro Data Recording Systems. This data includes:
 - ARS (Audio Recording System) playback [Radio and Landline Communications]
 - The Office of Chief Mechanical Officer (CMOR) Incident Investigation Team (IIT) Vehicle Monitoring and Diagnostic System (VMDS)
 - Closed-Circuit Television (CCTV)
 - ROCC SPOTS Report

Investigation

Closed Circuit Television (CCTV) revealed that on Friday, May 14, 2021 at approximately 12:55 hours, an unknown person arrived at White Flint Station on Train ID 101 in the direction of Glenmont Station. The unknown person exited the train and fixed something with their backpack. The unknown person proceeded to walk to the end of the platform of Track 2, where they stood until the next the train arrived. As the platform lights started to flash, the unknown person got closer to the edge of the platform. At approximately 13:01 hours, a Red Line train [Train ID 107 consist L3163-62X3134-35X3260-61X3238-39T] on Track 2 traveling outbound towards Shady Grove Station entered White Flint Station platform limits when the unknown person jumped in the roadway and intentionally threw their body across the tracks.

The VMS data revealed Train ID 107 entered White Flint Station at 28 MPH which complied with RTRA's Permanent Order T-21-02 MSRP Section 3.82.3. The T/O notified the ROCC Radio RTC of the event. The Radio RTC acknowledged the transmission. The Radio RTC proceeded to dispatch RTRA Supervisors, MTPD, and SAFE personnel to White Flint Station to assist with the situation. The ROCC Assistant Superintendent called MCFRS to have emergency personnel dispatched to the scene.

Based on ARS playback, at approximately 13:02:17 hours, the Rail RTC requested RTRA Supervisors to assist at White Flint Station. At approximately 13:02:41 hours, one RTRA Supervisor responded that they were on approach to White Flint Station, Track 1 and would assist. The Radio RTC requested that the T/O conduct a ground walkaround, however the RTRA Supervisor advised that the T/O was unable to perform the task. The RTRA Supervisor reported that they would conduct the ground walkaround once they cleared the passengers from the consist. The RTRA Supervisor was granted FT to conduct the ground walkaround when they located the struck person underneath car 3162, the second car from the lead. Initially, the RTRA Supervisor did not observe signs of life, however the struck person started to move. MCFRS removed the person from underneath car 3162 and transported the person to Suburban Hospital for treatment. CMNT Personnel performed an inspection of the consist to make sure it was safe to be moved. The Metro Transit Police Department released Train ID 107 to be transported back to Shady Grove Yard for additional inspections. The person later succumbed to their injuries on June 5, 2021.

Chronological Event Timeline

A review of ARS playback, i.e., phone and radio communications via Ops. 1, and ROCC-ASST SUPT 12063, revealed the following:

