National Capital Region (NCR)
Regional Emergency Support Function #1 (RESF-1)

Transportation Tabletop Exercise

AFTER ACTION REPORT

November 28, 2006

District of Columbia Emergency Management Agency (DCEMA)
Homeland Security Exercise and Evaluation Program (Sponsor)
with technical support from the National Capital Region (NCR)
Exercise Training and Operation Panel (ETOP)

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PREFACE

Preparation of this report required input from numerous agencies and organizations directly involved with the National Capital Region Homeland Security Program Regional Emergency Support Function-1 (RESF-1) Committee which is supported by the Metropolitan Washington Council of Governments (MWCOG). This report was compiled based on a tabletop exercise (TTX) held on November 28, 2006. The RESF-1 Committee extends a well-deserved thank you to all the agencies, organizations, and individuals that provided information for this report.

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I. EXECUTIVE SUMMARY

The following After Action Report (AAR) describes the RESF-1 Transportation communications and coordination TTX that took place in the National Capital Region (NCR) on November 28, 2006 and the lessons learned from the exercise. This exercise was the first of its kind for transportation officials and operators in the region. It is a tool that documents the current state of transportation and transit operations for emergency response and provides recommendations to address gaps in capabilities observed.

The content, including issues and recommendations, presented in this document are based directly on the observations expressed by the transportation and transit operators who participated in the exercise, as well as feedback from transportation officials who observed the TTX. With that in mind, this is not an in-depth technical document, but a review of the major topics identified during the exercise. It is important to note that the content of this exercise was developed by a working group of NCR RESF-1 Committee members and the scenario was tailored specifically for the NCR transportation community and how they respond to multiple emergency incidents.

This AAR is presented in the following format:

1. **Event Goals and Objectives** – information about the purpose of the exercise and its intended audience.

2. **Event Synopsis** – a review of the exercise scenario.

3. **Analysis of Critical Task Performance by Exercise Objective** – analysis of how exercise objective criteria were met.

4. **Recommendations** – corrective actions identified by exercise participants in order to address observed gaps.

The goals of the exercise were to:

1. Evaluate emergency communication processes and procedures between regional transportation operators and transit operations centers as well as transportation personnel in the field.

2. Identify common (informal) practices currently used during an emergency by transportation personnel and where gaps exist between formal and informal procedures.

3. Increase awareness of the roles and responsibilities of transportation and transit agencies to disseminate mission critical information.

4. Evaluate decision-making processes of transportation personnel during emergency response.

5. Identify communication tools used by regional transportation personnel during an emergency including, but not limited to email, Regional Incident Communications and Coordination System (RICCS), land mobile radios, and chat rooms.

6. Evaluate how regional communications assets such as the regional 800 MHz radio caches are requested and coordinated.

Although conducting the exercise and the subsequent hotwash identified gaps and recommendations (as presented in this document), the greatest accomplishment of the session was an increased awareness of communications capabilities available to NCR transportation officials and operators. This exercise also provided the opportunity to develop a better understanding of the roles and responsibilities of counterparts at different agencies. Another valuable accomplishment of the exercise was the identification of transportation and transit emergency response issues as well as the opportunity for the appropriate officials from the transportation, emergency management, and public safety community to address these issues through bodies such as the NCR RESF-1 Committee.

Major issues identified through this exercise include:

Issue 1: Some participants may not have been aware of interagency communication processes and procedures.

Issue 2: Not all of the participants at the operations level were aware of how information was propagated upwards within their agency and/or across the region.

Issue 3: Some agencies rely primarily upon informal personal relationships to facilitate incident information flow between agencies.

Issue 4: Some participants were unaware of criteria for escalating an incident from a local occurrence to a regionally-coordinated event.

Issue 5: Many participants were unaware of how their agency's operational communications contribute to the regional response operations of other RESF-1 members.

Issue 6: Some RESF-1 agencies lack an off-site coordination and decision-making mechanism.

Issue 7: Some agencies do not have access to available communication systems that would provide regional situational awareness.

Issue 8: A number of participants were not familiar with the regional policies and procedures for obtaining radios from the regional 800 MHz radio cache.

Overall, the NCR possesses the capabilities (both technology and procedures) to perform an effective response to multiple transportation emergency incidents. However, these capabilities are not used to their greatest potential due to reliance on informal relationships (as noted above) and the lack of general awareness of the various system capabilities. During the hotwash, practitioners noted some measures that can be undertaken to address these gaps. Some of these measures require little effort while others are a bit more ambitious in nature and ***require the support of higher-level Homeland Security, Emergency Management, and Transportation officials in order to implement***. These recommendations are as follows:

Recommendation 1: Formalize and coordinate emergency transportation plans for NCR transportation and transit agencies with the goal of having common operating procedures across the region.

Recommendation 2: Improve communications procedures and protocols between NCR RESF-1 agencies and increase awareness about available communications technologies. This can be accomplished through three steps:

- Formalization of notification processes (through updated plans)
- Improved data sharing capabilities (the RESF-1 Committee supports the development of the Metropolitan Area Transportation Operations Coordination (MATOC) Program as a mean to implement this recommendation)
- Improved voice communications capabilities and interoperability

Recommendation 3: Increased exercise and training opportunities for transportation officials and operators.

Recommendation 4: Creation of a transportation/transit operators subcommittee under NCR RESF-1.

Recommendation 5: "Quick Hits" for the NCR RESF-1 Committee including:

- Defining organizational relationships between NCR RESF-1 agencies
- Reaching out to Amtrak and CSX to participate in the RESF-1 Committee
- Developing a standard contact sheet with an emphasis on roles and responsibilities, not names
- Improving communications between Washington Metropolitan Area Transit Authority (WMATA) and regional transit providers

These recommendations are provided in more detail in Section VII of this report.

The NCR RESF-1 Committee will take the lead in implementing the recommendations outlined in this AAR, but support is needed from regional Homeland Security, Emergency Management, and Transportation officials. Any questions can be directed to a member of the NCR RESF-1 committee.

