

Regional Actions Supporting Improved Metrorail Emergency Response

**Update on first responder training, ROCC Liaison,
leadership involvement, and the Metro Underground
Communications Study**



METROPOLITAN WASHINGTON
Council of Governments

Presentation to
WMATA Safety and Security Board Meeting

January 28, 2016

Outline

- Introduction
- Metrorail First Responder Training
- Regional Fire/EMS ROCC Liaison
- Leadership Involvement
- Metrorail Underground Communication Study

Metrorail First Responder Training

Overview

- Fire/EMS Department and WMATA have joint training dates for Metrorail operations.
- Incident reviews resulted in additional policies and training in the 2015 update of regional Metrorail training for first responders.

Update

- Updated training standards have been codified in the *2015 Metrorail Transit Fire Rescue Procedures Policy*.
- Regional Metrorail Training Manual has been completed and approved by Fire Chiefs Committee.
- WMATA is tracking and reporting Metrorail training completed by emergency response agencies.
- Passenger Rail Safety Subcommittee is compiling a regional report of all Metro-related training completed within jurisdictions.
- Regional Fire/EMS and WMATA quarterly functional exercises and monthly Joint Supervisory Training are formalized.



Regional Fire/EMS ROCC Liaison

Overview

- Goal: Improve regional Metrorail emergency response and coordination between jurisdiction agencies and WMATA.
- Position was initiated in June 2015.
 - Staff: Fairfax County Fire Captain with DC Fire/EMS and Prince George's County Fire Departments to support.
 - Position currently supported 16hr/day, Mon-Fri, 0530-2100 hours, with some special weekend events included.

Update

- Liaison position results include improved situational awareness, response times and logistics, jurisdictional and incident communications and overall collaboration.
- Permanent position with 24/7 coverage recommended in the *Communications Study*.
- Fire Chiefs, WMATA, and COG working to identify continued funding. Interim goal: 16 hours/day, including weekends; Long-term goal 24/7, 365 days/year.

Leadership Involvement

WMATA / Fire Chiefs Leadership Forum

- Executive Fire/Rescue safety group was formulated in early 2015 following the L'Enfant Plaza incident
- Membership consists of WMATA GM, WMATA Deputy GM of Operations, MTPD Chief, Principal Fire Chiefs of jurisdictions served by Metrorail, and DC Homeland Security and Emergency Management Agency (HSEMA)
- Intent of group is to discuss high priority policy issues pertinent to life safety in the Metrorail system
- Group convenes on at least a quarterly basis
- Issues discussed so far include:
 - Radio Outage Display (ROD) Map and other radio testing issues
 - ROCC Fire/Rescue Liaison Position
 - WMATA Communications Study
 - Metrorail Fire/Rescue Training

Metrorail Underground Communications Study: Background

Overview

- Metrorail communications infrastructure is complex and challenging.
- Need for improvement recognized prior to January 12th incident.
 - MWCOG Committees were considering and revising policies and procedures, Metrorail training and a liaison position in the ROCC.
 - Metrorail jurisdiction first responders and WMATA were evaluating existing communications systems challenges.
 - First responders implemented tactical BDA deployment and other strategies.

Following January 12th

- First responder radio system testing protocols were developed, frequency increased;
- Radio system outages, 9-1-1 calling, and training were assessed;
- Senator Warner requested an outside comprehensive study to evaluate Metrorail communication systems and procedures for first responders.



Metrorail Underground Communications Study: Background

Study Conducted April – July 2015: UASI Funded

Purpose

Provide a comprehensive study of the WMATA underground communications systems, to include:

- Evaluation of systems effectiveness and interoperability with regional partners
- Recommendations for effective communication and emergency response in the Metrorail system

Consultant Study with Oversight from COG Jurisdiction Working Group

- WMATA staff active participation and support

21 Recommendations Linked to Findings

- Near Term: Existing Systems & Procedures
- Long Term: New Systems & Procedures
- Prioritized & Incorporated into WMATA and COG committee work plans

Priorities

- Reflect the perspectives of fire, police, 9-1-1, and emergency management stakeholders
- Condensed the 21 recommendations into 4 key areas:
 - (1) PSRS Replacement, (2) ROCC Liaison, (3) 9-1-1 Cellular Access, (4) Situational Awareness





