



**Automatic Train Control Violations
Innovation and Huntington stations
March 17, 2023 – March 28, 2024**

Document Purpose:

This WMSC written report on WMATA Metrorail's safety event investigations and review of Metrorail's findings in accordance with the WMSC Program Standard, in conjunction with the attached Metrorail investigation reports that have undergone WMSC staff review and, if necessary, feedback and revision, describes the investigation activities, identifies factors causing or contributing to the safety events, and sets forth ongoing, additional, or upcoming corrective actions and further oversight work (such as inspections and audits) as necessary or appropriate. The WMSC's ongoing oversight during the investigative process, including safety event reporting and verification, participation in investigative interviews, data review, consistent communication with the Metrorail investigations team, and feedback on Metrorail's reports leads to further improvements prior to consideration of the reports by WMSC Commissioners for adoption. The WMSC's safety event investigation oversight assures the sufficiency and thoroughness of Metrorail's investigations. The WMSC Commissioners are considering these documents (the WMSC review and Metrorail's investigation reports) as a unified item for adoption at the Washington Metrorail Safety Commission meeting on October 22, 2024.

WMSC staff recommend adoption of these investigations.

Automatic Train Operation

The WMSC continues to oversee Metrorail's work to address findings related to the Automatic Train Control and Signals Audit issued in January 2024, the Revenue Vehicle (Railcar) Audit issued in May 2024, the Rail Operations Audit issued in April 2022, and the WMSC's August 2022 train control room order. In addition, the WMSC continues its In-Depth Review of Metrorail's safety certification work related to the Return to ATO project.

Metrorail is conducting safety certification work that may lead to the use of Automatic Train Operation in specific circumstances. Metrorail's draft concept of operations specifies multiple scenarios where manual mode will continue to be required as the safest mode of operation, such as single-tracking, in pocket tracks, outside of passenger service, when work crews are on the roadway, in low-adhesion conditions such as severe weather, when moving in rail yards or between rail yards and terminals.

Safety event summaries:

W-0348 – Station Overrun – Innovation Station – March 17, 2023

A Train Operator operated a Silver Line train in Automatic Train Operation (ATO), contrary to current Metrorail operating procedures, and overran Innovation Station by one and a half cars. An investigative review of data determined the Train Operator placed the train in ATO just outside Loudon Gateway Station and continued in that mode until the train lost speed commands outside Dulles Station. After losing speed commands the Train Operator placed the train back into



Manual mode, serviced Dulles station and then placed the train back in ATO. The train was in ATO when it overran Innovation Station. The train did not service the station and was instructed to offload at the next station stop, Herndon Station.

An investigative data review showed the Train Operator had operated in ATO several times that day, including on their previous trip. Review of operator cab footage also showed the Train Operator eating as they operated that train, which Metrorail rules prohibit. The investigation determined that the train did not detect the PSS signal prior to entering the station platform, which would have permitted the train to properly berth within the platform limits. These actions demonstrate the Train Operator's willful disregard for Metrorail policies.

During this event, the Rail Traffic Controller's failed to monitor the Automatic Information Display System (AIMS) that detects when a train is operating in an improper mode. This demonstrates the necessity for comprehensive, deliberate training for those certified to operate trains, and rail traffic controllers prior to the Metrorail system returning to Automatic Train Operations. This will allow all responsible Metrorail personnel to be knowledgeable about the features available to perform their work when Automatic Train Operations is implemented.

In 2023, Metrorail reported 144 station overruns. As of October 1, 2024, there have been 155 such events reported.

W-0349 – Huntington Station – March 28, 2024

A Train Operator operated an out of service train from Huntington in Automatic Train Operation (ATO) and continued to operate in this prohibited mode through seven stations, contrary to current operating procedures. This noncompliance with Metrorail operating rules was discovered by Metrorail's Enterprise Application Technical Lead who was investigating an event that occurred at the K&N Connector. The K&N Connector is where the Orange Line (K-Line) and the Silver Line (N-Line) meet. While reviewing an ATO and Motion Report the Technician Lead identified ATO Operations on the Yellow Line (C-Line), despite there being no ongoing ATO testing on that line.

The Assistant Director of the Metro Integrated Command and Communications Center launched an investigation after being notified of this event, and it was determined that the Operator had also operated in ATO on four other occasions, including the day prior, on March 27, 2024.

The Operator was removed from service for post-event toxicology testing. The Train was removed from service, and it was determined that the train operated as commanded by the Operator by manually depressing the ATO Start Pushbutton.

During an investigative interview the Operator cited curiosity regarding the ATO system as the reason they repeatedly operated in ATO and did not comply with operational protocols.



The causes and contributing factors include:

- Non-compliance with written operational rules and procedures

As a result of this investigation, Metrorail implemented corrective actions including:

- Re-issued RTRA Operations Personnel Notice – Prohibited Use of ATO Operations
- Issued a Memorandum to Metro Integrated Command & Communication staff – Observation of ATO Instruction for Rail Traffic Controllers, Rail 1, and Rail 2
- Operator completed a refresher course



Washington Metropolitan Area Transit Authority
Department of Safety (SAFE)
Office of Safety Investigations (OSI)
FINAL REPORT OF INVESTIGATION A&I E23181

Date of Event:	March 17, 2023
Type of Event:	Station Overrun
Incident Time:	08:12 Hours
Location:	Innovation Center Station, track 1
Time and How received by SAFE:	08:14 Hours – SAFE/MAC
WMSC Notification Time:	08:52 Hours
Responding Safety Officers:	None
Rail Vehicle:	Train ID 614 (L7134x35.7529x28.7665x64.7619x18T)
Injuries:	None
Damage:	None
Emergency Responders:	None
SMS I/A Number	20230317#106966MX

Innovation Center Station – Station Overrun

March 17, 2023

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Abbreviations and Acronyms

AIMS	Advanced Information Management System
ARS	Audio Recording System
ATC	Automatic Train Control
ATO	Automatic Train Operation
CAP	Corrective Action Plan
CCTV	Closed-Circuit Television
COMR	Office of Radio Communications
CMOR	Office of Chief Mechanical Officer
ER	Event Recorder
IIT	Incident Investigation Team
MSRPH	Metrorail Safety Rules and Procedures Handbook
NOAA	National Oceanic and Atmospheric Administration
OHAW	Occupational Health and Wellness
PSS	Program Station Stop
RTRA	Office of Rail Transportation
ROCC	Rail Operations Control Center
RWP	Roadway Worker Protection
SAFE	Department of Safety
SMS	Safety Measurement System
WMATA	Washington Metropolitan Area Transit Authority
WMSC	Washington Metrorail Safety Commission

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

Executive Summary

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

On Friday, March 17, 2023, at 08:12 hours, an Office of Rail Transportation (RTRA) Train Operator operating Train ID 614 (L7134x35.7529x28.7665x64.7619x18T) overran Innovation Center Station, track 1, by one and a half cars. Innovation Center Station was not serviced, and the train was offloaded at Herndon Station. There were no injuries or damage reported as a result of this event.

Post-incident analysis of the event and the Train Operator's written statement indicated that the train was intentionally placed in Automatic Train Operation (ATO) mode prior to Loudoun Gateway Station and operated in that mode until just outside Dulles Station, where it lost speed commands. The Train Operator placed the mode selector into Manual Operations and serviced Dulles Station. After departing the station, they placed the train back into ATO operations, where it remained until overrunning the platform at Innovation Center Station.

Further analysis of the Advanced Information Management System and the train's Event Recorder identified that the Train Operator also utilized the ATO operating mode during their previous trip between Ballston and Ashburn Stations on Track 2. The Train Operator entered the mode three times during that section of their run but did not experience a Station Overrun.

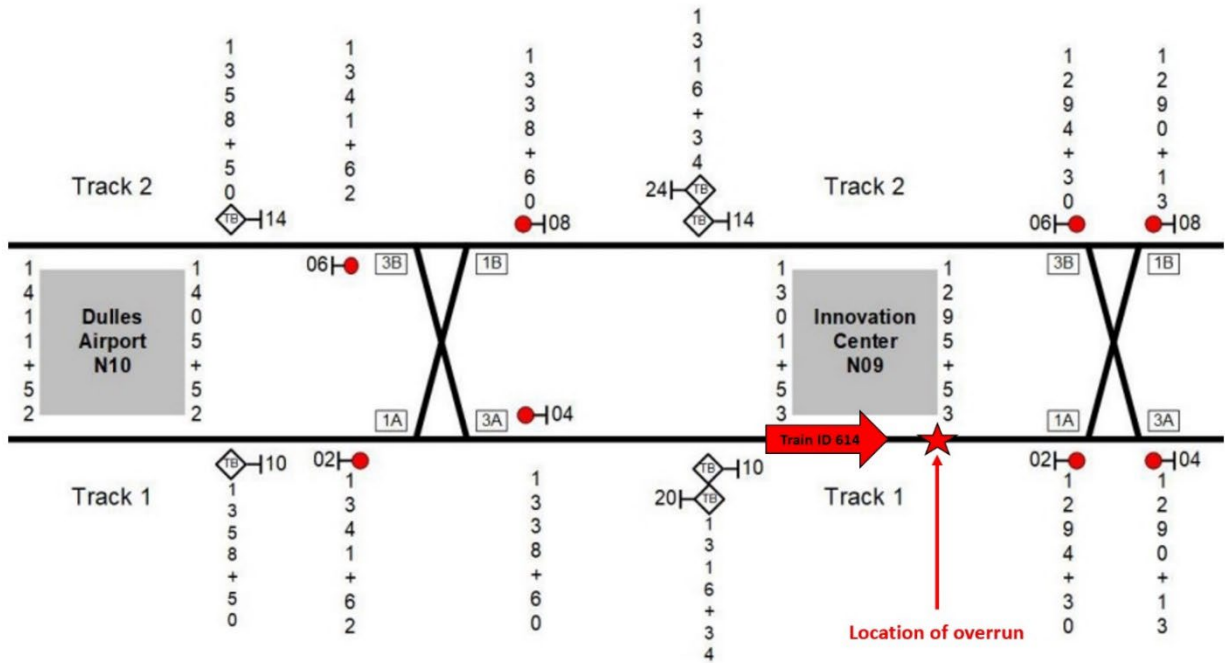
RTRA removed the Train Operator from service for post-incident testing. The train consist was removed from service for post-incident inspection.

The Probable Cause of the Station Overrun event was the Train Operator's intentional action to operate the train in Automatic Train Operation mode without authorization. A few Contributing Factors to the event was the train did not detect the PSS signal prior to entering the station platform, which would have permitted the train to properly berth within the platform limits. The Train Operator's inattention to safety-critical tasks during operation including but not limited to eating and failure to monitor the train console indications during train operations was a major safety violation. Also, the Rail Traffic Controllers (RTC) failure monitor the Automatic Information Display System (AIMS) that detects when a Train is operating in an improper mode of operation such as Automatic Train Operation (ATO). However, as the rail system is not currently certified to operate in ATO mode, this failure is not evidence of a deficiency.

Incident Site

Innovation Center Station, track 1

Field Sketch/Schematics



The above depiction is not to scale.

Purpose and Scope

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

Investigative Methods

The investigative methodologies included the following:

- Site assessment through video and documents review.
- Formal Interviews – SAFE interviewed one individual as part of this investigation. The interview included persons present at, during, and after the incident, those directly involved in the response process, and representatives from the Washington Metrorail Safety Commission (WMSC). SAFE interviewed the following individual:
 - Train Operator
- 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
 - Employee Training and Certification Records
 - Employee 30-Day Work History
 - Metro Safety Rules and Procedures handbook (MSRPH)

- National Oceanic and Atmospheric Administration (NOAA) data
 - Office of Chief Mechanical Officer (CMOR) / Incident Investigation Team (IIT) post-incident analysis data
 - Maximo
- System Data Recording Review – A collection of information contained in Metro Data Recording Systems. This data includes:
 - Audio Recording System (ARS) playback include OPS 3 Radio
 - Closed-Circuit Television (CCTV)
 - Advanced Information Management System (AIMS)
 - Event Recorder (ER) Data

Investigation

On Friday, March 17, 2023, at 08:12 hours, an RTRA Train Operator operating Train ID 614 (L7134x35.7529x28.7665x64.7619x18T) overran Innovation Center Station, track 1, by one and a half cars. Innovation Center Station was not serviced, and the train was offloaded at Herndon Station. There were no injuries or damage reported resulting from this event.

The Audio Recording System (ARS) revealed that at 08:12 hours, the Train Operator reported overrunning Innovation Center Station, track 1 by 2 cars to the Radio RTC. The Train Operator was instructed to continue to Herndon Station operating at restricted speed¹. The Radio RTC instructed the Rail Supervisor located at Wiehle-Reston East Station to take over operating the train and transport it to West Falls Church Yard.

At 08:15 hours, the ROIC Controller instructed the Station Manager at Herndon Station to assist with offloading the train. At 08:18 hours, the Button RTC instructed the Rail Supervisor located at Clarendon Station to report to West Falls Church Yard. At 08:21 hours, the Train Operator reported the train was clear of customers. At 08:46 hours, the train arrived at West Falls Church Yard and secured on track 1A.

The Closed-Circuit Television (CCTV) revealed the train arrived at Innovation Center Station at 08:12 hours, then overran the 8-car marker by one and a half cars. The train stopped, then at 08:13 hours, the train continued without further incident. No door operations were observed.

¹ Movements made at restricted speed must not exceed 15 MPH.

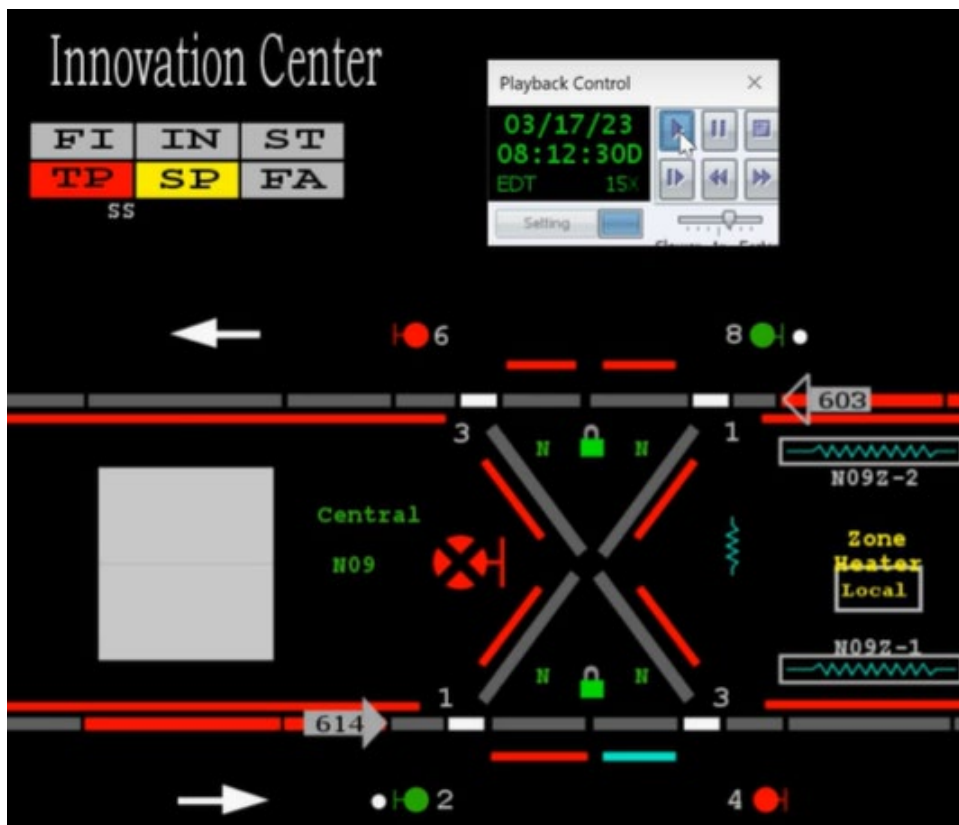


Figure 1 – AIMS depiction of Train ID 614 located Innovation Center Station at the time of the station overrun with an indication of being operated in ATO (filled in triangle at the lead end of the train icon).

Analysis of the train's event recorder and the Train Operator's statement indicated that the train was intentionally placed in ATO mode outside of Loudoun Gateway Station and operated in that mode until just prior to Dulles Station, where it lost speed commands due to a train located ahead. The Train Operator placed the mode selector into Manual Operations and serviced Dulles Station. After departing the station, they placed the train back into ATO operations. The Automatic Train Control (ATC) system failed to detect a Program Station Stop (PSS)² signal before entering Innovation Center Station³, leading to the train overrunning the platform.

In 2009, the use of Automatic Train Operation was prohibited. Manual train operation has since been the only approved mode of train operation for Train Operators.

RTRA removed the Train Operator from service for post-incident testing. On March 19, 2023, the Occupational Health and Wellness (OHAW) Drug and Alcohol Compliance Program cleared⁴ the Train Operator to return to duty. RTRA held the Train Operator on non-operational status until they completed their administrative investigation.

After the event, the train consist was removed from service for post-incident inspection. On March 18, 2023, CMOR/IIT completed the inspection of the consist and provided a detailed analysis. After discovering the same train consist was operating in ATO in several additional instances

² The automatic time-distance profile, initiated by wayside ATO markers, which causes a train to decelerate, under closed-loop braking, smoothly and berth at a predetermined location within the platform limits.

³ PSS signaling has not been tested and certified for ATO operation.

⁴ The clearance relates to the employee's drug and alcohol test only.

CMOR/IIT conducted an additional inspection of the consist. On March 22, 2023, CMOR/IIT completed the inspection of the consist and provided a detailed analysis.

According to the written statement dated March 17, 2023, from the Train Operator, "On March 17, at approximately 08:15 am, while leaving Loudoun Gateway Station because of all the speculation of using ATO Operation in the near future and because of curiosity, I placed the train in auto store and the train responded by moving forward. Unfortunately, while arriving at Innovation Center, the train continued past the station which caused a station overrun."

During the formal interview, the Train Operator stated that when they were arriving at Loudoun Gateway Station, they became curious about ATO operation. They wanted to know what it was like to operate in ATO. The Train Operator stated that it was a mistake to operate the train in ATO and that they were aware that ATO was not an authorized mode of train operation.

The Train Operator stated that while entering Innovation Center Station, the PSS signal dropped. They did not react quickly enough to slow the train down, leading to the station overrun. The Train Operator stated that they were aware that the train was more than one car off the platform, and they immediately notified ROCC.

Through investigation and further review of AIMS playback data, it was discovered that there were several additional instances where the Train Operator entered ATO operations during their outbound trip on Track 2 in the direction of Ashburn Station.

The Train Operator was presented with the findings and provided an additional written statement dated March 20, 2023. The Train Operator stated the following, "Please be advised, on March 17, 2023, I received my work at 03:48 am. After hearing my train location, I began traveling towards Ashburn for service. During the trip, I operated my train in ATO in order to rest my hands. Unfortunately, although I cannot give the precise time and location of my indulgence prior to this incident, I do know and recall that I have operated in ATO several times this year before. This was done at least twice in the last several weeks. In closing, please be advised that I take full responsibility for my actions that I deeply regret.

Continuing in my report, it has dawned on me that I did service Ballston Station in ATO operation on what I think was my second trip on ID 614. This information is submitted to all relevant parties to be as transparent and honest as possible."

