

#### WMSC Commissioner Brief: W-0248 Serious Injury – Congress Heights Station – April 23, 2023

Prepared for Washington Metrorail Safety Commission Vote Beginning November 29, 2023. A Commissioner requested review of this report at a public meeting. Presented at the December 12, 2023, public meeting.

#### Safety event summary:

A Metrorail Office of Rail Transportation Supervisor was hurt after deliberately exiting a Green Line train from the rear bulkhead door at Congress Heights Station, contrary to Metrorail safety procedures, at 12:48 p.m. on April 23, 2023. The Rail Supervisor sustained serious injuries, was assisted by riders and Metrorail personnel, reported an emergency, and was transported for medical treatment. The Supervisor's accounts of the event in their initial report and in subsequent statements conflicted with each other, with available data, and with other investigative interviews.

#### Timeline

A Radio Rail Traffic Controller directed the Rail Supervisor to board southbound Green Line Train 506 to search for a passenger's lost wallet. After an unsuccessful search, the Rail Supervisor entered the operator's cab (lead car 7384) as the train continued to the end of the line at Branch Ave Station. Metrorail requires anyone entering the operator's cab to communicate with the Rail Operations Control Center. The Rail Supervisor did not do so. The Train Operator in that cab, which would become the unused trailing cab for the next trip north to Greenbelt Station, remained in that cab with the Rail Supervisor after keying down the train (turning off the controls in that cab).

Approximately 10 minutes later, with the train still at Branch Ave Station, another Train Operator boarded the train and attempted to enter that trailing cab. That additional Train Operator found the door to the cab was locked. The Train Operator inside the cab slightly opened the door to speak to the additional operator, then closed the door. The additional operator sat in the passenger seating area.

A third operator at the front of the train operated the train toward Greenbelt Station.

At 12:48 p.m., the train arrived at Congress Heights Station. The Rail Supervisor who had been locked in the trailing cab of the train with the initial Train Operator opened the bulkhead door, began to exit, and then fell to the roadway. Railcar video shows the Rail Supervisor initially appearing to depart, contrary to Metrorail rules and procedures, by attempting to climb down to the roadway. The Rail Supervisor did this without permission, communication or roadway worker protection. The Rail Supervisor then appeared to slip and fall to the roadway. As the train pulled away toward the next station, rear-facing railcar video shows the Rail Supervisor on the ground between the running rails.

The Rail Supervisor could not stand up due to injuries sustained in the fall. People on the platform entered the roadway to assist the Rail Supervisor, and a security guard in the station provided additional assistance.

Approximately 3 minutes after falling, at 12:51 p.m., the Rail Supervisor reported an emergency over the radio. The Radio Rail Traffic Controller acknowledged the transmission, but the Rail Supervisor did not immediately respond on the radio to the Controller's request for identification. The Rail Supervisor subsequently contacted the Rail Operations Control Center by phone and stated that they had fallen to the roadway from the platform (which the investigation later demonstrated was not accurate). The Rail Supervisor stated that they could not move their legs.



Personnel in the Rail Operations Control Center de-energized third rail power on that track, Track 1, at 12:52 p.m.

At 12:55 p.m., an Information Controller in the Rail Operations Control Center called the D.C. Office of Unified Communications to request an emergency medical response to Congress Heights Station.

The Train Operator who had been in the trailing cab of the train with the Rail Supervisor remained in that cab until 1:01 p.m. when that Train Operator exited the cab and sat in the passenger area of the train. The other operator who had initially been denied entry to the cab then entered that trailing cab. Neither of these train operators, including the operator in the cab at the time the Rail Supervisor departed via the bulkhead door without permission or roadway worker protection who witnessed the Rail Supervisor's unauthorized departure from the train, reported any unusual occurrence at the time of this event.

In an interview for this investigation, the Train Operator who was in the cab with the Rail Supervisor stated that the Rail Supervisor exited to the roadway through the rear bulkhead door to keep the other train operator riding in the passenger area from knowing that the Rail Supervisor and Train Operator had been alone together in the privacy of the cab. The Train Operator who had been in the cab also stated that they did not report the Rail Supervisor's fall to anyone because they later heard the Rail Supervisor report the emergency over the radio.

The other train operator who had been riding in the passenger area stated that they were unaware that the event occurred. The Train Operator operating the train at the time of this event was also unaware that the event occurred.

At 1:26 p.m., the Rail Supervisor was removed from the roadway. At 1:39 p.m., third rail power was restored, and normal service resumed.

The Rail Supervisor sustained serious injuries to both knees and their shoulder.

As of November 24, 2023, the Rail Supervisor had not returned to service.

#### **Probable Cause:**

The probable cause of this event was a Metrorail supervisor intentionally exiting a rail car and entering the roadway on the mainline through the bulkhead door without authorization or protection. Contributing to this event was Metrorail's non-compliance with written rules, procedures and manuals, specifically in this case regarding required communication and approval for access to rail operating cabs.

#### **Corrective Actions:**

Metrorail required the Train Operator who was in the cab with the Rail Supervisor to review Section 4, Safety Rule 4.1 and 4.166, relating to reporting procedure.

Metrorail is requiring the Rail Supervisor to attend refresher training on MSRPH Section 4, Safety Rules 4.168 and Section 5, related to RWP Rules.

Example of a related open CAP:

• C-0181 addresses the finding that elements of Metrorail have a culture that accepts noncompliance with written operational rules, instructions, and manuals (Expected date of completion October 2024),



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

# FINAL REPORT OF INVESTIGATION A&I E23284

Date of Event:	April 23, 2023	
Type of Event:	Serious Injury	
Incident Time:	12:48 hours	
Location:	Congress Heights Station, track 1	
Time and How received by SAFE:	12:54 hours – SAFE/MAC	
WMSC Notification Time:	13:45 hours	
Responding Safety Officers:	WMATA: None	
	WMSC: None	
	Other: None	
Rail Vehicle:	Train ID 506	
	L7252-7253.7421-7420.7240-7241.7385-7384T	
Injuries:	Shoulder and Knee Injuries	
Damage:	None	
Emergency Responders:	Metro Transit Police Department (MTPD), District of	
	Columbia Fire and Emergency Medical Services	
	Department (DCFEMS)	
SMS I/A Incident Number:	20230423#107911MX	

# **Congress Height Station – Serious Injury**

# April 23, 2023

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# Abbreviations and Acronyms