PRIORITIES

- 1. Public Safety Radio System (PSRS) replacement**
- 2. ROCC Liaison**
- 3. Underground cellular access to 9-1-1**
- 4. Increasing situational awareness**

Ongoing

- Training and exercise on procedures
- Tactical BDAs
- Radio Push to Talk and Signal level testing

UASI and WMATA funded;

Short term

- Replacement of the head-end BDAs
- Maintenance
 - Radio outage display
 - Spare parts inventory
 - Change management system

WMATA funded

Long term

- 700/800 MHz capable BDAs
 - Remote monitoring software
- Installation of the leaky coaxial cable
- ISSI

WMATA funded

Public Safety
Radio System
REPLACEMENT

#1

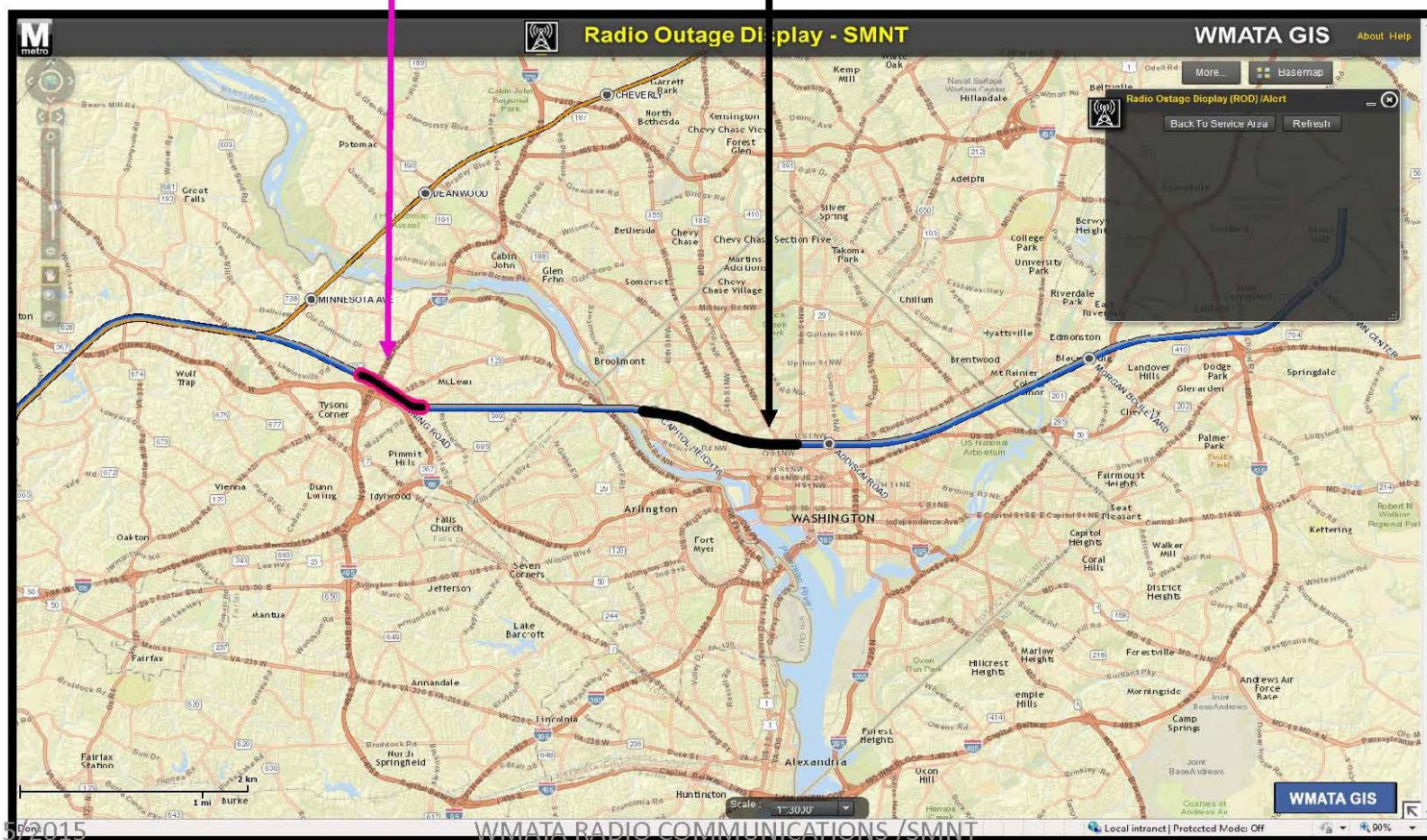
Public Safety
Radio System
REPLACEMENT
Radio Outage
Display Map