On March 18, 2023, CMOR/IIT completed an inspection and provided the following analysis: "The two major contributing factors are: The Train Operator entered ATO Mode, and the train failed to detect the Programmed Station Stop markers.

Train ID 614 was operating in ATO in approach to Innovation Center. Train ID 614 failed to detect the Programmed Station Stop Markers and proceeded through the platform without slowing down. The Train Operator pushed the ATO stop button and initiated Emergency Braking by depressing the Emergency Push Button on the console. The train was already nearing the end of the platform and ended up overrunning the platform by approximately 114 feet." The operator advised they placed the train in ATO to "rest their hands, however when operating a train in any mode of operation especially ATO requires train operator's meticulous attention to detail especially when entering the station to properly berth.



Image 1 - Console video capture of Operator entering ATO prior to Loudoun Gateway Station.

On March 22, 2023, CMOR/IIT completed an additional review and provided the following analysis:

IIT completed download and analysis of the video and data from train 614. The train data supports the AIM data playback. During the data and video analysis the following actions were observed (in chronological order):

1. The Train Operator initiated ATO by depressing the ATO start Push Button when he took over Train 614 at Ballston.
2. The Train Operator terminated ATO to berth the train at East Falls Church.
3. The Train Operator initiated ATO by depressing the ATO start Push Button at East Falls Church and terminated ATO to berth the train at McLean.
4. The Train Operator Operated the train in Manual Mode from McLean to Herndon.
5. The Train Operator initiated ATO by depressing the ATO start Push Button in Herndon.
6. The Train Operated in ATO and performed a Programmed Station Stop at Innovation Center (outbound on Track 2).
7. The Train Operated in ATO and performed a Programmed Station Stop at Dulles (outbound on Track 2).
8. The Train Operator terminated ATO to berth the train at Loudoun.

Review of the Operator's cab video also found that the while operating from Ballston to Loudoun Gateway Station, the Train Operator ate and drank multiple items from a plastic shopping bag that was placed on the console by the front cab window. This occurred primarily while the train was in ATO mode. This distraction is a violation of the following Metro Rules and Safety Procedures Handbook (MSRPH),

G.R. 1.46 – Employee shall not permit unnecessary conversation, readying, lounging, or any other action or condition of mind to divert their attention from the safe and efficient performance of duty.

O.R. 3.18 – Employees shall not operate any vehicle in a reckless or unsafe manner.



Image 2 - Screenshot from Operator's Cab Video of Car 7618 at 07:14 hours. Train Operating in Manual Mode.



Image 3 - Train Operator entering ATO mode at 07:28 hours. Food and drink items open and on the console.

A review of the Train Operator's work schedule revealed that between March 3, 2023, and March 16, 2023, the Train Operator was paid for over 200 hours of work, including scheduled time and overtime without a day off. In the 24-hours leading up to the event, the Train Operator worked on their scheduled day off for a total of 14 hours, 50 minutes of overtime. There were no fatigue violations in accordance with WMATA's Fatigue Policy for 689 Union employees. On the day of the event, they had worked 4 hours, 42 minutes of their 10 hours, 15 minutes schedule.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
OPERATORS MANIFEST

PUNCH MARK DIV: WEST FALLS CHURCH SIGNUP: December 2022 Pick for Tr

NEW EMPLOYEE NUMBER AND NAME IF OTHER THAN BELOW: [REDACTED] RUN DATE: FRIDAY

IF WORK WAS PERFORMED ON ASSIGNED DAY OFF PUNCH HERE: []

PLEASE INDICATE BLOCK LETTERS ABC ETC: []

OPERATOR'S NAME: [REDACTED]

IF ACTUAL IS MORE OR LESS THAN SCHEDULED TIME STATE REASON: []

Call for trouble: 202-962-1811 (bus). 202-962-1652 (rail)
Transit Police: 202-962-2121

CONTRACT RUN: IF ANOTHER MANIFEST HAS BEEN USED ENTER RUN NUMBER OF ADDITIONAL WORK: []

TRAIN CONDITION	VEHICLE NO.	BLOCK NO.	TIME OF STARTING			LEAVING POINT	ROUTE NO.		
			SCHEDULE TIME	ACT TIME	PREP TIME				
OK	DIR		HRS	MIN	LTR	HRS	MIN		
	00005	605	3	48		A	ON DUTY		
			3	58			PREP TIME		
			4	26			WEST FALLS CHURCH YARD		
	00005	605	4	36	L	LT	MCCLEAN		
			5	39			ASHBURN	MLAB	
			6	25			BALLSTON-MU	ABRG	
							(LARGO TOWN CENTER)		
							BREAK		
	00005	614	6	52			BALLSTON-MU	LGAB	
			7	54			ASHBURN	ABRG	
			8	40			BALLSTON-MU		
							(LARGO TOWN CENTER)		
							BREAK		
	00005	610	9	22			BALLSTON-MU	LGAB	
			10	24			ASHBURN	ABRG	
			11	10			BALLSTON-MU		
							(LARGO TOWN CENTER)		
							BREAK		
	00005	605	11	37			BALLSTON-MU	LGAB	
			12	39			ASHBURN	ABRG	
			1	25			BALLSTON-MU		
							(LARGO TOWN CENTER)		
			1	50			OFF DUTY		
LT	Lite Train								

REMARKS: []

TRIPS CUT OR ADDED TO BLOCK: FROM [] TO []

CUT ADDED: []

SIGNATURE/DATE: []

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Scenario: SP_BOGYS Friday 23 December 2022 Pick for Train Operators

Printed: 02/03/2023

Document 1 – Train Operator’s Manifest detailing their work assignment for March 17, 2023 and the point within their work day that the event occurred.

On March 22, 2023, RTRA distributed an RTRA Notification titled, Prohibited Use of ATO Operations. The Notification was directed to Rail Supervisors, advising them to review the RTRA Operations Personnel Notice: Prohibited use of ATO Operations. The RTRA Division Managers were instructed to ensure that the document was posted in all work locations.

On May 1, 2023, the Train Operator involved in this event retired from WMATA.

The Office of Automatic Train Control Engineering (ATCE) is currently performing ATO and Motion operational status checks at various points within the rail system for improved oversight.

Train ID #	Location	Date	Time
Train 605	In ATO and motion at N02-2 platform	3/17/2023	04:36:24
Train 605	In ATO and motion at N04-2 platform	3/17/2023	04:38:43
Train 605	In ATO and motion at N06-2 platform	3/17/2023	04:45:14
Train 605	In ATO and motion at N07-2 platform	3/17/2023	04:47:34
Train 605	In ATO and motion at N08-2 platform	3/17/2023	04:49:29
Train 605	In ATO and motion at N09-2 platform	3/17/2023	04:52:06
Train 605	In ATO and motion at N10-2 platform	3/17/2023	04:56:42
Train 605	In ATO and motion at N11-2 platform	3/17/2023	05:03:11
Train 605	In ATO and motion at N12-2 platform	3/17/2023	05:10:16

Chronological Event Timeline

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

Time	Description
08:12:26 hours	<u>Train ID 614</u> : Reported a station overrun by 2 cars. Requested to continue to the next station. <u>ROCC Radio RTC</u> : Confirmed to continue to Herndon Station. Instructed to offload. <u>Train ID 614</u> : Acknowledged. [Ops 4]
08:13:30 hours	<u>ROCC Radio RTC</u> : Instructed to operate at restricted speed. <u>Train ID 614</u> : Acknowledged. [Ops 4]
08:13:49 hours	<u>ROCC Radio RTC</u> : Requested the location of a Rail Supervisor. <u>Rail Supervisor</u> : Acknowledged and advised located at Wiehle-Reston. <u>ROCC Radio RTC</u> : Instructed to take over operating the next train to West Falls Church Yard. <u>Rail Supervisor</u> : Acknowledged and repeated. [Ops 4]
08:15:31 hours	ROIC Controller instructed the Station Manager at Herndon Station to assist with offloading the train. [Ops 5]
08:15:46 hours	Button RTC notification to Ashburn Terminal Supervisor. [Phone]
08:17:35 hours	<u>ROCC Radio RTC</u> : Instructed to re-block to 714 and pick up Rail Supervisor at Wiehle-Reston. <u>Train ID 614</u> : Acknowledged and repeated. [Ops 4]
08:18:47 hours	Button RTC instructed the Rail Supervisor located at Clarendon Station to report to West Falls Church Yard. [Phone]
08:21:06 hours	<u>Train ID 714</u> : Reported train clear of customers. <u>ROCC Radio RTC</u> : Acknowledged. [Ops 4]
08:45:26 hours	Train ID 714 arrived at West Falls Church Yard and secured on track 1A. [K99 YD]

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

Office of the Chief Mechanical Officer, Incident Investigation Team (IIT)

Adopted from CMOR IIT report with minor formatting and grammatical edits:

On March 18, 2023, CMOR/IIT completed an inspection and provided the following analysis of the Station Overrun Event:

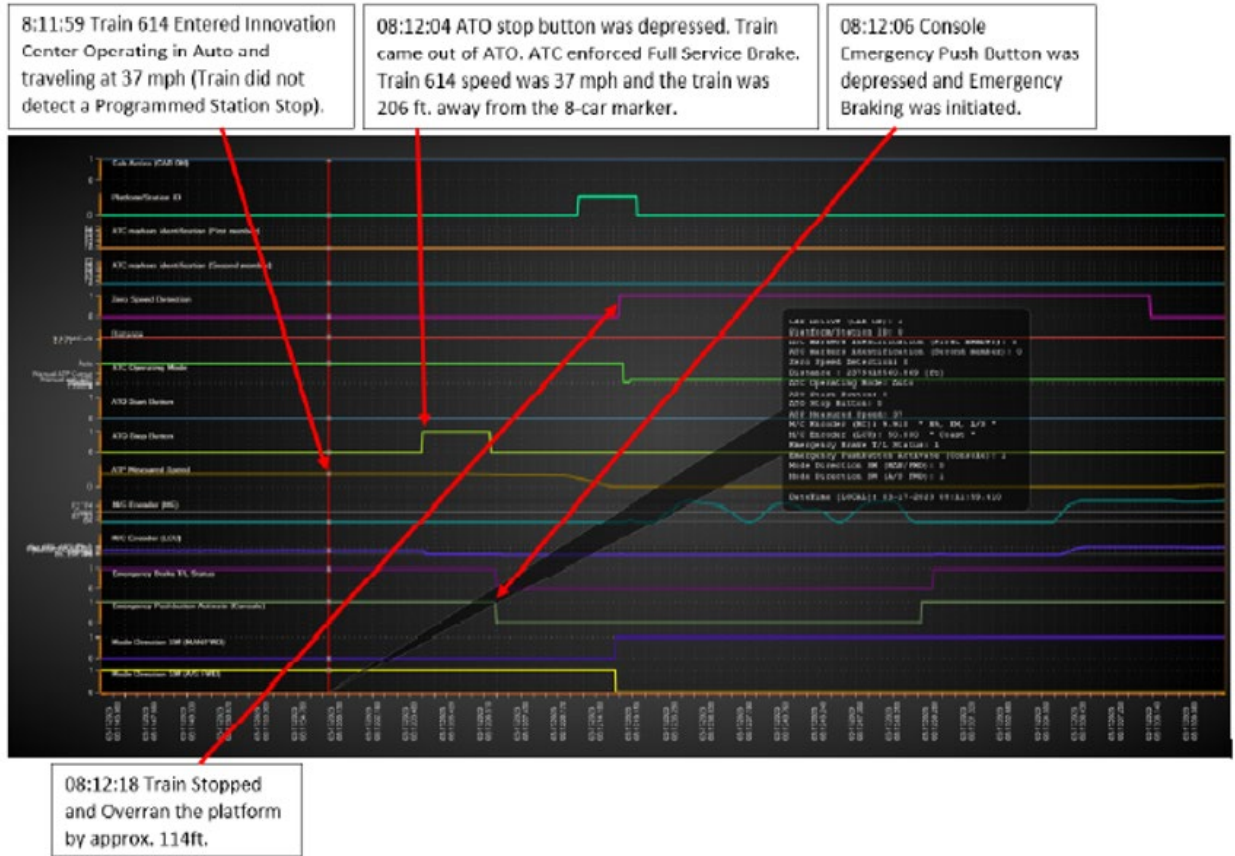
“The two major contributing factors are: The Train Operator entered Automatic Train Operation (ATO) Mode, and the train failed to detect the Programed Station Stop markers.

Train ID 614 was operating in ATO in approach to Innovation Center. Train ID 614 failed to detect the Programmed Station Stop Markers and proceeded through the platform without slowing down. The Train Operator pushed the ATO stop button and initiated Emergency Braking by depressing the Emergency Push Button on the console. The train was already nearing the end of the platform and ended up overrunning the platform by approximately 114 feet.

Timeline of Events.

Time	Description of Events	Train Speed	Master Controller	Distance from 8-Car Marker
08:00:30	At Loudon Gateway, ATO button was depressed on 7134 (lead car of train 614). ATC entered in Auto Mode. Master Controller was in A/S. Mode Direction Switch was in A/S.	0 mph	A/S	N/A
08:00:33	Train 614 started moving towards Dulles International. Master Controller was in A/S. Mode Direction Switch was in A/S.	1 mph	A/S	N/A
08:05:52	Train 614 lost Speed Commands. ATC enforced Full Service Brake and Brought the Train to a Stop before entering Dulles International.	19 mph	A/S	N/A
08:06:04	Mode Selector Switch was placed in Man/FW. Master Controller was moved to a Power Mode and Train 614 was safely moved to the 8-car Marker at Dulles International.	1 mph	P5	N/A
08:07:36	After Servicing Dulles International, ATO button was depressed on 7134 (lead car of train 614). ATC entered in Auto Mode. Master Controller was in A/S. Mode Direction Switch was in A/S.	0 mph	A/S	N/A
08:07:38	Train 614 started moving towards Innovation Center. Master Controller was in A/S. Mode Direction Switch was in A/S.	1 mph	A/S	N/A
8:11:59	Train 614 Entered Innovation Center Platform limits, speed was 37 mph. The train did not slow down since the it did not detect the Program station stop markers and was operating in auto mode.	37 mph	A/S	600 ft
08:12:04	ATO Stop Button was depressed. Train came out of Auto and ATC enforced full service Brake.	37 mph	A/S	206 ft
08:12:06	Console Emergency Push Button was depressed and Emergency Braking was initiated.	35 mph	A/S	73 ft
08:12:08	Train 614 past Innovation Center 8-Car Marker at 33 mph the Master Controller and the Mode Selector Switch were in A/S. Emergency Braking was in effect.	33 mph	A/S	0 ft
08:12:18	Train 614 Stopped and Overran Innovation Center Platform by approx. 114 ft.	0 mph	A/S	114ft
08:12:18	The mode selector switch was placed in Man/FW.	0 mph	A/S	114ft
08:12:36	The Master Controller was cycled to power 3 times while the Brake Pipe was still dumped.	0 mph	P1-P5	114ft

Graph. 1: Data Analysis.



On March 22, 2023, CMOR/IIT completed an additional inspection and provided the following analysis of the Train Operator's outbound trip on Track 2 from Ballston to Ashburn Station:

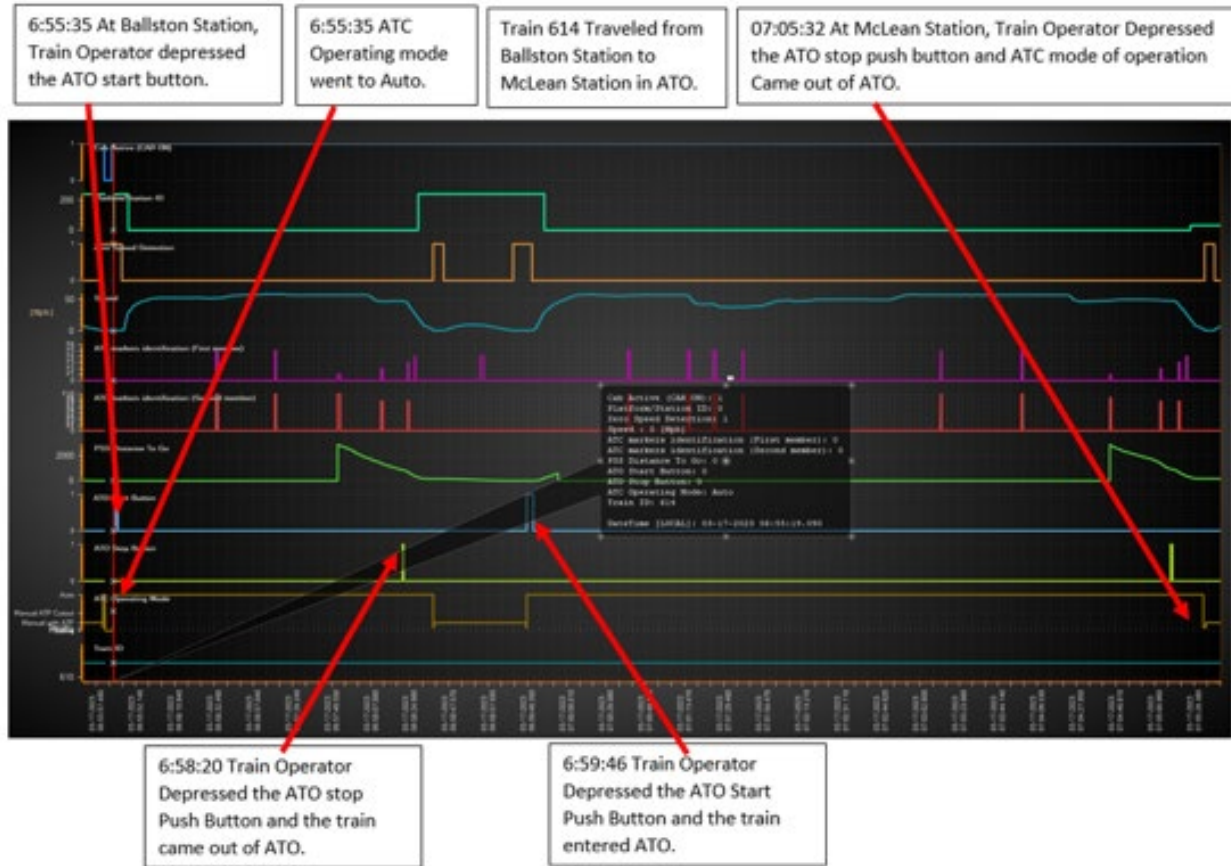
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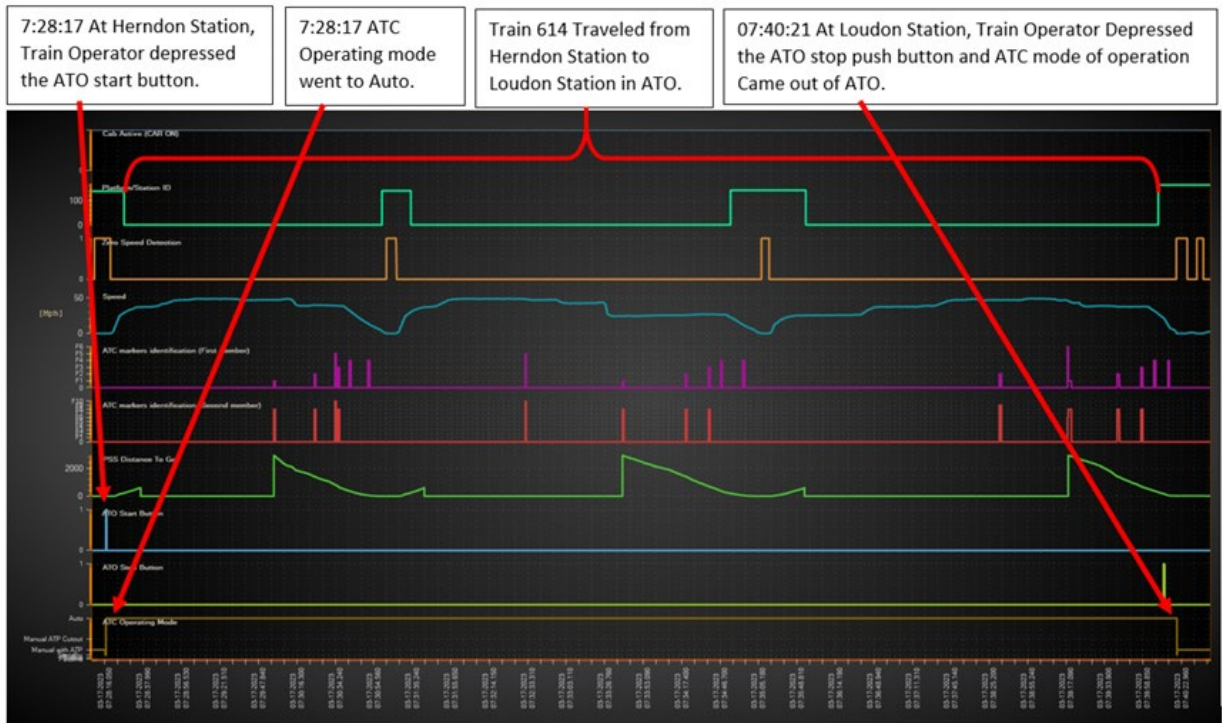
1. The Train Operator initiated ATO by depressing the ATO start Push Button when he took over Train 614 at Ballston.
2. The Train Operator terminated ATO to berth the train at East Falls Church.
3. The Train Operator initiated ATO by depressing the ATO start Push Button at East Falls Church and terminated ATO to berth the train at McLean.
4. The Train Operator Operated the train in Manual Mode from McLean to Herndon.
5. The Train Operator initiated ATO by depressing the ATO start Push Button in Herndon.
6. The Train Operated in ATO and performed a Programmed Station Stop at Innovation Center (outbound on Track 2).
7. The Train Operated in ATO and performed a Programmed Station Stop at Dulles (outbound on Track 2).
8. The Train Operator terminated ATO to berth the train at Loudoun.