AIMS	Advanced Information Management System
AOM	Assistant Operations Manager
ARS	Audio Recording System
САР	Corrective Action Plan
ссти	Closed-Circuit Television
COMR	Office of Radio Communications
DCFEMS	District of Columbia Fire and Emergency Medical Services
ΙΙΤ	Incident Investigation Team
MAC	Mission Assurance Coordinator
MSRPH	Metrorail Safety Rules and Procedures Handbook
MTPD	Metro Transit Police Department
NOAA	National Oceanic and Atmospheric Administration
RTRA	Office of Rail Transportation
RTC	Rail Traffic Controller
ROCC	Rail Operations Control Center
ROIC	Rail Operations Information Center
RWP	Roadway Worker Protection
SAFE	Department of Safety
SMS	Safety Measurement System
SPOTS	System On-Time Performance Summary
VMDS	Vehicle Monitoring and Diagnostic System
WMATA	Washington Metropolitan Area Transit Authority
WMSC	Washington Metrorail Safety Commission

### Executive Summary

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

On April 23, 2023, at 12:51 hours, an Office of Rail Transportation (RTRA) Rail Supervisor #1 contacted the Rail Operations Control Center (ROCC) and transmitted that there was an emergency on Radio Ops 3. Rail Supervisor #1 reported that they fell from the platform at Congress Heights Station onto track 1 and could not move their legs. The Radio Rail Traffic Controller (RTC) advised that medical assistance was requested, and third rail power was deenergized by ROCC. Customers entered the roadway to assist the Supervisor, and a contracted Security Officer went beyond the end gate, but not to the roadway and assisted with moving the Supervisor to the bench wall and out of the roadway.

The Button RTC notified the Assistant Operations Manager (AOM) and the Rail Operations Information Center (ROIC). ROIC notified the Metro Transit Police Department (MTPD) and the District of Columbia Fire and Emergency Medical Services Department (DCFEMS).

The Radio RTC instructed Rail Supervisor #2 at L'Enfant Plaza Station to report to Congress Heights Station. Trains began to single-track between Southern Avenue Station and Anacostia Station.

Rail Supervisor #1 was removed from the roadway and transported for medical attention. Third rail power was energized, and regular train service resumed.

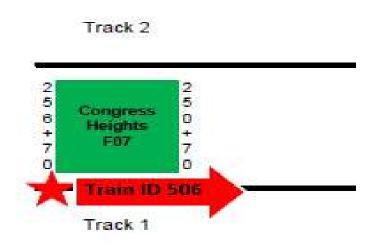
A review of the interior train video and Closed-Circuit Television (CCTV) revealed that when Train ID 506 berthed on the platform, Rail Supervisor #1 deliberately exited from the trailing car's, rear bulkhead door, then fell to the roadway. The train departed the station, Rail Supervisor #1 was laying between the running rails. After the event, Rail Supervisor #1 reported that they were attempting to secure an exterior inter-car barrier when they fell. No damage or malfunctioning inter-car barrier were found.

The probable cause of the Serious Injury event on April 23, 2023, at Congress Heights Station, was an employee intentionally exiting the rear bulkhead door without authorization or justification and losing their grip. This resulted in them falling to the roadway and suffering severe knee injuries.

### Incident Site

Congress Heights Station, track 1

# Field Sketch/Schematics



The above depiction is not to scale.

### Purpose and Scope

This incident investigation and candid self-evaluation aim to collect and analyze available facts, determine the incident's probable cause(s), identify contributing factors, and make recommendations to prevent a recurrence.

### **Investigation Methods**

Upon receiving notification of the Serious Injury event at Congress Heights Station on April 23, 2023, SAFE dispatched a cross-functional team to assess the scene and conduct the subsequent investigation. SAFE team members worked with relevant WMATA subject matter experts to review the incident's facts and data.

The preliminary investigative methodologies included the following:

- Site assessment through video and document review
- Formal Interviews SAFE interviewed three individuals as part of this investigation. Interviews included persons present at, during, and after the incident, those directly involved in the response process, and representatives from the Washington Metrorail Safety Commission (WMSC). SAFE interviewed the following individuals:
  - Rail Supervisor #1
  - Train Operator #1
  - Train Operator #2
- Informal Interviews Collected through conversations with individuals during the investigation to provide background and supporting information. Written statements were reviewed by personnel present during the event.

- Documentation Review A collection of relevant work history information and process documentation in Metro record systems. These records include the following:
  - Employee Training Records
  - Employee 30-Day work history
  - Train Operator Certification
  - Metrorail Safety Rules and Procedures Handbook (MSRPH)
  - National Oceanic and Atmospheric Administration (NOAA)
  - MTPD Event Report
  - Maximo Data
- System Data Recording Review A collection of information in Metro Data Recording Systems. This data includes:
  - Audio Recording System (ARS) playback
  - The Office of Chief Mechanical Officer (CMOR) Incident Investigation Team (IIT) Vehicle Monitoring and Diagnostic System (VMDS)
  - System On-Time Performance Summary (Spots)
  - Closed-Circuit Television (CCTV)

### **Investigation**

On April 23, 2023, at 12:14 hours, the Radio RTC instructed Rail Supervisor #1, located at Congress Heights Station, to board Train ID 506 (L7384-7385.7241-7240.7420-7421-7253-7252T) on track 2 to search for a lost wallet. At 12:27 hours, Rail Supervisor #1 reported that they could not locate the missing wallet. While aboard Train ID 506, the Rail Supervisor entered the operating cab area as the train continued towards Branch Avenue Station.

At 12:28 hours, Train ID 506 arrived at Branch Avenue Station, the train was keyed down, and Rail Supervisor #1 and Train Operator #1 remained in the operating cab area.

Closed-Circuit Television (CCTV) revealed that at 12:38 hours, Train Operator #2 boarded car 7384, looked in the operating cab window then attempted to enter the cab area. The door was locked. Train Operator #1 opened the cab door slightly and briefly conversed with Train Operator #2. Train Operator #2 sat down on the handicapped seating bench outside of the cab door. Train Operator #1 closed the door and remained inside the cab area with Rail Supervisor #1.

