W-0327 Evacuation for Life Safety Reasons - Foggy Bottom- GWU Station - April 10, 2023

Document Purpose

This WMSC written report on WMATA Metrorail's safety event investigation and review of Metrorail's findings in accordance with the WMSC Program Standard, in conjunction with the attached Metrorail investigation report that has undergone WMSC staff review, feedback, and Metrorail revision, describes the investigation activities, identifies factors causing or contributing to the accident, 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 report) as a unified item for adoption at the Washington Metrorail Safety Commission meeting on August 6, 2024.

WMSC staff recommend adoption of this investigation.

Safety event summary:

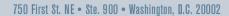
On Monday, April 10, 2023, Foggy Bottom – GWU Station and a Silver Line train were evacuated for life safety reasons due to the report of a suspicious package aboard a train. Metro Transit Police Department (MTPD) personnel later determined the package to be an unattended bag inadvertently left by a rider who exited the train at Tysons Station. During the response, this train that Metro Transit Police Department personnel had determined needed to be held and investigated for the suspicious package was moved at the direction of a Rail Traffic Controller without coordination with or approval of MTPD, contrary to Metrorail's safety requirements.

An MTPD Officer initially checked the wrong car of that train at Virginia Square Station (6040 rather than 6041), which led to the train continuing to Rosslyn Station with the suspicious bag onboard. MTPD communications directed the Rail Traffic Controller to hold the train at Rosslyn Station. After the train held for approximately 3 minutes, the Rail Traffic Controller directed the Train Operator to continue to Foggy Bottom-GWU Station. This instruction was not coordinated with MTPD.

At 2:29 p.m., the train arrived and held at Foggy Bottom-GWU Station. Riders were offloaded at 2:39 p.m. MTPD personnel at Foggy Bottom-GWU Station identified the bag and assumed incident command. Trains were initially directed to single track through the station on Track 2, until the decision was made to evacuate the station at approximately 2:55 p.m. At 3:14 p.m., MTPD directed ROCC to hold other trains at Farragut West and Rosslyn stations. At 3:42 p.m., MTPD personnel determined there was no hazard and allowed trains to begin bypassing Foggy Bottom-GWU Station without servicing the station. Normal service resumed at 3:44 p.m.

The causes and contributing factors include:

- An unattended bag left aboard a train by a rider
- A lack of supervisory oversight to ensure adherence to Metrorail procedure, including:
 - 100% repeat back of radio transmissions





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

- Compliance with transit police direction
- Compliance with Metrorail processes

As a result of this investigation, Metrorail developed and implemented the following corrective action:

• ROCC Management reinstructed the Rail Traffic Controllers involved regarding proper procedures when receiving MTPD requests during emergencies

The WMSC is conducting an audit related to Metrorail's emergency management fire and life safety programs. On site activities are scheduled in August and September 2024.



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

FINAL REPORT OF INVESTIGATION A&I E23240

Date of Event:	04/10/2023						
Type of Event:	Evacuation for Life Safety Reasons						
Incident Time:	14:04 hours						
Location:	Foggy Bottom – George Washington University						
	(GWU) Station, Track 1						
Time and How received by SAFE:	14:06 via MAC Notification						
WMSC Notification Time:	15:59 hours						
Responding Safety Officers:	WMATA SAFE: No						
	WMSC: No						
	Other: No						
Rail Vehicle:	Train ID 613						
	L6181-6180.6118-6119.6140-6141T						
Injuries:	None						
Damage:	None						
Emergency Responders:	Metro Transit Police Department (MTPD)						
SMS I/A Incident Number:	20230505#108260						

Incident Date: 04/10/2023 Time: 14:04 hours Final Report – Evacuation For Life Safety Reasons

E23240

Foggy Bottom Station – Evacuation For Life Safety Reasons

April 10, 2023

Table of Contents

Abbreviations and Acronyms	3
Executive Summary	4
Incident Site	4
Field Sketch/Schematics	5
Purpose and Scope	5
Investigative Methods	5
Investigation	
Chronological Event Timeline	7
Closed-Circuit Television (CCTV)	9
Weather	
Related Rules and Procedures	
Human Factors	
Evidence of Fatigue	
Fatigue Risk	12
Post-Incident Toxicology TestingFindings	13
Findings	13
Immediate Mitigation to Prevent Recurrence	13
Probable Cause Statement	13
Recommended Corrective Actions	14
Appendices	
Appendix A – Rail Operations Control System (ROCS) Spots Report	15