Timeline of Events.

Time	Description of Events
6:55:35	At Ballston Station, Train Operator depressed the ATO start button.
6:55:35	ATC Operating mode went to Auto.
6:58:20	At East Falls Church, Train Operator Depressed the ATO stop Push Button and the train came out of ATO.
6:59:46	Train Operator Depressed the ATO Start Push Button and the train entered ATO.
07:05:32	At McLean Station, Train Operator Depressed the ATO stop push button and ATC mode of operation Came out of ATO.
7:28:17	At Herndon Station, Train Operator depressed the ATO start button.
7:28:17	ATC Operating mode went to Auto.
07:40:21	At Loudon Station, Train Operator Depressed the ATO stop push button and ATC mode of operation Came out of ATO.

Graph 1: Data Analysis, from Ballston to McLean.





"Train In Auto" Indication

The information source for the train in "Auto" indication for either the AIMs displays in the ROCC or the TWC Report is the same. It is a bit within the TWC long message sent from the train to the wayside at station platforms. This specific bit is called "Train In Auto" (sometimes referred to as "Auto") and is controlled by the lead car's ATC system.

The "Train In Auto" bit reflects the state of the Mode Direction Switch (MDS) and is unrelated to whether the ATO controls propulsion/braking. To initiate ATO mode (i.e. control of the propulsion/brakes), the ATO Start push-button must be pressed while the MDS is in Auto/Store and speed commands are received. The "Train In Auto" bit does not indicate the train is operating under the control of ATO. However, using an active "Train In Auto" bit (= 1), in conjunction with AIMs data that has been filtered to report trains in motion for more than 6 sec, has been proven to report trains operating in ATO Mode reliably. The "Train In Auto" bit cannot transition to Auto, unless the train is stopped.



Image 4: Mode Direction Switch

Mechanical Interlocking Information: MDS Auto/Store vs Master Controller Auto/Store

The Mode Direction Switch is interlocked with the key switch to lock it in Auto/Store unless the controlling cab is keyed on. Once keyed-on, the MDS switch can be moved between Auto/Store, Manual Forward, and Manual Reverse.

If the MDS switch is in Manual (Forward or Reverse), the Master Controller handle interlock allows it to be moved out of the Master Controller Auto/Store (not to be confused the MDS switch position of the same name) to generate Power/Brake commands to the train.

Office of Car Maintenance (CMNT)

CMNT inspected the undercar on rail cars 7134-7135 and provided the following analysis. All trucks are good, ok for service, Visual check of the marker antenna, five connectors from P10 to P14, AMD Unit and power ATC cabinet, all ok. Daily Safety Inspection test, pass. ATC Maintenance test, pass.

Inspected and replaced the Antenna Interface Board (AIB) and passed a Daily Safety Test (DTS). ITT performed a Mainline Track Test (MITT), and the ATC chart was downloaded and given to the supervisor.

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

COMR performed radio checks at Innovation Center Station platform, escalator, mezzanine, and kiosk areas. All radio checks were loud and clear.

Automatic Train Control (ATC)

Station Platforms have not been tested and certified for ATO operation.

Office of Rail Transportation (RTRA)

Adopted from RTRA Station Overrun report:

INCIDENT DATE & TIME	OPERATOR'S DIVISION
Friday, March 17, 2023	West Falls Church
OPERATOR'S NAME & PAYROLL	INCIDENT LOCATION & TRACK NUMBER
[REDACTED]	Innovation Center Station; Track #1
TRAIN ID	CONSIST NUMBERS
614	7134x7529x7664x7619
STOV TRENDS for Innovation Center (N09)	
There have been 1 station overruns reported at this location	
OPERATOR HISTORY & FITNESS	
<ul style="list-style-type: none"> • Train Operator [REDACTED] has been on the rail as a Train Operator since June 21, 2007. He has been employed with the Authority since May 19, 2000. • Today, he was working West Falls Church Run 23, and this was his Fourth (4) trip, for the day. • Train Operator [REDACTED] worked a total of 56:00 hours within the last seven (7) days. There were no recorded instances of overtime and/or 8-hour rule violations noted within Trapeze. • Previous Station Overruns: 0 • Safety Violations: N/A • Last Certification Date: July 19, 2022 • There were no reported discrepancies with the employee's performance and/or fitness for duty 	
REFRESHER TRAINING/DISCIPLINARY ACTION	
Operator will be referred to Rail Training for refreshing training and be given the actions in accordance with ROPN Station Overrun Discipline Policy dated: Wednesday, March 31, 2021 which will be 8-points – Major Violation: More than ½ car and the station cannot be serviced.	
SMS NUMBER	REPORT COMPLETED BY
	[REDACTED] Superintendent WFC

The Train Operator involved in this event retired from WMATA on May 1, 2023.

Interview Findings

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

- The Train Operator stated that when they were arriving at Loudoun Gateway Station became curious about ATO operation.
- The⁵ Train Operator stated that they wanted to know what it was like to operate in ATO.
- The Train Operator stated that it was mistake to operate the train in ATO.
- The Train Operator stated that they were aware that ATO was not an authorized mode of train operation.
- The Train Operator stated that while entering Innovation Center Station, the PSS signal dropped. They did not react quickly enough to slow the train down, causing the station overrun.
- The Train Operator stated that they were aware that the train was more than one car off the platform, and they immediately notified ROCC.

⁵ The Operator began working as a Train Operator in 2007 when ATO operations was permitted on the rail system.

Weather

On March 17, 2023, at the time of the incident, NOAA recorded the temperature as 51° F, winds at 9 MPH, overcast, and 51% humidity. This event occurred on an above ground section of the rail system. Weather was not likely a contributing factor in this incident (Weather source: NOAA – Location: Herndon, VA)

Related Rules and Procedures

6.1 Platform Approach Procedures

6.1.1 When operating in Mode 1, Rail Vehicle Operators shall verify speed entering the station is no greater than 42 mph and that the Program Station Stop (PSS) indicator is illuminated upon passing the "S" marker and remains illuminated during its entire braking profile, until train is berthed at the station.

6.1.1.1 Rail Vehicle Operator shall maintain a constant lookout in the direction in which their vehicles are moving. Rail Vehicle Operators shall activate the emergency stop pushbutton (mushroom) any time a train must be stopped to prevent a collision with any object.

6.1.1.2 If the PSS indicator fails to illuminate upon train passing the "S" marker or fails to stay illuminated after passing the "S" marker for the duration of its braking

profile into the station, the Rail Vehicle Operator shall activate the ATO STOP pushbutton.

6.1.1.3 Rail Vehicle Operator shall contact RTC after ATO STOP activation and operate in Mode 2 to service the station.

Figure 2 – SOP 40, Section 6 describing platform approach procedures. .

Human Factors

Evidence of Fatigue

We evaluated conditions at the time of the incident to distinguish whether evidence of fatigue was present. No sign of fatigue was indicated by the available data. Video of the incident was reviewed for behaviors suggesting fatigue. No indications of fatigue were evident from the video. Employee reported feeling moderately alert at the time of the incident. Employee reported experiencing no symptoms of fatigue in the time leading up to the incident.

Fatigue Risk

We evaluated incident data for fatigue risk factors. Risk factors for fatigue were present. The incident time of day did not suggest an increased risk of fatigue-related impairment. Employee reported some variation in the sleep schedule in the days leading up to the incident. The employee worked mornings in the days leading up to the incident. The employee was awake for 5 hours and 45 minutes at the time of the incident. The employee reported 6 ½ to 7 hours of sleep in the 24 hours preceding the incident. The off-duty period preceding the incident was 8 hours. This was a comparable amount to the employee's usual workday sleep durations. The employee reported no issues with sleep. The employee worked in the morning in the days leading up to the incident.

Post-Incident Toxicology Testing

WMATA's Drug and Alcohol Program determined that the Train Operator complied with and was not in violation of the Drug and Alcohol Policy and Testing Program 7.7.3/6.

Findings

- A policy violation set in motion the precipitating event for the overrun.
- The Rail Traffic Controllers' failure to monitor the AIM's System which identifies trains operating in the incorrect mode.
- A lack of supervisory oversight that would identify and outline data trends.
- Train Operator intentionally placed the train into Automatic Train Operation mode without authorization multiple times between Ballston and Loudoun Gateway Stations on Track 2 and again during their inbound trip leading up to the Station Overrun.
- During their outbound trip, the Train Operator intermittently consumed food and beverage while operating the train in manual and ATO modes.
- The train successfully berthed on the platform at two stations while in ATO mode on Track 2.
- ATC failed to detect a PSS before entering Innovation Center Station.
- The Train Operator was assigned Work Time in excess of 200 hours in a two-week period, with no days off from March 3 to March 17, 2023.

Immediate Mitigation to Prevent Recurrence

- RTRA developed and distributed a Supervisor's Notice on March 21, 2023, that instructed Rail Supervisors to have documented discussions with Train Operators reiterating that ATO operation is not currently an approved mode of operation.
- RTRA distributed an RTRA Operations Personnel Notice on March 22, 2023, regarding the prohibited use of ATO operations.
- RTRA re-distributed a Personnel Notice dated October 2021, regarding prevention of Station Overruns.
- ROCC notified Controllers and Managers to be vigilant for indications of ATO usage at or outside of terminal stations. When observed, the Controllers are to make contact with the Train Operator directly and confirm their operating mode.
- The Office of Communications & Signaling developed a report that details ATO operation status at various points within the rail system for improved oversight.

Probable Cause Statement

The Probable Cause of the Station Overrun event was the Train Operator's intentional action to operate the train in Automatic Train Operation mode without authorization. A few Contributing Factors to the event was the train did not detect the PSS signal prior to entering the station platform, which would have permitted the train to properly berth within the platform limits. The Train Operator's inattention to safety-critical tasks during operation including but not limited to eating and failure to monitor the train console indications during train operations was a major safety violation. Also, the Rail Traffic Controllers (RTC) failure monitor the Automatic Information Display System (AIMS) that detects when a Train is operating in an improper mode of operation such as Automatic Train Operation (ATO). However, as the rail system is not currently certified to operate in ATO mode, this failure is not evidence of a deficiency.

Recommended Corrective Actions

Corrective Action Code	Description	Responsible Party	Estimated Completion Date
106966_SAFE CAPS_RTRA_001	Develop and distribute a Supervisor's Notice that instructs Rail Supervisors to have documented discussions with Train Operators reiterating that ATO operation is not currently an approved mode of operation.	RTRA	Completed
106966_SAFE CAPS_RTRA_002	Distribute an Operations Personnel Notice regarding the prohibited use of ATO operations.	RTRA	Completed
106966_SAFE CAPS_RTRA_003	Re-distribute the Personnel Notice dated October 2021, regarding prevention of Station Overruns.	RTRA	Completed
106966_SAFE CAPS_ATCE_001	Perform ATO and Motion operational status checks at various points within the rail system.	ATCE	Ongoing

Appendices

Appendix A – Interview Summary

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

RTRA

Train Operator

The Train Operator has been a WMATA employee for 22 years, with 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.

- Employee Tenure: 22 years, 9 months, 29 days
- Train Operator since June 21, 2007
- Most recent Certification Date: 07/2022 - Passed with a QL-2 on the second attempt.
- Work Schedule Information: This was the Train Operator's fourth trip of the day.


During the virtual interview, the Train Operator stated that they were arriving at Loudoun Gateway and made a mistake of being curious about ATO operation. The Train Operator stated that they had been a WMATA employee for twenty-two years and wanted to know what it was like to operate in ATO. The Train Operator admitted to making the mistake of operating the train in ATO. The Train Operator stated that they were aware that ATO was not an authorized mode of train operation.

The Train Operator stated that upon entering Innovation Center Station, the PSS signal dropped out and because they had not operated in ATO in a long time they did not react quickly enough to slow the train down, that's what caused the station overrun. The Train Operator stated that they were aware that the train was more than one car off the platform, and they immediately notified ROCC. They requested permission to continue to Herndon and was granted permission.


The Train Operator stated that at Herndon Station they were instructed to offload the train. They made announcements, offloaded the train, and placed the train out of service. They confirmed with ROCC how many cars overran the platform at Innovation Center, they initially reported two cars, then changed to one and a half cars. The Train Operator stated that they knew the station was not serviceable⁶.

⁶ The Train Operator submitted an amended written statement that contradicted their statements made during the formal interview.

Appendix B – Train Operator Certification



TRAIN OPERATOR AND ROAD SUPERVISOR JOB TASK PROFICIENCY EVALUATION



Name: [REDACTED] *West Falls Church* Date: *07/19/2022*

Reason for Certification: *Please place a check in an area below:*

Certification: Student
 Pre-certification: Student
 Division Request
 Re-Certification
 Return to Duty
 Other

Training Time Received: *Please record training time in an area below:*

Rail Training: Weeks: _____ Days: _____ Hours: _____ OJT: _____
 Division Training: Weeks: _____ Days: _____ Hours: _____ OJT: _____
NOTE: OJT time is not separate from Weeks/Days/Years.

Exam Administered	Score	Date Taken	Equipment (current/working condition)	Yes	No
MSRPH version #	<i>96 %</i>	<i>07/19/2022</i>	MSRPH	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TVOIM/TOIM	<i>48 %</i>	<i>07/19/2022</i>	Form/Temp/Special Orders	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Supervisor Combination	<i>N/A %</i>	<i>N/A</i>	Troubleshooting Guide	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Practical attempt # <i>1</i>	<i>QL- 3</i>	<i>07/19/2022</i>	Flashlight	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			Safety Vest	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			Footwear	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			Identification (One Badge, RWP)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Corrective Actions Required	Date Due	Complete	Initials
<i>TRAIN PREP - OPERATOR EXHAUSTED ALL OF TIME ALLOWED & COULDN'T GET A BRAKE OFF.</i>			
<i>SELF RECOVERY - OPERATOR FAILED TO ACTIVATE & RETRACT ON 4TH & 5TH CAR.</i>			
<i>COUPLING - OPERATOR WENT OFF TIME ALLOWED FOR QL 1</i>			
Forwarded to:	Date:		

Certification Information: *To be completed by DA/DC Staff*

[REDACTED] Date of Birth: [REDACTED]

Date Last Qualified: _____ Certification Class: _____

Due Date Next Qualification: _____ Corrective Lenses: *No*

Date Qualification Expires: _____ Restrictions: _____

Signatures: _____ Date: _____

Employee: [REDACTED] *07/19/2022*

Examiner: [REDACTED] *07/19/2022*

Reviewed by: _____

Rev. June 5, 2020 - RTRA DA/DC TRAIN OPERATOR AND ROAD SUPERVISOR JOB TASK PROFICIENCY EVALUATION Page 1

Document 3 - Train Operator Certification, dated 07/19/2022 – Page 1 of 2

TRAIN OPERATOR AND ROAD SUPERVISOR JOB TASK PROFICIENCY EVALUATION (continuation sheet)

Emp No. [REDACTED]

Date: 0-19-2022

CATEGORIES / SUBCATEGORIES	QUALITY LEVEL	REMARKS (Remarks are required for a quality level score of 2 or 3) - ALL TIMES (are in minutes)
I. Preparation for Service		
1. Exterior Inspection	1	Cars Used: 7297x7401 TUCKER, COOPER, POTARY ROSE BARRIER
2. Interior Inspection - Trailing Cab	N/A	ATC CABINET OPEN
3. Interior Inspection - Each Car	N/A	HORN ON
4. Interior Inspection - Oper. Cab	3	ED DOOR RELEASED
5. Rolling Test / Rolling Brake Test	N/A	Time Allotted: 35:00 / Actual Time: 30:00
II. Mainline Operation		
6. Communications	1	
7. Door Oper. & Station Stopping	1	
8. Use of Horn	1	
9. Speed Adherence/Manual Oper.	1	
10. Turn Back Moves	1	Location: BALLSTON Time Allotted: 02:00 / Actual Time: 1:00
11. Manual Route Selection	1	Location: Pole-18
12. EV Shutoff	1	Time Allotted: 00:30 (01:00) / Actual Time: :20
III. Yard Operation		
13. Communications	1	
14. Yard Movements	1	
15. Coupling	2	Time Allotted: 08:00 (12:00) / Actual Time: 10:00 Cars Used: 7315 + 7385x7297x7401
16. Uncoupling	1	Time Allotted: 05:00 (07:30) / Actual Time: 5:00 Cars Used: <7297x7401 7314x7385
17. Isolation (Self-Recovery)	3	Time Allotted: 15:00 (22:30) / Actual Time: 16:00 Cars Used: 7314x7385x7297x7401
18. Manual Switch Operation	1	SWITCH 313
IV. Miscellaneous		
19. Recovery Train Operation	1	Time Allotted: 12:00 (18:00) / Actual Time: 12:00 Cars Used: 7297x7401 + 7314x7385
20. Troubleshooting	1	INDIV CAR ISOLATION DOOR STUCK OPEN

Document 4 - Train Operator Certification, dated 07/19/2022 – Page 2 of 2

Incident Date: 03/17/2023 Time: 08:12 hours
 Final Report – Station Overrun Rev. 1
 E23181

Drafted By: SAFE 707 – 05/14/2023
 Reviewed By: SAFE 71 – 05/16/2023
 Approved By: SAFE [ID] [DATE]



TRAIN OPERATOR AND ROAD SUPERVISOR JOB TASK PROFICIENCY EVALUATION



Name: [REDACTED] Division: WFC Date: 7-21-22

Reason for Certification: *Please place a check in an area below.* Training Time Received: *Please record training time in an area below.*

Certification: Student Pre-certification: Student Division Request
 Re-Certification Return to Duty Other _____
 Rail Training: Weeks: _____ Days: _____ Hours: _____ OJT: _____
 Division Training: Weeks: _____ Days: _____ Hours: _____ OJT: _____
NOTE: OJT time is not separate from Weeks/Days/Hours.