At 12:38 hours, Train ID 506 (L7252-7253.7421-7420.7240-7241.7385-7384T) departed Branch Avenue Station. At 12:48 hours, Train ID 506 arrived at Congress Heights Station on track 1, Rail Supervisor #1 exited the stopped train through the bulkhead door of the trailing car (7384 which had been the leading car approaching Branch Avenue Station and was where Train Operator #1 and Rail Supervisor #1 remained as the train operated in the opposite direction), lost their grip, and disappeared from view of the front-facing camera. As the train departed, the Supervisor came back into view on the ground and between the running rails. They were unable to stand up and appeared to be injured.



Image 1 – Rail Supervisor #1 exiting car 7384 through the bulkhead door at 12:48 and lying injured as the train departed Congress Heights Station on track 1.

At 12:49 hours, Train ID 506 departed Congress Heights Station. Two customers entered the roadway to assist Rail Supervisor #1. A contracted Security Officer located at the station went beyond the end gate, but not to the roadway and attempted to help the Supervisor to the catwalk. The two customers then returned to the platform.

The Audio Recording System (ARS) revealed that at 12:51 hours, Rail Supervisor #1 reported an emergency on Radio Ops 3. The Radio RTC inquired who reported the emergency. The Button RTC notified the AOM of the emergency transmission. Rail Supervisor #1 contacted ROCC via landline and reported that they fell from the platform at Congress Heights Station on track 1 and was unable to move their legs. The Button RTC acknowledged and advised that third rail power would be de-energized and medical assistance would be requested.

At 12:52 hours, the Radio RTC instructed Rail Supervisor #2 to report to Congress Heights Station. At the same time, third rail power was de-energized at Congress Heights Station, track 1. At 12:51 hours, the Button RTC notified ROIC and requested that the Station Manager located at Congress Heights Station report to the platform. Rail Supervisor #1 advised ROCC that they were off the roadway and on the catwalk. The AOM notified the Operations Manager (OM) that a Rail Supervisor fell from the platform at Congress Heights Station.

At 12:55 hours, ROIC contacted DCFEMS and MTPD for assistance at Congress Heights Station. At 12:58 hours, MTPD dispatched units to Congress Heights Station. At 12:59 hours, trains began to single track between Anacostia Station and Southern Avenue Station utilizing track 2.

At 13:01 hours, Train Operator #1 exited the operating cab area of car 7384, then sat in the first passenger seat near the window. Train Operator #2 then entered the operating cab area.

At 13:06 hours, Rail Supervisor #2 and an MTPD Unit arrived at Congress Heights Station. At 13:08 hours, DCFEMS arrived at Congress Heights Station.

At 13:26 hours, Rail Supervisor #2 reported that Rail Supervisor #1 was removed from the catwalk, and service could resume at Congress Heights Station. At 13:26 hours, DCFEMS departed Congress Heights Station and transported Rail Supervisor #1 to George Washington Hospital Center due to shoulder and knee injuries. At 13:28 hours, MTPD advised that all personnel were clear at Congress Heights Station.

At 13:29 hours, the third rail power was energized. At 13:37 hours, Train ID 501 was the first train to service Congress Heights Station, track 1.

According to the written statement of Rail Supervisor #1, they were traveling on Train ID 506 inside the trailing car Operator's Cab and attempted to fix an intercar barrier. Train ID 506 was servicing Congress Heights Station when the Rail Supervisor opened the bulkhead door of the trailing car to "put in place" the barrier when the train started to move. Rail Supervisor turned, lost footing, and fell off the train onto the roadway. The Rail Supervisor contacted ROCC and reported the incident, requesting medical assistance.<sup>1</sup> No damaged intercar barrier was found according to the post-incident inspection documented in Maximo Work Order 17825309 (See Appendix D).

During the formal interview, Rail Supervisor #1 stated that they were traveling on Train ID 506 inside the trailing car operator's cab when they noticed a loose barrier. As the train was servicing Congress Heights Station, they opened the rear bulkhead door to put the barrier in place, and the train began to move.<sup>2</sup> Rail Supervisor #1 stated that they turned around, lost their footing, and fell off the train onto the roadway, injuring their shoulder and knees.

Rail Supervisor #1 stated that they contacted ROCC, reported the incident, and requested medical assistance. Rail Supervisor #1 stated that they did not notify the ROCC about their intention to open the rear bulkhead door to attempt to fix the barrier.

Rail Supervisor #1 stated that they have not returned to duty since the incident occurred due to their injuries.

During the formal interview, Train Operator #1 stated they were traveling on Train ID 506 inside the trailing car operator's cab riding back to Greenbelt Station. The Train Operator said that Rail Supervisor #1, who was also in the cab area and wanted to exit the train through the bulkhead door to avoid being seen by Train Operator #2, who was sitting outside the operating cab door. Rail Supervisor #1 exited the train through the bulkhead door and lost their footing, falling off of the train and onto the roadway at Congress Heights Station. Train Operator #1 stated that they did not report the event because they heard the Rail Supervisor contact ROCC over the radio.

During the formal interview, Train Operator #2 stated that they recalled the event but needed clarification about the date and time of the incident. Train Operator #2 stated that they were unaware that something had happened to Rail Supervisor #1.

<sup>&</sup>lt;sup>1</sup> After review of CCTV and statements from personnel present during the event. There was no evidence of a barrier that needed to be stowed, which would require that Rail Supervisor #1 exit the train through the bulkhead door of the trailing car to secure.

<sup>&</sup>lt;sup>2</sup> This statement is not substantiated by available front-facing video from car 7384 or the Train Operator's witness statement.