- The Radio Outage Display (ROD) map was created by WMATA and recently updated
 - Provides critical situational awareness for jurisdiction first responders
 - Uses radio testing data from jurisdictions and WMATA
 - Displays radio outages in real time
 - Generates instantaneous work orders that can be tracked by users
 - Led to improved readiness of public safety radio system

Radio Outage Display Map Illustrative Example

PSRS IN BLACK & PINK

CRCs IN BLACK





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9-1-1 ACCESS #3

Ongoing

- Establishing common protocols
- Standard Metro/PSAP intake form

WMATA and MWCOG jurisdictions funded

Short term

- Repairing the Verizon legacy system
- Meeting with Verizon being scheduled

Cost estimates and funding source(s) pending

Long term

- Cellular installation project
- Next generation 9-1-1
 - Capability with cell installation project
 - Capability with PSAPs

Cost estimates and funding source(s) pending

9-1-1 ACCESS Incident Intake Form

- A Metrorail Incident Intake Form was created to establish a baseline for information communicated between the WMATA Rail Operations Control Center (ROCC) and 9-1-1 centers.
- Will be formalized in a WMATA/MWCOG in the emergency policies and procedures document.



Metrorail Incident Notification Form

Instructions: The WMATA Rail Operations Control Center (ROCC) will collect the following information when an incident requires a response from Fire/Rescue and/or Emergency Medical Services (EMS). The ROCC shall provide the information, in the order listed, to the primary jurisdiction 9-1-1 center. Alternatively, when a 9-1-1 center is made aware of a Metrorail incident, 9-1-1 center staff will provide this information to the ROCC.

All information may not be available initially. If additional information is acquired, it shall be provided in a timely manner, so all parties are aware.

1	Incident Type	Fire Rescue _____ and/or EMS _____
2	Brief Description	_____ _____ _____ _____
3	Line Color	Red _____ Yellow _____ Green _____ Silver _____ Blue _____ Orange _____
4	Location	Station: _____ Level: Upper _____ Lower _____ N/A _____
5	Tunnel	Between _____ and _____
6	Track	Inbound _____ Outbound _____ Track #1 _____ Track #2 _____
7	Chain Marker	At or near # _____
8	Length of Train	_____ cars long



PRIORITIES

1. Public Safety Radio System (PSRS) replacement
2. ROCC Liaison position
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- 4. Increasing situational awareness**

Ongoing

- Maintenance schedule for both current and proposed situational awareness equipment (e.g. cameras, smoke detectors, blue lights)

WMATA funded

Short term

- CCTV access
- Additional CCTV cameras
 - ASD installation with additional cameras
- Assessment of radio system to blue light interface

Estimated \$7 million; funding sources under review

Long term

- CAD-to-CAD

*Cost estimates pending
Funding sources under review*

SITUATIONAL
AWARENESS
#4

- The Northern Virginia Emergency Response System (NVERS) will soon be initiating a study on the merit and feasibility of a CAD-to-CAD interface to facilitate information flow for Metrorail-related incidents.
- Computer Aided Dispatch (CAD) has the potential for creating a more expedient and accurate transfer process for all dispatched calls.
- NVERS will include Metrorail operations in the study.

SITUATIONAL
AWARENESS
CAD-to-CAD



Next Steps

- **Metro Underground Communications Study Work Group**
 - Ongoing implementation oversight, facilitation, and coordination for study recommendations
 - Coordination with COG subject matter expert committees
 - Complete cost estimates for recommendations and identify funding
 - Develop and implement procedures and protocols
 - Implement training and exercises and evaluate/refine

- **WMATA Safety and Security Committee**
 - Quarterly reporting to continue throughout implementation