Exam Administered	Score	Date Taken
MSRPH version #:	%	
TVOIM/TOIM	%	
Supervisor Combination	%	
Practical attempt #: <u>2</u>	<u>QL - Pass</u>	<u>7-21-22</u>

Equipment (current/working condition)	Yes	No
MSRPH	<input checked="" type="checkbox"/>	
Perm/Temp/Special Orders	<input checked="" type="checkbox"/>	
Troubleshooting Guide	<input checked="" type="checkbox"/>	
Flashlight	<input checked="" type="checkbox"/>	
Safety Vest	<input checked="" type="checkbox"/>	
Footwear	<input checked="" type="checkbox"/>	
Identification (One Badge, RWP)	<input checked="" type="checkbox"/>	

Corrective Actions Required	Date Due	Complete	Initials
Forwarded to:	Date:		

Certification Information: To be completed by QA/QC Staff

[REDACTED] Date of Birth: _____
 Date Last Qualified: _____ Certification Class: _____
 Due Date Next Qualification: _____ Corrective Lenses: NO
 Date Qualification Expires: _____ Restrictions: _____

Signatures: [REDACTED] Date: 07/21/22
 [REDACTED] Date: 7-21-22
 Reviewed by: [Signature]

Document 5 - Train Operator Certification, dated 07/21/2022 – Page 1 of 2

Incident Date: 03/17/2023 Time: 08:12 hours
 Final Report – Station Overrun Rev. 1
 E23181

Drafted By: SAFE 707 – 05/14/2023
 Reviewed By: SAFE 71 – 05/16/2023
 Approved By: SAFE [ID] [DATE]

TRAIN OPERATOR AND ROAD SUPERVISOR JOB TASK PROFICIENCY EVALUATION (continuation sheet)

Emp



Date: 7-21-22

CATEGORIES / SUBCATEGORIES	QUALITY LEVEL	REMARKS (Remarks are required for a quality level score of 2 or 3) - ALL TIMES (are in minutes)
I. Preparation for Service		
	/	Cars Used: 7314 x 7385
1. Exterior Inspection	/	Truck 4 7314 Car Basin 7386
2. Interior Inspection - Trailing Cab	/	Ever Road 7314
3. Interior Inspection - Each Car	/	Horn 4 7385
4. Interior Inspection - Oper. Cab	/	Ad 4 7384
5. Rolling Test / Rolling Brake Test	/	
		Time Allotted: 35:00 / Actual Time: 29:00
II. Mainline Operation		
6. Communications		
7. Door Oper. & Station Stopping		
8. Use of Horn		
9. Speed Adherence/Manual Oper.	N/A	
10. Turn Back Moves		Location: Time Allotted: 02:00 / Actual Time: :
11. Manual Route Selection		Location: :
12. EV Shutoff		Time Allotted: 00:30 (01:00) / Actual Time: :
III. Yard Operation		
13. Communications		
14. Yard Movements		
15. Coupling		Time Allotted: 08:00 (12:00) / Actual Time: : Cars Used: +
16. Uncoupling		Time Allotted: 05:00 (07:30) / Actual Time: : Cars Used: < >
17. Isolation (Self-Recovery)	/	Time Allotted: 15:00 (22:30) / Actual Time: 14:00 Cars Used: 7314 x 7385 x 7296 x 74-1
18. Manual Switch Operation		
IV. Miscellaneous		
19. Recovery Train Operation		Time Allotted: 12:00 (18:00) / Actual Time: : Cars Used: +
20. Troubleshooting	N/A	

Document 6 - Train Operator Certification, dated 07/21/2022 – Page 2 of 2

Incident Date: 03/17/2023 Time: 08:12 hours
 Final Report – Station Overrun Rev. 1
 E23181

Drafted By: SAFE 707 – 05/14/2023
 Reviewed By: SAFE 71 – 05/16/2023
 Approved By: SAFE [ID] [DATE]

Appendix C – Train Operator and RTRA Superintendent Incident Reports (Abridged)



RTRA DIVISION MANAGER STATION OVERRUN REPORT

Please ensure this report is submitted to the Line Directors and RTRA Managing Director within 24 hours (weekdays);
48 hours (weekends) of reported overrun

INCIDENT DATE & TIME	OPERATOR'S DIVISION
Friday, March 17, 2023	West Falls Church
OPERATOR'S NAME & PAYROLL	INCIDENT LOCATION & TRACK NUMBER
[REDACTED]	Innovation Center Station; Track #1
TRAIN ID	CONSIST NUMBERS
614	7134x7529x7664x7619
STOV TRENDS for Innovation Center (N09)	
There have been 1 station overruns reported at this location	
OPERATOR HISTORY & FITNESS	
<ul style="list-style-type: none"> Train Operator [REDACTED] has been on the rail as a Train Operator since June 21, 2007. He has been employed with the Authority since May 19, 2000. Today, he was working West Falls Church Run 23, and this was his Fourth (4) trip, for the day. Train Operator [REDACTED] worked a total of 56:00 hours within the last seven (7) days. There were no recorded instances of overtime and/or 8-hour rule violations noted within Trapeze. Previous Station Overruns: 0 Safety Violations: N/A Last Certification Date: July 19, 2022 There were no reported discrepancies with the employee's performance and/or fitness for duty 	
REFRESHER TRAINING/DISCIPLINARY ACTION	
Operator will be referred to Rail Training for refreshing training and be given the actions in accordance with ROPN Station Overrun Discipline Policy dated: Wednesday, March 31, 2021 which will be 8-points – Major Violation: More than ½ car and the station cannot be serviced.	
SMS NUMBER	REPORT COMPLETED BY
	[REDACTED] Superintendent WFC



STATION OVERRUN REPORT

This form is to be completed by Train Operators

Date	Time	Station	Track #	Operating Car No.
03/17/23	8 ²⁴	Innovation	01	7134
Details		YES	NO	Action Taken
At the S Marker, did the PSS illuminate			Not Sure	
Did the PSS light stay illuminated until the train stopped?			✓	
Entering the platform, was the train speed less than or equal to 37mph?		✓		
When the Operating Cab passed the center of the platform, was the train still in a braking mode?			✓	
At the 2 nd platform marker coil, was the actual train speed 20 mph or less?			✓	

Give other pertinent information below.

Please be advised out of curiosity and bad judgement I placed the train in ATD operation to re-familiarize myself with the method. This was an unwise mistake that I deeply regret.

Form Completed By:	<u>[Signature]</u>
Division & Payroll No:	<u>WFC 001906</u>
Student Operator:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
LPI Name & Payroll No:	<u>N/A</u>
Division Manager Signature:	<u>[Redacted]</u>

Document 8 - RTRA STOV Report completed by Train Operator on 3/17/2023.

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

Incident Information: This page must be completed for all incidents

Date: 03/17/23 Incident Time: Approx 8:21 Time Reported: Reported by: Customer Employee
 ROCC Other

Location: Station Innovation Mezzanine # Track #/Destination 01 Chain Marker/Signal Number

TYPE OF INCIDENT

- Property Damage Smoke Fire Customer Complaint
 Customer injury Customer Illness Employee Injury Employee Illness
 Criminal Activity Elevator Entrapment Rail Vehicle Incident Other (Explain in description of incident)

WEATHER Clear Rain Snow Sleet/Ice
LIGHT CONDITIONS (natural lighting) Dawn/Dusk Daylight Dark Tunnel/Underground
LIGHTING (artificial lighting) Lights On Lights Off Lights Not Working

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

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

Failure Number(s):

Parking Lot Paid Area Free Area Garage Station Entrance Stairway # Platform Ancillary Room
 Injury/Illness reported aboard Train Other

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

TRAIN INCIDENTS

Train ID 614 Destination Largo Car Numbers (list all cars in consist): Load Car: 7134

Name of Responding Supervisor: Name/Department of CMNT/TRST or other WMATA responder

DESCRIBE THE INCIDENT: Include what you did to correct the problem and who you notified and when.

Describe any property damage and the extent of any injuries.

On March 17th at approx 8:15 AM while leaving Loudon, eastward, because of all the speculation of using ATO operation in the near future and because of curiosity, I placed the train in ATO store and the train responded by moving forward. Unfortunately, while arriving at Innovation center, the train continued past the station which caused a station overrun.

Employee Completing Report

Employee Name (print): Employee Signature (sign): Employee #: Date:
 Division: WTC Run # 23 Block # 02 Assigned Days: Wed/Thu

To Be Completed By Reviewing Manager

Supervisor Name (print): Supervisor Signature: Employee #: Date: 3.20.2023
 Action taken/needed:

SMS Number: 20230317 # 106966 MD
 50.753A 04/12 White Copy: Division or Supervisor Yellow Copy: For any incident involving escalators or elevators; remains in kiosk for use of elevator/escalator inspectors

Document 9 - Train Operator's first Incident Report. Date completed: 3/17/2023.

Incident Date: 03/17/2023 Time: 08:12 hours
 Final Report – Station Overrun Rev. 1
 E23181

Drafted By: SAFE 707 – 05/14/2023
 Reviewed By: SAFE 71 – 05/16/2023
 Approved By: SAFE [ID] [DATE]

TUES 3/17/23

WMATA/RTRA Incident/Accident Report (Other than Motor Vehicle) Page 2 of 2

Incident Information: This page must be completed for all incidents

Date: 03/20/23 Incident Time: 8:15 Time Reported: Reported by: Customer Employee ROCC Other

Location Station: Innovation Mezzanine #: Track #/Destination: #01 and #02 Chain Marker/Signal Number:

TYPE OF INCIDENT

- Property Damage Smoke Fire Customer Complaint
 Customer injury Customer Illness Employee Injury Employee Illness
 Criminal Activity Elevator Entrapment Rail Vehicle Incident Other (Explain in description of incident)

WEATHER: Clear Rain Snow Sleet/Ice LIGHT CONDITIONS (natural lighting): Dawn/Dusk Daylight Dark Tunnel/Underground LIGHTING (artificial lighting): Lights On Lights Off Lights Not Working

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

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

Failure Number(s):

Parking Lot Paid Area Free Area Garage Station Entrance Stairway # Platform Ancillary Room Injury/Illness reported aboard Train Other

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

TRAIN INCIDENTS

Train ID: 614 Destination: Ashburn/Arge Car Numbers (list all cars in consist): Lead Car: 7134

Name of Responding Supervisor: Name/Department of CMNT/TRST or other WMATA responder

DESCRIBE THE INCIDENT: Include what you did to correct the problem and who you notified and when.

Describe any property damage and the extent of any injuries.

Please be advised, on March 17th 2023 I received my work at 3:48 am. After learning my train location, I began traveling towards Ashburn for service. During the trip, I operated my train in ATO in order to rest my hands. Unfortunately, although I can not give the precise time and location of my indulgence prior to this incident, I do know and recall that I have operated in ATO several times this year before. This was done at least twice in the last several weeks. In closing, please be advised that I take full responsibility for my actions that I deeply regret.

Employee Completing Report

[Redacted] Date: 03/20/23 (o.f.c.) 24 01-02 Wed/Thur

To Be Completed By Reviewing Manager

[Redacted] Date: 3.22.2023

SMS Number:

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

Document 10 - Train Operator's second written statement. Page 1 of 2.

Additional Information- Complete this page for any incident where the information is available and when additional space is needed for incident description.

Customer Involved Employee Involved Witness

Last Name: [Redacted] Work Phone: [Redacted]

Date: [Redacted] Home Address: [Redacted] Email Address: [Redacted]

Nature of Injury/Illness: [Redacted]

Assistance Offered: Accepted Declined

If Transported:

Hospital: [Redacted] Ambulance Number: [Redacted] Arrival: [Redacted] Departure: [Redacted]

Customer Involved Employee Involved Witness

Last Name, First Name: [Redacted] Employee #: [Redacted]

Date of Birth: [Redacted] Sex: [Redacted] Home Phone: [Redacted] Work Phone: [Redacted] Cell Phone: [Redacted]

Home Address: [Redacted] Email Address: [Redacted]

Nature of Injury/Illness: [Redacted]

Assistance Offered: Accepted Declined

If Transported:

Hospital: [Redacted] Ambulance Number: [Redacted] Arrival: [Redacted] Departure: [Redacted]

Police/Fire/Other Agencies Involved

Jurisdiction/Arrival Time	Name	Badge/Unit Number
Jurisdiction/Arrival Time	Name	Badge/Unit Number

DESCRIBE THE INCIDENT (continued or witness statement): Include what you did to correct the problem and who you notified and when. Describe any property damage and the extent of any injuries.

Continuing in my report, It has dawn on me that I did serve Boston station in ATO operation on what I think was my second trip ^{IDE} 614. This information is submitted to all relevant parties to be as transparent and honest as possible

Employee Completing report

Emp ID: [Redacted] Date: [Redacted]

50.75 Elevator/escalator inspectors

Document 11 - Train Operator's second written statement, page 2 of 2. Date completed: 3/20/2023.

Appendix D – Train to Wayside Communications

The column labeled "Train Auto" indicates whether the Train listed under the "ID" column indicates that the train's Mode Direction Switch is in the Auto/Store position. A one (1) indicates that the train is transmitting a signal indicating that the train is in ATO. The "Motion" column indicates whether the train was moving at the time. A one (1) indicates that the train was moving at the given time point. Note: To initiate ATO mode, the "ATO Start" push-button must be pressed, with the MDS in auto/store and speed commands being received by the train. The TWC tool may be used in conjunction with AIMs data to determine if a train is operating in ATO mode, if the following conditions are met: 1) TWC (Train Auto= 1); 2) AIMs (Train in Motion for more than 6 seconds)

K04-2 TWC and Occupancy Data

Date/Time	K2-276	K2-278	K2-284	ID	Dest	Len	PSS	Train			Doors	Ready	Berth	Motion	Door Man
	Pre Occ	Pltf Occ	Post Occ					Auto	ATP	ATP					
Fri Mar 17 06:46:27 2023	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 06:53:30 2023	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 06:53:33 2023	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 06:53:37 2023	0	0	1	614	68	8	1	0	1	3	0	0	1	0	0
Fri Mar 17 06:53:41 2023	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 06:53:42 2023	0	0	1	614	68	8	1	0	1	3	0	0	1	0	0
Fri Mar 17 06:53:56 2023	0	0	1	614	68	8	0	0	1	3	0	0	1	0	0
Fri Mar 17 06:53:57 2023	0	0	0	614	68	8	0	0	1	3	0	0	1	0	0
Fri Mar 17 06:54:03 2023	0	0	0	614	68	8	0	0	1	3	0	0	1	1	0
Fri Mar 17 06:54:05 2023	0	0	0	614	68	8	0	0	1	3	0	0	0	0	0
Fri Mar 17 06:54:07 2023	0	0	0	614	68	8	0	0	1	3	0	0	0	0	1
Fri Mar 17 06:54:08 2023	0	0	0	614	68	8	0	1	1	3	0	1	0	1	0
Fri Mar 17 06:54:09 2023	0	0	0	614	68	8	0	1	1	1	0	1	0	1	0
Fri Mar 17 06:54:10 2023	0	0	0	614	68	8	0	1	1	1	0	1	0	0	0
Fri Mar 17 06:54:13 2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 06:55:19 2023	0	0	0	614	68	0	0	0	1	1	0	0	0	0	0
Fri Mar 17 06:55:22 2023	0	0	0	614	68	0	0	1	1	1	0	0	0	0	0
Fri Mar 17 06:55:23 2023	0	0	0	614	68	8	0	1	1	1	0	0	0	0	0
Fri Mar 17 06:55:32 2023	0	0	0	614	68	8	0	1	1	3	0	0	0	0	0
Fri Mar 17 06:55:39 2023	0	0	0	614	68	8	0	1	1	3	1	0	0	0	0
Fri Mar 17 06:55:44 2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 06:55:45 2023	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 06:55:58 2023	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 06:56:03 2023	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0

Table 1 - TWC and Occupancy Data ID 614 at K04-2.3

N08-2 TWC and Occupancy Data

Date/Time	N2-1202	N2-1205	N2-1211	ID	Dest	Len	PSS	Train			Doors	Ready	Berth	Motion	Door Man
	Pre Occ	Pltf Occ	Post Occ					Auto	ATP	ATP					
Fri Mar 17 07:09:50 2023	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:26:55 2023	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:27:01 2023	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:27:02 2023	0	0	1	614	68	8	1	0	1	3	0	0	1	0	0
Fri Mar 17 07:27:23 2023	0	0	1	614	68	8	0	0	1	3	0	0	1	0	0
Fri Mar 17 07:27:25 2023	0	0	0	614	68	8	0	0	1	3	0	0	1	0	0
Fri Mar 17 07:27:31 2023	0	0	0	614	68	8	0	0	1	3	0	0	0	0	0
Fri Mar 17 07:27:38 2023	0	0	0	614	68	8	0	0	1	3	0	0	0	0	1
Fri Mar 17 07:27:39 2023	0	0	0	614	68	8	0	0	1	3	0	0	0	0	0
Fri Mar 17 07:27:49 2023	0	0	0	614	68	8	0	0	1	3	0	0	0	0	1
Fri Mar 17 07:27:51 2023	0	0	0	614	68	8	0	0	1	2	0	0	0	0	0
Fri Mar 17 07:28:07 2023	0	0	0	614	68	8	0	0	1	3	0	0	0	0	0
Fri Mar 17 07:28:21 2023	0	0	0	614	68	8	0	1	1	3	1	0	0	0	0
Fri Mar 17 07:28:23 2023	0	0	0	614	68	8	0	1	1	3	1	0	1	0	0
Fri Mar 17 07:28:25 2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:28:27 2023	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:28:41 2023	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:28:45 2023	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0