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

Time	Description
	Radio RTC: Instructed Rail Supervisor #1 to board Train ID 506, track 2, to loo for a wallet.
	Rail Supervisor #1: Acknowledged and repeated. [Radio Ops3]
	Rail Supervisor #1: Reported nothing found on Train ID 506.
	Radio RTC: Acknowledged and repeated. [Radio Ops 3]
	Rail Supervisor #1 entered the cab area of car 7384.
12:28:58 hours	Train ID 506 arrived at Branch Avenue Station, track 1. (Lead Car 7384) [Spots]
	Rail Supervisor #1 remained in the cab area with Train Operator #1. [CCTV]
12:38 hours	
	Train Operator #2 boarded car 7384, looked in the cab window then attempte to enter the cab area. Train Operator #1 opened the cab door slightly and had brief conversation with Train Operator #2. Train Operator #2 sat on the priorit seating bench outside the cab door. Train Operator #1 closed the door an remained inside the cab area. [CCTV]
	Train ID 506 departed at Branch Avenue Station, track 1. (Lead Car 7252 [Spots]
12:41:00 hours	Train Operator #2 began to consume a meal and utilize a cellular phone. [CCTV
12:48:14	Train ID 506 arrived at Congress Heights Station. [Spots]
nours	
	Rail Supervisor #1 exited the train through the bulkhead door of the trailing ca (7384). [CCTV]
12:49:16 hours	Rail Supervisor #1 is lying on the roadway, unable to stand. [CCTV]
12:49:33 hours	Train ID 506 departed Congress Heights Station. [Spots]
	Two customers entered the roadway to assist; moved Rail Supervisor #1 awa from the third rail. [CCTV]
	Security Officer arrived on the scene. [CCTV]
	Rail Supervisor #1: Reported an emergency. Radio RTC: Acknowledged the emergency message. Inquired who wa reporting. Rail Supervisor #1: No response. [Radio Ops3]
12:51:34 hours	Two customers returned to the platform. [CCTV]
12:51:41 hours	Button RTC: Notified the AOM that a Rail Supervisor made an emergenc transmission. [Phone Ops 3]
12:51:57 hours	Rail Supervisor #1: Contacted ROCC and reported that they fell off the platforr at Congress Heights Station, track 1, and could not move their legs. Button RTC: Acknowledged and advised that third rail power would be de energized, and medical assistance would be requested. [Phone Ops 3]
12:52:32 hours	Security Officer assisted Rail Supervisor #1 onto the catwalk from the platform [CCTV]
	Radio RTC: Instructed Rail Supervisor #2 to report to Congress Heights Station Rail Supervisor #2: Acknowledged and repeated. [Radio Ops 3]
12.52.36 hours	Third rail power de-energized at Congress Heights Station, track 1. [AIMS]

Time	Description
	Button RTC: Requested a Station Manager to report to the platform. ROIC Controller: Acknowledged. [Phone Ops 3]
	Rail Supervisor #1: Reported they were off the track on the catwalk. Button RTC: Advised medical assistance was on the way. [Phone Ops 3]
12:53:34 hours	Station Manager on scene. [CCTV]
	<u>AOM</u> : Notified the OM that a Rail Supervisor fell from the platform at Congress Heights Station. [Phone Rail 1]
	<u>Station Manager</u> : Reported located on the platform. Inquired if medical assistance was en route. <u>ROIC Controller</u> : Confirmed the medical assistance was en route. [Radio Ops 5]
	ROIC Controller: Contacted DCFEMS and requested assistance at Congress Heights Station. [Phone RCOM 2]
	<u>ROIC Controller</u> : Contacted MTPD and advised that an employee was injured at Congress Heights Station. [Phone SOCC 5C]
	<u>Button RTC</u> : Contacted MTPD and advised that an employee was injured at Congress Heights Station. [Phone SOCC 5E]
	<u>MTPD Dispatch</u> : Requested Units to respond to Congress Heights Station. [MTPD1X]
	<u>DCFEMS Dispatch</u> : Requested response to Congress Heights Station. [Open Mhz]
	Radio RTC: Announced trains single tracking between Anacostia Station and Southern Avenue Station utilizing track 2. [Radio Ops 3]
	<u>AOM</u> : Notified the Superintendent that a Rail Supervisor fell from the platform at Congress Heights Station. [Phone Rail 1]
	<u>Radio RTC</u> : Designated Rail Supervisor #2 as the On-Scene Commander upon arrival at Congress Heights Station. RTRA Supervisor #2: Acknowledged and repeated. [Radio Ops 3]
13:02:36 hours	Train Operator #1 exited the cab area and then sat in the first passenger seat near the window. Train Operator #2 entered the cab area. [Car 7384 CCTV]
13:05:12 hours	Rail Supervisor #2: Advised aboard Train ID 501 with an MTPD Unit. Button RTC: Acknowledged. Advised that the MTPD Unit would be the On- Scene Commander upon arrival at Congress Heights Station. [Phone Ops 3]
	Train ID 501 arrived at Congress Heights Station, track 2 [Spots]
	RTRA Supervisor #2 and MTPD Unit on scene. [CCTV]
	DCFEMS on the scene. [CCTV]
	<u>Rail Supervisor #2</u> : Reported located at Congress Heights Station. <u>Radio RTC</u> : Acknowledged and repeated. <u>Rail Supervisor #2</u> : Reported DCFEMS on scene. <u>Radio RTC</u> : Acknowledged. [Phone Ops 3]
13:08:37 hours	MTPD Unit reported located at Congress Heights Station. [MTPD 1X]
	Rail Supervisor #2: Reported Rail Supervisor #1 was removed, and service could resume.
	Radio RTC: Acknowledged and repeated. [Ops 3]
13:26:22 hours	DCFEMS departed the scene. [CCTV]

Time	Description
	Radio RTC: Announced power energization between Anacostia Station and Southern Avenue Station, track 1. [Ops 3]
	Button RTC: Advised that third rail power could be restored at Congress Heights Station.
	Power Desk Controller: Acknowledged and repeated. [Phone Ops 3]
	MTPD Unit reported that all personnel were clear at Congress Heights Station. [MTPD 1X]
13:29:21 hours	Third rail power energized at Congress Heights Station, track 1. [AIMS]
	Rail Supervisor #2 reported that all personnel were clear at Congress Heights Station. [Phone Ops 3]
	Train ID 501 was the first train to service Congress Heights Station, track 1. [Spots]

\*\*Note: Times above may vary from other systems' timelines based on clock settings and reporting sources.

## Interview Findings

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

#### Rail Supervisor #1 - Oral Statement

- The Rail Supervisor stated that they were traveling on Train ID 506 inside the trailing car operator's cab when they noticed a loose barrier.
- The Rail Supervisor stated that Train ID 506 was servicing Congress Heights Station, and the Rail Supervisor opened the rear door to put the barrier in place when the train started to move.<sup>3</sup>
- The Rail Supervisor stated that they turned around, lost their footing, and fell off the train onto the roadway injuring their shoulder and knees.
- The Rail Supervisor stated that they contacted the ROCC, reported the incident, and requested medical assistance.
- The Rail Supervisor stated that they did not know that personnel should not occupy an unused operator's cab without notifying the ROCC and the Train Operator.
- The Rail Supervisor stated that they did not notify ROCC about their intention to open the rear bulkhead door to attempt to fix the barrier.
- The Rail Supervisor stated that they have not returned to duty since the incident occurred due to their injuries.