Incident Date: 04/10/2023 Time: 14:04 hours Final Report – Evacuation For Life Safety Reasons

E23240

Abbreviations and Acronyms

ARS Audio Recording System

CCTV Closed-Circuit Television

CM Chain Marker

EOD Explosive Ordnance Disposal

GWU The George Washington University

I/A Incident / Accidents

IC Incident Command

ICP Incident Command Post

MAC Mission Assurance Coordinator

MSRPH Metrorail Safety Rules and Procedures Handbook

MTPD Metro Transit Police Department

NOAA National Oceanic and Atmospheric Administration

OSI Office of Safety Investigations

ROCC Rail Operations Control Center

ROCS Rail Operation Control System

RTRA Office of Rail Transportation

SAFE Department of Safety

SMS Safety Measurement System

SRC Safety Risk Coordinator

WMATA Washington Metropolitan Area Transit Authority

WMSC Washington Metrorail Safety Commission

Incident Date: 04/10/2023 Time: 14:04 hours Final Report – Evacuation For Life Safety Reasons

E23240

Drafted By: SAFE 702 – 06/04/2023 Reviewed By: SAFE 71 – 06/08/2023

Approved By: SAFE 71 - 06/09/2023

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 Monday, April 10, 2023, at approximately 14:04 hours, Metro Transit Police Department (MTPD) personnel responded to Foggy Bottom – GWU Station, Track 1 for a report of a suspicious package onboard inbound Silverline Train ID 613 [L6181-6180.6118-6119.6140-6141T]. The suspicious package was found on the trailing car (Car 6141) of the train consist. MTPD Explosive Ordnance Disposal (EOD) Units responded and held Train ID 613 at Foggy Bottom – GWU Station, Track 1. While berthed at Foggy Bottom – GWU Station, MTPD personnel evacuated the station in preparation for MTPD EOD Units to x-ray the suspicious package. After the suspicious package was x-rayed, no explosive hazards were found and MTPD deemed the suspicious package as an unattended bag. The unattended bag contained personal items and was turned in to the Station Manager as lost and found. Additional MTPD personnel conducted a sweep of the unaffected portions of the station utilizing K-9 units with negative results. No threats were found as a result of the sweep of the station. No injuries or damages occurred as a result of the incident.

The probable cause of the call for evacuation for life safety reasons at Foggy Bottom – GWU Station was due to an unattended bag that was reported as a suspicious package. MTPD personnel determined the suspicious package was an unattended bag after an x-ray yielded negative explosive hazard results. The investigation identified a deficiency in adhering to requests between MTPD and ROCC. MTPD initially requested ROCC to hold the incident train at Virginia Square Station; however, the RTC allowed the train to continue until it was finally stopped at Foggy Bottom – GWU Station.

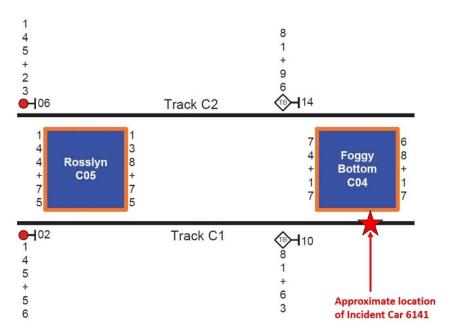
Incident Site

Foggy Bottom Station, Track 1

Incident Date: 04/10/2023 Time: 14:04 hours Final Report – Evacuation For Life Safety Reasons

E23240

Field Sketch/Schematics



The above depiction is not to scale.

Foggy Bottom Station is a direct fixation track and indoor station with a center platform. Foggy Bottom Station is governed by signals C04-06, 08 signals, and C04-02,04 signals. There is an interlocking at CM C2 & C1 67+57 – 67+40.