Time	Description
13:01:00 hours	<u>T/O</u> : Notified ROCC that they had an emergency at White Flint. <u>Radio RTC</u> : Repeat. [Radio]
13:01:10 hours	<u>T/O</u> : 107 just had a jumper, over. <u>Radio RTC</u> : Acknowledged T/O's message and asked if they were okay. [Radio]
13:01:39 hours	<u>Radio RTC</u> : Repeated the question to T/O, are you okay? Over. <u>T/O</u> : Yes, I'm okay. [Radio]
13:01:47 hours	<u>Radio RTC</u> : Acknowledged and asked if they made contact with the person. [Radio]
13:02:26 hours	<u>Radio RTC</u> : Contacts Unit 29 and 26, any supervisor out of Shady Grove, over. [Radio]
13:02:28 hours	<u>RTRA Supervisor Unit 26</u> : Responded and stated that they were on approach to White Flint Station from Van Ness Station. <u>Radio RTC</u> : Acknowledged RTRA Supervisor Unit 26 and asked their location. <u>RTRA Supervisor Unit 25</u> : Responded, Track 1 on approach to White Flint Station. [Radio]
13:02:45 hours	<u>Radio RTC</u> : Acknowledged and notified RTRA Supervisor Unit 25 that once at White Flint Station, they would be designated as On-Scene Commander. [Radio]
13:02:53 hours	<u>Radio RTC</u> : Asked T/O if all their cars are within the station's platform. <u>T/O</u> : No, I'm not properly berthed. <u>Radio RTC</u> : Acknowledge and asked if T/O contacted the person. [Radio]
13:03:02- 13:04:31 hours	<u>Montgomery County 911</u> : What's the address of the emergency? <u>ROCC Assistant Superintendent</u> : Yes, the address is 5501 Marinelli Road, Rockville, MD. <u>Montgomery County 911</u> : Are you calling in an alarm? <u>ROCC Assistant Superintendent</u> : No, I'm calling in a person struck by a train at White Flint train station <u>Montgomery County 911</u> : Okay, can you please verify the address? <u>ROCC Assistant Superintendent</u> : 5501 Marinelli Road, Rockville, MD. <u>Montgomery County 911</u> : Alright, I see White Flint Metro Station. <u>Montgomery County 911</u> : Asks for caller's name, title, and the telephone number they are calling from. <u>ROCC Assistant Superintendent</u> : Provides requested information. <u>Montgomery County 911</u> : Asks a series of question. Passenger's age, gender, awake, or breathing. <u>ROCC Assistant Superintendent</u> : Responds unknown to all questions and that a ground walk around was being conducted. <u>Montgomery County 911</u> : We have help on the way. [Phone]
13:03:21 hours	<u>T/O</u> : I stopped; I pressed the mushroom. <u>Radio RTC</u> : Asked for clarification on the last transmission. [Radio]
13:03:34 hours	<u>T/O</u> : Erratic transmission from the operator, repeating pressing the mushroom and that they had struck the person.

Time	Description
	<u>Radio RTC</u> : Notified T/O that a Supervisor is on the way and instructed them to off-load their train, to not open the doors, and walk customers out of the consist. They asked if they were able to do it? [Radio]
13:04:54 hours	<u>Radio RTC</u> : Instructed the T/O to begin off-loading customers, to not service the station, and walk customers off. T/O: Acknowledged. [Radio]
13:05:09 hours	<u>Radio RTC</u> : Instructed RTRA Supervisor Unit 25 to locate the person. RTRA Supervisor Unit 25: Acknowledged. [Radio]
13:05:24 hours	<u>Radio RTC</u> : Made a blanket announcement informing of a single-track operation due to a person struck by a train event at White Flint Station. [Radio]
13:06:30 hours	Third rail power was de-energized at White Flint Station, Track 2. (AIMS)
13:09:17 hours	<u>RTRA Supervisor Unit 25</u> : Advised Central Train ID 107 Operator was not doing too well so they were walking through the consist to clear the customers. [Radio]
13:14:42 hours	<u>Radio RTC</u> : Granted RTRA Supervisor 25 foul time to enter Track 2 roadway to conduct ground walk around to locate the person struck by the train. [Radio]
13:15:05 hours	<u>RTRA Supervisor Unit 25</u> : Stated they heard blue block but not the full radio transmission because it was distorted, and it was loud where they were. [Radio]
13:15:19 hours	<u>Radio RTC</u> : Instructed RTRA Supervisor Unit 25 to hot stick and confirm that third rail power was de-energized. [Radio]
13:15:28 hours	<u>RTRA Supervisor Unit 25</u> : Acknowledged instructions to hot stick and confirm third rail power was de-energized. [Radio]
13:16:04 hours	<u>RTRA Supervisor Unit 25</u> : Confirmed third rail power was de-energized. [Radio]
13:16:18 hours	<u>Radio RTC</u> : Acknowledged that third rail power was de-energized within the platform limits and instructed them to conduct ground walk around. [Radio]
13:16:27 hours	<u>RTRA Supervisor Unit 25</u> : Advised the person was located under the second car which was 3162. [Radio]
13:16:41 hours	<u>Radio RTC</u> : Acknowledged the location of the person and asked if there were any signs of life. [Radio]
13:17:04 hours	<u>RTRA Supervisor Unit 25</u> : Advised the Radio RTC there were signs of life, they saw the person move. [Radio]
13:18:02 hours	<u>Radio RTC</u> : Instructed RTRA Supervisor Unit 25 to apply the handbrake on the consist. [Radio]
13:18:09 hours	<u>RTRA Supervisor Unit 25</u> : Advised the Radio RTC that the handbrake was already applied. [Radio]
13:18:27 hours	<u>RTRA Supervisor Unit 25</u> : Confirmed the handbrake was applied on the lead car. [Radio]
13:24:51 hours	<u>RTRA Assistant Superintendent</u> : Contacted Radio RTC to inform them that they and a RTRA Supervisor were on the scene at White Flint. [Radio]
13:24:55 hours	<u>Radio RTC</u> : Acknowledged they were on the scene. [Radio]
13:25:27 hours	<u>Radio RTC</u> : Advised RTRA Supervisor they were the RTRA Forward Liaison. [Radio]
13:25:39 hours	<u>RTRA Supervisor</u> : Acknowledged they were the RTRA Forward Liaison. [Radio]
13:30:11 hours	<u>RTRA Supervisor Unit 25</u> : Advised Radio RTC that the person was removed from the roadway and being transported. [Radio]