Table 2 - TWC and Occupancy Data ID 614 at N08-2

N09-2 TWC and Occupancy Data

Date/Time	N2-1294 N2-1299 N2-1302			ID	Dest	Len	PSS	Train		Doors	Ready	Berth	Motion	Door Man
	Pre Occ	Pltf Occ	Post Occ					Auto	ATP					
Fri Mar 17 07:13:19 2023	1	1	1	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:30:40 2023	0	1	1	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:30:47 2023	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:30:49 2023	0	0	1	614	68	8	1	1	1	3	0	0	1	0
Fri Mar 17 07:30:57 2023	0	0	0	614	68	8	1	1	1	3	0	0	1	0
Fri Mar 17 07:31:01 2023	0	0	0	614	68	8	1	1	1	3	0	1	1	0
Fri Mar 17 07:31:05 2023	0	0	0	614	68	8	1	1	1	3	0	1	0	0
Fri Mar 17 07:31:09 2023	0	0	0	614	68	8	1	1	1	2	0	1	0	1
Fri Mar 17 07:31:10 2023	0	0	0	614	68	8	1	1	1	2	0	1	0	0
Fri Mar 17 07:31:26 2023	0	0	0	614	68	8	0	1	1	3	0	0	0	0
Fri Mar 17 07:31:28 2023	0	0	0	614	68	8	0	1	1	3	0	0	1	0
Fri Mar 17 07:31:30 2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:31:32 2023	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:31:46 2023	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:31:57 2023	1	1	1	0	0	0	0	0	0	0	0	0	0	0

Table 3 - TWC and Occupancy Data ID 614 at N09-2

N10-2 TWC and Occupancy Data

Date/Time	N2-1398 N2-1406 N2-1412			ID	Dest	Len	PSS	Train		Doors	Ready	Berth	Motion	Door Man
	Pre Occ	Pltf Occ	Post Occ					Auto	ATP					
Fri Mar 17 07:17:37 2023	1	1	1	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:34:22 2023	0	1	1	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:34:44 2023	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:34:52 2023	0	0	1	614	68	8	1	1	1	3	0	0	1	0
Fri Mar 17 07:35:02 2023	0	0	0	614	68	8	1	1	1	3	0	0	1	0
Fri Mar 17 07:35:05 2023	0	0	0	614	68	8	1	1	1	3	0	1	1	0
Fri Mar 17 07:35:11 2023	0	0	0	614	68	8	1	1	1	3	0	1	0	0
Fri Mar 17 07:35:17 2023	0	0	0	614	68	8	1	1	1	3	0	1	0	1
Fri Mar 17 07:35:18 2023	0	0	0	614	68	8	1	1	1	2	0	1	0	0
Fri Mar 17 07:35:35 2023	0	0	0	614	68	8	0	1	1	3	0	0	0	0
Fri Mar 17 07:35:36 2023	0	0	0	614	68	8	0	1	1	3	0	0	1	0
Fri Mar 17 07:35:38 2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:35:42 2023	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:35:59 2023	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:36:07 2023	1	1	1	0	0	0	0	0	0	0	0	0	0	0

Table 4 - TWC and Occupancy Data ID 614 at N10-2

2023 Mar 17 07:40:02 EDT	1	0		0	0	0	0	0	0	0	0	0	0	0
2023 Mar 17 07:40:04 EDT	1	0		614	68	8	1	1	1	3	0	0	1	0
2023 Mar 17 07:40:18 EDT	0	0		614	68	8	1	1	1	3	0	0	1	0
2023 Mar 17 07:40:21 EDT	0	0		614	68	8	1	1	1	3	0	1	1	0
2023 Mar 17 07:40:24 EDT	0	0		614	68	8	1	1	1	3	0	1	0	0
2023 Mar 17 07:40:25 EDT	0	0		614	68	8	0	0	1	3	0	0	0	0
2023 Mar 17 07:40:29 EDT	0	0		614	68	8	0	0	1	3	0	0	1	0
2023 Mar 17 07:40:32 EDT	0	0		614	68	8	0	0	1	3	0	0	0	0
2023 Mar 17 07:40:34 EDT	0	0		614	68	8	0	0	1	3	0	0	1	0
2023 Mar 17 07:40:42 EDT	0	0		614	68	8	0	0	1	3	0	0	0	0
2023 Mar 17 07:40:47 EDT	0	0		614	68	8	0	0	1	3	0	0	0	1
2023 Mar 17 07:40:48 EDT	0	0		614	68	8	0	0	1	3	0	0	0	0
2023 Mar 17 07:40:55 EDT	0	0		614	68	8	0	0	1	2	0	0	0	1
2023 Mar 17 07:40:56 EDT	0	0		614	68	8	0	0	1	2	0	0	0	0
2023 Mar 17 07:41:12 EDT	0	0		614	68	8	0	0	1	3	0	0	0	0
2023 Mar 17 07:41:22 EDT	0	0		614	68	8	0	0	1	3	0	0	1	0
2023 Mar 17 07:41:24 EDT	0	0		0	0	0	0	0	0	0	0	0	0	0

Table 5 - TWC and Occupancy Data ID 614 at N11-2

N12-1 TWC and Occupancy Data

Date/Time	N1-1666 N1-1663 N1-1659			ID	Dest	Len	PSS	Train		Doors	Ready	Berth	Motion	Door Man
	Pre Occ	Pltf Occ	Post Occ					Auto	ATP					
Fri Mar 17 07:39:12 2023	1	1	1	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:44:54 2023	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:45:03 2023	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:45:05 2023	1	0	0	614	68	8	1	0	1	3	0	0	1	0
Fri Mar 17 07:45:21 2023	1	0	0	614	68	8	0	0	1	3	0	0	1	0
Fri Mar 17 07:45:23 2023	0	0	0	614	68	8	0	0	1	3	0	0	1	0
Fri Mar 17 07:45:30 2023	0	0	0	614	68	8	0	0	1	3	0	0	0	0
Fri Mar 17 07:45:36 2023	0	0	0	614	68	8	0	0	1	3	0	0	0	1
Fri Mar 17 07:45:38 2023	0	0	0	614	68	8	0	0	1	3	0	0	0	0
Fri Mar 17 07:45:41 2023	0	0	0	614	68	8	0	0	1	1	0	0	0	1
Fri Mar 17 07:45:43 2023	0	0	0	614	68	8	0	0	1	1	0	0	0	0
Fri Mar 17 07:45:56 2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:55:02 2023	0	0	0	614	77	0	0	0	1	1	0	0	0	0
Fri Mar 17 07:55:11 2023	0	0	0	614	77	8	0	0	1	1	0	0	0	0
Fri Mar 17 07:55:15 2023	0	0	0	614	77	8	0	0	1	2	0	0	0	0
Fri Mar 17 07:55:46 2023	0	0	0	614	51	8	0	0	1	2	0	0	0	0
Fri Mar 17 07:56:24 2023	0	0	0	614	51	8	0	0	1	3	0	0	0	0
Fri Mar 17 07:56:31 2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:56:33 2023	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:56:50 2023	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:56:59 2023	1	1	1	0	0	0	0	0	0	0	0	0	0	0

Table 6 - TWC and Occupancy Data ID 614 at N12-1

N11-1 TWC and Occupancy Data

Date/Time	N1-1563 N1-1557 N1-1554			ID	Dest	Len	PSS	Train		Doors	Ready	Berth	Motion	Door Man
	Pre Occ	Pltf Occ	Post Occ					Auto	ATP					
Fri Mar 17 07:59:14 2023	1	1	1	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:59:30 2023	0	1	1	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:59:43 2023	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 07:59:45 2023	0	0	1	614	51	8	0	0	1	3	0	0	1	0
Fri Mar 17 08:00:03 2023	0	0	0	614	51	8	0	0	1	3	0	0	1	0
Fri Mar 17 08:00:07 2023	0	0	0	614	51	8	0	0	1	3	0	1	1	0
Fri Mar 17 08:00:11 2023	0	0	0	614	51	8	0	0	1	3	0	1	0	0
Fri Mar 17 08:00:14 2023	0	0	0	614	51	8	0	0	1	3	0	1	0	1
Fri Mar 17 08:00:15 2023	0	0	0	614	51	8	0	0	1	2	0	1	0	1
Fri Mar 17 08:00:17 2023	0	0	0	614	51	8	0	0	1	2	0	1	0	0
Fri Mar 17 08:00:25 2023	0	0	0	614	51	8	0	0	1	3	0	0	0	0
Fri Mar 17 08:00:34 2023	0	0	0	614	51	8	0	1	1	3	1	0	0	0
Fri Mar 17 08:00:37 2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 08:00:39 2023	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 08:00:54 2023	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 08:01:00 2023	1	1	1	0	0	0	0	0	0	0	0	0	0	0

Table 7 - TWC and Occupancy Data ID 614 at N11-1

N10-1 TWC and Occupancy Data

Date/Time	N1-1412 N1-1406 N1-1393			ID	Dest	Len	PSS	Train		Doors	Ready	Berth	Motion	Door Man
	Pre Occ	Pltf Occ	Post Occ					Auto	ATP					
Fri Mar 17 08:00:00 2023	1	1	1	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 08:03:32 2023	0	1	1	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 08:03:43 2023	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 08:03:45 2023	0	0	1	775	93	8	1	0	1	3	0	0	1	0
Fri Mar 17 08:04:11 2023	0	0	0	775	93	8	0	0	1	3	0	0	1	0
Fri Mar 17 08:04:21 2023	0	0	0	775	93	8	0	0	1	3	0	0	0	0
Fri Mar 17 08:04:39 2023	0	0	0	775	93	8	0	0	1	2	0	0	0	0
Fri Mar 17 08:04:46 2023	0	0	0	775	93	8	0	0	1	3	0	0	0	0
Fri Mar 17 08:05:09 2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 08:05:12 2023	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 08:05:34 2023	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 08:05:52 2023	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 08:06:15 2023	0	1	1	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 08:06:26 2023	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 08:06:29 2023	0	0	1	614	51	8	0	0	1	3	0	0	1	0
Fri Mar 17 08:06:53 2023	0	0	0	614	51	8	0	0	1	3	0	0	1	0
Fri Mar 17 08:07:02 2023	0	0	0	614	51	8	0	0	1	3	0	0	0	0
Fri Mar 17 08:07:07 2023	0	0	0	614	51	8	0	0	1	3	0	1	0	0
Fri Mar 17 08:07:13 2023	0	0	0	614	51	8	0	0	1	3	0	1	0	1
Fri Mar 17 08:07:15 2023	0	0	0	614	51	8	0	0	1	2	0	1	0	0
Fri Mar 17 08:07:30 2023	0	0	0	614	51	8	0	0	1	3	0	0	0	0
Fri Mar 17 08:07:41 2023	0	0	0	614	51	8	0	1	1	3	1	0	0	0
Fri Mar 17 08:07:42 2023	0	0	0	614	51	8	0	1	1	3	1	0	1	0
Fri Mar 17 08:07:44 2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 08:07:47 2023	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 08:08:04 2023	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 08:08:40 2023	1	1	1	0	0	0	0	0	0	0	0	0	0	0

Table 8 - TWC and Occupancy Data ID 614 at N10-1

N09-1 TWC and Occupancy Data

Date/Time	N1-1302 N1-1296 N1-1294			ID	Dest	Len	PSS	Train		Doors	Ready	Berth	Motion	Door Man
	Pre Occ	Pltf Occ	Post Occ					Auto	ATP					
Fri Mar 17 08:00:00 2023	1	1	1	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 08:11:50 2023	0	1	1	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 08:12:07 2023	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 08:12:09 2023	0	0	1	614	51	8	0	1	1	3	0	0	1	0
Fri Mar 17 08:12:13 2023	0	0	0	614	51	8	0	1	1	3	0	0	1	0
Fri Mar 17 08:12:15 2023	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 08:13:30 2023	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Fri Mar 17 08:13:33 2023	1	1	1	0	0	0	0	0	0	0	0	0	0	0

Table 9 - TWC and Occupancy Data ID 614 at N09-1 (Event Location)

Appendix E – RTRA Personnel Notices

Incident Date: 03/17/2023 Time: 08:12 hours
 Final Report – Station Overrun Rev. 1
 E23181

Drafted By: SAFE 707 – 05/14/2023
 Reviewed By: SAFE 71 – 05/16/2023
 Approved By: SAFE [ID] [DATE]

From: RTRA Supervisor Notification <noreply@everbridge.net>
Sent: Tuesday, March 21, 2023 12:15 PM
To: Hall, Allison <AHall@wmata.com>
Subject: Prohibited Use of ATO Operations

Prohibited Use of ATO Operations

Team,

RTRA Management was recently notified that an operator was operating in revenue service while in automatic train operation (ATO). Two more trains were pulled from off the line following reports of ATO operation this morning. While the first occurrence has been confirmed (based upon the operator's admission), the second two instances are currently under investigation.

Please reiterate to operators that the proper mode of operation is manual operation until further notice.

Document discussions within the RSDAR application and contact an RTRA Division Manager if you have questions or concerns.

Thank you and please be safe.

THIS ALERT IS INTENDED ONLY FOR THE PROPER RECIPIENT(S). IT IS CONFIDENTIAL AND MAY CONTAIN SENSITIVE OR OTHERWISE NON-PUBLIC SAFETY OR SECURITY INFORMATION. IT CONTAINS PRELIMINARY INFORMATION BASED ON THE BEST DATA AVAILABLE AT THE TIME OF TRANSMISSION AND IS SUBJECT TO CHANGE OR MODIFICATION AS ADDITIONAL OR NEW INFORMATION OR DATA IS SECURED. IF YOU ARE NOT THE PROPER RECIPIENT, PLEASE DELETE THIS MESSAGE. ANY UNAUTHORIZED REVIEW, COPYING, OR USE OF THIS MESSAGE IS PROHIBITED.

Document 12 - RTRA Supervisor's Notice

Incident Date: 03/17/2023 Time: 08:12 hours
Final Report – Station Overrun Rev. 1
E23181

Drafted By: SAFE 707 – 05/14/2023	Page 41
Reviewed By: SAFE 71 – 05/16/2023	
Approved By: SAFE [ID] [DATE]	



RTRA OPERATIONS PERSONNEL NOTICE

Wednesday, March 22, 2023

RTRA-603-76-00

Prohibited Use of ATO Operations

As a reminder, and until further notice, train operators **must operate trains in manual mode at all times**. Mode 2, Level 1 (manual w/speed commands) is currently the normal mode of operation unless instructed otherwise by the Rail Operations Control Center. Although we are progressing with preparations for automatic train operations, this mode of operation has not been approved for use.

Terminal Supervisors will broadcast announcements as trains depart terminals reminding operators of the normal mode of operation. Rail Operations Supervisors, RTRA Division Managers, SAFE, etc. will also be in the system to remind operators through safety discussions and campaigns.

Please see an RTRA Supervisor or Division Manager if you have questions or concerns regarding the contents within this notice.



To report a potential safety risk, please scan the QR code or use this link: tinyurl.com/RTRARisk

Electronic devices shall only be used in designated areas and in accordance with the WMATA Electronic Device Policy.

Document 13 – RTRA Personnel Notice

Incident Date: 03/17/2023 Time: 08:12 hours
Final Report – Station Overrun Rev. 1
E23181

Drafted By: SAFE 707 – 05/14/2023
Reviewed By: SAFE 71 – 05/16/2023
Approved By: SAFE [ID] [DATE]

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Appendix F – Train Operator's Schedule

Day	Date	Division	Category	Activity	Piece Num	Line Group Abbr	Block Name	Sign On	From Time	To Time	Sign Off	Work Time	AssignListId	Report Time	Start Travel	Platform Time	End Travel	Clear Time	Comments	Audit
Sun	Mar 12, 23	WEST FALLS C	Fixed	430030	1	B LOR	612	5:37a	6:12a	8:22a	8:22a	2h45	Day EB	35		2h10				Updated by e012476 on Mar 14, 23 @ 8:2
		WEST FALLS C	Fixed	430030	2	B LOR	606	8:40a	8:40a	10:22a	10:22a	1h42	Day EB			1h42				Updated by e723395 on Mar 11, 23 @ 12:1
		WEST FALLS C	Fixed	430030	3	B LOR	602	11:10a	11:10a	12:52p	12:52p	1h42	Day EB			1h42				Updated by e723395 on Mar 11, 23 @ 12:1
		WEST FALLS C	Fixed	430030	4	B LOR	610	1:10p	1:10p	2:52p	3:17p	2h07	Day EB			1h42				Updated by e723395 on Mar 11, 23 @ 12:1
		WEST FALLS C	Casual	1940 AD/02	2	B LOR	1000712	3:30p	3:30p	7:30p	7:30p	4h00	Day EB			4h00				Updated by e723395 on Mar 11, 23 @ 13:5
				Total										35		11h16	24	1		
Mon	Mar 13, 23	WEST FALLS C	Casual	RUN PAV/01	1	B LOR	601	2:03a	2:03a	3:31a	3:31a	1h28	Day EB			1h28				False Violation due to Run Pa Updated by e012476 on Mar 14, 23 @ 13:5
		WEST FALLS C	Casual	430023/01	1		1001434	3:31a	4:09a	6:07a	6:07a	2h36	Day EB	10	28	1h58				Updated by e012476 on Mar 14, 23 @ 13:4
		WEST FALLS C	Casual	430023/02	2		1001435	6:25a	6:25a	8:07a	8:07a	1h42	Day EB			1h42				Updated by e012476 on Mar 14, 23 @ 13:4
		WEST FALLS C	Casual	430023/03	3		1001436	8:55a	8:55a	10:37a	10:37a	1h42	Day EB			1h42				Updated by e012476 on Mar 14, 23 @ 13:4
		WEST FALLS C	Casual	430023/04	4		1001437	10:55a	10:55a	12:37p	1:02p	2h07	Day EB			1h42				Updated by e012476 on Mar 14, 23 @ 13:4
		WEST FALLS C	Casual	BALLSTON /01	1		1000950	1:05p	1:05p	7:00p	7:00p	5h55	Day EB			5h55				Updated by e017778 on Mar 13, 23 @ 14:5
				Total										10	28	14h27	25	1		Cover 510-1
Tue	Mar 14, 23	WEST FALLS C	Fixed	430020	1	B LOR	601	3:11a	3:49a	5:48a	5:48a	2h37	Day EB			1h59				Updated by e017778 on Mar 14, 23 @ 10:5
		WEST FALLS C	Fixed	430020	2	B LOR	621	6:04a	6:04a	7:46a	7:46a	1h42	Day EB			1h42				Updated by e017778 on Mar 13, 23 @ 10:5
		WEST FALLS C	Fixed	430020	3	B LOR	606	8:28a	8:28a	10:22a	10:22a	1h54	Day EB			1h54				Updated by e017778 on Mar 13, 23 @ 10:5
		WEST FALLS C	Fixed	430020	4	B LOR	614	10:40a	10:40a	12:22p	12:47p	2h07	Day EB			1h42				Updated by e017778 on Mar 13, 23 @ 10:5
		WEST FALLS C	Fixed	430403	2			1:00p	1:00p	5:00p	5:00p	4h00	Day EB			4h00				Updated by e017778 on Mar 13, 23 @ 11:1
		WEST FALLS C	Casual	1940 AD/03	3	B LOR	1000429	5:00p	5:00p	7:00p	7:00p	2h00	Day EB			2h00				Updated by e017778 on Mar 14, 23 @ 14:5
				Total										38		15h17	24	1		
Wed	Mar 15, 23	WEST FALLS C	Fixed	430029	1	B LOR	601	3:01a	3:11a	8:45a	8:45a	5h44	AD			5h34				Updated by e017778 on Mar 14, 23 @ 13:5
		WEST FALLS C	Fixed	430029	2			9:15a	9:15a	2:30p	2:30p	5h15	AD			5h15				Updated by e017778 on Mar 14, 23 @ 14:5
		WEST FALLS C	Casual	BALLSTON /07	7		1000806	2:30p	2:30p	7:00p	7:00p	4h30	Day EB			4h30				Updated by e017778 on Mar 14, 23 @ 14:5
		WEST FALLS C	Day Off	Day Off																
				Total										10		15h19				
Thu	Mar 16, 23	WEST FALLS C	Fixed	430024	1	B LOR	922	3:40a	4:18a	7:00p	7:00p	3h40	AD			3h02				Updated by e017778 on Mar 15, 23 @ 10:5
		WEST FALLS C	Fixed	430024	2	B LOR	910	8:00a	8:00a	12:52p	12:52p	4h44	AD			4h44				Updated by e017778 on Mar 15, 23 @ 10:5
		WEST FALLS C	Casual	BALLSTON/02	2		1000560	1:00p	1:00p	7:30p	7:30p	6h30	Day EB			6h30				Updated by e017778 on Mar 16, 23 @ 10:4
		WEST FALLS C	Day Off	Day Off																
				Total										38		14h16				
Fri	Mar 17, 23	WEST FALLS C	Fixed	430023	1	B LOR	603	3:30a	4:08a	6:10a	6:10a	2h40	Day EB			2h02				Updated by e017778 on Mar 16, 23 @ 13:1
		WEST FALLS C	Fixed	430023	2	B LOR	611	6:28a	6:28a	8:10a	8:10a	1h42	Day EB			1h42				Updated by e012476 on Mar 22, 23 @ 10:4
		WEST FALLS C	Absence	P												0				
				Total										38		3h44				
Sat	Mar 18, 23	WEST FALLS C	Absence	P												0				Updated by e012476 on Mar 22, 23 @ 10:4
				Total												0				