Purpose and Scope

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

Investigative Methods

The investigative methodologies included the following:

- Site assessment through documentation
- Informal Interviews Collected through conversations with individuals during the investigation to provide background and supporting information. Written statements were reviewed from personnel present during the event.
- Documentation Review A collection of relevant work history information and process documentation contained in Metro systems of record. These records include:
 - Metrorail Safety Rules and Procedures Handbook (MSRPH)
 - National Oceanic and Atmospheric Administration (NOAA)
 - Rail Operations Control System (ROCS) SPOTS Report
 - Rail Operations Control Center (ROCC) Incident Report

Incident Date: 04/10/2023 Time: 14:04 hours Final Report – Evacuation For Life Safety Reasons E23240

- System Data Recording Review A collection of information contained in Metro Data Recording Systems. This data includes:
 - Audio Recording System (ARS) playback
 - Closed-Circuit Television (CCTV)

Investigation

On Monday, April 10, 2023, at approximately 14:04 hours, MTPD personnel responded to Foggy Bottom – GWU Station, Track 1 for a report of a suspicious package onboard inbound Silver Line Train ID 613 [L6181-6180.6118-6119.6140-6141T]. The suspicious package was found on the trailing car (Car 6141) of the train consist. MTPD EOD Units responded and held Train ID 613 at Foggy Bottom – GWU Station, Track 1. While berthed at Foggy Bottom – GWU Station, MTPD personnel evacuated the station in preparation for MTPD EOD Units to x-ray the suspicious package. After the package was x-rayed, no hazards were found and MTPD deemed the suspicious package an unattended bag. The unattended bag contained personal items and was turned in to the Station Manager as lost and found.

According to the ARS playback, at approximately 14:06 hours, the MTPD dispatcher contacted ROCC to report a suspicious package on Train ID 613. The MTPD dispatcher stated the Station Manager at Tysons Station reported that an unknown person boarded Train ID 613 at Tysons Station and exited the train, leaving the bag on Car 6141. The MTPD Dispatcher directed MTPD personnel at 14:08 hours to hold Train ID 613 at Virginia Square Station in order to conduct a search of Car 6141 for the suspicious package. At 14:13 hours, MTPD personnel reported they did not find any suspicious packages on Car 6040 (incorrect car) and that the train had departed the station. The MTPD Dispatcher contacted ROCC at 14:18 hours via landline and directed them to hold Train ID 613 at Rosslyn Station due to a suspicious package. This message was relayed to the Button RTC, who relayed the message to the Radio RTC verbally. The Radio RTC instructed Train ID 613 to hold at Rosslyn Station at 14:19 hours.

At 14:24 hours, after the Train Operator advised they were waiting for MTPD to arrive, the Radio RTC instructed the Train Operator of ID 613 to "close and go." Based on CCTV playback, Train ID 613 departed Rosslyn Station at 14:25 hours before MTPD personnel conducted a search of the train. Train ID 613 arrived at Foggy Bottom – GWU Station, Track 1 at 14:29 hours. Additional MTPD personnel conducted a sweep of the unaffected portions of Foggy Bottom – GWU Station utilizing K-9 units with negative results. No threats were found as a result of the sweep of the station. No injuries or damages occurred as a result of the incident.

Incident Date: 04/10/2023 Time: 14:04 hours Final Report – Evacuation For Life Safety Reasons