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II. EVENT OVERVIEW

Event Name: NCR RESF-1 Tabletop

Date: November 28, 2006

Sponsor: District of Columbia Emergency Management Agency (DCEMA)

Funding Source: DCEMA

Focus: Communication and Coordination

Classification: For Official Use Only (FOUO)

Event Type: Transportation Incidents

Location: Metropolitan Washington Council of Governments (MWCOG)

Participants:

District of Columbia

District Department of Transportation (DDOT)
Barksdale, William
Hauser, Eric
Jenkins, Angela

State of Maryland

Montgomery County Traffic Management Center (TMC)
Leight, Chris

Montgomery County RideOn
Perry, Milton
Waller, James

Prince George's County
Miller, Elizabeth
Myers, Robert
Oertly, Robin

Maryland Rail Commuter (MARC)
Silverman, Ira

Maryland State Highway Administration
Greffen, Charlie
Hubbe, Paul
Luck, Fred
Sinclair, Deborah

Commonwealth of Virginia:

Alexandria Transit Company
Cain, Courtney
Payne, Barbara

City of Alexandria
McCobb, Douglas

Fairfax Connector
Barham, Tim
Hillman, Alvin

Fairfax County (Veolia Transportation)
Barksdale, Tyrone
Bowden, Derek

Potomac & Rappahannock Transportation Commission (PRTC) First Transit
Howell, Robb
Johnson, Rodney
Marx, Eric

Virginia Department of Transportation (VDOT)
Todd, Peter

Regional:

Washington Metropolitan Area Transit Authority (WMATA):
Brown, Rick
Hall, Allison
Hood, Anthony
Larry, Vera
Mance, George

Observers

District of Columbia:

District Department of Transportation (DDOT)
Jones Best, Natalie
Kammerman, Joe
Strange, James

District Emergency Management Agency (DCEMA)
Quarrelles, Jamie

District of Columbia Fire and Emergency Medical Services (FEMS)
Wilk, Damian

State of Maryland:

Capital Wireless Integrated Network (CapWIN) – University of Maryland
Peterson, Steve

Montgomery County Traffic Management Center (TMC)
Riehl, John

Montgomery County RideOn
Biggins, Carolyn
Pete, Buckley

Prince George's County
Gordon, J. Rick

Commonwealth Virginia:

Alexandria Transit Company
Jones, Patricia
Putzier, Brad

County of Fairfax
Edwards, Bruce

Northern Virginia Transportation Commission (NVTC)
Lynott, Jana

Virginia Department of Transportation (VDOT)
Steeg, Richard

Virginia Department of Emergency Management (VDEM)t//National Capital Region Exercise Training and Operation Panel (ETOP)
Schmit, Lucia

Regional:

Washington Metropolitan Area Transit Authority (WMATA)
Bodmer, Ron
Jones, Thomas
Miller, Mark

Metropolitan Washington Council of Government (MWCOG)
Meese, Andrew
Young, Robert

Metro Boston Homeland Security Region (MBHSR)
Andrews, Janet
Musser, Amanda
Thornton, Leslie

Federal:

Joint Force National Capital Region
Baker, Samuel
Cheshire, Robert
Sherman, Freddie

Transportation Security Administration (TSA)
Gorton, Scott
Mulhern, Amanda

Number of Participants:
Participants 30
Observers 29

After Action Evaluation: A hotwash was conducted on November 28, 2006. During the tabletop exercise, observations were analyzed, compared, and prioritized through a facilitated process with exercise participants to determine lessons learned, make recommendations for improvement actions, and identify key areas of emphasis for future planning.

III. ADMINISTRATIVE HANDLING INSTRUCTIONS

1. The formal title of this document is the "National Capital Region (NCR) Regional Emergency Support Function #1 (RESF-1) Transportation Tabletop Exercise After Action Report".

2. This document should be safeguarded, handled, transmitted, and stored in accordance with appropriate security directives. It should be released to individuals on a strict need-to-know basis. Information contained herein was prepared for the exclusive use of planning team members, project officers, and non-participant personnel involved in the operational and administrative aspects of the exercise. The contents of this after action report will not be divulged to exercise participants unless officially authorized DCEMA in conjunction with NCR ETOP.

3. Reproduction of this document, in whole or in part, without prior approval from DCEMA and/or ETOP is prohibited. Primary Points of Contact (POCs):

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   Robert Young, RESF-1 Coordinator
   Metropolitan Washington Council of Governments (MWCOG)
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   202-962-3278

4. The ICF Exercise Support POC is:

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IV. EVENT GOALS AND OBJECTIVES

This exercise was designed to provide participants an opportunity to discuss their role in responding to multiple transportation incidents in the National Capital Region. This included discussing the implementation of the Regional Emergency Coordination Plan (RECP)[1] and Regional Emergency Evacuation Transportation Coordination Annex[2].

The overall event goals and objectives set by RESF-1 throughout the tabletop were:

- Evaluate emergency communication processes and procedures between regional transportation operators and transit operations centers as well as transportation personnel in the field.
- Identify common (informal) practices currently used during an emergency by transportation personnel and where gaps exist between formal and informal procedures.
- Increase awareness of the roles and responsibilities of transportation and transit agencies to disseminate mission critical information.
- Evaluate decision-making processes of transportation personnel during emergency response.
- Identify communication tools used by regional transportation personnel during an emergency including, but not limited to email, RICCS, land mobile radios, and chat rooms.
- Evaluate how regional communications assets such as the 800 MHz caches are requested and coordinated.

Participants successfully met these objectives during the TTX November 28, 2006, but identified specific areas for improvement. Section VII provides information on issues identified and Section VIII provides specific actionable recommendations for the NCR RESF-1 Committee and regional transportation and transit agencies. Participants and their respective agencies still need to convene to develop specific strategies and tactics for implementing the recommendations provided.

[1] Metropolitan Washington Council of Governments. *Regional Emergency Coordination Plan*. September 11, 2002.
[2] Metropolitan Washington Council of Governments. *Regional Emergency Evacuation Transportation and Coordination Annex*. March 4, 2004.