Time	Description
13:30:20 hours	<u>Radio RTC</u> : Acknowledged the person was removed from the roadway and being taken by paramedics. [Radio]
13:53:15 hours	<u>RTRA Supervisor</u> : Advised Radio RTC that all fire department personnel cleared Track 2 and the platform. [Radio]
13:53:20 hours	<u>Radio RTC</u> : Acknowledged that all fire department personnel cleared Track 2 and the platform. [Radio]
14:28:57 hours	<u>RTRA Supervisor</u> : Contacted Radio RTC to inform that MTPD was requesting third rail power on Track 2 to be restored in order to reposition the train. [Radio]
14:29:25 hours	<u>Radio RTC</u> : Acknowledged MTPD was requesting third rail power be restored and asked RTRA Supervisor to verify that all personnel and equipment were cleared before restoring third rail power. [Radio]
14:29:54 hours	<u>Radio RTC</u> : Advised RTRA Supervisor that before the train was repositioned CMNT Personnel was going to perform their inspection under foul time. [Radio]
14:30:10 hours	<u>RTRA Supervisor</u> : Acknowledged the Radio RTC's transmission. [Radio]
14:31:14 hours	<u>Radio RTC</u> : Granted CMNT Personnel foul time on Track 2 to complete inspection. [Radio]
14:33:27 hours	<u>CMNT Personnel</u> : Contacted Radio RTC to relinquish foul time. [Radio]
14:33:33 hours	<u>Radio RTC</u> : Acknowledged foul time was relinquished and asked if it was safe restore third rail power and move the train. [Radio]
14:34:29 hours	<u>CMNT Personnel</u> : Affirmed it was safe to restore third rail power. [Radio]
14:34:33 hours	<u>Radio RTC</u> : Informed all personnel third rail power was being restored on Track 2 at White Flint. [Radio]
14:35:43 hours	<u>Radio RTC</u> : Contacted RTRA Supervisor to confirm all personnel and equipment was cleared of the roadway before restoring third rail power. [Radio]
14:35:49 hours	<u>RTRA Supervisor</u> : Affirmed all personnel and equipment was cleared from the roadway and they could restore third rail power at their discretion. [Radio]
14:38:06 hours	<u>Radio RTC</u> : Advised RTRA Supervisor that third rail power was restored at White Flint, Track 2. [Radio]
14:39:44 hours	<u>RTRA Supervisor</u> : Advised that MTPD was releasing the train to be transported back to Shady Grove yard. [Radio]
14:39:53 hours	<u>Radio RTC</u> : Acknowledged the train was being released. [Radio]
14:40:02 hours	<u>RTRA Supervisor</u> : Advised Radio RTC that they would be the one transporting the train back to Shady Grove yard because there were no operators at the scene. [Radio]
14:46:28 hours	<u>Radio RTC</u> : Advised RTRA Supervisor that there was an operator approaching White Flint to transport the train back to Shady Grove yard. They would need them to stay at the scene as needed. [Radio]

