

## **ITEM 11 - Information**

April 15, 2015

Briefing on COG/WMATA Actions subsequent to the January 12, 2015 Metrorail smoke incident near the L'Enfant Plaza train station

### **Staff**

**Recommendation:** Receive briefing.

**Issues:** None

**Background:** The Board will be briefed on the actions taken by COG and a number of its public safety committees and by WMATA subsequent to the January 12, 2015 Metrorail L'Enfant Plaza smoke incident.





# NATIONAL CAPITAL REGION

---

## TRANSPORTATION PLANNING BOARD

### MEMORANDUM

**TO:** Transportation Planning Board

**FROM:** Kanti Srikanth,  
Director, Department of Transportation Planning

**SUBJECT:** Steering Committee Report to the Board on actions subsequent to the January 12, 2015 Metrorail L'Enfant Plaza smoke incident.

**DATE:** April 9, 2015

---

#### SUMMARY:

This memorandum updates the activities taken by COG, its public safety committees and WMATA as listed in my February 18, 2015 memorandum to the Board. Additionally the memo is to inform the Board that it will be briefed by COG and WMATA staffs at its April 15 TPB meeting on the actions taken by COG and a number of its public safety committees and by WMATA subsequent to the January 12, 2015 Metrorail L'Enfant Plaza smoke incident.

#### BACKGROUND:

During its January 21, 2015 meeting the Board engaged in a brief discussion of the fatal incident on the Yellow line of the Metro rail at the L'Enfant Plaza station on Jan. 12, 2015. As an outcome of the discussion it was decided that given the Board's association with regional transit projects in general and its interest in and long standing support for the Metrorail system the TPB's Steering Committee would stay engaged in monitoring the developments related to this incident. The Steering Committee was charged with keeping the Board apprised of: (1) the developments related to the Jan. 12, 2015 event, (2) any recommendations for actions that the Transportation Planning Board (TPB) would have to take, and (3) any information needed to inform the TPB as to how it can remain engaged with or offer support for the Metrorail system.

The Steering Committee discussed the matter during its February 6 meeting and a memorandum of the developments since January 12, a timeline of selected events, and COG's coordinated activities including key reports was presented to the Board at its February 18 meeting.

[Memo February 18 - Steering Committee Report on January Metrorail Smoke Incident](#)

The Steering Committee continued its discussions on the matter at its March 6, 2015 meeting and specifically discussed the Board's interest in receiving a briefing from WMATA and COG on the matter. Mr. Stuart Freudberg, COG's Deputy Executive Director who is coordinating COG initiatives involving WMATA and other emergency management service (EMS) agencies in the

region participated in the discussions along with WMATA staff. A memorandum on the likely topics for briefing the Board was distributed to the Board at its March 18 meeting.

[Memo March 18 - Steering Committee Report on the January Metrorail Smoke Incident](#)

At its April 3, 2015 meeting the Steering Committee was joined by Mr. Timothy Schaible of COG and Mr. Charles Scott of WMATA. The Committee discussed the activities undertaken by COG, its Committees and / or WMATA since the February 18, 2015 report to the TPB. This information will be provided to the Board in the briefings by COG Deputy Executive Director Stuart Freudberg and WMATA Deputy General Manager Rob Troup at its April 15, 2015 meeting.

Listed below are selected events that COG and/or WMATA have been engaged in related to the Jan. 12, 2015 Metrorail incident since the February 18, 2015 memo to the Board.

#### RECENT ACTIVITIES:

1. On March 19, 2015 COG and WMATA submitted, on behalf of the Metropolitan Washington Council of Governments (COG) Fire Chiefs Committee and other agencies, a report to Senator Mark Warner on new protocols for radio system testing and outage reporting in the Metrorail system. The COG-WMATA letter to the Senator is attached and represents fulfillment of initial workplan commitments in response to Senator Warner's letter of January 22, 2015. As outlined in the March 19<sup>th</sup> report, in addition to the new radio system testing and corrective action protocol, several related initiatives to further improve radio communications have begun including the following:
  - Tactical, or mobile, Bi-Directional Amplifiers (BDAs), will be procured for the regional first responder agencies and deployed as an interim solution for enhancing the radio communications capability of first responder agencies in the Metrorail system. These will be procured through a UASI Grant for agencies across the region.
  - DC-HSEMA, along with the Fire Chiefs Committee, WMATA, and other stakeholders, will conduct an emergency response communication system study over the next three months to assess national, international and professional organization standards and practices for potential application to the Metrorail system communication systems. The goal of the study is to identify interim actions that can be taken now to enhance the communication systems performance and reliability until a full-scale replacement is installed several years from now.
  