Document 14 - Train Operator's 30-day work schedule page 1 of 5

Day	Date	Division	Category	Activity	Piece Num	Line Group Abbr	Block Name	Sign On	From Time	To Time	Sign Off	Work Time	AssignListId	Report Time	Start Travel	Platform Time	End Travel	Clear Time	Comments	Audit
Sun	Mar 05, 23	WEST FALLS C	Fixed	430031	1	B LOR	613	6:02a	6:40a	8:37a	8:37a	2h35	Day EB			1h57				Updated by e723395 on Mar 04, 23 @ 10:5
		WEST FALLS C	Fixed	430031	2	B LOR	607	8:55a	8:55a	10:37a	10:37a	1h42	Day EB			1h42				Updated by e723395 on Mar 04, 23 @ 10:5
		WEST FALLS C	Fixed	430031	3	B LOR	603	11:25a	11:25a	1:07p	1:07p	1h42	Day EB			1h42				Updated by e723395 on Mar 04, 23 @ 10:5
		WEST FALLS C	Fixed	430031	4	B LOR	611	1:25p	1:25p	3:07p	3:32p	2h07	Day EB			1h42				Updated by e723395 on Mar 04, 23 @ 10:5
		WEST FALLS C	Casual	BALLSTON /02	2		1000534	3:45p	3:45p	7:45p	7:45p	4h00	Day EB			4h00				Updated by e723395 on Mar 04, 23 @ 12:1
				Total										38		11h03	24	1		
Mon	Mar 06, 23	WEST FALLS C	Casual	RUN PAV/04	4			2:35a	2:35a	4:02a	4:02a	1h27	Day EB			1h27				False Violation due to run pay Updated by e012476 on Mar 08, 23 @ 14:4
		WEST FALLS C	Casual	430030/01	1		1001467	4:02a	4:40a	6:37a	6:37a	2h35	Day EB	10	28	1h57				Updated by e012476 on Mar 08, 23 @ 14:3
		WEST FALLS C	Casual	430030/02	2		1001468	6:55a	6:55a	8:37a	8:37a	1h42	Day EB			1h42				Updated by e012476 on Mar 08, 23 @ 14:4
		WEST FALLS C	Casual	430030/03	3		1001469	9:25a	9:25a	11:07a	11:07a	1h42	Day EB			1h42				Updated by e012476 on Mar 08, 23 @ 14:4
		WEST FALLS C	Casual	430030/04	4		1001470	11:25a	11:25a	1:07p	1:32p	2h07	Day EB			1h42				Updated by e012476 on Mar 08, 23 @ 14:4
		WEST FALLS C	Casual	BALLSTON /02	2		1001178	2:00p	2:00p	7:00p	7:00p	5h00	Day EB			5h00				Updated by e017778 on Mar 06, 23 @ 9:5
				Total										10	28	13h30	25			Cover 518-1
Tue	Mar 07, 23	WEST FALLS C	Fixed	430029	1	B LOR	601	3:01a	3:11a	8:45a	8:45a	5h44	Day EB			5h34				Updated by e017778 on Mar 06, 23 @ 12:5
		WEST FALLS C	Fixed	430029	2			9:15a	9:15a	2:30p	2:30p	5h15	Day EB			5h15				Updated by e017778 on Mar 06, 23 @ 13:2
		WEST FALLS C	Casual	VIENNA A/D/02	2		1000784	2:30p	2:30p	7:00p	7:00p	4h30	Day EB			4h30				Updated by e017778 on Mar 07, 23 @ 8:1
				Total										10		15h19				
Wed	Mar 08, 23	WEST FALLS C	Casual	BALLSTON /01	1		1000358	5:00a	5:00a	9:00p	9:00p	16h00	AD			16h00				Updated by e011307 on Mar 08, 23 @ 18:1
		WEST FALLS C	Day Off	Day Off																
				Total												16h00				
Thu	Mar 09, 23	WEST FALLS C	Casual	BALLSTON /07	7		1000637	5:00a	5:00a	7:00p	7:00p	14h00	AD			14h00				Updated by e017778 on Mar 09, 23 @ 9:0
		WEST FALLS C	Day Off	Day Off																
				Total												14h00				
Fri	Mar 10, 23	WEST FALLS C	Casual	RUN PAV/02	2			2:54a	2:54a	3:30a	3:30a	36	Day EB			36				Updated by e017778 on Mar 10, 23 @ 9:3
		WEST FALLS C	Fixed	430023	1	B LOR	603	3:30a	4:08a	6:10a	6:10a	2h40	Day EB			2h02				Updated by e017778 on Mar 09, 23 @ 12:3
		WEST FALLS C	Fixed	430023	2	B LOR	611	6:28a	6:28a	8:10a	8:10a	1h42	Day EB			1h42				Updated by e017778 on Mar 09, 23 @ 12:3
		WEST FALLS C	Fixed	430023	3	B LOR	607	8:52a	8:52a	10:37a	10:37a	1h45	Day EB			1h45				Updated by e017778 on Mar 09, 23 @ 12:3
		WEST FALLS C	Fixed	430023	4	B LOR	601	10:55a	10:55a	12:37p	1:02p	2h07	Day EB			1h42				Updated by e017778 on Mar 09, 23 @ 12:3
		WEST FALLS C	Casual	BALLSTON /08	8		1000701	1:30p	1:30p	7:30p	7:30p									

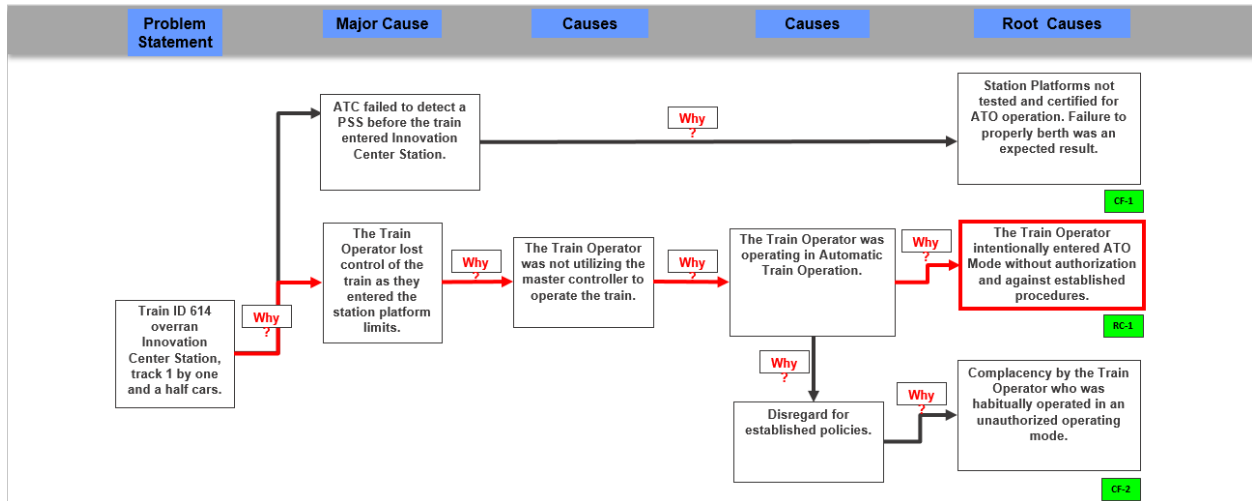
Employee Profile		Employee Activity - Employee: BYERS, CARL (1906)		First Date: Feb 12, 23		Last Date: Feb 16, 23															
Day	Date	Division	Category	Activity	Piece Num	Line Group Abbr	Block Name	Sign On	From Time	To Time	Sign Off	Work Time	Assign/Unit	Report Time	Start Travel	Platform Time	End Travel	Clear Time	Comments	Audit	
Sun	Feb 12, 23	WEST FALLS C	Fixed	430200	1	B LOR	602	7:05a	7:40a	9:22a	9:22a	2h16	Day EB	10	24	1h42				Updated by e723395 on Feb 11, 23 @ 14:4	
				430200	2	B LOR	612	10:10a	10:10a	11:52a	11:52a	1h42	Day EB			1h42				Updated by e723395 on Feb 11, 23 @ 14:4	
				430200	3	B LOR	606	12:10p	12:10p	1:52p	1:52p	1h42	Day EB			1h42				Updated by e723395 on Feb 11, 23 @ 14:4	
				430200	4	B LOR	614	2:10p	2:10p	3:52p	4:17p	2h07	Day EB			1h42	24	24	1	Cover 403-4	Updated by e723395 on Feb 11, 23 @ 14:4
			Casual	BALLSTON /02	2		1000569	4:30p	4:30p	9:30p	9:30p	5h00	Day EB							Updated by e723395 on Feb 11, 23 @ 16:1	
				Total								12h47		10	24	11h46	24	1			
Mon	Feb 13, 23	WEST FALLS C	Fixed	430004	1	B LOR	604	7:30a	8:04a	9:51a	9:51a	2h21	Day EB	10	24	1h47				Updated by e723395 on Feb 12, 23 @ 14:1	
				ASDIRECTED/05	5		1000696	9:51a	12:40p	12:40p	2h49	Day EB			2h49					Updated by e723395 on Feb 12, 23 @ 16:4	
				430204	2	B LOR	608	12:40p	12:40p	2:22p	2:22p	1h42	Day EB			1h42					Updated by e723395 on Feb 12, 23 @ 14:1
				430204	3	B LOR	1602	2:40p	2:40p	4:22p	4:47p	2h07	Day EB			1h42	24	24	1		Updated by e723395 on Feb 12, 23 @ 14:1
			Casual	BALLSTON /02	2		1000885	5:00p	5:00p	11:00p	11:00p	6h00	Day EB						worked last block of 504	Updated by e011307 on Feb 13, 23 @ 22:1	
				Total								14h59		10	24	14h00	24	1			
Tue	Feb 14, 23	WEST FALLS C	Casual	RUN PAIV/05	5			7:16a	7:16a	7:42a	7:42a	26	Day EB							Updated by e012476 on Feb 17, 23 @ 19:2	
				430205	1	B LOR	605	7:42a	8:16a	10:07a	10:07a	2h25	Day EB	10	24	1h51					Updated by e012476 on Feb 13, 23 @ 13:5
				430205	2	B LOR	609	12:55p	12:55p	2:37p	2:37p	1h42	Day EB			1h42					Updated by e012476 on Feb 13, 23 @ 13:5
				430205	3	B LOR	603	2:54p	2:54p	4:46p	5:11p	2h17	Day EB			1h52	24	24	1		Updated by e012476 on Feb 13, 23 @ 15:0
			Casual	BALLSTON /01	1		1000901	5:11p	5:11p	11:00p	11:00p	5h49	Day EB						Updated by e012476 on Feb 13, 23 @ 15:0		
				Total								12h39		10	24	11h40	24	1			
Wed	Feb 15, 23	WEST FALLS C	Casual	BALLSTON /06	6		1000557	7:00a	7:00a	8:50p	8:50p	13h50	AD							Updated by e012476 on Feb 16, 23 @ 12:2	
				Day Off																	
				Total								13h50									
Thu	Feb 16, 23	WEST FALLS C	Fixed	430034	1	B LOR	607	4:51a	5:25a	7:10a	7:10a	2h19	AD	10	24	1h45				Updated by e012476 on Feb 15, 23 @ 14:4	
				430034	2	B LOR	621	7:46a	7:46a	9:29a	9:29a	1h43	AD			1h43					Updated by e012476 on Feb 15, 23 @ 14:4
				430034	3	B LOR	604	9:51a	9:51a	11:40a	12:05p	2h14	AD			1h49	24	24	1		Updated by e012476 on Feb 15, 23 @ 14:4
				ASDIRECTED/04	4		1000619	12:05p	12:05p	7:30p	7:30p	7h25	Day EB			7h25					Updated by e012476 on Feb 16, 23 @ 12:3
			Casual	BALLSTON /01	1		1000825	1:02p	1:02p	7:30p	7:30p	6h28	Day EB						false violation due to run pay	Updated by e012476 on Feb 16, 23 @ 16:3	
				Total								12h41		10	24	12h42	24	1			
Fri	Feb 17, 23	WEST FALLS C	Casual	RUN PAIV/01	1			2:03a	2:03a	3:31a	3:31a	1h28	Day EB			1h28				Updated by e012476 on Feb 16, 23 @ 14:1	
				430021/01	3		1001325	3:31a	3:31a	6:07a	6:07a	2h36	Day EB			2h36					Updated by e012476 on Feb 16, 23 @ 14:1
				430021/02	2		1001326	6:25a	6:25a	8:07a	8:07a	1h42	Day EB			1h42					Updated by e012476 on Feb 16, 23 @ 14:1
				430021/03	3		1001327	8:55a	8:55a	10:37a	10:37a	1h42	Day EB			1h42					Updated by e012476 on Feb 16, 23 @ 14:1
			Casual	430021/04	4		1001328	10:55a	10:55a	1:02p	1:02p	2h07	Day EB			2h07				Updated by e012476 on Feb 16, 23 @ 14:1	
			Casual	BALLSTON /01	1		1000825	1:02p	1:02p	7:30p	7:30p	6h28	Day EB							false violation due to run pay	Updated by e012476 on Feb 16, 23 @ 16:3
				Total								16h03									
Sat	Feb 18, 23	WEST FALLS C	Fixed	430033	1	B LOR	903	6:14a	6:52a	8:45a	8:45a	2h31	Day EB	38		2h53				Updated by e012476 on Feb 17, 23 @ 9:4	
				430033	2	B LOR	906	10:30a	10:30a	3:30p	3:53p	3h23	Day EB			5h00	22	22	1		Updated by e012476 on Feb 17, 23 @ 9:4
				430033	8		1000622	3:53p	3:53p	8:30p	8:30p	4h37	Day EB			4h37					Updated by e012476 on Feb 17, 23 @ 14:2
				Total								12h31		38	12h30	22	1				

Document 15 - Train Operator's 30-day work schedule Page 5 of 5

Incident Date: 03/17/2023 Time: 08:12 hours
 Final Report – Station Overrun Rev. 1
 E23181

Drafted By: SAFE 707 – 05/14/2023 Page 45
 Reviewed By: SAFE 71 – 05/16/2023
 Approved By: SAFE [ID] [DATE]

Appendix G – Why-Tree Analysis



5 Root Cause Analysis

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY





Washington Metropolitan Area Transit Authority
Department of Safety (SAFE)
Office of Safety Investigations (OSI)
FINAL REPORT OF INVESTIGATION A&I E24242

Date of Event:	March 28, 2024
Type of Event:	O-25, Train Operating in Automatic Train Operations (ATO) Mode
Incident Time:	00:12 Hours
Location:	Huntington Station (Various Stations)
Time and How received by SAFE:	02:43 Hours – Safety Information Officer
WMSC Notification Time:	03:15 Hours
Responding Safety Officers:	None
Rail Vehicle:	Train ID711 [L7290-91x7653-52x7568-69x7631-30T]
Injuries:	None
Damage:	None
Emergency Responders:	None
SMS I/A Number	20240412#116131

Huntington Station (Various Stations) – ATO Violation

March 28, 2024

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Abbreviations and Acronyms

AIMS	Advanced Information Management System
ARS	Audio Recording System
ATO	Automatic Train Operations
CAP	Corrective Action Plan
CCTV	Closed-Circuit Television
CMOR	Office of the Chief Mechanical Officer
IBOP	Office of Internal Business Operations
IIT	Incident Investigation Team
IT	Information Technology
MICC	Metro Integrated Command and Communications Center
MOR	Metrorail Operating Rulebook
NOAA	National Oceanic and Atmospheric Administration
OAP	Operations Administrative Policy
OSI	Office of Safety Investigations
PSS	Program Station Stop
SSS	Station Stop Skip
RTRA	Office of Rail Transportation
ROCC	Rail Operations Control Center
SAFE	Department of Safety
SMS	Safety Measurement System
VMDS	Vehicle Monitoring and Diagnostic System
WMATA	Washington Metropolitan Area Transit Authority
WMSC	Washington Metrorail Safety Commission

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

Executive Summary

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

On Thursday, March 28, 2024, the Enterprise Application Technical Lead was investigating an event that occurred at the location where the (orange line) K-Line and (silver line) N-Line connect (K&N Connector). Upon their investigation, it was discovered that Train ID 711 (L7290-91x7653-52x7568-69x7631-30T) departed Huntington Station in non-revenue service in Automatic Train Operation (ATO) by an Alexandria Rail Division Rail Vehicle Operator and continued for seven (7) stations.

The Assistant Director of Metro Integrated Command and Communications Center (MICC) was notified and initiated an investigation. It was also discovered that Train ID 711 operated in ATO on March 27, 2024 (with open-end railcars 3025 & 3109) both times by the same Train Operator. This information was forwarded to the Office of Safety Investigations (OSI) for further investigation.

The OSI team further identified and confirmed three additional dates that the Alexandria Division Train Operator departed Huntington Station in ATO¹.

In adherence to Standard Operating Procedure 102-01-02, which outlines the protocol for Removing an Employee from Service for involvement in an operational safety event, the Radio RTC dispatched a Rail Supervisor to relieve the Train Operator from duty for post-incident testing.

In accordance with the Office of the Chief Mechanical Officer (CMOR) Incident Investigation Team (IIT) Operations Administrative Policy (OAP) 102.06, the Metro Integrated Command and Communications Center (MICC) promptly initiated the removal of Train ID 711 from non-revenue service for post-incident investigative measures. This action adhered to the Rail Vehicle Event Investigation Policy, ensuring a comprehensive examination of the incident.