E23240

Chronological Event Timeline

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

	layback, i.e., phone and radio communications, revealed the following timeline:
Time	Description
14:04:00 hours	MTPD: MTPD dispatcher received a report of a suspicious package placed at Tysons Corner Station. MTPD units were dispatched to assess the situation. [MTPD Event Report]
14:06:08 hours	MTPD: MTPD dispatcher contacted ROCC to report a suspicious package on Train ID 613. MTPD reported an unknown person boarded the train at Tysons Station and exited the train leaving the suspicious package on Car 6141. [MTPD 1X]
14:08:49 hours	MTPD: MTPD dispatcher directed MTPD personnel to check Train ID 613, Car 6141 at Virginia Square Station, Track 1 once it enters the station. [MTPD 1X]
14:11:42 hours	MTPD: MTPD personnel reported they started to search Train ID 613 at Virginia Square Station, Track 1. [MTPD 1X]
14:13:09 hours	MTPD: MTPD personnel reported they found no suspicious packages on Car 6040. MTPD dispatch advised the suspicious package was on Car 6141. MTPD personnel reported Train ID 613 had already departed the station. [MTPD 1X]
14:18:22 hours	ROCC: ROCC received a landline from the MTPD dispatcher requesting to hold Train ID 613 at Rosslyn Station, Track 1 for a suspicious package. ROCC acknowledged. [OPS 2 Landline]
14:18:44 hours	Radio RTC: Contacted Train ID 613 and instructed them to hold on the platform at Rosslyn for MTPD. Train Operator repeated back instruction. [Ops 2]
14:22:41 hours	Train Operator of Train ID 613: Train ID 613 arrived at Rosslyn Station, Track 1, and serviced the station. The train remained stationary awaiting MTPD personnel to search Car 6141 for a suspicious package. [SPOTS]
14:25:19 hours	Radio RTC: Inquired from Train ID 613 if they were still waiting for MTPD. Train Operator advised that they were waiting. Radio RTC instructed the Train Operator to "close and go." [Ops 2]
14:25:38 hours	Train Operator of Train ID 613: Train ID 613 departed Rosslyn Station, Track 1. [CCTV]
14:27:03 hours	MTPD: MTPD dispatcher contacted ROCC and reported Train 613 departed the station and to hold the train at the next station. [MTPD 1X]
14:27:41 hours	Button RTC: Contacted Train ID 613 and instructed them to hold on the platform at Foggy Bottom Station until released by MTPD. [Ops 2]
14:28:00 hours	Radio RTC: RTC dispatched RTRA Supervisors to assist with the incident scene. [Ops 2]
14:29:07 hours	<u>Train Operator of Train ID 613</u> : Train ID 613 arrived at Foggy Bottom – GWU Station, Track 1. [CCTV]
14:36:26 hours	MTPD: MTPD personnel made visual contact with a black bag and deemed it a suspicious package. MTPD personnel implemented SOP #1A and assumed the role of Incident Commander (IC). The Incident Command Post (ICP) was established on the platform. The IC directed the ROCC to single-track around the incident train. [MTPD 1X]

Incident Date: 04/10/2023 Time: 14:04 hours Final Report – Evacuation For Life Safety Reasons

E23240

14:37:49 hours	MTPD: IC confirmed the suspicious package is located on Car 6141. [MTPD 1X]
	Radio RTC: ROCC RTC made announcements to all trains of the suspicious package and implemented single tracking at Foggy Bottom – GWU Station, Track 2. Train ID 403 was the first train to single track from Arlington Cemetery to Foggy Bottom – GWU Station. [Ops 2]
14:39:16 hours	MTPD: IC reported Train ID 613 as clear of customers. IC directed ROCC to bypass the station. [MTPD 1X]
14:40:34 hours	MTPD: IC advised all communications will move to Channel MTPD 2X. [MTPD 1X]
14:55:09 hours	MTPD: IC requested a bus bridge from ROCC and to not service the station. [MTPD 2X]
14:58:30 hours	MTPD: IC reported MTPD EOD personnel on the scene. The ICP was relocated to the top of the escalators on the mezzanine level. [MTPD 2X]
15:14:26 hours	MTPD: IC directed ROCC to hold all trains at Farragut West and Rosslyn Stations. [MTPD 2X]
15:22:00 hours	MTPD: MTPD EOD personnel approached the suspicious package on Car 6141. [CCTV]
15:42:38 hours	MTPD: MTPD EOD personnel reported the train was all clear and no explosive hazards were found. [MTPD 2X]
15:43:09 hours	MTPD: IC directed ROCC to bypass the station and not service until advised. ROCC acknowledged. [MTPD 2X]
15:44:10 hours	MTPD: IC reported the station can be opened for normal service. [MTPD 2X]
15:46:29 hours	MTPD: IC terminated the emergency and conducted a Hot Wash. [MTPD 2X]

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

Incident Date: 04/10/2023 Time: 14:04 hours Final Report – Evacuation For Life Safety Reasons

E23240

Closed-Circuit Television (CCTV)



Image 1 – Train ID 613 opening doors at Rosslyn Station, Track 1 at 14:19:32 hours.



Image 2 – Train ID 613 closing doors and departing Rosslyn Station, Track 1 at 14:25:38 hours.

Incident Date: 04/10/2023 Time: 14:04 hours Final Report – Evacuation For Life Safety Reasons

E23240



Image 3 – Train ID 613 arriving at Foggy Bottom – GWU Station, Track 1 at 14:29:07 hours.



Image 4 – Train ID 613 opened doors on the platform at Foggy Bottom – GWU Station, Track 1 at 14:37:39 hours.