2. On March 19, 2015 COG provided an update to Senator Mikulski on the next step in the development of a new regional work plan for training first responders on emergency evacuation response to events in the Metrorail system. The update was in response to the Senator's letter of February 9, 2015 concerning emergency evacuation training for first responders to the Metrorail system. A copy of COG's letter is attached. The work plan includes:
  - Documentation of current regional best practices for training first responders on incident response in the Metro system and a review of national best practices.
  - The Fire Chiefs Committee working with its Passenger Rail Safety Subcommittee experts and WMATA to design and implement the training plan by mid-June.

3. On March 26, 2015 the WMATA Board's Safety and Security Committee discussed actions subsequent to the January 12 incident at their meeting. The discussion included progress of Metro's early safety actions, recommendations by the National Transportation Safety Board (NTSB), improvements on customer emergency and system communications, and external safety reviews following the January 12, 2015 L'Enfant Smoke Incident. A memorandum from WMATA staff and a presentation on the matter may be accessed at the online site below.  
[http://www.wmata.com/about\\_metro/board\\_of\\_directors/board\\_docs/032615\\_3ASafetyActionsUpdate.pdf](http://www.wmata.com/about_metro/board_of_directors/board_docs/032615_3ASafetyActionsUpdate.pdf)
4. COG Fire Chiefs Chairman Marc Bashoor (Prince George's County), and COG 9-1-1 Directors Chairman Steve Souder (Fairfax County) and COG's Deputy Executive Director Stuart Freudberg spoke at the WMATA Board's Safety and Security Committee meeting about ongoing coordination between WMATA and COG following the January 12 incident. The officials referenced work responding to the letters from Senator Mark Warner regarding radio system communications and Senator Barbara Mikulski regarding emergency evacuation training for first responders to the Metrorail system. Next steps include incorporating the enhanced radio testing and corrective action protocols and a Metrorail training and exercise plan into a revision of the 2011 Metro Rail Transit - Fire Rescue Emergency Policy Procedures Agreement.
5. WMATA released a new passenger safety video on March 26, 2015, with versions in English and Spanish.  
[http://www.wmata.com/about\\_metro/news/PressReleaseDetail.cfm?ReleaseID=5905](http://www.wmata.com/about_metro/news/PressReleaseDetail.cfm?ReleaseID=5905)





March 19, 2015

The Honorable Mark R. Warner  
United States Senate  
475 Russell Senate Building  
Washington, DC 20510

Subject: Transmittal of Report on "Public Safety Radio System Communication Testing and Regional Protocol for the Metrorail System"

Dear Senator Warner:

On behalf of the Metropolitan Washington Council of Governments (COG) Fire Chiefs Committee and the Washington Metropolitan Area Transit Authority (WMATA), please find the attached report entitled "Public Safety Radio System Communication Testing and Regional Protocol for the Metrorail System."

This report was prepared pursuant to your letter of January 22, 2015 and subsequent COG-WMATA response and work plan of January 30, 2015.

We are very pleased with the high level of collaboration between WMATA and the six jurisdictions served directly by Metrorail stations that led to this report and the substantially enhanced fire radio testing and corrective action protocol that is now in place. These actions create a higher level of assurance regarding critical public safety communications for first responders in the Metrorail system. Further actions described in the report will also be taken with the support of a communications expert consultant to identify further actions needed to strengthen the radio and other Metrorail communications systems. That evaluation is scheduled to take place during a 90 day period in April-June.

We will provide you with progress reports on all of the actions underway, including the work will be formalizing the new protocol and other enhancements to the *2011 Metrorail Transit Fire/Rescue Emergency Procedures Policy Agreement*.

Thank you for your ongoing leadership on Metrorail safety for the National Capital Region.

Sincerely,

William Euille  
Chairman  
COG Board of Directors

Mortimer Downey  
Chairman  
Washington Metropolitan Area  
Transit Authority



cc: Chuck Bean, Executive Director, COG  
COG Fire Chiefs Committee  
Christopher Geldart, Director, District of Columbia Homeland Security Emergency  
Management Agency  
Jennifer Greene, Director, District of Columbia Office of Unified Communications



# Metropolitan Washington Council of Governments

*One Region Moving Forward*

District of Columbia  
Bladensburg\*  
Bowie  
Charles County  
College Park  
Frederick  
Frederick County  
Gaithersburg  
Greenbelt  
Montgomery County  
Prince George's County  
Rockville  
Takoma Park  
Alexandria  
Arlington County  
Fairfax  
Fairfax County  
Falls Church  
Loudoun County  
Manassas  
Manassas Park  
Prince William County

\*Adjunct Member

March 19, 2015

The Honorable Barbara A. Mikulski  
United States Senate  
503 Hart Senate Office Building  
Washington, DC 20510

Dear Senator Mikulski,

I am writing to provide you with a progress report on actions underway and planned in response to your letter of February 9, 2015 concerning emergency evacuation training for first responders to the Metrorail system.