### Rail Supervisor #1 – Written Statement

• The Rail Supervisor reported that they were traveling on Train ID 506 inside the trailing car operator's cab and attempted to fix a barrier.

<sup>&</sup>lt;sup>3</sup> This statement is not substantiated by available front-facing video from car 7384 or the Train Operator's witness statement.

- The Rail Supervisor reported that Train ID 506 was servicing Congress Heights Station when they opened the rear door to put the barrier in place when the train started to move.<sup>4</sup>
- The Rail Supervisor reported that they turned around, lost their footing, and fell off the train onto the roadway.
- The Rail Supervisor reported that they contacted ROCC, reported the incident, and requested medical assistance.

# Train Operator #1

- Train Operator #1 stated that they were traveling on Train ID 506 inside the trailing car operator's cab "cushioning" to Greenbelt Station.
- Train Operator #1 stated that Rail Supervisor #1 was also in the cab and wanted to exit the train from the bulkhead door to avoid being seen by Train Operator #2, who was sitting outside the cab door.
- Train Operator #1 stated that Rail Supervisor #1 made their way through the bulkhead door, lost their footing, and fell from the train onto the roadway at Congress Heights Station.
- Train Operator #1 stated that they did not report the event to anyone because Rail Supervisor #1 immediately contacted ROCC via radio.<sup>5</sup>

# Train Operator #2

- Train Operator #2 stated that they recalled the event, and they were on a train at Congress Heights, but was not sure about the date and time of the incident.
- Train Operator #2 was unaware of Rail Supervisor #1 fall or injury.

# Weather

On April 23, 2023, at the time of the incident, NOAA recorded the temperature as 62° F, with partly cloudy skies. The event occurred within a tunneled section of the rail system. The weather did not contribute to this event (Weather source: NOAA – Location: Washington, D.C.)

# Human Factors

# Evidence of Fatigue

Conditions were evaluated at the time of the incident to distinguish whether evidence of fatigue was present. Rail Supervisor #1 reported feeling fully alert during the incident. Rail Supervisor #1 reported experiencing no symptoms of fatigue in the time leading up to the incident.

<sup>&</sup>lt;sup>4</sup> This statement is not substantiated by available front-facing video from car 7384 or the Train Operator's witness statement.

<sup>&</sup>lt;sup>5</sup> The ARS playback does not support this statement. The Rail Supervisor did not report the event for over one minute after falling from the train.

## Fatigue Risk

The incident data was evaluated for fatigue risk factors for Rail Supervisor #1. Risk factors for fatigue were not present for Rail Supervisor #1. Since fatigue evidence and risk factors were absent, the biomathematical fatigue modeling application (SAFTE-FAST Web SFC) was not applied.

### Post-Incident Toxicology Testing

Post-Incident Toxicology Testing was not conducted for this event.

#### Training and Work History

Rail Supervisor #1 has not had any safety violations within the last three years. The 30-day work history review did not reflect any indications of fatigue risk.

## Advanced Information Management System (AIMS)



Figure 1 - Train ID 506 arriving at Congress Heights Station



Figure 2 - Third rail de-energized on track 1 at Congress Heights Station

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

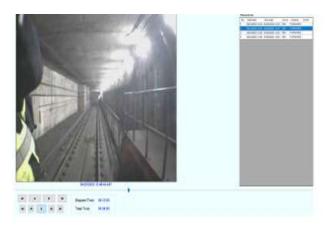
Audio Quality tests were conducted and during the test, all audio tests were loud and clear. Technicians reported on track 2 on the Southern Avenue end of Congress Heights Station that there was no audio but were able to "key up" 20 to 30 feet from the end gate. All radio tests were loud and clear for about 30 feet on track 2 toward the end gate. No audio was received from that distance to the end gate on track 2. All other radio checks were loud and clear.

Track 1 audio quality was loud and clear. Radio checks were performed at Congress Heights Station's Mezzanine, Escalators, and Platform.

On June 19, 2023, COMR performed another inspection and found a downlink communications problem. The combiner power supply was replaced and aligned on track 2 to correct the problem.

## **Office of the Chief Mechanical Officer, Incident Investigation Team (CMOR-IIT)** Adopted from CMOR-IIT report:

The Worker is seen coming out at the rear of Car 7384 on 04/23/23 Time 12:48:44.457



The Worker fell from the Rear of Car 7384 as they began to move from Congress Heights Station Platform on Track-1 on 04/23/23 Time 12:49:14.284.



Incident Date: 04/23/2023 Time: 12:48 hours Final Report – Serious Injury E23284 
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 Reviewed By:
 SAFE 707 - 0718/2023

 Approved By:
 SAFE 71 - 07/18/2023

# Office of Rail Transportation (RTRA)

Adopted from RTRA report:

RTRA's investigation is still pending. Administrative action will be addressed once Rail Supervisor #1 returns to duty.

## **Related Rules and Procedures**

MSRPH Section 1 – General Rules, 1.50. Employees are not permitted to ride in unused cabs except in the performance of their duties and then only after notifying the operator of the train.

MSRPH Section 4 – Safety Rules, 4.1. Employees shall immediately report hazardous and/or unsafe conditions to their supervisor, including all near misses.

MSRPH Section 4 – Safety Rules, 4.166. Employees are required to immediately inform ROCC of any condition they have observed, which, in their opinion, will adversely affect customers' safe and orderly transportation. When the condition is considered dangerous to vehicle movement, employees shall flag trains to a stop.

MSRPH Section 4 – Safety Rules, 4.168. Employees shall not enter upon the roadway or cross the tracks except when absolutely necessary in the performance of their duties and permission has been granted by ROCC.

MSRPH Section 5 – RWP Rules, 5.2. Cardinal Rule #5 There shall be no fouling of the Authority's Roadway unless it is ABSOLUTELY necessary to perform your job.

# <u>Findings</u>

- Rail Supervisor #1 and Train Operator #1 occupied the Operating Cab area of car 7384 prior to arriving at Branch Avenue Station and remained in the cab until Rail Supervisor #1 exited through the bulkhead door at Congress Heights Station.
- Rail Supervisor #1 and Train Operator #1 occupied the unused cab of car 7384 without apparent relation to the performance of their duties and without notifying the operator of the train.
- Rail Supervisor #1 intentionally exited the trailing bulkhead door of car 7384 without notifying ROCC and the Train Operator.
- Two customers entered the roadway to provide assistance to the injured Rail Supervisor.