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

Advanced Information Management System (AIMS)

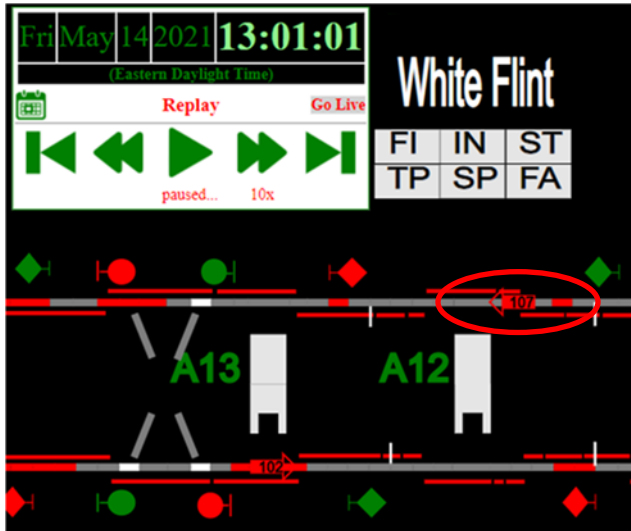


Figure 1 - Train ID 107 on approach to White Flint Station.

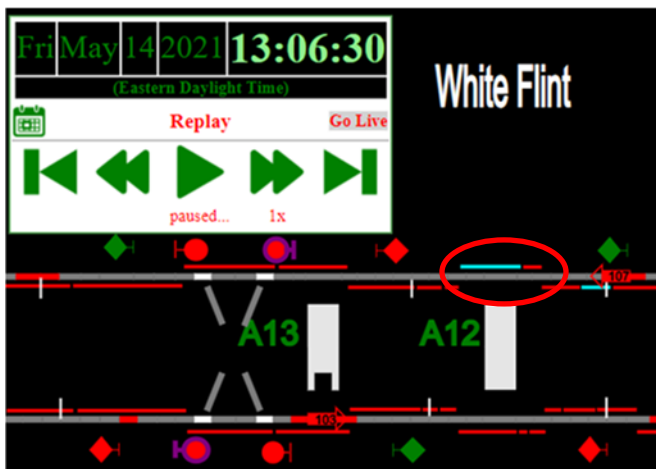


Figure 2 – Third rail power de-energized at White Flint Station, Track 2 (teal color). Train 107 remained immobile after the T/O keyed down on the lead car. The backwards movement displayed in AIMS is possibly a result of the rear cars resting on another circuit.

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

The Office of Chief Mechanical Officer (CMOR) / Vehicle Monitoring System (VMS) Timeline

The analysis of the Vehicle Monitoring System (VMS) data showed that Train ID 107 entered White Flint Station, Track 2 at 28 MPH with the Master Controller (MC) in the B4 position, and Emergency braking was implemented 2 feet into the platform. Based on VMS data, the wheel rotation ceased at 130 feet into White Flint Station Platform, where the train began to slide. The train slid for approximately 6 feet before coming to a complete stop 165 feet into the platform.

Time	Description
12:57:20 hours	Train ID 107 Departed Grosvenor Station, in the direction of White Flint Station, Track 2, Traveling at speeds not exceeding 53 MPH.
12:59:04 hours	MC Placed in B5, Speed 31 MPH. 55 feet from White Flint Station.
12:59:05 hours	MC placed in B4, Speed 28 MPH, 12 feet before White Flint Station.
12:59:06 hours	Train Entered into White Flint Station, Speed = 28 MPH, MC in the B4 position.
12:59:06 hours	Trainline 82 De-Energizes and remains de-energized, 2 feet into the station, Emergency Braking Applied.
12:59:14 hours	Wheels stopped moving and began to slide 130 feet onto White Flint Platform.
12:59:16 hours	Train slides approx. 6 feet Coming to a complete stop approximately 165 feet into White Flint Station's Platform.