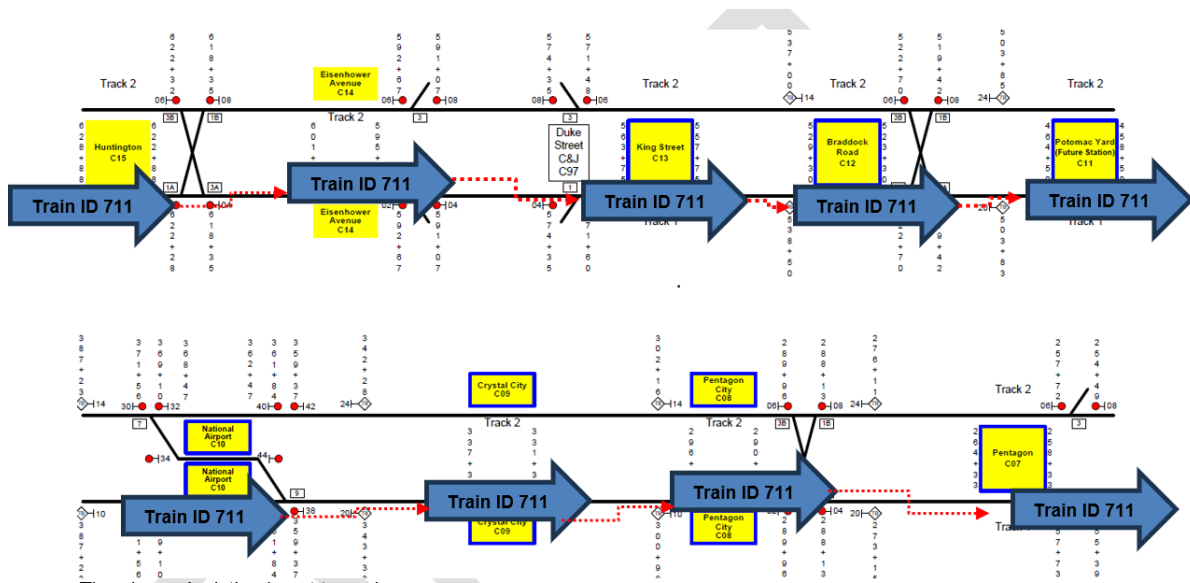
The probable cause of the ATO violation event at Huntington Station on March 28, 2024, was the Train Operator's complacency and disregard for established policies when they continuously initiated ATO operation without authorization.

¹ MOR 8.4.7 – Rail Vehicle Operators shall depress ATO START and verify lunar signal, speed commands and correct alignment one (1) minute prior to their scheduled departure.

Incident Site

Huntington, Eisenhower Avenue, King Street, Braddock Road, Crystal City, and Pentagon City Stations.

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:

- Site Assessment through video and document review.
- Formal Interviews – SAFE interviewed one individual as part of this investigation. The interview included persons present at, during, and after the incident, those directly involved in the response process, and representatives from the Washington Metrorail Safety Commission (WMSC). SAFE interviewed the following individuals:
 - 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 Operating Rulebook (MOR)
 - National Oceanic and Atmospheric Administration (NOAA)

- 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)
 - Advanced Information Management System (AIMS)

Investigation

According to email correspondence, on Thursday, March 28, 2024, the Enterprise Application Technical Lead reported that during ATO testing on the N-Line², they noticed ATO operations on the C-Line through the ATO and Motion report. Upon their investigation, it was discovered that Train ID 711 (L7290-91x7653-52x7568-69x7631-30T) departed Huntington Station in non-revenue service in ATO by an Alexandria Rail Division Train Operator and continued for seven (7) stations. The Assistant Director of MICC was notified and initiated an investigation.

According to the Advanced Information Management System (AIMS), at 00:05, Train ID 310 is shown entering Huntington Station, track 1, in manual mode operation, identified with an unshaded triangle.

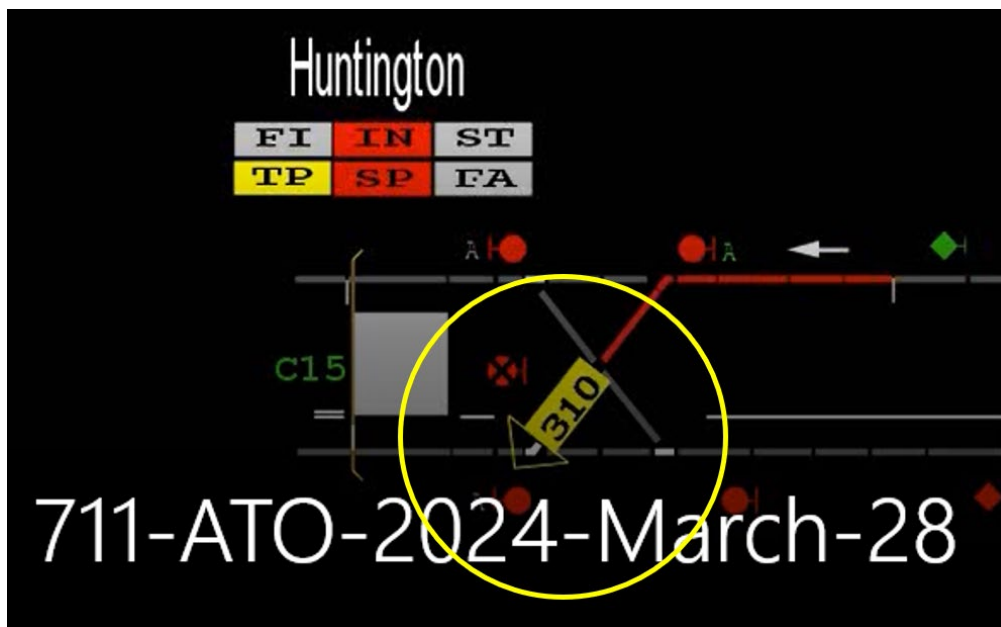


Figure 1 - Depicts Train ID 310 entering Huntington Station operating in Manual Mode - by the incident operator at 00:05 hours.

According to the AIMS, at 00:11 hours, Train ID 310 was re-blocked to Train ID 711 and placed into ATO – identified with a shaded triangle.

² There was no ongoing ATO testing on the C-Line when the test was conducted on the N-Line.

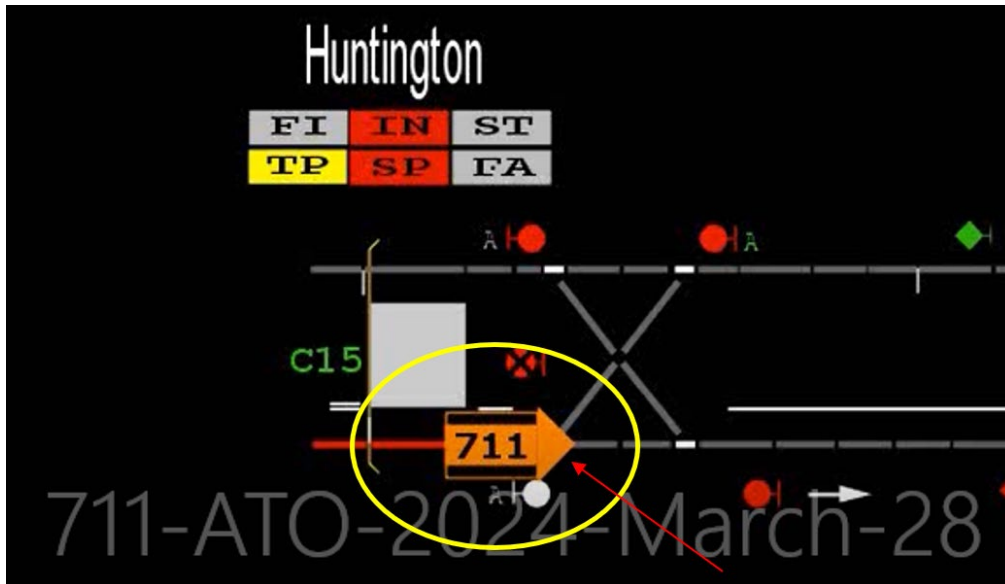


Figure 2 depicts Train ID 310 being re-blocked to ID 711, with a shaded triangle indicating ATO operations at 00:11 hours.

According to the Office of the Chief Mechanical Officer (CMOR), the Incident Investigation Team (IIT) reported Train ID 711 operated in ATO from Huntington Station to King Street Station. ATO Stop was activated 1,895 feet after passing the 8-car marker. The ATO Start Pushbutton was depressed, and the train again began to move towards Braddock Road Station under ATO operation. A Program Station Stop (PSS) was activated as the train entered each station to stop them within the platform limits. The Train Operator initiated the Station Stop Skip (SSS) to bypass each station stop.

Through investigation, OSI determined that Train ID 705 was operated in ATO on March 11, and Train ID 711 was operated in ATO on March 12, 21, 22, and 27, 2024, consistently by the same operator.

According to the RTRA Operations Personnel Notice (RTRA-603-76-00) dated March 22, 2023, Rail Vehicle Operators were reminded that they must operate trains in manual mode at all times. Following this incident, the RTRA Operations Personnel Notice (RTRA-603-76-01) was reissued see Appendix B.

Chronological Event Timeline

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

Time	Description
00:05:34 hours	AIMS displayed Train ID 305 arriving at Huntington Station track 1 in manual mode operation. ³
00:05:38 hours	<p><u>Train Operator:</u> Identified themselves as Train ID 310 with eight railcars operating in lead railcar 7290.</p> <p><u>Terminal Supervisor:</u> Advised the Train Operator that the train would be out of service when it arrived on the Huntington Station platform and that an employee pick-up was needed at Pentagon City Station.</p> <p><u>Train Operator:</u> Acknowledged. [Radio/HUNYD Ops]</p>

³ An unshaded triangle indicates the train is operating in manual mode, a shaded triangle indicates ATO operations.

Time	Description
00:11:29 hours	Train Operator: Reported they were clear of customers; Confirmed that they have an employee pick-up at National Airport and Pentagon City Station. [Radio/HUNYD Ops]
00:11:53 hours	AIMS displayed Train ID 305, which was re-blocked to ID 711 and placed in ATO operations.

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

Automated Information Management System (AIMS)

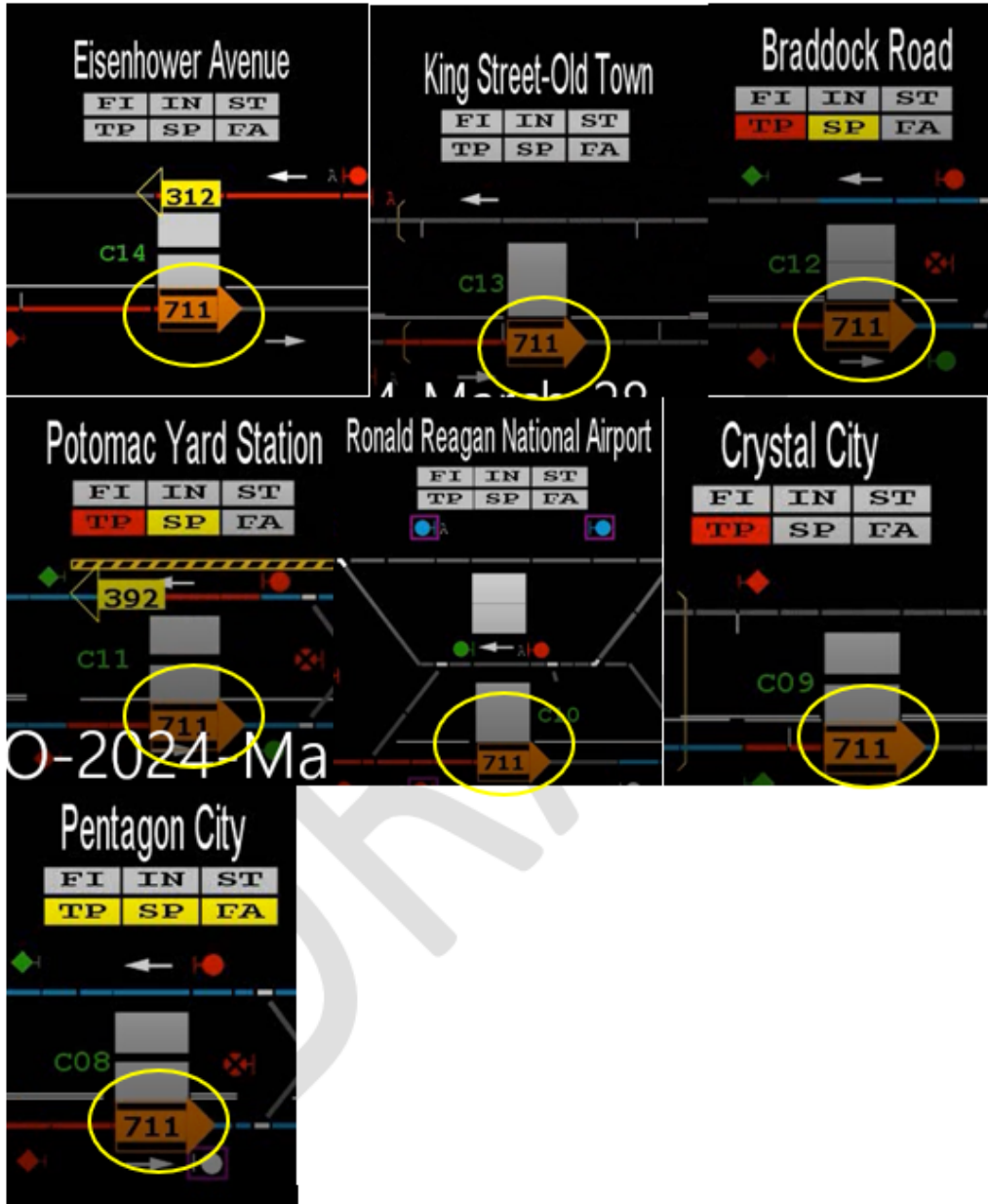


Figure 3 - Yellow circles identify Train ID 711 operating in ATO at each station.

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

Adopted from CMOR IIT report with minor formatting and grammatical edits:

March 28, 2024, Incident

The Office of Chief Mechanical Officer (CMOR), Incident Investigation Team (IIT) completed an analysis of data from Train ID 711 [L7290-91x7653-52x7568-69x7631-30T], which was reported for ATO Violation.

Based on ER data, on 03/28/24 at 00:11HRS, Car 7630 was keyed up at Huntington Station, Track #1. The Mode Selector switch remained in the Auto/Store position, and the ATO start push button on the console was depressed, which initiated the ATO operation. The train began to move in the direction of Eisenhower.

The train entered Eisenhower at a speed of 25 MPH, with the ATO commanding a 'B1-B3' Braking rate. The road horn was activated 65 feet before entering the station. The train didn't stop at the station and passed the 8-car marker at a speed of 22 MPH, with the ATO commanding "Coast."

The Performing Program Station Stop (PSS) signal goes high, indicating the train was entering a station stopping profile governed by ATC, 2,315 feet before entering King Street Station. The Performing PSS Signal goes low, indicating the station stop skip was activated. The train passed the 8-car marker at King Street at 22 MPH with ATO commanding a "P1-P4" Power Position.

The ATO Stop was activated 1,895 feet after passing the 8-car marker at King Street, applying the "B4" brake rate and bringing the train to a stop 2,467 feet beyond the 8-car marker at King Street. The ATO Start Pushbutton was depressed, and the train again began to move towards Braddock Road under ATO operation.

The train entered Braddock Road Station at 22 MPH with an ATO command for "B1-B3" braking rate. The train did not stop and passed the 8-car marker at a speed of 22 MPH. The Performing PSS signal went high 2,315 feet before entering Reagan National Airport Station and went low soon after as a result of the station stop skip pushbutton being depressed. The road horn was activated 37 feet before entering the station.

The Train entered Reagan National Airport Station at a speed of 22 MPH, with ATO commanding a "B1-B3" braking rate. The train passes the 8-car marker at a speed of 22 MPH with ATO implementing a "Coast" command.

The train enters Crystal City Station at a speed of 25 MPH, activating the road horn 38 feet onto the station platform. The train did not stop at Crystal City Station and passed the 8-car marker at a speed of 21 MPH, with the ATO calling for a "Coast" command.

As the train approached Pentagon City Station, the Performing PSS signal again went high, indicating that a PSS profile was being implemented. Soon afterward, the Performing PSS signal

went low, indicating that the station stop skip button was activated on the operator's console 2,212 feet before Pentagon City Station.

The Train enters Pentagon City Station at a speed of 22 MPH, with ATO commanding a "B1-B3" Braking Rate. The train did not stop and passed the 8-car marker at a speed of 22 MPH.

The ATO stop pushbutton was activated, and the "B4" Braking Rate was applied, bringing the train to a complete stop 1,073 feet beyond the 8-car marker at Pentagon City Station.

The Train was keyed down, reversed ends, and operated to Alexandria Yard in Manual mode.

Time	Description of Events
00:11:02 hours	Train ID 711 keyed up on Car 7630
00:11:39 hours	While in Auto Mode, The ATO start pushbutton is activated, and the Train begins to move toward Pentagon City. The ATP Limiting Speed is 45 MPH.
00:12:31 hours	The train entered Eisenhower Station. Its speed was 25 MPH, and ATO was commanding a "B1-B3" Braking Mode.
00:12:33 hours	The road horn was activated 65 feet before entering Eisenhower Station.
00:12:49 hours	The Train passed the 8-car marker at Eisenhower Station at a speed of 22 MPH, with ATO implementing a "Coast" command.
00:13:13 hours	The Performing PSS goes high, indicating trains are entering a station stopping profile governed by ATC, 2,315 feet before Entering Eisenhower Station.
00:13:13 hours	The Performing PSS goes low, indicating the Station Stop Skip (SSS) pushbutton was activated 1,216 feet before King Street Station.
00:13:54 hours	The train entered King Street Station. Train speed was 21 MPH, and ATO commanded a "P1-P4" power mode. The road horn was activated.
00:14:14 hours	The train passed the 8-car marker at King Street Station, Train speed 22 MPH, with ATO commanding a "P1-P4" Power position.
00:14:58 hours	The ATO STOP Pushbutton was activated, applying a "B4" Braking Rate. The train speed was 41 MPH, with ATO commanding a "Coast" power/brake mode 1,895 feet after passing the 8-car marker at King Street Station.
00:14:58 hours	The train came to a complete stop 2,467 feet past King Street Station.
00:15:19 hours	The ATO Start Pushbutton was activated, and the ATC implemented "P1-P4" Power Mode. The train begins to move towards Braddock Road Station.
00:17:49 hours	The train entered Braddock Road Station with a train speed of 22 MPH, ATO commanding a "B1-B3" Braking mode. The yard buzzer was activated.
00:18:07 hours	The train passed the 8-car marker at Braddock Road with a train speed of 22 MPH and ATO, commanding a "B1-B3" Braking Mode.
00:20:01 hours	The Performing PSS goes high, indicating the train was entering a station stopping profile governed by ATC, 2,315 feet before Entering Reagan National Station.