### Immediate Mitigation to Prevent Recurrence

- Third rail power was de-energized.
- Single-tracking operations commenced.
- DCFEMS was contacted to respond for assistance.

# Probable Cause Statement

The probable cause of the Serious Injury event on April 23, 2023, at Congress Heights Station, was an employee intentionally exiting the rear bulkhead door without authorization or justification and losing their grip. This resulted in them falling to the roadway and suffering severe knee injuries.

## **Recommended Corrective Actions**

Corrective Action Code	Description	Responsible Party	Estimated Completion Date
107911_SAF ECAPS_RTR A_001	Train Operator #1 to review MSRPH Section 4 – Safety Rules, 4.1. Employees shall immediately report hazardous and/or unsafe conditions to their supervisor, including all near misses.	RTRA	12/31/2023
107911_SAF ECAPS_RTR A_002	Train Operator #1 to review MSRPH Section 4 – Safety Rules, 4.166. Employees are required to immediately inform ROCC of any condition they have observed, which, in their opinion, will adversely affect customers' safe and orderly transportation. When the condition is considered dangerous to vehicle movement, employees shall flag trains to a stop.	RTRA	12/31/2023
107911_SAF ECAPS_RTR A_003	Rail Supervisor #1 to attend refresher training on MSRPH Section 4 – Safety Rules, 4.168. Employees shall not enter upon the roadway or cross the tracks except when absolutely necessary in the performance of their duties and permission has been granted by ROCC.	RTRA	12/31/2023
107911_SAF ECAPS_RTR A_004	Rail Supervisor #1 to attend refresher on MSRPH Section 5 – RWP Rules, 5.2. Cardinal Rule #5 There shall be no fouling of the Authority's Roadway unless it is ABSOLUTELY necessary to perform your job.	RTRA	12/31/2023

## **Appendices**

#### Appendix A – Interview Summaries

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

## <u>RTRA</u>

#### Rail Supervisor #1

The Rail Supervisor is a WMATA employee with 22 years of service and 18 years of experience as a Rail Supervisor. The Rail Supervisor holds a Roadway Worker Protection (RWP) Level 2 certification that expires in March 2024.

During the interview, the Rail Supervisor stated they were traveling on Train ID 506 inside the trailing car operator's cab when they noticed a loose barrier.

The Rail Supervisor stated that Train ID 506 was servicing Congress Heights Station, when they opened the rear bulkhead door to "put the barrier in place" when the train started to move.<sup>6</sup>

The Rail Supervisor stated that they turned around, lost footing, and fell off the train onto the roadway and injuring their shoulder and knees.

The Rail Supervisor stated that they contacted ROCC, reported the incident, and requested medical assistance.

The Rail Supervisor stated that they did not know that personnel should not occupy an unused operator's cab without notifying the ROCC and the Train Operator and was not aware of MSRPH Section 1 – General Rules, 1.50 Employees are not permitted to ride in unused cabs except in the performance of their duties and then only after notifying the operator of the train.

The Rail Supervisor stated that they did not notify the ROCC about their intention to open the rear bulkhead door to fix the barrier.

The Rail Supervisor stated that they have not returned to duty since the incident occurred due to their injuries.

### Train Operator #1

The Train Operator is a WMATA employee with 24 years of service and 15 years of experience as a Train Operator. The Train Operator holds a Roadway Worker Protection (RWP) Level 2 certification that expires in January 2024.

During the interview, Train Operator #1 stated they were traveling on Train ID 506 inside the trailing car operator's cab while "Cushioning." Train Operator #1 stated that Rail Supervisor #1

<sup>&</sup>lt;sup>6</sup> This statement is not substantiated by available front-facing video from car 7384 or the Train Operator's witness statement.

was in the cab with them and wanted to exit the train through the bulkhead door to avoid being seen by Train Operator #2, who was sitting outside the operator's cab door.

Train Operator #1 stated that Rail Supervisor #1 unlocked the bulkhead door and exited the train, then lost their footing and fell off the train onto the roadway at Congress Heights Station.

Train Operator #1 stated that they did not report the event because Rail Supervisor #1 immediately contacted ROCC via radio.

#### Train Operator #2

The Train Operator is a WMATA employee with 18 years of service and 14 years of experience as a Train Operator. The Train Operator holds a Roadway Worker Protection (RWP) Level 2 certification that expires in October 2023.

During the interview, Train Operator #2 stated that they recalled the event and said they were on a train at Congress Heights but needed clarification about the date and time of the event. Train Operator #2 was unaware of the Rail Supervisor accident.

# Appendix B – RTRA Supervisor's Report

	TRA Sup	DEPARTMENT OF OPERATIONS-	DEPARTMENT OF OPERATIONS-RAIL SERVICE				
WAS	HINGTON METROP	OLITAN AREA TRANS	IT AUTHORITY	Office of Rail Transpo	Office of Rail Transportation		
Date: 44-23-2023 Incident Time Click here to		Incident Location (Station Mezzanine#)		#) Track/Mezzanine	4		
enter a date. 1200		Congress Hts		#/			
Equipment Number (Tra	in ID & Car Numbers;	Escalator/Elevator 8, Ro	oom #)				
506							
Fell of A	en in						
WMATA Personnel Invol	hed	Employee #	Rule Violation?	Home Division	Post Incident		
				Branch AVE	NO		
Name		Address			injury?		
Name		Address			injury?		
Name		Address			injury?		
Arrival Time	Unit Number	Person in Charge		Remarks			
N/A							
Chronological Account	of Incident						
Note time for each entry	r, include statement o	Employee or Witness a	t conclusion				
Your Arrival Time N/A							
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		ayroll #)	Report Reviews	d by Date			
		REPORT MUST BE FAXED	TO ROCC 202-962-2908 a	t end of tour			

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Drafted By: Reviewed By:	SAFE 711 – 0718/2023 SAFE 707 – 0718/2023	Page 20
	SAFE 71 – 07/18/2023	