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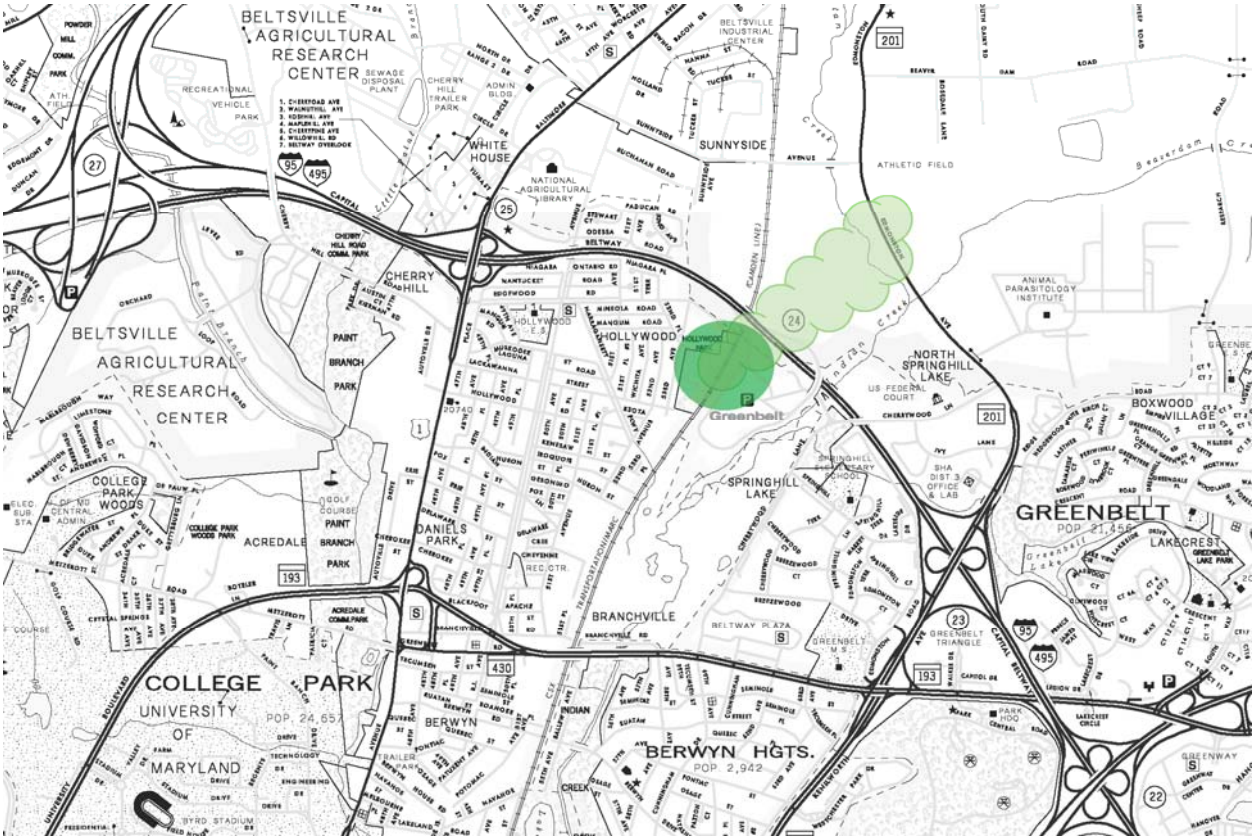
V. EVENT SYNOPSIS

The RESF-1 TTX was presented in three separate modules to ensure involvement of all participating transit and transportation agencies, and to force participants to consider the need to regionally coordinate and disseminate information to strategic "regional" decision-makers and to the media/public.

Module 1 – Greenbelt Incident

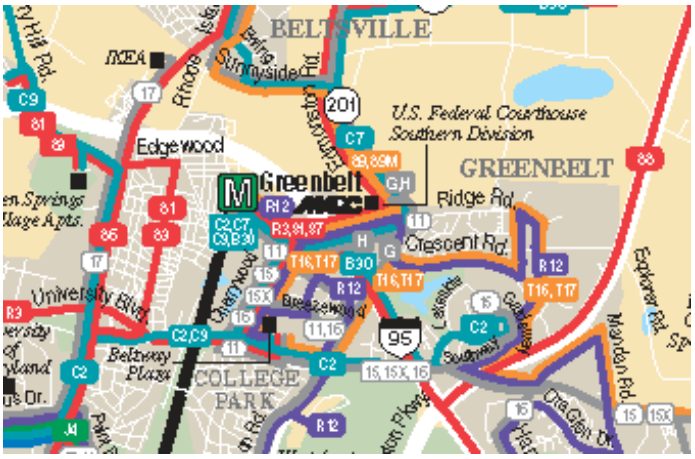
08:30am – Greenbelt, MD – Weekday Rush Hour

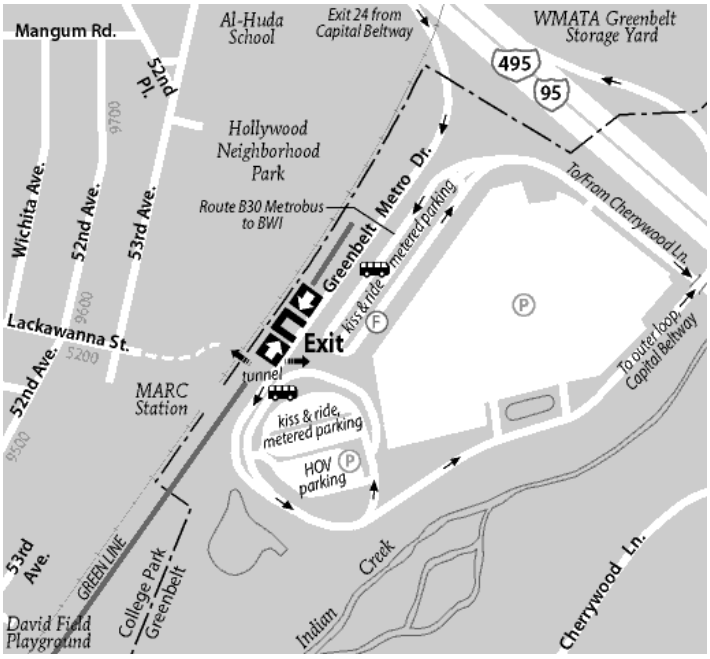
Reports were received indicating that a tank car containing chlorine at the CSX tracks in the vicinity of the Greenbelt Metro Station had derailed and exploded causing the tank car and several other rail cars to ignite. A large plume of chlorine gas was emitted from the tankers and carried NNE of the incident by prevailing winds across the inner and outer loops of I-495 and on to MD-201.



08:35am – Greenbelt, MD

Fire and Police arrive on-scene and close the inner and outer loops of I-495 between Route 1 and the Baltimore-Washington Parkway interchanges. The Emergency Alert System (EAS) was activated to assist with the evacuations/shelter-in-place orders for those affected by the chlorine plume. Traffic gridlock occurred throughout the immediate area of the incident. The ramps onto both loops of I-495 from the Baltimore-Washington Parkway and Route 1 were closed by the Incident Commander. Damage to the adjacent Metro track bed was undetermined.