Time	Description of Events
00:20:04 hours	The Performing PSS goes low, indicating the Station Stop Skip pushbutton was activated.
00:20:53 hours	The road horn activated 37 feet before entering Reagan National Airport Station.
00:20:54 hours	The train enters Reagan National Station at a speed of 22 MPH, with the ATO commanding a "B1-B3" Braking command. The road horn was activated.
00:21:13 hours	The train passed the 8-car marker at a speed of 22 MPH, and the ATO implemented a "Coast" command.
00:21:20 hours	The ATP Speed limit decreased to 0 MPH, Applying the "B4" Braking Rate. The train speed was 19 MPH, 233 feet past the 8-car marker at Reagan National Airport Station.
00:21:25 hours	The ATP Speed limit increased back up to 40 MPH. The train speed was 12 MPH at that time.
00:22:10 hours	The train enters Crystal City Station. The train speed is 25 MPH, and ATO commands a "B1-B3" Braking Mode.
00:22:12 hours	The road horn was activated, and the train speed was 23 MPH, 38 feet onto Crystal City Platform.
00:22:29 hours	The train passed the 8-car marker at Crystal City Station at a train speed of 21 MPH, with ATO commanding a Coast Mode.
00:22:31 hours	The ATP Speed limit increased from 40 MPH to 50 MPH. The train speed was 22 MPH, with ATO initiating a "P1-P4" Power Mode.
00:23:02 hours	The Performing PSS went high, indicating the train was entering a station stopping profile governed by ATC, 2,316 feet before entering Pentagon City Station.
00:23:04 hours	The Performing PSS went low, indicating that the Station Stop Skip pushbutton was activated. It was 2,212 feet before Pentagon City Station.
00:23:33 hours	The road horn activated 325 feet before the 8-car marker. The train speed was 32 MPH, with ATO commanding a "B1-B3" Braking Rate.
00:23:42 hours	The Train entered Pentagon City Station at a speed of 22 MPH, with ATO commanding a "B1-B3" Braking rate.
00:23:47 hours	The road horn was activated, and the train speed was 22 MPH, with ATO commanding "Coast."
00:24:01 hours	The Train passed the 8-car marker at Pentagon City at a speed of 22 MPH, with the ATO commanding a "B1-B3" Braking Rate.
00:24:23 hours	The ATO STOP Pushbutton was activated, applying the "B4" Braking Rate, and the train passed the 8-car marker. The train speed was 25 MPH, 728 feet beyond the 8-car marker at Pentagon City Station.
00:24:38 hours	The train came to a complete stop 1,073 feet beyond the 8-car marker at Pentagon City Station and was keyed down.

Time	Description of Events
00:28:14 hours	Car 7290 was keyed up on the outbound end.
00:33:52 hours	The train was operated in Manual Mode from Pentagon City Station to Alexandria Yard.
01:01:44 hours	Car 7290 was keyed down at Alexandria Yard.

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

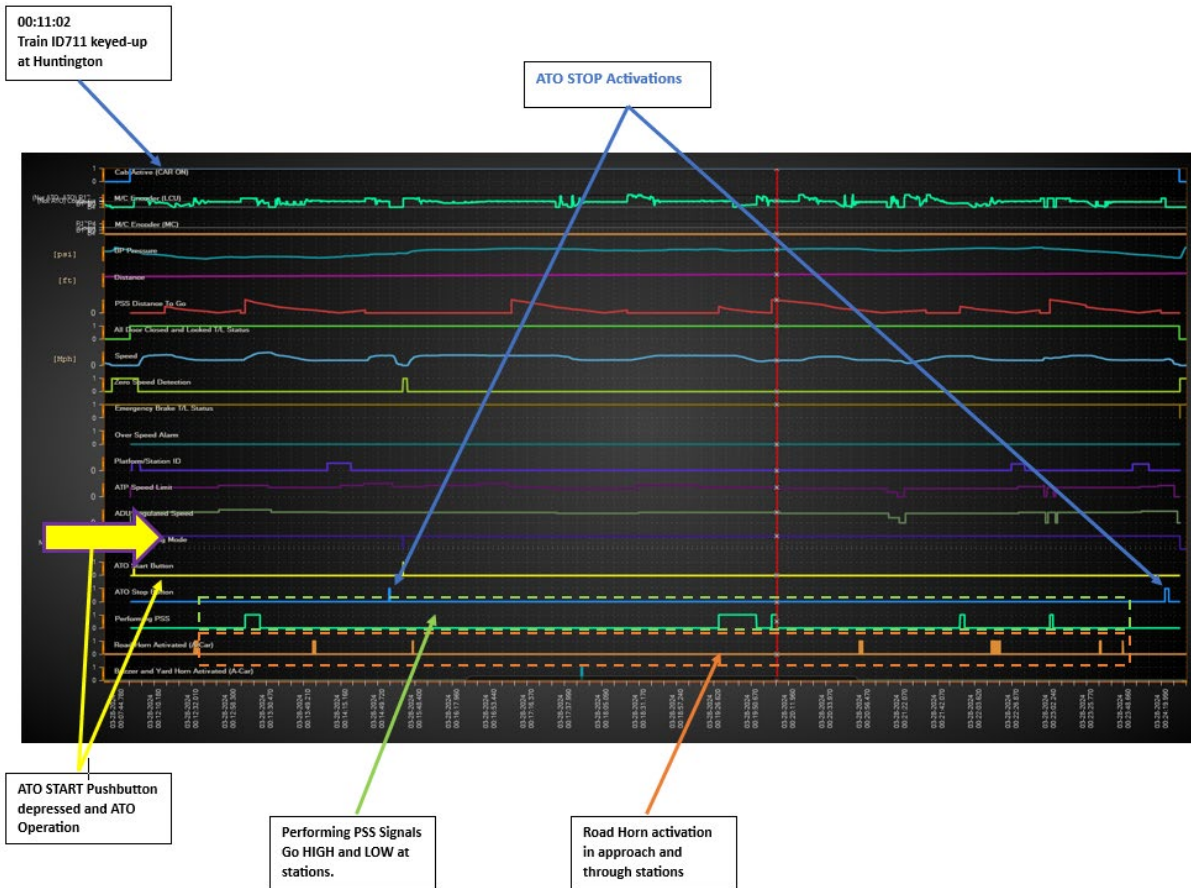


Figure 4 - depicts the ATO Start Pushbutton and ATO Operations from Railcar 7630.

Office of Internal Business Operations (IBOP), Information Technology (IT)

The Technical Team Lead of Information Technology (IT) at the Office of Internal Business Operations (IBOP) has reported that during ATO testing on the N-Line, they noticed ATO operations on the C-Line through the ATO and Motion report. It is important to note that there was no ongoing ATO testing on the C-Line when the test was conducted on the N-Line.

The Technical Team Lead discovered a pattern of ATO operations on the C-Line with similar Train ID numbers and operation times on various previous dates.

Train 711	indicates	in ATO	and motion	at platform	C13-1	at time	Wed Mar 27	00:15:18	2024
Train 711	indicates	in ATO	and motion	at platform	C12-1	at time	Wed Mar 27	00:17:14	2024
Train 711	indicates	in ATO	and motion	at platform	C09-1	at time	Wed Mar 27	00:23:27	2024
Train 711	indicates	in ATO	and motion	at platform	C08-1	at time	Wed Mar 27	00:24:56	2024
Train 711	indicates	in ATO	and motion	at platform	C13-1	at time	Thu Mar 28	00:14:12	2024
Train 711	indicates	in ATO	and motion	at platform	C12-1	at time	Thu Mar 28	00:16:05	2024
Train 711	indicates	in ATO	and motion	at platform	C09-1	at time	Thu Mar 28	00:22:29	2024
Train 711	indicates	in ATO	and motion	at platform	C08-1	at time	Thu Mar 28	00:24:08	2024
Train 711	indicates	in ATO	and motion	at platform	C05-1	at time	Thu Mar 28	13:26:27	2024

Figure 5 - depicts the ATO and Motion Report of Train ID 711 operating in ATO on March 27 & March 28.

Train 711	indicates	in ATO	and motion	at platform	C15-1	at time	Thu Mar 21	00:16:59	2024
Train 711	indicates	in ATO	and motion	at platform	C14-1	at time	Thu Mar 21	00:18:31	2024
Train 711	indicates	in ATO	and motion	at platform	C13-1	at time	Thu Mar 21	00:20:46	2024
Train 711	indicates	in ATO	and motion	at platform	C15-1	at time	Fri Mar 22	00:15:29	2024
Train 711	indicates	in ATO	and motion	at platform	C13-1	at time	Fri Mar 22	00:21:51	2024
Train 711	indicates	in ATO	and motion	at platform	C12-1	at time	Fri Mar 22	00:27:21	2024
Train 802	indicates	in ATO	and motion	at platform	N03-2	at time	Fri Mar 22	01:57:45	2024
Train 803	indicates	in ATO	and motion	at platform	N03-2	at time	Fri Mar 22	02:02:57	2024
Train 802	indicates	in ATO	and motion	at platform	N08-2	at time	Fri Mar 22	02:11:34	2024
Train 803	indicates	in ATO	and motion	at platform	N07-2	at time	Fri Mar 22	02:14:21	2024

Figure 6 – depicts the ATO and Motion Report of Train ID 711 operating in ATO on March 21 & March 22.

Train 705	indicates	in ATO	and motion	at platform	C14-1	at time	Mon Mar 11	00:24:28	2024
Train 705	indicates	in ATO	and motion	at platform	C13-1	at time	Mon Mar 11	00:25:48	2024
Train 705	indicates	in ATO	and motion	at platform	C08-2	at time	Mon Mar 11	00:40:26	2024
Train 705	indicates	in ATO	and motion	at platform	C09-2	at time	Mon Mar 11	00:41:53	2024
Train 711	indicates	in ATO	and motion	at platform	C15-1	at time	Tue Mar 12	00:12:50	2024
Train 711	indicates	in ATO	and motion	at platform	C13-1	at time	Tue Mar 12	00:23:04	2024

Figure 7 depicts the ATO and Motion Report of Train ID 711 and 705 operating in ATO on March 11 and March 12.

*Note – Steps to ATO Operations require a multi-step process with inputs from the operator, vehicle, and wayside. This allows redundant protection.

1. The Master Controller must be placed in the Auto/Store position.
2. Receipt of valid speed signal commands from the wayside and processing by the vehicle's ATC software.
3. The activation of ATO Start by the Operator.

Office of Rail Transportation (RTRA)

Adopted from RTRA report:

As a result of the Automatic Train Operation Violation, the Rail Vehicle Operator was issued a thirty-day (30) work suspension, a final warning, and one (1) refresher training. The Rail Vehicle Operator was informed that future violations of any nature would result in progressive discipline, including termination from the Washington Metropolitan Area Transit Authority.

Interview Findings

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

Train Operator

- The Train Operator admitted to operating in ATO mode without authorization, citing curiosity as the motive.
- The interview highlighted safety concerns and emphasized the importance of adherence to operational protocols.
- The operator cooperated with the investigation and expressed an understanding of the seriousness of the situation.

Weather

At the time of the incident, NOAA recorded the temperature at 49 ° F. Weather was not a contributing factor in this incident (Weather source: NOAA – Location: Fairfax, Va.

Related Rules and Procedures

Metro Operating Rulebook (MOR)

1.8 Prohibited Behaviors

1.8.8 - Employees shall not operate any vehicle in a reckless or unsafe manner.

Human Factors

Evidence of Fatigue

SAFE examined signs and symptoms of fatigue that may have been present at the time of the incident. No video of the involved person was available to ascertain whether signs of fatigue were present. The Rail Vehicle Operator reported feeling fully alert at the time of the incident and experiencing no symptoms of fatigue in the time leading up to the incident.

Fatigue Risk

SAFE evaluated incident data for fatigue risk factors. Risk factors for fatigue were present. The incident time of day did not suggest an increased risk of fatigue-related impairment. The Rail Vehicle Operator reported keeping a regular sleep schedule in the days leading up to the incident. The Rail Vehicle Operator worked the evening shift in the days leading up to the incident. The Rail Vehicle Operator was awake for twelve hours and twenty minutes at the time of the incident. The Rail Vehicle Operator reported six hours of sleep in the 24 hours preceding the incident. This was less than the employee's usual workday sleep duration. The off-duty period was fifteen hours and twenty minutes, which provided an opportunity for 7-9 hours of sleep. The employee reported no issues with sleep.

Post-Incident Toxicology Testing

WMATA's Drug and Alcohol Program determined that the Rail Vehicle Operator complied with the Drug and Alcohol Policy and Testing Program 7.7.3/6.

Findings

- The automatic PSS activated as Train ID 711 entered each station and attempted to stop as designed when operating in ATO. Then, the SSS was activated by the Train Operator, indicating to the train to continue through the station in ATO without stopping.
- The ATO STOP Pushbutton was activated 1,895 feet after passing the 8-car marker at King Street Station. The train came to a complete stop 2,467 feet past King Street Station. The ATO Start Pushbutton was activated, and the train continued to move towards Braddock Road Station.
- The Train Operator operated in ATO mode on various days during both revenue and non-revenue service.
- ATO Operations require a multi-step process with inputs required from the operator, vehicle, and wayside.
- No RTC identified that the train was in ATO on any of the days this occurred by noticing the shaded arrows on AIMS.

Immediate Mitigation to Prevent Recurrence

- The Train Operator was removed from service for post-incident testing.

Probable Cause Statement

The probable cause of the ATO violation event at Huntington Station on March 28, 2024, was the Train Operator's complacency and disregard for established policies when they continuously initiated ATO operations without authorization.

Recommended Corrective Actions

Corrective Action Code	Description	Responsible Party	Estimated Completion Date
116131_SAFE CAPS_RTRA _001	Re-Issue RTRA Operations Personnel Notice – Prohibited Use of ATO Operations.	Safety Risk Coordinator, Office of Rail Transportation	Completed
116131_SAFE CAPS_RTRA _002	The Train Operator is to attend refresher training.	Safety Risk Coordinator, Office of Rail Transportation	Completed
116131_SAFE CAPS_MICC_ 001	Memorandum Issued to the Metro Integrated Command & Communication Rail Section Staff – Observation of ATO Instruction for Rail Traffic Controllers, Rail 1, and Rail 2.	Safety Risk Coordinator, Department of Metro Integrated Command and Communication Center	Completed

Appendices

Appendix A – Interview Summary

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

RTRA

Train Operator

The Train Operator is a WMATA employee with nine years of experience as a Train Operator and holds a valid RWP Level 2 certification. The Train Operator has held various roles with WMATA including Bus Operations.

During the interview conducted on March 28th, 2024, a Train Operator was engaged in a discussion concerning an incident that transpired at Huntington Station. The primary aim of the interview was to elucidate details regarding the train operations and the utilization of ATO by the rail vehicle operator.

During the dialogue, the Rail Vehicle Operator corroborated their work history, current position, and tenure as a rail vehicle operator, spanning approximately nine years. It was clarified that the interviewee held a RWP Level 2 status. Pertinent details concerning recent sleep patterns, work schedule, and commute were garnered, with the interviewee affirming an absence of issues affecting their performance.

Subsequent inquiries were directed toward the incident at Huntington station, with a particular focus on the interviewee's actions and rationale for engaging in ATO operations. The interviewee candidly admitted to voluntarily transitioning to ATO mode due to curiosity and familiarity with the operation. It was underscored that no external instructions or announcements influenced this decision.

The discussion pivoted to safety considerations associated with unauthorized ATO operation, with an emphasis on potential risks. Throughout this discourse, they demonstrated an understanding of the hazards inherent in unauthorized ATO use.

Appendix B – RTRA Operations Personnel Notice



M

RTRA OPERATIONS PERSONNEL NOTICE

Thursday, March 28, 2024
RTRA 603-76-01

Prohibited Use of ATO Operations

As a reminder, train operators must always operate trains in manual mode. Mode 2, Level 1 (manual w/speed commands) is currently the normal mode of operation unless instructed otherwise by the Metro Integrated Command and Communications Center (MIICC). Although we are progressing with preparations for automatic train operations, this mode of operation has not been approved for use.

Any train operator observed operating in an unauthorized mode of operations will be immediately removed from service and disciplined accordingly.

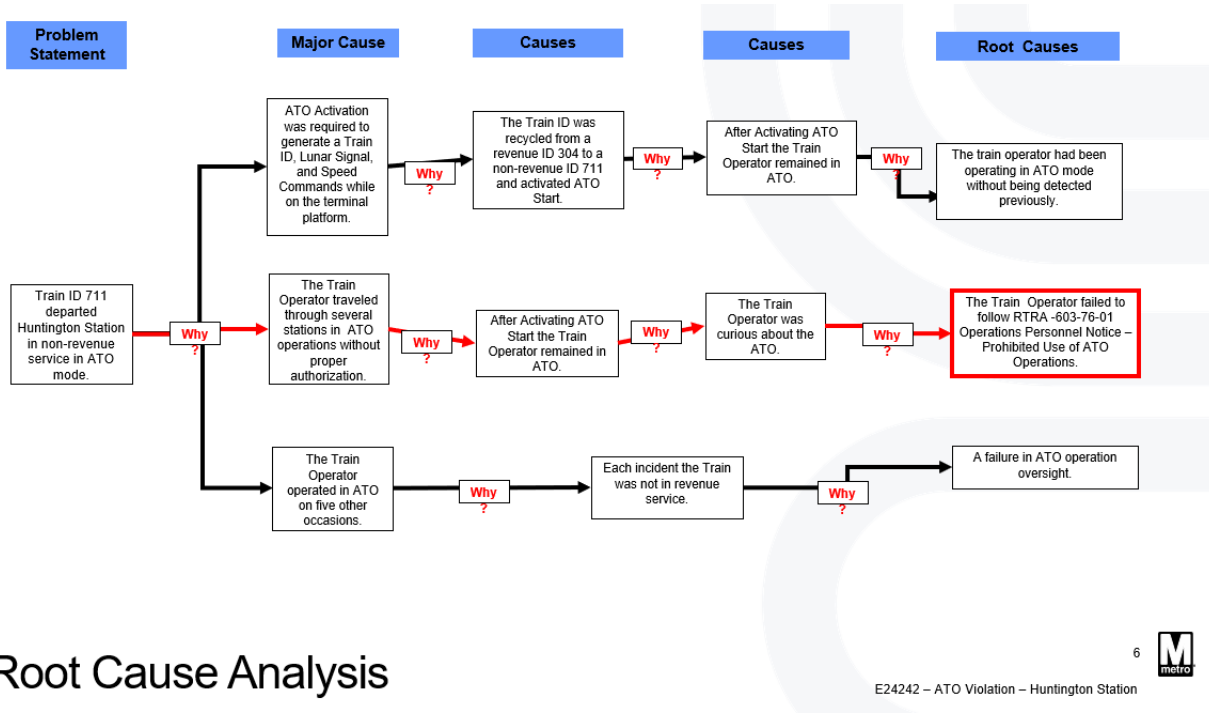
Terminal Supervisors will broadcast frequent announcements as trains depart terminals reminding operators of the normal mode of operation. Rail Operations Supervisors, RTRA Division Managers and SAFE, will also be in the system to remind operators through safety discussions and campaigns.

Please see an RTRA Supervisor or Division Manager if you have questions or concerns regarding the contents within this notice.

 To report a potential safety risk, please scan the QR code or use this link: tinyurl.com/ReportRisks
Electronic devices shall only be used in designated areas and in accordance with the WMATA Electronic Device Policy.

Figure 8 – RTRA-603-76-01 Prohibited use of ATO Operations.

Appendix C – Why-Tree Analysis



Root Cause Analysis

Figure 9 - Root Cause Analysis.