# Appendix C – Maximo Work Orders

M				olitan Area					Page 1	of 2 MX76PR0
netro			Work	Order Detai	ls					
/ork Ord ype: CM	ler #: 17838115								us: CLOSE 0/2023 12:1	6
Jot	Work Description b Plan Description	F07, Safety request Radio	o Operational tes	it in Platform area	s tracks 182					
				Work Information	0					
	Asset: 60335	RADIO, CRCS, REMOTE SITE, T	F38	Owning Office:		RADO		Par	ent	
	Asset Tag:	- 10 CARACTER		Maintenance Office:				Create D	ate: 04/28/202	3 11:48
	Asset S/N: CRCSRST	38		Labor Group:	COMMR3RADO	0		Actual St	tart: 04/29/202	3 21:06
	Location: 3952	T38, CARMEN TURNER FACILIT BUILDING (G) SVMT BODY, 2ND		Crew:			Actual Comp: 04/29/20		mp: 04/29/202	
	rk Location:			Lead:			27+23200711-11000-23-6005		em: N6004008	6
	allure Class: COMR003	RADIO COMMUNICATIONS SYS	STEMS		WMATA-02-33	540-50499280-04	5			
	blem Code: 3541	NO TX AUDIO		Supervisor:				Target St		
	quested By:			Requestor Phone:				Target Co		
	Mark Start:			Chain Mark End:			5	Scheduled St	tart	
	ate-Mileage: 0.0			Complete Mileage:	0.0					
	ate-Mileage: 0.0			Complete Mileage:	0.0					
nk 1Da	ate-Mileage: 0.0			Complete-Mileage:	0.0					
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Task ID 10	RADIO CHECKS LOUI TECHS 317 AND 31 PER TOWARD THE END GAT			ESCALATORS AND PLAT	FORMALL RADIO					
Task ID 10	RADIO CHECKS LOUI TECHS 317 AND 31 PER TOWARD THE END GAT	FORMED RADIO CHECKS FOR SAFET EI WAS GETTING NO AUDIO FROM T	HAT DISTANCE TO THE	ESCALATORS AND PLAT	FORMALL RADIO		E LOUD AND CLEAR.			CK 2 ranty?: N
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Document 2 – Maximo Work Order 17838115 (COMR), Page 1 of 2

	Washington Metropolitan / Maintenance and Material Work Order	Раде 2 of 2 MX76PRO	
Vork Order #: 17838115 ype: CM			Status: CLOSE 04/30/2023 12:16
Job Plan Description:	ety request Radio Operational test in Platfo	rm areas tracks 1&2	
ailure Reporting	-		
Cause	Remedy	Supervisor	Remark Date
[_plust_woprint.rptdesign			05/1/2023 0

Document 3 – Maximo Work Order 17838115 (COMR), Page 2 of 2



#### Washington Metropolitan Area Transit Authority Maintenance and Material Management System Incident Details

Page 1 of 2 MX76PROD

Status: PENDING Incident #: 8666392 Incident Summary: INJURED EMPLOYEE Incident Start: 04/23/23 12:54:00 Incident Details Detail: 7384 lead car Asset: R7384 7384, RAIL CAR, KAWASAKI, 7000 AC, A CAR Rail Line: GRN Line Delay: 7 Passenger 7 Delay: Location: 2494 K99, WEST FALLS CHURCH Jurisdiction: DSE YARD Train ID: 507 12:54:00 PM Injuries??: N Train / Bus 7 Delay: Direction #9877: N Partial: 0 Report Location: F07-86 Mode of Offload: 0 Operation: Station F07 CONGRESS HEIGHTS # of Cars in Late Dispatch: 0 Location: STATION Consist: Originating POSC Regional ID No Dispatch: 0 OCC Trouble Code: EINJ EMPLOYEE INJURY Created By: Trips Lost: 0 Responsibility RTR RAIL TRANSPORTATION Created Date: 04/23/23 01:03:01 Reroutes: 0 Code: Mileage: Status Date: 04/23/23 03:05:57 Abandoned: 0 erator Miscell Road Call??: N Block #: Operator: Route: Division: Run: Destination: Change Off??: N Related Assets Asset Description Location Location Description R7385 7385, RAIL CAR, KAWASAKI, 7000 AC, B1 CAR 2494 K99, WEST FALLS CHURCH YARD 7241, RAIL CAR, KAWASAKI, 7000 AC, B1 CAR R7241 2280 N99, DULLES YARD R7420 7420, RAIL CAR, KAWASAKI, 7000 AC, A CAR 2494 K99, WEST FALLS CHURCH YARD K99, WEST FALLS CHURCH YARD R7421 7421, RAIL CAR, KAWASAKI, 7000 AC, B2 CAR 2494 R7252 7252, RAIL CAR, KAWASAKI, 7000 AC, A CAR 2280 N99, DULLES YARD R7253 7253, RAIL CAR, KAWASAKI, 7000 AC, B2 CAR 2280 N99, DULLES YARD

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04/26/2023 08:58



#### Washington Metropolitan Area Transit Authority Maintenance and Material Management System Incident Details

Page 2 of 2 MX76PROD

Incident Summary: INJURED EMPLOYEE			Incident Start:	04/23/23 12:54:00
Incident Details			incloant start.	04/23/23 12.34.00
Related Work Orders				
Work Order	Asset	Description	Location	Status
17825309	R7384	INJURED EMPLOYEE	2494	CLOSE
17825310	R7385	INJURED EMPLOYEE	2494	CLOSE
17825311	R7241	INJURED EMPLOYEE	2280	CLOSE
17825312	R7420	INJURED EMPLOYEE	2494	CLOSE
17825313	R7421	INJURED EMPLOYEE	2494	CLOSE
17825314	R7252	INJURED EMPLOYEE	2280	CLOSE
17825315	R7253	INJURED EMPLOYEE	2280	CLOSE