As requested in your letter, I am pleased to provide you with the Metropolitan Washington Council of Governments (COG) Fire Chiefs Committee-Washington Metropolitan Area Transit Authority (WMATA) work plan (please see attached) that identifies key deliverables and milestones that will result in an enhanced first responder training program for the Metrorail system. The enhanced training plan will be formalized as an appendix to the COG 2011 Metrorail Transit Emergency Procedures Policy Agreement. The enhanced training plan will incorporate the latest best practices based on other transit systems as well as through national professional organizations.

I am very pleased to report that a monthly recurring training series will begin in early April that will bring together command-level personnel from WMATA, the regional fire and EMS departments and Metro Transit Police Department. This training will facilitate review of roles, responsibilities and best practices and apply them to a simulated Metro incident requiring response from multiple agencies.

WMATA will also be conducting a tabletop exercise in late March and a full-scale exercise in mid-April that will provide leaders from across the National Capital Region including first responders, transit agencies, and other critical stakeholders, an opportunity to discuss WMATA plans and procedures, discuss findings from response operations in other metropolitan areas, review evacuation planning, and identify important next steps for regional coordination and planning.

The Fire Chiefs and WMATA are currently actively collaborating on developing the key elements of the enhanced training program. In addition to the monthly command-level training, additional best practices to be included in the updated regional training plan are targeted trainings for recruit level, company level, and special services personnel within each of the region's fire and EMS departments.

Further, WMATA is working with the Fire Chiefs to create redundant training opportunities in order to enhance accessibility for all first responders. In addition to offering in-person training at its facility, WMATA will continue to provide face-to-face training at fire departments across the region. They will also be developing new train-the-trainer courses and computer-based courses consisting of several criteria to enhance the ability of first responders to effectively respond to an incident involving the Metro system. The Fire Chiefs, in coordination

777 North Capitol Street, NE, Suite 300, Washington, D.C. 20002  
202.962.3200 (Phone) 202.962.3201 (Fax) 202.962.3213  
(TDD)

[www.mwcog.org](http://www.mwcog.org)

with WMATA, will be actively engaged in the development of the course material that is included in these trainings.

I am pleased with the progress being made by the region's Fire Chiefs and WMATA in establishing a comprehensive plan to deliver critical training to all of the region's first responders.

I appreciate your concern for this critical public safety matter and welcome your feedback as the development of the training plan ensues.

Sincerely,

A handwritten signature in black ink, appearing to read "William D. Euille". The signature is fluid and cursive, with the first name being the most prominent.

William D. Euille  
Chairman  
COG Board of Directors

cc: Mortimer Downey  
Chairman, Washington Metropolitan Area Transit Authority

COG Board of Directors

Chuck Bean, Executive Director, COG

**WORK PLAN – MARCH 19, 2015**  
**FOR DEVELOPING REGIONAL TRAINING PLAN FOR FIRST RESPONDERS ON**  
**THE METRORAIL SYSTEM**

**Purpose:** The purpose of this Work Plan is to prepare a comprehensive regional training plan that will standardize current best practices for training all of the region's first responders in responding to incidents involving the Metrorail system, and will incorporate new opportunities for training and supporting exercises to enhance current METRO training practices.

**Process:** The COG Fire Chiefs Committee will oversee and facilitate the work plan. The Fire Chiefs will leverage the expertise of its Passenger Rail Safety Subcommittee to work closely with WMATA in developing the plan's content for approval by the Fire Chiefs and WMATA.

**Best Practices and Enhanced Training Options:** Compile current best practices across the region's fire and EMS departments for training first responders on incident response in the Metrorail system and identify options for enhancement of current training practices.

*Deliverables:*

- 1) Documentation of current regional best practices for training first responders on incident response in the Metro system
- 2) Assessment of additional training options based on national best practice review (other transit systems, national professional organizations)
- 3) Development of regular schedule for regional exercises
- 4) Discussion by COG Fire Chief's regarding the inclusion of basic METRO training into the yearly required refresher training curriculums.(ie.cpr, blood borne pathogens)

*Deadlines:*

- 1) April 15 Documentation of current best practices and new training options
- 2) April 30 Agreement on new training options to be incorporated in new training plan
- 3) May 15 Development of regular schedule for regional exercises

**Amendment/Appendix to 2011 Agreement:**

*Deliverables:*

- 1) Development of an appendix to the "Metro Rail Transit Fire/Rescue Emergency Procedures Policy Agreement ("Procedures Policy Agreement") to formalize commitments for providing training on the Metro system for first responders in the National Capital Region
- 2) Funding recommendations as appropriate