Incident Date: 04/10/2023 Time: 14:04 hours Final Report – Evacuation For Life Safety Reasons

E23240

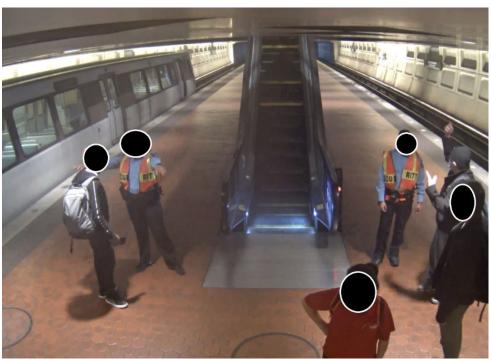


Image 5 – Security personnel directing customers to exit Foggy Bottom – GWU Station 1 at 14:40:54 hours.

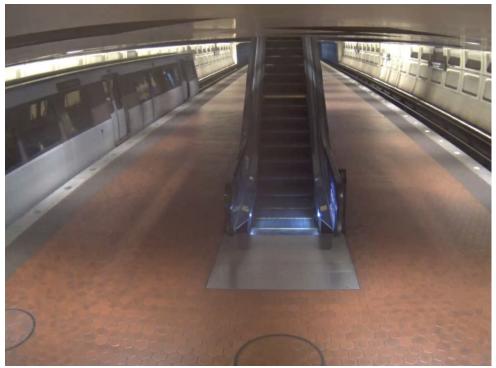


Image 6 – Train Operator of Train ID 613 keys down the train at 15:08:58 hours.

Incident Date: 04/10/2023 Time: 14:04 hours Final Report – Evacuation For Life Safety Reasons

E23240



Image 7 – Train ID 613 departed Foggy Bottom – GWU Station, Track 1 at 15:56:30 hours.

Weather

On April 10, 2023, at the time of the incident, NOAA recorded the temperature as 63°F, sunny, winds 7 mph, and 29% humidity. This incident occurred within the tunneled section of the system. Weather was not a contributing factor in this incident (Weather source: NOAA – Location: Washington, DC).

Related Rules and Procedures

- SOP #1A Command, Control and Coordination of Emergencies on the Rail System
- SOP #14 Bomb Threat/Suspicious Package/Unattended Package
- Metro Transit Police General Order 375 Bomb Incidents #7. Open doors and windows of a threatened facility to lessen the explosive effects of a detonation.

Human Factors

Evidence of Fatigue

The biomathematical fatigue modeling application (SAFTE-FAST Web SFC) was not applied for this event.

Fatigue Risk

The biomathematical fatigue modeling application (SAFTE-FAST Web SFC) was not applied for this event.

Incident Date: 04/10/2023 Time: 14:04 hours Final Report – Evacuation For Life Safety Reasons

E23240

Drafted By: SAFE 702 – 06/04/2023 Reviewed By: SAFE 71 – 06/08/2023 Approved By: SAFE 71 – 06/09/2023 Page 12

Post-Incident Toxicology Testing

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

<u>Findings</u>

- Based on the MSRPH 14.5.1.5, MTPD determines if facilities are to be evacuated or closed. The train station was evacuated as MTPD EOD units swept Car 6141 on Train ID 613
- Train ID 613's doors were closed as MTPD EOD personnel conducted an x-ray of the unattended black bag.
- MTPD General Order 375 was dated 12/01/02.
- A black unattended bag was found and scanned for hazards. No visible explosive hazards were found. Inspections revealed personal items. The bag was turned into lost and found.

Immediate Mitigation to Prevent Recurrence

- ROCC implementing single tracking around Train ID 613.
- Train ID 613 was offloaded.
- MTPD and Office of Rail Transportation (RTRA) Supervisors were dispatched to assist with the incident scene.
- MTPD EOD personnel conducted a sweep of Car 6141.

Probable Cause Statement

The probable cause of the call for evacuation for life safety reasons at Foggy Bottom – GWU Station was due to an unattended bag that was reported as a suspicious package. MTPD personnel determined the suspicious package was an unattended bag after an x-ray yielded negative explosive hazard results. The investigation identified a deficiency in adhering to requests between MTPD and ROCC. MTPD initially requested ROCC to hold the incident train at Virginia Square Station; however, the RTC allowed the train to continue until it was finally stopped at Foggy Bottom – GWU Station.