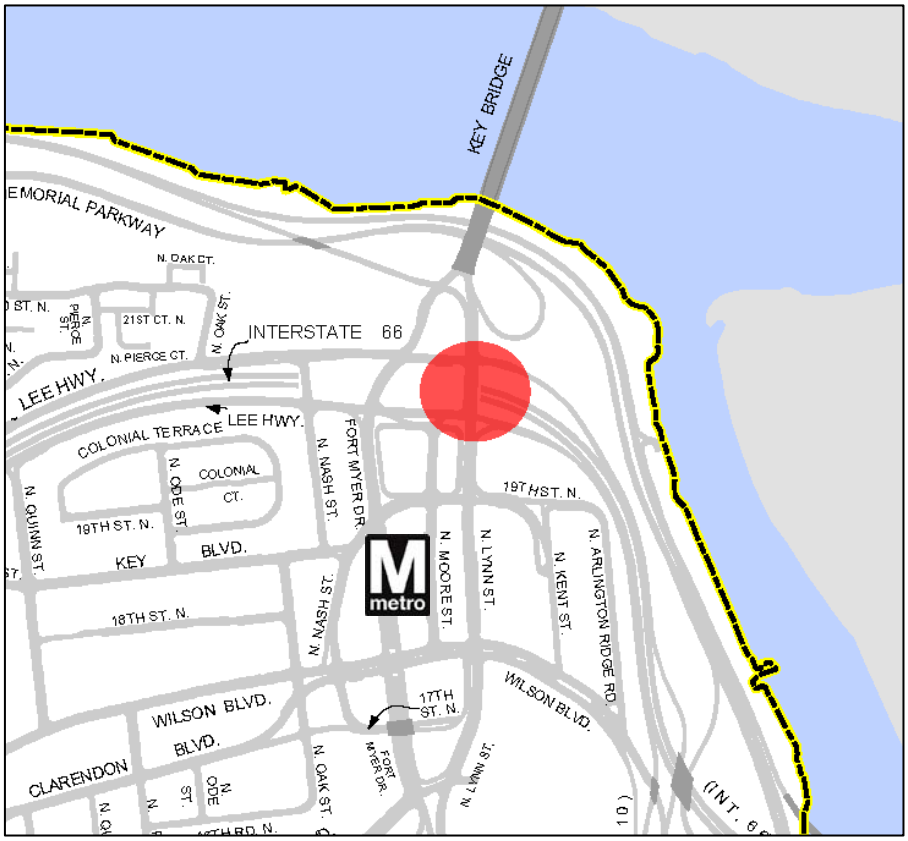




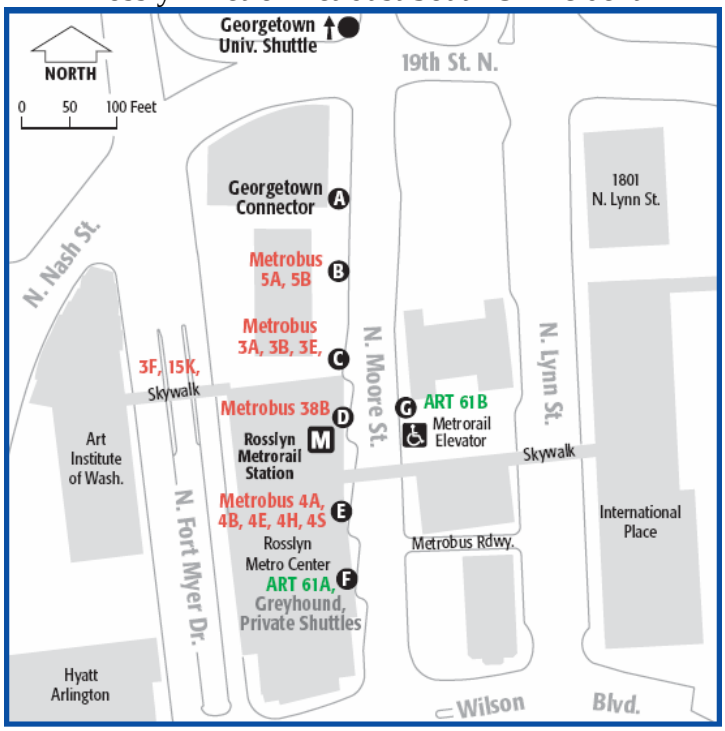
Module 2 – Rosslyn Incident

Typical Weekday Rush Hour 8:40am – Rosslyn, VA

A fully loaded gasoline tanker was involved in a collision with several other vehicles on North Lynn Street above I-66. Following the collision, the tanker went through the retaining wall and fell onto I-66 where it exploded. Fire and EMS arrived on scene and conducted fire suppression, haz-mat, and EMS functions. Police resources were also on-scene and closed North Lynn Street and I-66 in both directions. There was visible damage to the walls and ceiling of the tunnel carrying I-66 under N. Lynn Street. The structural integrity of the tunnel was uncertain.



Rosslyn Metro Area Just South Of Incident



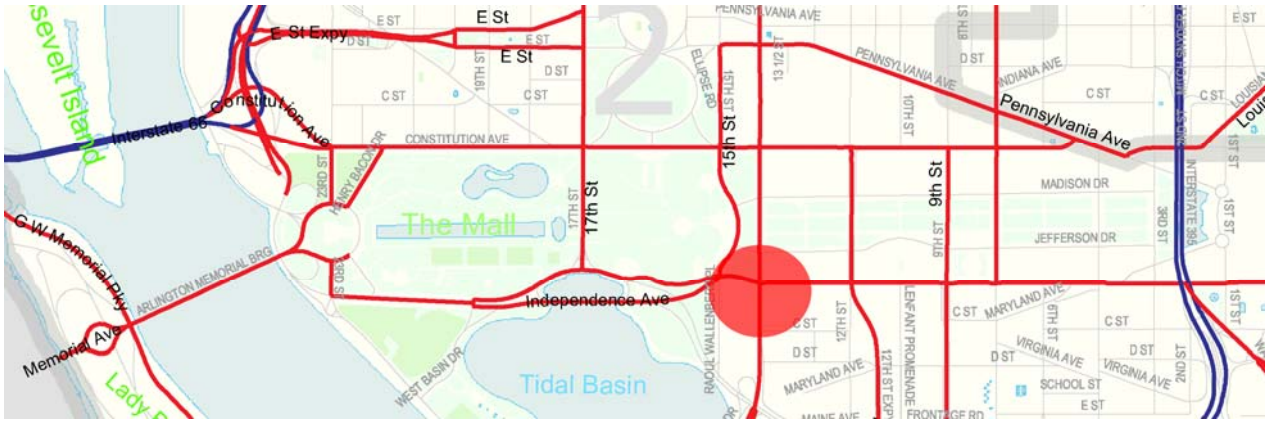
08:45am – Rosslyn, VA

Massive traffic backups and delays occurred along I-66 and Lee Highway. Traffic in Rosslyn was gridlocked due to the closure of North Lynn Street Traffic exiting from Route 50 backed up along the eastbound lane of Route 50. News radio broadcast reports of the accident and traffic dramatically increased on the George Washington Parkway and throughout the surrounding areas. The extent of damage to the roadway and the overpass structure was unclear. The Key Bridge, Theodore Roosevelt Bridge, and M Street west towards Key Bridge, the Whitehurst Freeway, and the Rosslyn Metro Station area gridlocked.