*Deadlines:*

- 1) June 15 - Agreement by WMATA and Fire Chiefs to Policy Procedures Agreement

# Briefing on COG and WMATA Metrorail Safety Coordination

Presented by:

Stuart A. Freudberg,  
Deputy Executive Director, COG

Presented to:

National Capital Region Transportation Planning Board

Wednesday, April 15, 2015



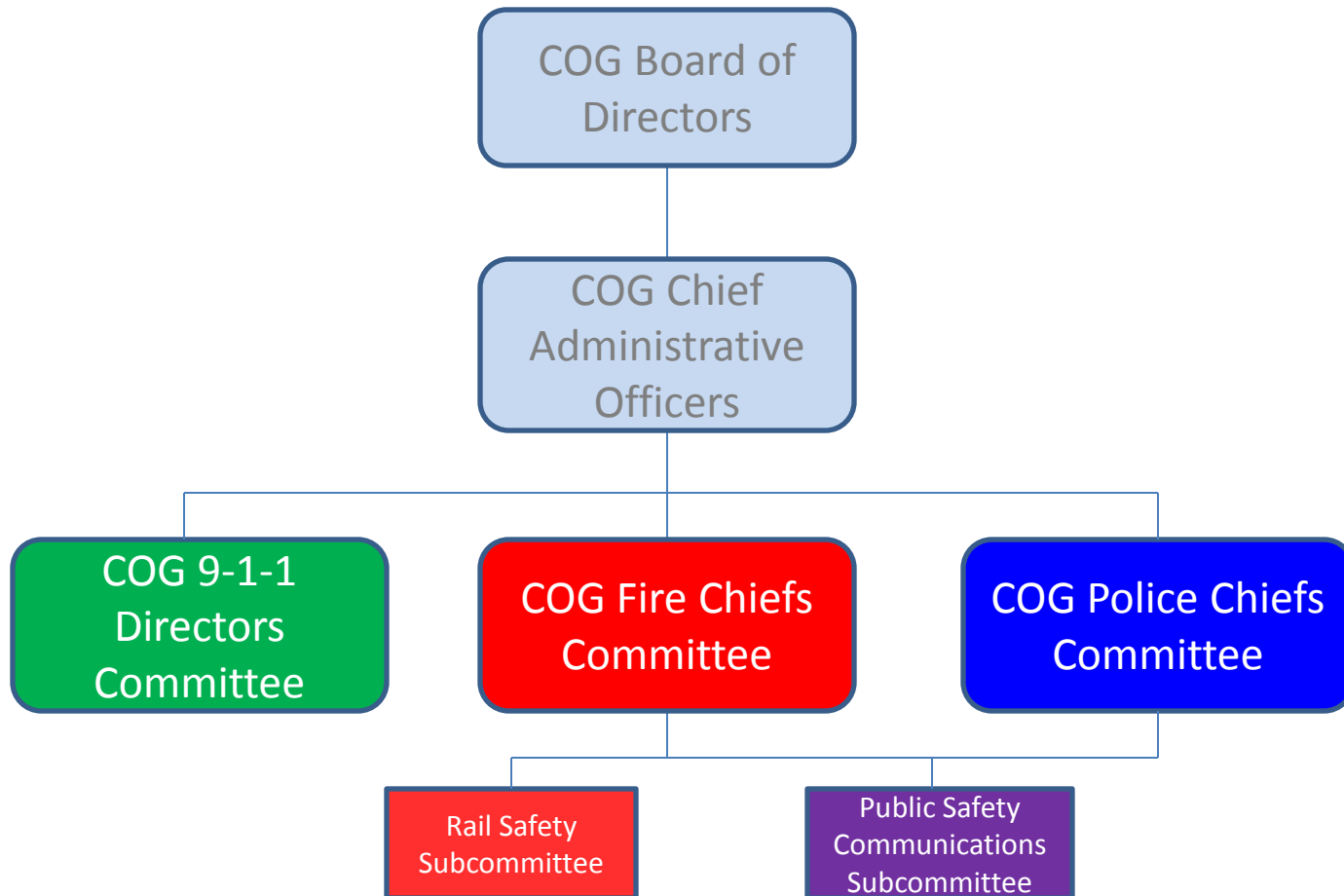
# Overview of Presentation

- Overview of 2011 Agreement
- COG Public Safety Committee Structure
- Response to Senator Warner Letter 1/22/15
  - Radio testing; 9-1-1 Report; communications study
- Response to Senator Mikulski Letter 2/9/15
  - Training first responders on Metrorail system
- Next steps