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

The analysis shows there were no faults with the train that may have contributed to the cause of this incident.

Office of Car Maintenance (CMNT)

Based on the under-car inspection of Car 3162-63, there was no damage found and minor traces of bodily fluids found on some of the under-car components.

Closed-Circuit Television (CCTV)



Figure 3: At approximately 13:12 hours, MCFRS hot stucked and confirmed third rail power was de-energized.



Figure 4: Shows that MCFRS deployed the WSAD after confirming third rail power was de-energized.

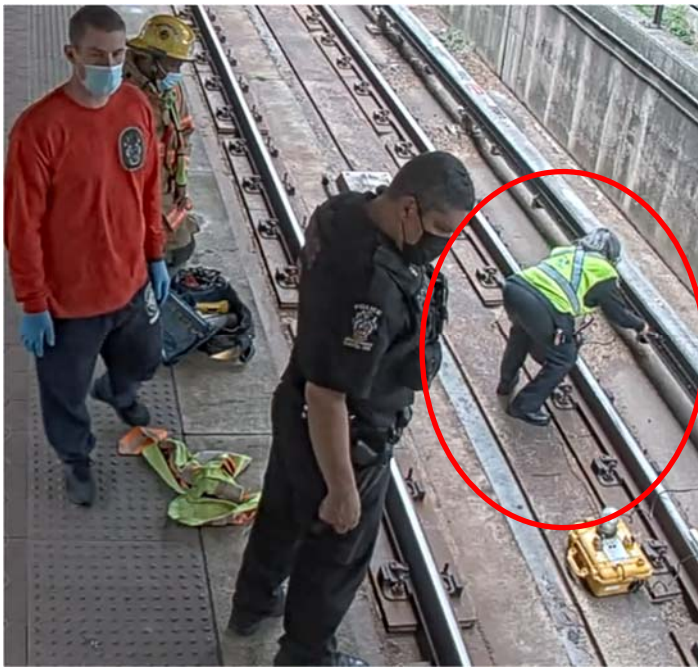


Figure 5: At approximately 13:16 hours, the RTRA Supervisor hot stuck and confirmed third rail power was de-energized.

ROCC SPOTS Report

Select Platform: and/or Select ID: Leave blank to remove criteria
 and/or Select 4-digit car number: Leave blank to remove criteria
 Select Date: Select Times (0-24HRS): From To

Generate Report

ID	Platform	length	dcode	Right door open	Right door close	dwel	Left door open	Left door close	dwel	Head Arrived	Tail cleared	cars	Headway door open to door open
119	A12-1	8	13				12:01:21	12:01:39	18	12:00:51	12:02:05	3148-3149.3158-3159.3136-3137.3177-3176	-
120	A12-1	8	13				12:07:56	12:08:15	19	12:07:20	12:08:40	7320-7321.7327-7326.7446-7447.7295-7294	6.35
121	A12-1	8	13				12:13:04	12:13:32	28	12:12:38	12:14:00	3248-3249.3225-3224.3166-3167.3130-3131	5.08
122	A12-1	8	13				12:20:26	12:20:44	18	12:19:50	12:21:09	7312-7313.7315-7314.7404-7405.7389-7388	7.22
123	A12-1	8	13				12:25:08	12:26:07	59	12:24:36	12:26:34	3119-3118.3172-3173.3273-3272.3142-3143	4.42
124	A12-1	8	13				12:32:24	12:32:43	19	12:31:57	12:33:09	7300-7301.7439-7438.7374-7375.7457-7456	7.16
125	A12-1	8	13				12:36:45	12:37:06	21	12:36:13	12:37:31	7032-7033.7223-7222.7202-7203.7221-7220	4.21
126	A12-1	8	13				12:42:45	12:43:06	21	12:42:15	12:43:35	7444-7445.7367-7366.7408-7409.7397-7396	6.00
127	A12-1	8	13				12:48:26	12:48:36	10	12:47:44	12:49:00	7348-7349.7285-7284.7384-7385.7363-7362	5.41
101	A12-1	8	13				12:55:38	12:55:55	17	12:54:59	12:56:20	7302-7303.7411-7410.7332-7333.7417-7416	7.12

Figure 6: Shows the Train ID and time that the unknown person arrived at White Flint Station.