Module 3 – 14th Street Incident

08:50am – District of Columbia, Lower 14th Street SW

Passersby reported that a small unmarked panel truck was abandoned in the curb lane of southbound 14th Street SW in front of the Holocaust Memorial Museum. The driver of the vehicle was observed getting into a sedan that was following the panel truck. The sedan merged into the heavy southbound traffic and continued into Virginia. The initial officer on scene ran the vehicles tags and learned that the panel truck was reported stolen in New Jersey approximately three weeks ago.



09:00am – District of Columbia, Lower 14th SW

A local TV station received information indicating that some type of explosive device was on-board the abandoned truck. This information was relayed to the appropriate law enforcement and emergency services. Agencies arriving on-scene operated according to their established protocols.

The investigation of this incident resulted in major gridlock throughout an area bounded by 17th Street NW on the west, 12th Street on the east, K Street NW on the north, and the Potomac River on the south.

The Incident Commander (IC) ordered that northbound traffic on the 14th Street Bridge from Virginia be diverted onto the Southwest-Southeast Freeway. Evacuation of all office or workspace on the west side of the Bureau of Engraving and Printing facilities that faces the Holocaust Museum occurred. The incident was expected to be resolved within four hours.

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VI. Analysis of Critical Task Performance by Exercise Objective

This section provides a breakdown by objective of issues identified by during the RESF-1 TTX exercise. The objective numbers listed in this section reference the objective of the exercise, which were used to evaluate RESF-1's response to the exercise scenario. Issue and background information are provided. Specific recommendations for improving the NCR response capabilities will have to be developed and implemented by each transit and transportation agency affected. Recommended actions will vary significantly by agency and may include improvements in plans, policies, procedures, equipment, and training.

For convenience, the issues have been arranged by objective. Additionally, all recommendations contained in the lessons learned are summarized in Appendix C: Improvement Plan Matrix.

Objective 1 - Evaluate emergency communication processes and procedures between regional transportation operators and transit operations centers as well as transportation personnel in the field.

This objective was met. Participants were familiar with the processes and procedures for internal information reporting for their own agency, and how field information was communicated. However, they were less clear on the processes and procedures for communicating with personnel from different transit and transportation agencies.

Issue 1 Some participants may not have been aware of interagency communication processes and procedures.

Background: Participants indicated that they rely upon pre-existing and informal relationships between individuals and agencies as a means to acquire situational awareness during events. However, the participants did not reference specific formal plans or procedures for interagency communications. These formal plans and procedures are lacking for transportation and transit agencies in the NCR. These relationships should be formalized to ensure coordination during incidents.

Issue 2 Not all of the participants at the operations level were aware of how information was propagated upwards within their agency and/or across the region.

Background: Operators from transit agencies noted that when operators of rail and bus lines witness an incident, they would report the incident to their supervisors, but the operators were unaware of how that information would be relayed to other transit or transportation agencies. Operations-level participants acknowledged that they did not understand their role in gathering and reporting information. Nor did they understand how information they could provide about an incident would flow up to agency and "regional" decision-makers when strategic decisions are required.

Objective 2 - Identify common (informal) practices currently used during an emergency by transportation personnel and where gaps exist between formal and informal procedures.

The objective was met. Most participants were not familiar with formal communication channels, and relied on informal methods of obtaining information based direct on direct contact and personal relationships.

Issue 3 Some agencies rely primarily upon informal personal relationships to facilitate incident information flow between agencies.

Background: Transit agency participants acknowledged that during the initial stage of an incident they would notify other transit agencies through email, informal phone calls, or Nextel Direct Connect to peers at other agencies. There was little understanding of how, or if, information flowed between transit and transportation agencies. Some transportation agencies heavily rely on the availability of specific individuals to get to the incident scene and feed information to their TMC in assessing the incident.

Objective 3 - Increase awareness of the roles and responsibilities of transportation and transit agencies to disseminate mission critical information.

The objective was met. Participants were aware of the information they would be required to provide, and acknowledged a need to define and identify the information necessary to coordinate a regional strategic response. The TTX provided an introduction to regional communication concerns for many transit participants.

Issue 4 Some participants were unaware of criteria for escalating an incident from a local occurrence to a regionally-coordinated event.

Background: Exercise participants agreed that each of the three exercise scenarios rose to the significance of a regional event that required shared communications and a coordinated response. However, they were unaware of any criteria or protocols for classifying an event as regional. Operators noted that coordination occurred most often when all relevant transit and transportation agency representatives communicated in-person at the incident command post (ICP). Participants also discussed the need to have guidelines for posting RICCS messages so that RICCS messages are reserved for regional, and not local, transportation incidents.

Issue 5 Many participants were unaware of how their agency's operational communications contribute to the regional response operations of other RESF-1 members.

Background: Transit and transportation participants explained that their agencies almost exclusively rely upon information obtained from staff that travels to incident sites. Participants from smaller agencies noted that staff limitations and the delays caused by travel to incident sites highlight the need for better information sharing between agencies. Participants indicated that there is a need for an agency to coordinate information during regional incidents. Such coordination could assist with the lack of formal communications between agencies.

Objective 4 - Evaluate decision-making processes of transportation personnel during emergency response.

The objective was met. Participants identified the procedures and personnel responsible for decision-making within their agencies. However, participants observed key decision-makers at their agencies were not present during the exercise.

Issue 6 Some RESF-1 agencies lack an off-site coordination and decision-making mechanism.

Background: Participants described that internal agency communications and decision-making are well-established during the discussions on tactics. Transit and transportation participants only discussed examples of coordinated decision-making when representatives of other agencies were on-scene at the ICP. However, participants noted that this type of decision-making requires that staff have the ability to travel to an incident site and may cause a delay in obtaining incident information. Participants suggested that there is a need to develop a mechanism for coordinated RESF-1 decision-making away from the incident site.

Objective 5 - Identify communication tools used by regional transportation personnel during an emergency including, but not limited to email, RICCS, land mobile radios, and chat rooms.

The objective was met. Participants identified primary communication tools used by each agency. However, they did not produce a comprehensive list of all the tools available for emergency communications.

Issue 7 Some agencies do not have access to available communication systems that would provide regional situational awareness.