# 2011 Metro Rail Transit Fire/Rescue Emergency Procedures Policy Agreement

- Signed by COG Fire Chiefs & WMATA
- Maintained by COG Passenger Rail Safety Subcommittee
- Outlines common operating procedures/concepts used during emergencies involving Metro system
  - Does not supplant individual governing procedures for WMATA or any jurisdictional fire department
- Review/Revision of current agreement is in progress
- Updates to 2011 agreement will require review and approval of the CAOs, COG Board and WMATA Board

# COG Public Safety Committee Structure and Supporting Technical Committees



# Response to Senator Warner's Letter of Jan. 22<sup>nd</sup> Radio Testing and Protocol

- Report submitted to Senator Warner addresses radio testing assessment and commits to new testing protocol for region
  - Quantified current performance level of radio communication system at 89% reliability
- New protocol includes following elements:
  - **Frequency:** 5 jurisdictions testing on biweekly basis; DC testing on weekly basis; WMATA also has instituted independent testing
  - **Procedure:** Standardized process for testing/reporting across region
  - **Reporting:** New web-based reporting system
  - **Corrective Actions:** Outage reporting to all parties to insure situational awareness



# Response to Senator Warner's Letter of Jan. 22<sup>nd</sup> Report on Cell and 9-1-1 Coverage in Metro

- COG 9-1-1 Directors Committee in cooperation with WMATA conducted cell phone 9-1-1 testing throughout underground Metrorail system in February
- Over 400 calls made on all 4 carriers to 9-1-1
- Results confirmed cell calls to 9-1-1 get through 90% of time at stations and 28% in tunnels
- WMATA Neutral Host project designed to greatly increase cell phone capability

# Response to Senator Warner's Letter of Jan. 22<sup>nd</sup> Communications Study

- New study will evaluate current underground communications system by 6/30/2015
  - Technical Oversight by jurisdiction and WMATA communication subject matter experts
- Purposes of study:
  - Identify near-term solutions to improve radio communications to comply with the public safety grade communications standard
  - Identify options for expediting implementation of new WMATA radio communications system currently targeted for 2021
  - Examine cell phone connectivity issues, options for improvement,
  - Review of WMATA/Public Safety Agency interoperable communications policies and procedures

# Response to Senator Mikulski's Letter of February 9<sup>th</sup> First Responder Training Plan

- Collaboration of Fire Chiefs and WMATA to establish regional training & exercise plan for first responders on Metro system
- Work plan completed and transmitted to Senator Mikulski
- Document current best regional training practices
- Assemble schedule of upcoming training & exercise opportunities
- Identify enhanced training using through assessment of best practices in other regions; national associations
- Prepare regional training plan as appendix to updated COG/WMATA Emergency Procedures / Policy Agreement

# Next Steps

- Preparation of reporting on radio testing results
- Update to Procedures / Policy Agreement
  - Include new radio testing protocol (5/30/15)
  - Add new regional training plan as appendix (6/15/15)
- Ongoing WMATA-Fire Chiefs Leadership Coordination



**Washington Metropolitan Area Transit Authority**

# Transportation Planning Board Update

Metropolitan Washington Council of Governments

April 15, 2015



# Early Safety Actions Update

- Develop enhanced training schedule
- Train operator protocol for air intake system
- Rail Control Center incident personnel
- Analysis of lower speeds to reduce electric current → ACTION ORDERED  
To limit max speed to 45 mph
- Exterior signage for emergency responders → INSTALLATION STARTED  
Completion scheduled June 2015



# Early Safety Actions Update

- Report on third-rail cables condition
  - Evaluate early action on low-smoke cable
  - New protections for third-rail cables
- 
- Identified critical locations and completed
  - Schedule on completion for remaining locations
- 
- Review ground fault detectors (settings on third rail circuit breakers)
- Investigate use of zoned and/or wireless smoke detectors
- 
- Further refining project cost and integration of work with other projects



# NTSB Recommendations



R-15-8 Assess your subway tunnel ventilation system to verify the state of good repair and compliance with industry best practices and standards

- ✓ Anomalies identified – 13 locations
- ✓ Closed – 8 locations
- ✓ Remain – Submission on scheduled for May 30<sup>th</sup>, 2015



R-15-9 Develop and implement detailed written tunnel ventilation procedures for operations control center staff

- ✓ Early actions completed
- ✓ Scope of work from third-party consultant is being progressed







# NTSB Recommendations



R-15-10 Incorporate the use of the (new) procedures into your ongoing training and exercise programs and ensure ample opportunities to learn and practice activating ventilation fans

- ✓ Early actions executed
- ✓ Scope of work from third-party consultant is being progressed