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04/26/2023 08:58

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Maintenance and Material Management System Work Order Details		of 1 MX76PROD	
Work Order #: 17825309	Status: CLOSE 04/25/2023 07:55		
Work Description: INJURED EMPLOYEE			
Job Plan Description:			
7384 lead car			
Work Information			
Asset: R7384 7384, RAIL CAR, KAWASAKI, 7000 AC, A Owning Office: CMNT-CMNT Pa CAR	Parent:		
Asset Tag: R7384 Maintenance Office: CMNT-WFCH-INSP Create	Date: 04/23/202	3 15:14	
	Actual Start: 04/23/2023 15:19		
	omp: 04/24/202		
Work Location: 2279         F99, BRANCH AVENUE YARD         Lead:           Failure Class: CMNT001         RAIL CAR         GL Account; WMATA-02-33370-50499160-041-*****-OPR**	tem: K1805000	1	
	tart.		
	Target Start: Target Comp:		
Chain Mark Start: Chain Mark End: Scheduled			
Create-Mileage: 389721.0 Complete-Mileage: 38959.0			
Task IDs			
Task ID			
10 Per recommendations, performed good DI and DST and recorded brake rates.			
Brake rates: Front truck B5=45psi, B4=35psi, B3=25psi, B2=16psi, B1=9, Coast=0psi, Emerg=45psi; Rear truck B5=43psi, B4=34psi, B3=25psi, B2=16psi, B1=9, Coast=0psi, Emerg=43psi			
Component: 000-300 RAIL CAR; 2K/3K/6K/7K Work Accomp: INSPECTED Reason: NO TROUBLE FOUND Status: CLOSE Position:	War	ranty?: N	
Actual Labor			
Regular Task ID Labor Start Date End Date Start Time End Time Approved? Hours	Premium Hours	Line Cost	
10 04/23/2023 04/23/2023 23:30 23:45 Y 00:15	00:00	\$10.99	
Total Actual Hour/Labor: 00:15	00:00	\$10.99	
Related incidents			
Ticket Description Class Status	Relations		
8666392 INJURED EMPLOYEE SR PENDING	ORIGINAT	OR	
Failure Reporting			
Cause Remedy Supervisor		ark Date	
2476 NO DEFECT; NORMAL SERVICES PERFORMED 3192 TESTED / INSPECTED Remarks: Performed good DI and DST and recorded brake rates. Ok for service.	04/24	/2023	
Religits, remained group is and our and features that rates. On the settice.			

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Document 6 - Maximo Work Order 17825309 (CMNT) - Page 1 of 1

metra			ance and M		a Transit A nagement S tails				Page 1	MX76PROD	
Work Orde Type: CM	er #: 17948800								as: CLOSE 9/2023 23:2		
1	Work Description:	T38 OPS #3 REPORT NO RA	DIO TRANSM	ISSION F07 TO	FO6 TRKS #1	#2					
Job	Plan Description:										
RADIO WA	SNOTIFIED										
				Work Informat	tion						
	Asset: 60062	RADIO, CRCS, F06		Owning Offi	ce: COMM-TSSM-F	ADO		Pare	ent:		
Asset Tag:			Maintenance Office: COMM-TSSM-RADO				Create Date: 06/17/2023 08:04				
Asset S/N: CRCSF06		Labor Group: COMMR3RADO				Actual Start: 06/19/2023 05:52					
	Location: 7671 F06, ANACOSTIA, STATION, PLATFORM ROOM 111, LOUNGE		ORM,	Cre	ew:		Actual Comp: 06/19/2023 05:52			23 05:52	
	k Location:				ad:				em: N600400	84	
	lure Class: COMR004	CRCS TUNNEL EQUIPMENT				40-50499280-04	2-******************				
	olem Code: 3662	DOWNLINK COMM PROBLEM		Supervis				Target St			
Chain Mark Start			Requestor Phone:				Target Comp:				
Chain	Chain Mark Start:			Chain Mark End:				Scheduled Start:			
							5	, one dance of			
Creat	te-Mileage: 0.0			Complete-Milea				, one dance of			
Creat Task IDs							,		<i>9762</i>		
Creat Task IDs Task ID	te-Mileage: 0.0	responded or this ticket									
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#### Washington Metropolitan Area Transit Authority

Maintenance and Material Management System

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Work Order Details

Work Order #: 17948800 Type: CM Status: CLOSE 06/19/2023 23:28

Work Description: T38 OPS #3 REPORT NO RADIO TRANSMISSION F07 TO F06 TRKS #1 #2 Job Plan Description:

Job Plan Descrip

bor	5	Start Date	End Date	Start Time	End Time	Approved?	Regular Hours	Premium Hours	Line Cos	
		06/19/2023	06/19/2023	00:00	06:00	Y	06:00	00:00	\$217.4	
					Total	Actual Hour/Labor:	44:00	00:00	\$1,847.9	
Description				Class		Status		Relations	nip	
T38 OPS #3 REPORT NO RADIO TRANSMISSION F07 TO F06 TRKS #1 #2					SR CLOSED			ORIGINATOR		
	ing din ser dar da		An Anna Anna Solar Ita		See Sodar darah	nan ant dan an ar da	500 IAI II			
Remedy				Supervisor				Remark Date		
IPLIFER INOPERATIVE	3594	REPLACE F	AULTY MODULE		10 - 53 <i>0 - 7</i> 05			06/19	/2023	
	Description T38 OPS #3 REPORT NO RADIO TRANSI	Description T38 OPS #3 REPORT NO RADIO TRANSMISSION F07 TO F0 Remedy	Description T38 OPS #3 REPORT NO RADIO TRANSMISSION F07 TO F06 TRKS #1 # Remedy	06/19/2023 06/19/2023 Description T38 OPS #3 REPORT NO RADIO TRANSMISSION F07 TO F06 TRKS #1 #2 Remedy	Description         Class           T38 OPS #3 REPORT NO RADIO TRANSMISSION F07 TO F06 TRKS #1 #2         SR           Remedy         SR	Description         Class           T38 OPS #3 REPORT NO RADIO TRANSMISSION F07 TO F06 TRKS #1 #2         SR           Remedy	D6/19/2023         06/19/2023         00:00         V           Total Actual Hour/Labor:           Description         Class         Status           Total Actual Hour/Labor:           Description         Class         Status           Total Actual Hour/Labor:           Description         Class         Status           To FO6 TRKS #1 #2         SR         CLOSED           Remedy         Supervisor	06/19/2023         06/19/2023         00:00         06:00         Y         06:00           Total Actual Hour/Labor:         44:00           Description         Class         Status           T38 OPS #3 REPORT NO RADIO TRANSMISSION F07 TO F06 TRKS #1 #2         SR         CLOSED           Remedy         Supervisor	D6/19/2023         06/19/2023         00:00         06:00         Y         06:00         00:00           Total Actual Hour/Labor:         44:00         00:00           Description           Class         Status         Relations!           T38 OPS #3 REPORT NO RADIO TRANSMISSION F07 TO F06 TRKS #1 #2         SR         CLOSED         ORIGINATION           Remedy         Supervisor	

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# Appendix D – Why-Tree Analysis