Background: This exercise revealed the large number of communications tools in use within the NCR (e.g., WebEOC, CapWin, Coordinated Highway Action Response Team (CHART), RICCS, and 800 MHz radios). Participants from Maryland explained that CHART is their primary information coordination tool although its capabilities are under utilized. The VDOT Smart Traffic Center is the primary means of information coordination for Virginia transportation

agencies. Participants from agencies in Virginia do not have access to CHART. Participants indicated that the high demands on the various transit and transportation systems, and the close proximity of local jurisdictions, highlights the need for increased awareness of situations affecting regional partners. Providing access to other regional partners would enhance situational awareness.

Objective 6 - Evaluate how regional communications assets such as the 800 MHz caches are requested and coordinated.

The objective was met. Participants were aware of regional resources available to assist in emergency communication. However, the decision to use and request regional communication assets would be made by operations and management personnel who were not present at the exercise.

Issue 8 A number of participants were not familiar with the regional policies and procedures for obtaining radios from the regional 800 MHz radio cache.

Background: Most participants did not know if resources from the radio cache were available to their agency or how to request such resources. None of the participants acknowledged having been involved in requesting the regional 800 MHz radios to support a response effort. Participants also suggested that a common 800 MHz radio channel or talk group be designated for all NCR transit and transportation agencies to use during regional incidents.

VII. RECOMMENDATIONS

Based on the feedback from participants and observers of the RESF-1 TTX, the following recommendations have been proposed to address the issues observed. Each recommendation provides steps and a strategy for implementation as well as assigns ownership to ensure the recommendation is addressed.

Recommendation 1: ***Formalize and coordinate emergency transportation plans for NCR transportation and transit agencies with the goal of having common operating procedures across the region.***

As observed during the exercise, formalized plans for emergency transportation response procedures and protocols are lacking across the NCR. A coordinated emergency response cannot occur until these plans are developed and understood by officials and operators at each NCR transportation and transit agency. As each plan is developed, they should fit into a regional framework that facilitates coordinated regional response.

At a minimum, agencies within the NCR should include the following requirements in their transportation emergency response plans:

- A uniform system for categorizing the severity of an incident
- Protocols for notifications as events escalate
- Formal roles and responsibilities for officials and operators
- Procedures for interagency resource sharing

The RESF-1 Committee should coordinate with the NCR RESF-5 (MWCOG Emergency Managers) Committee in order to begin the process of developing standardized plans for individual agencies and the region for coordinated emergency response incidents involving transportation implications. This coordination is critical to ensure that transportation agencies are acting in a manner that is consistent with response procedures for other emergency functions.

Recommendation 2: ***Improve communications procedures and protocols between NCR RESF-1 agencies and increase awareness about available communications technologies.***

Multiple issues were identified that were preventing efficient and effective communications by transportation and transit agencies in operations/management centers as well as operators in the field. The following three sub-recommendations are provided to help address these issues.

> **Formalization of Notification Processes:** As part of the revision and development of agency emergency response plans (see Recommendation 1), formal communications and notification procedures between transportation and transit agencies should be included. These should include criteria for what type of information needs to be disseminated, when and why it should be sent out, and what the path of notification is. The formalization of these processes, coupled with improved communications between field

operators and operational centers, will ensure accurate and timely information for regional officials responding to an incident.

Improved Data Sharing Capabilities: Once formalized processes are in place, the rapid dissemination of information between agencies can be enabled through improved data sharing capabilities. It is recommended that all agencies, at the local, regional, and state levels, stay involved in the ongoing development of the MATOC Program. This program will allow for real time data sharing between agencies and will be accessible in operations centers. Transportation emergency response officials can leverage the information sharing occurring for regular incidents and apply this data for responding to critical events. RESF-1 Committee members should coordinate with members of the MATOC Steering Committee during the development and implementation of this program. Additionally, policies and procedures associated with the use of the RICCS should be reviewed to ensure that only *emergency incident* information is being disseminated.

Improved Voice Communications Capabilities and Interoperability: Although data information sharing is becoming more and more commonplace in transportation operations centers, additional voice communication capabilities can improve emergency response. The RESF-1 Committee should coordinate with the MWCOG Police and Fire Communications Subcommittee(s) to leverage ongoing regional work in the emergency communications area. This coordination can accomplish two results. First, a dedicated talk group on the regional 700/800 MHz radio system can be identified for use by transportation officials during an emergency. This talk group should be programmed into console radios at operations centers as well as portable and mobile radios with operators in the field. ***If agencies do not have 700/800 MHz radios available to operators, procurement of a limited number of radios should be an agency priority***. Additionally, the RESF-1 Committee should discuss transportation officials' access to the regional 800 MHz radio caches maintained by Fairfax and Montgomery Counties as well as the District of Columbia. These radios can be a tool for transportation emergency responders during a major incident. Finally, transportation operations centers should ensure that they have access to the Washington Area Warning Alert System (WAWAS), a system that allows for information to be disseminated to all emergency operations centers.

Recommendation 3: ***Increased exercise and training opportunities for transportation officials and operators.***

The RESF-1 Committee should continue to use funding provided by the NCR ETOP to implement transportation and transit related training and exercises addressing emergency response and coordination. These opportunities include:

- Conducting additional TTXs for transportation and transit officials
- Involving transportation as a component in regional full-scale exercises involving multiple emergency response functions
- Providing training opportunities regarding newly developed plans and produces

- Providing training opportunities regarding existing and new communications technologies including CapWIN and WebEOC
- Providing training opportunities on emergency response procedures such as the National Incident Management System (NIMS)

The RESF-1 Coordination with ETOP will continue to be facilitated by a RESF-1/ETOP Liaison.

Recommendation 4: ***Creation of a transportation/transit operators subcommittee under NCR RESF-1.***

This exercise was one of the few opportunities for regional transportation and transit operators to meet face-to-face with their counterparts from other agencies. The creation of a subcommittee comprised of operators under the RESF-1 Committee will facilitate these interactions at a regular time period (quarterly meetings) and allow operators to coordinate on issues such as:

- Increasing awareness of tools and capabilities available across the region
- Understanding the different roles and responsibilities of operators at different agencies
- Providing a forum for formal and informal sharing of lessons learned and best practices
- Improving communications between operations centers

This subcommittee will be critical in providing subject matter expertise (SME) to the development of formal plans and procedures for agencies and across the region. Additionally, a liaison from the subcommittee should regularly attend RESF-1 Committee meetings and provide updates to both bodies. This will give RESF-1 members a better idea of the current state of operations, as well as operational practitioners a better understanding of strategic planning processes for emergency transportation response. Also, the operations subcommittee should coordinate with the MATOC Program as end users of the information being shared by that initiative.

Recommendation 5: ***"Quick Hits" for the NCR RESF-1 Committee.***

The following were identified during the exercise and hotwash as low effort/high impact actions that can be undertaken by the NCR RESF-1 Committee to improve regional emergency transportation response.