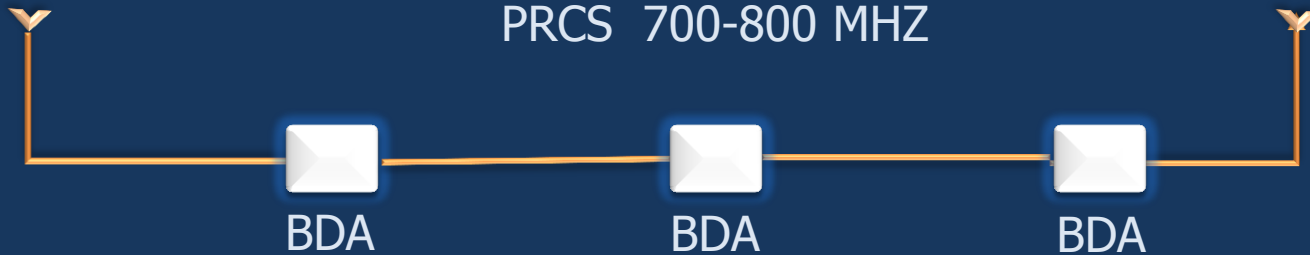


# Overview of PSRS and CRCS Systems

## UNDERGROUND ARCHITECTURE

Head-End  
Equipment

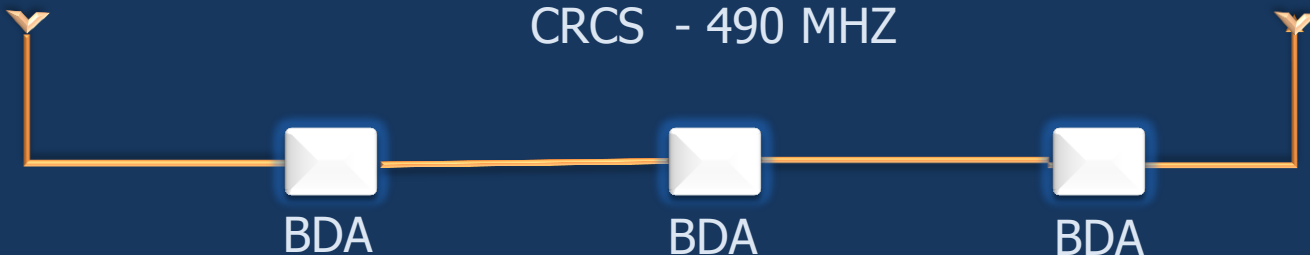
PRCS 700-800 MHZ



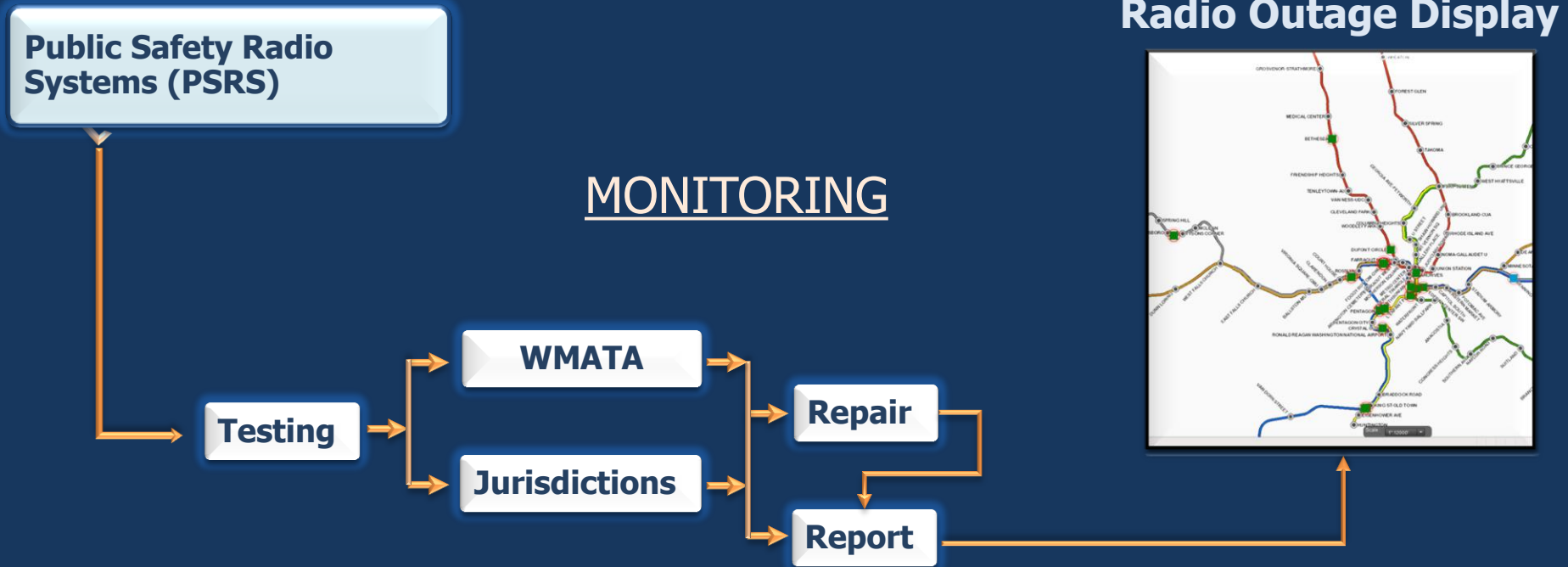