Interview Findings

- The T/O did not see anything out of the ordinary.
- The T/O 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 T/O always enters the station with the control in B1 to allow for a smooth braking.
- As the T/O was entering the station, they noticed an individual leap down into the roadway.
- The T/O immediately moved the control to B5 and hit the emergency mushroom.
- The T/O said the individual was probably about 30 feet from the consist when they noticed them.
- There were no issues with the train during the T/O's shift.
- The RTRA Supervisor completed the ground walk around and offloaded the passengers from the consist.

Findings

- The 3000 series trains are not equipped with Network Video Recording devices, precluding review of front-end cab video.
- The AIMS display shows that third rail power was de-energized at White Flint Station, Track 2 at approximately 13:06 hours.
- WMATA personnel complied with SOP #1A and SOP #26 procedures when responding to this event.
- CMOR IIT personnel reported the emergency stop button was applied.
- Based on a post-incident station inspection, SAFE did not identify any slip or trip hazards that may have contributed to this event.
- CMNT personnel did not identify any damage to the cars.
- CMNT performed an under-car cleaning and a post-incident inspection on the brake system, propulsion system, and master controller operational checks.
- CMNT found all car subsystems worked as designed.
- The T/O entered White Flint Station at 28 mph which complied with Permanent Order T-21-02 MSRP Section 3.

- T/O performed emergency braking immediately upon observing the person in front of their train.
- The struck person sustained serious injuries caused by intentional action.

Weather

On May 14, 2021, at the time of the incident, NOAA recorded the temperature as 71° F, with 9 MPH NNW winds and mostly cloudy. SAFE has concluded that weather was not a contributing factor in this incident (Weather source: NOAA) – Location: Washington, DC.)

Human Factors

Fatigue

Evidence of Fatigue

Conditions were evaluated at the time of the incident to distinguish whether evidence of fatigue was present. No video of the involved person was available to determine whether evidence of fatigue was present. The T/O reported feeling fully alert at the time of the incident. The T/O reported experiencing no symptoms of fatigue in the time leading up to the incident.

Fatigue Risk

Incident data was evaluated for fatigue risk factors. No significant risk was identified. The incident time of day did not suggest an increased risk of fatigue-related impairment. The T/O reported keeping a regular sleep schedule in the days leading up to the incident. The T/O worked one 07:00 -15:00 shift in the days leading up to the incident. The T/O was awake for 10 hours at the time of the incident. The T/O reported 7 hours of sleep in the 24 hours preceding the incident. The off-duty period was 13 hours which provides an opportunity for 7-9 hours of sleep. This was a less amount of sleep than the T/O's usual workday sleep durations. The T/O reported no issues with sleep. The T/O worked one shift in the days leading up to the incident.

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.

Immediate Mitigation to Prevent Recurrence

- The ROCC de-energized third rail power at White Flint Station, Track 2, to allow responding units to enter the roadway and conduct rescue operations and incident investigation.
- RTRA removed the Train Operator from service for post-incident toxicology testing.
- ROCC removed Train ID 107 from service for post-incident investigative processes.

Probable Cause Statement

The probable cause of the person struck by a train event at White Flint Station on May 14, 2021, was the person's intentional action to place themselves on the roadway within the dynamic envelope of the train. As the person placed themselves on the roadway, the T/O activated the Emergency Push button and placed the Master Control (MC) handle in B5. Unfortunately, the T/O was unable to prevent contact with the person, resulting in serious bodily injuries. Based on a post-incident

station inspection, SAFE did not identify any slip or trip hazards that may have contributed to this event.