- Define organizational relationships between NCR RESF-1 agencies
- Reach out to Amtrak and CSX to participate in the RESF-1 Committee
- Develop a standard contact sheet with an emphasis on roles and responsibilities, not names
- Improved communications between WMATA and regional transit providers

An Improvement Plan Matrix can be found in Appendix D.

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VIII. PARTICIPANT CRITIQUES OF EXERCISE

Participants in the RESF-1 TTX were asked to identify recommendations and actions steps to improve RESF-1 communication and coordination based on the lessons learned during the tabletop exercise.

Part I – Recommendations and Action Steps

1. **Based on the exercise today and the tasks identified, list the top three issues and/or areas that need improvement.**
   - ♦ Communication between agencies needs to be improved. (10 responses)
   - ♦ Agencies should identify formal roles and areas of responsibility for employees. (4 responses)
   - ♦ Agencies need to formalize notification processes. (3 responses)
   - ♦ Agencies need to consider regional effects on transportation when responding to incidents. (3 responses)
   - ♦ Agencies should seek to provide faster notification of incidents. (3 responses)
   - ♦ Increased communication and cooperation between traffic and transit agencies. (3 responses)
   - ♦ RESF-1 should develop a uniform system for categorizing the severity of an incident. (2 responses)
   - ♦ Agencies should formulate communication procedures for incidents occurring outside of normal business hours. (1 response)
   - ♦ Ensure all jurisdictions have access to 800 MHz radios. (1 response)
   - ♦ Include emergency responders in transportation planning. (1 response)
   - ♦ RICCS should be used for emergency regional information only. (1 response)
   - ♦ Ensure that all agencies have the same access to transportation communication systems. (1 response)

2. **Identify the action steps that should be taken to address the issues identified above. For each action step, indicate if it is a high, medium, or low priority.**
   - ♦ Distribute contact information and role descriptions for key personnel at each agency. (5 responses)
   - ♦ More TTXs to identify gaps in communications. (3 responses)
   - ♦ Designate a transportation specific radio frequency. (3 responses)

- Develop a unified regional communication system for use by all RESF-1 agencies. (2 responses)
- Develop formal procedures for interagency resource sharing. (2 responses)
- Define the organizational relationships between RESF-1 agencies. (2 responses)
- Operational managers should be provided with better training. (1 responses)
- Improve, develop, and document procedures for contacting key decision-makers during non-business hours. (1 responses)
- Designate or create a central communication coordinating agency. (1 responses)

3. Describe the action steps that should be taken in your area of responsibility. Who should be assigned responsibility for each action item?

- Update agency contact sheets. (3 response)
- Information learned in this tabletop should be passed on to operational managers. (2 responses)
- Training staff on the NIMS and Incident Command System (ICS). (2 response)
- Review contacts with Amtrak and CSX. (1 response)
- Contact RESF-1/MWCOG about current contact numbers and communication protocols for all agencies. (1 response)
- Training of staff on roles and responsibilities during an emergency incident. (1 response)

4. List the equipment, training or plans/procedures that should be reviewed, revised, or developed. Indicate the priority level for each.

- More TTXs to promote interagency cooperation. (3 response)
- Each agency should be aware of their jurisdictions emergency traffic control plan. (1 response)
- More radio towers for better area coverage. (1 response)
- Develop a diagram showing transportation agency relationships. (1 response)

IX. CONCLUSIONS

This exercise provided participants an opportunity to identify formal and informal emergency coordination and communications between and among NCR transportation authorities at the operator and operation center levels. It was particularly successful in identifying opportunities for participants to build relationships needed for more efficient strategic and operational-level communications between and among transit and transportation agencies.

Key strengths identified during this event include the following:

- Individual agencies have well-defined transit and transportation system monitoring and response procedures;
- Efforts are already underway to coordinate some of the multiple electronic systems allowing information to flow from an incident scene into some of the various transit and transportation operation centers.

Event participants identified lessons learned to improve the NCR's ability to respond to events of this nature. Major recommendations include:

- Providing more opportunities for operators to meet and interact regionally to increase awareness and provide education about existing regional tools and technologies as well as provide training on new systems;
- Ensuring awareness of collaboration and communications strategies and regional best practices occur at both the planning and the operational-levels of transit and transportation agencies;
- Improving information flow between and among transit and transportation agencies at the operations and the strategic-planning levels; and
- Increasing awareness of strategic decision-making processes within and among transit and transportation agencies.

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APPENDIX A: ACRONYMS

AAR	After Action Report
ART	Arlington Transit
CapWIN	Capital Wireless Integrated Network
CHART	Coordinated Highways Action Response Team
DCEMA	District of Columbia Emergency Management Agency
DDOT	District Department of Transportation
EAS	Emergency Alert System
EOC	Emergency Operations Center
ETOP	Exercise Training and Operations Panel
FOUO	For Official Use Only
HSEEP	Homeland Security Exercise Evaluation Program
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
MARC	Maryland Rail Commuter
MATOC	Metropolitan Area Transportation Operations Coordination
MBHSR	Metro Boston Homeland Security Region
MWCOG	Metropolitan Washington Council of Government
NCR	National Capital Region
NIMS	National Incident Management System
POC	Point of Contact
PRTC	Potomac and Rappahannock Transportation Commission
RECP	Regional Emergency Coordination Plan
REETC	Regional Emergency Evacuation Transportation Coordination
RESF-1	Regional Emergency Support Function 1 - Transportation
RICCS	Regional Incident Communication and Coordination System
SHA	Maryland State Highway Administration
SOP	Standard Operating Procedure
SME	Subject Matter Expert
TMC	Traffic Management Center
TSA	Transportation Security Administration
TTX	Tabletop Exercise
VDEM	Virginia Department of Emergency Management

VDOT	Virginia Department of Transportation
WAWAS	Washington Area Warning Alert System
WMATA	Washington Metropolitan Area Transit Authority

APPENDIX B: DEFINITIONS

Capital Wireless Integrated Network (CapWIN). CapWIN is a state-of-art wireless integrated mobile data communications network being implemented to support federal, state, and local law enforcement, fire and emergency medical services (EMS), transportation, and other public safety agencies primarily in the Washington, DC Metropolitan area.

Coordinated Highways Action Response Team (CHART). A joint effort of the Maryland Department of Transportation, Maryland Transportation Authority and the Maryland State Police, CHART software provides tools for traffic monitoring, traveler information, incident management, and traffic management.

Emergency Alert System (EAS). A system established by the FCC in November of 1994 to replace the Emergency Broadcast System (EBS) as a tool the President and others might use to warn the public about emergency situations.