WMATA

CRCS - 490 MHZ

WMATA

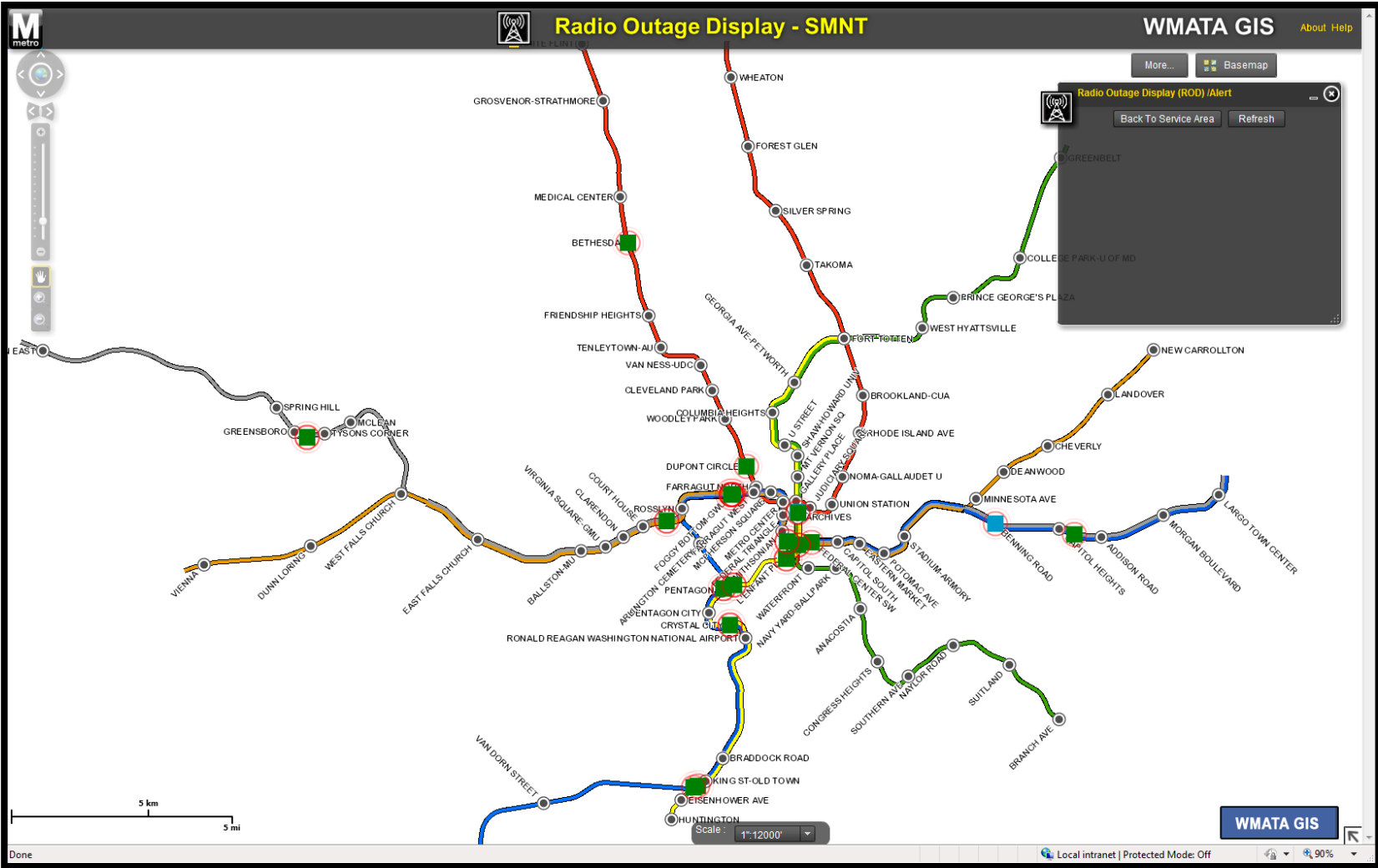


# Mitigation and Reporting



- Testing: WMATA forces – Every Line/Station once a week
- Reporting: Radio Outage Display (ROD)