SAFE Recommendations/Corrective Actions

There are no recommendations for this event due to the customer intentionally entering the roadway, fouling the train's dynamic envelope.

Appendix A – Interview Summary

The T/O is a WMATA employee with one and a half years of experience as a Train Operator and six total years of service, including a previous position as a Bus Operator. The T/O did not have any safety infractions as a Train Operator. The T/O stated they felt fully alert leading up to when the person was struck by the train. The T/O reported not having any issues with sleep and typically get eight to nine hours of sleep prior to their work shift. The T/O stated as they entered White Flint Station, they did not see anything out of the ordinary. As the T/O entered White Flint Station, they noticed a person leap down onto the roadway placing themselves in the path of the train. The T/O stated the person may have been 30 feet away from the train when they noticed them on the roadway. The T/O stated they immediately put the MC in B5 and pressed the emergency mushroom. The T/O contacted the ROCC and informed them of the situation. The T/O was distraught and was therefore unable to conduct a ground walk around or clear the passengers from the consist. The T/O remained in the operator cab the entire time and answered several questions from MTPD before they were taken for post-incident toxicology testing.

Appendix B – RTRA Permanent Order T-21-02 Train Speed Entering the Station



Washington Metropolitan Area Transit Authority

METRO RAIL SAFETY RULES AND PROCEDURES HANDBOOK

PERMANENT ORDER

NO. T-21-02 MSRP Section 3, Operating Rules	Approved Date: Tuesday, March 02, 2021
Affected Rule/SOP: Section 3, 3.82	Effective Date: Tuesday, March 02, 2021

TO: All

Scope:

Permanent Order T-21-02 modifies MSRP Section 3 - Operating Rules governing train operating speeds.

Purpose:

Permanent Order T-21-02 Purpose: To establish maximum train speed when entering a rail station while in revenue service.

Permanent Order Rule Modification:

Additions to rules and procedures are shown in **Bold** and Underline text; deletions are struck-through (e.g., ~~Rule-Deletion~~).

3.82 Employees shall not operate rail vehicles at speeds higher than the maximum authorized speed.

3.82.1 Maximum speed for trains passing through a station without stopping is 25 Mph (deadhead speed).

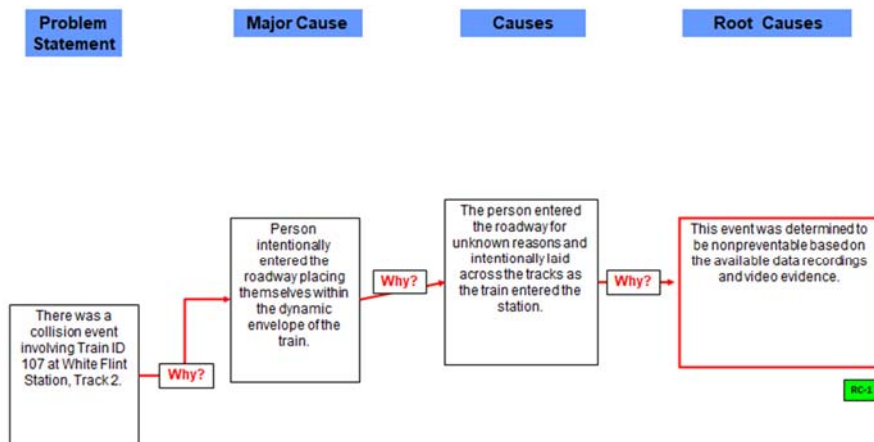
3.82.2 When operating in manual mode while in revenue service, Train Operators shall begin to reduce train speed upon passing the "S" marker.

3.82.3 Train Operators, operating in manual mode while in revenue service, shall enter the station at speed no greater than 40 MPH and be prepared to properly berth the train at the "8" car marker.

PERMANENT ORDER T-21-02

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Appendix C- Root Cause Analysis



Root Cause Analysis