Emergency Operations Center (EOC). The physical location at which the coordination of information and resources to support domestic incident management activities normally takes place. An EOC may be a temporary facility or may be located in a more central or permanently established facility, perhaps at a higher level of organization within a jurisdiction. EOCs may be organized by major functional disciplines (e.g., fire, law enforcement, and medical services), by jurisdiction (e.g., Federal, State, regional, county, city, tribal), or by some combination thereof.

Geographic Information System (GIS). A computer system capable of assembling, storing, manipulating, and displaying geographically referenced information, i.e. data identified according to their locations.

Metropolitan Washington Council of Governments (MWCOG). A regional organization of Metropolitan Washington area local governments composed of 17 local governments surrounding our nation's capital, plus area members of the Maryland and Virginia legislatures, the U.S. Senate, and the U.S. House of Representatives

Regional Incident Communication and Coordination System (RICCS). A software application used to send emergency alerts, notifications and updates to your cell phone, pager, BlackBerry, PDA and/or e-mail account.

Regional Integrated Traveler Information System (RITIS). A system that integrates transit and transportation management system data in Virginia, Maryland, and the District of Columbia.

TrafficLand. A website where persons can see photos from traffic cameras at key interstates in the region and other locations.

Variable Message Signs (VMS). Mobile or fixed boards that are programmed to provide messages to pedestrians or drivers along travel or event routes.

Washington Area Warning Alert System (WAWAS). A dedicated telephone circuit connecting county emergency operations centers (EOCs) and emergency communications centers (ECCs). This is the local region system includes telephones at most federal agencies, local 911 centers, and EOCs.

WebEOC. A customizable software package designed to bring real-time emergency information management to any size Emergency Operations Center.

APPENDIX C: EXERCISE DESIGN AND CONDUCT

Participants in the RESF-1 TTX were asked to evaluate a series of assessment factors to determine their satisfaction with the exercise design and conduct. For each factor, the participants answered a series of questions on a scale of 1 to 5, with 1 indicating strong disagreement with the statement and 5 indicating strong agreement with the statement. A total of 16 critique forms were received. The following table summarizes their responses (data below based on 14 responses, does not include two non-responses for this section).

1. What is your assessment of the exercise design and conduct?

		Rating of Satisfaction with Exercise (Percent of Respondents)					
		Strongly Disagree **1**	**2**	**3**	**4**	*Strongly Agree* **5**	***Average Rating***
	Assessment Factor						
a.	The exercise was well structured and organized.		14%		57%	29%	**4.0**
b.	The exercise scenario was plausible and realistic.			14%	64%	21%	**4.1**
c.	The documentation used during the exercise was valuable		7%	29%	36%	29%	**3.9**
d.	Participation in the exercise was appropriate for someone in my position.			29%	43%	29%	**4.0**
e.	The participants included the right people in terms of level and mix of disciplines.		14%	14%	36%	36%	**3.9**

2. What changes would you make to improve this exercise?

Participants were asked to provide any recommendations on how this exercise or future exercises could be improved or enhanced.

- Add a scenario occurring during early morning hours before rush hour.
- Invite additional transportation agencies.
- Provide larger maps of the area in the scenario.
- Establish standard operating procedures for regional incidents.
- Add mock demonstrations from different agencies.
- Include Montgomery County, City of Alexandria, and Fairfax County directly in the scenario incidents.
- Limit the number of commentators. Many comments were repetitive.

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APPENDIX D: IMPROVEMENT PLAN MATRIX

Issue Number	Recommendations	Responsible Party(ies)
Issue 1. Some participants may not have been aware of interagency communication processes and procedures.	♦ Recommendation 1: Formalize and coordinate emergency transportation plans for NCR transportation and transit agencies with the goal of having common operating procedures across the region ♦ Recommendation 2: Improve communications procedures and protocols between NCR RESF-1 agencies and increase awareness about available communications technologies ♦ Recommendation 3: Increased Exercise and Training Opportunities for Transportation Officials and Operators	NCR RESF-1 in coordination with RESF-5 (Emergency Managers)
Issue 2. Not all of the participants at the operations level were aware of how information was propagated upwards within their agency and/or across the region.	♦ Recommendation 1: Formalize and coordinate emergency transportation plans for NCR transportation and transit agencies with the goal of having common operating procedures across the region ♦ Recommendation 2: Improve communications procedures and protocols between NCR RESF-1 agencies and increase awareness about available communications technologies ♦ Recommendation 3: Increased Exercise and Training Opportunities for Transportation Officials and Operators	NCR RESF-1
Issue 3. Some agencies rely primarily upon informal personal relationships to facilitate incident information flow between agencies.	♦ Recommendation 2: Improve communications procedures and protocols between NCR RESF-1 agencies and increase awareness about available communications technologies ♦ Recommendation 4: Creation of a Transportation/Transit Operators Subcommittee under NCR RESF-1	NCR RESF-1 in coordination with the newly formed Operators Subcommittee

Issue 4. Some participants were unaware of criteria for escalating an incident from a local occurrence to a regionally-coordinated event.	♦ Recommendation 1: Formalize and coordinate emergency transportation plans for NCR transportation and transit agencies with the goal of having common operating procedures across the region ♦ Recommendation 3: Increased Exercise and Training Opportunities for Transportation Officials and Operators	RESF-1
Issue 5. Many participants were unaware of how their agency's operational communications contribute to the regional response operations of other RESF-1 members.	♦ Recommendation 1: Formalize and coordinate emergency transportation plans for NCR transportation and transit agencies with the goal of having common operating procedures across the region	RESF-1
Issue 6. Some RESF-1 agencies lack an off-site coordination and decision-making mechanism.	♦ Recommendation 1: Formalize and coordinate emergency transportation plans for NCR transportation and transit agencies with the goal of having common operating procedures across the region	RESF-1
Issue 7. Some agencies do not have access to available communication systems that would provide regional situational awareness.	♦ Recommendation 2: Improve communications procedures and protocols between NCR RESF-1 agencies and increase awareness about available communications technologies	NCR RESF-1 in coordination with the COG Police and Fire Communications Subcommittee(2)
Issue 8. A number of participants were not familiar with the regional policies and procedures for obtaining radios from the regional 800 MHz radio cache.	♦ Recommendation 2: Improve communications procedures and protocols between NCR RESF-1 agencies and increase awareness about available communications technologies ♦ Recommendation 3: Increased Exercise and Training Opportunities for Transportation Officials and Operators	NCR RESF-1 in coordination with the COG Police and Fire Communications Subcommittee(2)