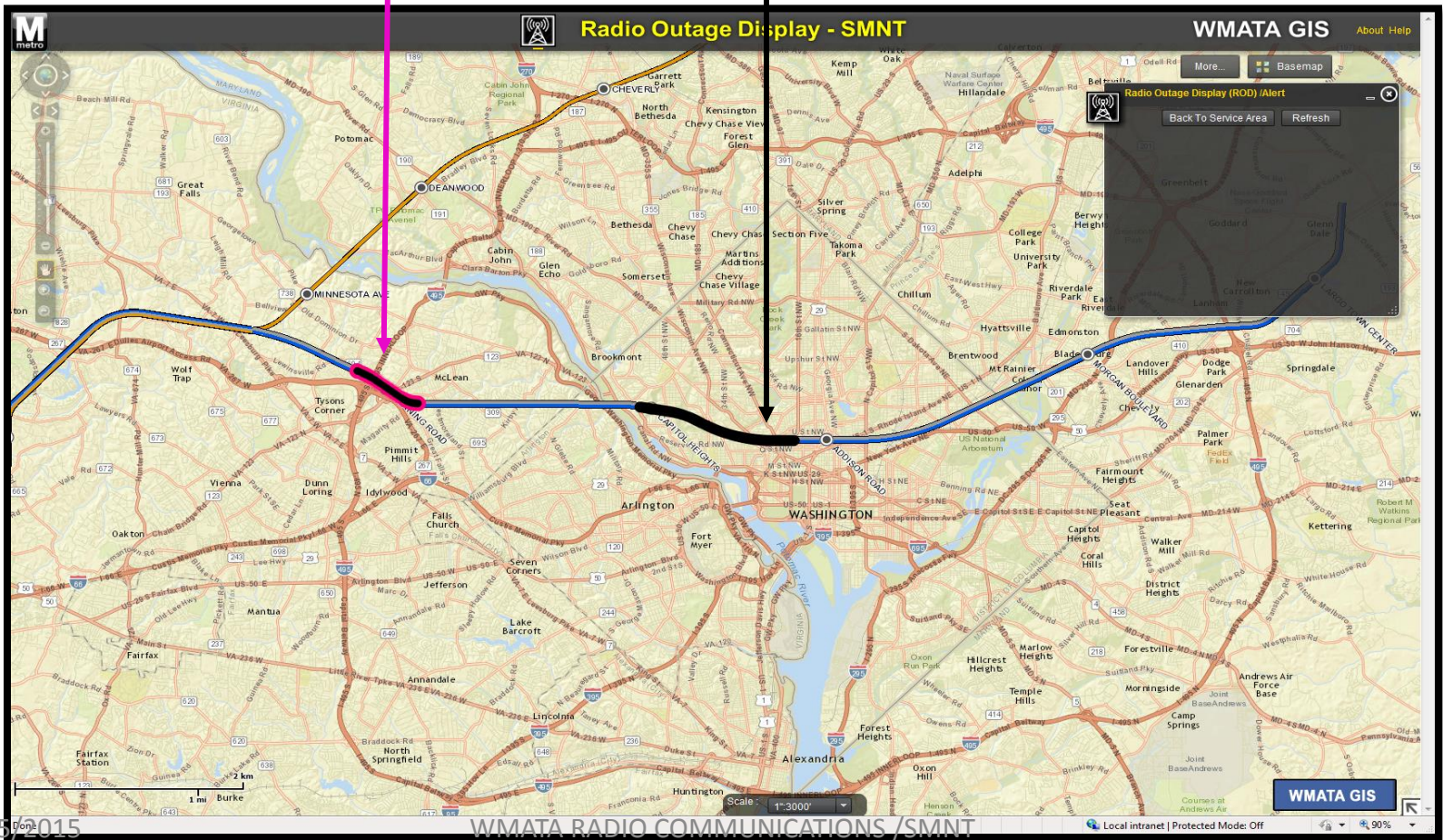
# WHAT IS THE WMATA RADIO OUTAGE DISPLAY (ROD) MAP?



# THE AREA OF THE RADIO OUTAGE CAN NOW BE VIEWED

**PSRS IN BLACK & PINK**

**CRCS IN BLACK**







# T-Band

- Ultra high frequency (UHF) used by public-safety agencies in 13 metropolitan areas that must be vacated within a decade, as mandated by the federal legislation
- Metro moving from 490 MHz to 700-800 MHz frequency range
- Creates common infrastructure for CRCS and PSRS





# Wireless Network (Neutral Host) Implementation

- T-Band project installs infrastructure to allow deployment of radiax cable
- Metro and the carrier team have recently started negotiations for sharing of the work effort
- Metro will develop a comprehensive schedule for implementing wireless access throughout the system