Incident Date: 04/10/2023 Time: 14:04 hours Final Report – Evacuation For Life Safety Reasons

E23240

Recommended Corrective Actions

The following are the recommended corrective actions identified as a result of this investigation. These are tracked using WMATA's Safety Measurement System Incidents/Accidents (SMS I/A) Module and are verified by SAFE upon completion. The responsible department is identified in the corrective action code, and the respective departmental Safety Risk Coordinator (SRC) will manage the mitigation.

Corrective Action Code	Description	Responsible Party	Estimated Completion Date
108260_SAFE CAPS_MTPD _001	MTPD Management shall review MTPD General Order 375 – Bomb Incidents for updates and thoroughness and distribute to appropriate personnel.	MTPD SRC	12/01/2023
108260_SAFE CAPS_ROCC _001	ROCC Management shall provide informal reinstruction to the Radio Rail Traffic Controllers involved regarding proper procedures when receiving MTPD requests during emergencies.	ROCC SRC	Completed

Incident Date: 04/10/2023 Time: 14:04 hours Final Report – Evacuation For Life Safety Reasons

E23240

Appendices

Appendix A - Rail Operations Control System (ROCS) Spots Report

ROCS SPOTS REPORT

based on up-to-the-second operational performance data from the Rail Operations Control System $\,$

Current date/time: Thu Apr 20 16:17:34 2023

Select Platform: and/or Select ID: 613 Leave blank to remove criteria													
and/o	and/or Select 4-digit car number: Leave blank to remove criteria												
Selec	Select Date: Apr $\sqrt{10}$ $\sqrt{2023}$ Select Times (0-24HRS): From $\sqrt{13:00}$ To $\sqrt{17:00}$												
Ge	Generate Report												
ID	Platform	length	dcode	Right door open	Right door close	dwell	Left door open	Left door close	dwell	Head Arrived	Tail cleared	cars	Travel Time door open to door open
613	N12-2	6	51							13:22:47	13:23:14	6141-6140.6119-6118.6180-6181	-
613	N10-1	6	51				13:31:51	13:32:13	22	13:31:18	13:32:39	6141-6140.6119-6118.6180-6181	-
<u>613</u>	N08-1	6	51				13:39:14	13:39:29	15	13:38:47	13:39:51	6141-6140.6119-6118.6180-6181	7:23
<u>613</u>	N06-1	6	51				13:44:11	13:44:42	31	13:43:45	13:45:12	6141-6140.6119-6118.6180-6181	4:57
613	C05-1	6	51				14:22:41	14:25:40	179	14:22:41	14:26:27	6141-6140.6119-6118.6180-6181	38:30
613	<u>C04-1</u>	6	51							15:55:59	15:56:51	6141-6140.6119-6118.6180-6181	-
<u>613</u>	<u>C03-1</u>	6	51	15:57:56	15:58:42	46				15:57:25	15:59:06	6141-6140.6119-6118.6180-6181	95:15
<u>613</u>	C02-1	6	51	16:00:15	16:00:35	20				15:59:24	16:01:00	6141-6140.6119-6118.6180-6181	2:19
<u>613</u>	<u>D04-1</u>	6	51				16:09:18	16:09:36	18	16:08:47	16:10:03	6141-6140.6119-6118.6180-6181	9:03
<u>613</u>	D08-1	6	51				16:18:20	16:18:37	17	16:18:19	16:19:11	6141-6140.6119-6118.6180-6181	9:02
<u>613</u>	N12-1	6	51							16:29:19	16:29:48	6145-6144.6062-6063.6074-6075	-
<u>613</u>	G03-1	6	51							16:29:24	16:29:38	6141-6140.6119-6118.6180-6181	-
<u>613</u>	G04-1	6	51				16:32:06	16:32:21	15	16:31:35	16:33:05	6141-6140.6119-6118.6180-6181	13:46
<u>613</u>	<u>N11-1</u>	6	51				16:32:40	16:32:51	11	16:32:12	16:33:14	6145-6144.6062-6063.6074-6075	0:34
<u>613</u>	N04-1	6	51							16:58:10	16:58:13	6145-6144.6062-6063.6074-6075	-
613	N03-1	6	51				16:59:23	16:59:36	13	16:58:59	16:59:58	6145-6144.6062-6063.6074-6075	26:43

Image 8 – ROCS SPOTS Report displaying Train ID 613 departed Foggy Bottom Station at 15:56 hours.

Incident Date: 04/10/2023 Time: 14:04 hours Final Report – Evacuation For Life Safety Reasons

E23240