

**Washington Metropolitan Area Transit Authority  
Jurisdictional Disaster Drill  
“Deep Rescue”  
September 17, 2006  
FINAL REPORT**



**Incident Command Unit positioned at Foggy Bottom**

## Table of Contents

Introduction .....	page 3
Overview .....	page 3
Purpose .....	page 4
Chronology .....	page 4
Findings .....	pages 5 - 6
Objectives / Recommendations.....	pages 7 - 9
Comment Card Responses .....	page 10
OPAS Training (after action response) .....	page 11
Operation “Deep Rescue” photos .....	page 12 - 15
NCR Radio Cache (after action report) .....	page 16 - 20

## **INTRODUCTION:**

WMATA is committed to providing the Washington Metropolitan Area a safe, reliable and prepared transit system. This Jurisdictional Disaster Drill was designed to test the National Capitals Regions Radio cache team in the event all communication was lost. Test emergency preparedness and response procedures for the first responders and WMATA for a significant incident. Test the use of a rescue train and the transfer of passengers from the Incident Train to the Rescue Train and bring them back to Foggy Bottom for triage and transport to GW Hospital. This full scale, multi-jurisdictional exercise utilized two six car trains, 149 Train passengers and 100 police and fire personnel. This exercise was code named Operation "Deep Rescue."

## **OVERVIEW**

The Washington Metropolitan Area Transit Authority conducted a multi-jurisdictional Disaster Drill on Sunday September 17, 2006 from 8:00 a.m. until 12:00 noon between Foggy Bottom and Rosslyn Stations. The drill simulated a terrorist explosion onboard at Metro train disabling all six cars, in addition, the explosion took down the tunnel's radio communications. The Train was stranded at mid-river halfway between Rosslyn and Foggy Bottom Stations. The blast occurred on the last railcar and resulted in 2 dead 17 injured of the 149 volunteer riders. The train operator could only communicate by use of the ETS boxes on the Right-of-Way or by cell phone.

Operation "Deep Rescue" was designed to prepare first responders (Police and Fire) for a terrorist explosion which created four significant problems:

- IED explosion
- Loss of Communication
- Transfer of Patrons to the Rescue Train.
- Mass casualties of Patrons

This complicated scenario tested the first responders ability set up an incident command structure, access the hazards, effectively communicate between jurisdiction and entities and resolve the incident.

Operation "Deep Rescue" had 100 responders with participants from WMATA's Operations Control Central, Rail Transportation, Metro Transit Police Department, Arlington County Fire Department, District of Columbia Fire Department, Fairfax Fire Department, Prince George's County Fire and Emergency Services, Montgomery County Fire and Rescue Department, Federal Protective Services (DHS), Metropolitan Washington Airports Authority Fire Department, National Capital Regions radio cache staffed by units MCFD, Fairfax Fire Department and the District of Columbia. Approximately, 250 active players; 100 firefighters and police, 149 volunteers riders, 20 Rail Transportation, OCC and safety personnel participated. There were 17 observers and evaluators as well as media personnel from TV, radio and newspapers.

## **PURPOSE:**

The purpose of this exercise was to evaluate and test the response and readiness of Police, Fire and Rescue personnel and the Incident Management System as well as WMATA's personnel. This exercise provided an opportunity for firefighters to practice their skills as it related to WMATA's trains, the confines of a tunnel and its limited lighting, third rail power and unique response equipment such as evacuation carts and third rail warning devices. This drill was designed to force OCC to utilize a rescue train to rescue and transport patrons from the incident train. The drill also allowed for the National Capital Regions (NCR) radio cache to be utilized and those responsible to practice working with different jurisdictions and their radio frequencies to allow them to communicate with one another.

## **Chronology:**

7:00 - NCR Radio cache starts set-up of alternative radio system  
8:00 - Communication down between Foggy Bottom and Rosslyn.  
8:15 - Move train into position  
8:16 - Third rail power down  
8:20 - Bomb Blast - start of exercise.  
8:25 - Train Operator Reports - Grey/Grey from trailing car also reports Customers with injuries.  
8:26 - OCC instructs Train Operator to put on hand brakes.  
OCC put exhaust fans on.  
8:35 - Arlington units enter Rosslyn.  
8:42 - Single track established.  
8:47 - DCFD units enter at Foggy Bottom  
8:49 - Command Line established.  
9:05 - Unable to use command line because of noise, MOC notified.  
9:08 - RTRA Supervisor arrives Foggy Bottom.  
9:10 - DCFD units from VC-8 reach incident train.  
9:11 - DCFD recalled from Foggy Bottom Tunnel.  
9:13 - Established new command line.  
9:17 - Unable to use command line because of noise.  
9:29 - Rosslyn units reach incident.  
9:42 - Virginia units from FC-5 reach incident train.  
9:43 - Assessment by FD 17 critical, 3 fatalities.  
9:54 - All personnel accounted for on incident train.  
10:18 - Power up on track 2  
10:20 - OCC dispatched Rescue train from C&A connector.  
10:27 - Rescue Train given permissive block to incident Train.  
10:49 - Rescue Train reaches Incident Train.  
10:51 - Power de-energized on Track 2.  
11:11 - Transfer of passengers complete to rescue train.  
11:27 - Power restored to 3<sup>rd</sup> rail.  
11:34 - Train Rolled back and coupled (twice) to incident train  
11:42 - Train uncoupled and rolling toward Foggy Bottom and Rosslyn.

11:51 - Patrons off loaded at Foggy Bottom Station.  
12:00 - Drill Completed.  
12:30 - Debrief Started.  
13:00 - Debrief Completed.

## **Findings:**

- The interoperability from the NCR radio cache did not work well with WMATA 490 Radio System - Basically, WMATA was without radios for the whole exercise below ground. Problems also were encountered with the Virginia radios as well. (Details and solutions explained, NCR's Radio Cache Drill "Deep Rescue" After Action Report pages 16-20,)
- The FD units entering from Foggy Bottom went the wrong way. Units stopped and called the Foggy Bottom Kiosk command which directed them to return to the platform.
- Command Conference Line did not work. OCC attempted to establish a new command conference line and issued a new number but it degraded quickly and was not used.
- The Train Operators for both the Incident Train and the Rescue train failed to give timely or adequate information to the train patrons. This led to a high level of frustration.
- The Train Operator on the incident train instructed passengers to move forward over the intercom, passengers expressed confusion which way was forward.
- OCC was instructed to take down power by the FD incident commander for the rescue train to transfer passengers. This resulted in emergency lighting on the trains, no HVAC system for the trains and an additional hazard for the patrons.
- The EEK kits were never utilized or accessed for possible use, no train passengers were ever asked to assist.
- The Rescue Train rolled back and re-coupled twice. This delayed the rescue train from leaving the incident scene with the passengers.
- The Rail Transportation Supervisor was not with the Incident Commanders in the Incident Command vehicle until instructed by SSRM. This delayed information to and from OCC to the train operator.
- DCFD sent a representative to OCC - This helped in relaying FD information to and from OCC.
- Single Tracking operations worked well but created artificial barriers for the incident. This slowed the incident response time down.

- The train to train transfer of passengers was done very quickly and efficiently.
- The press and the observers on the incident train created a unrealistic environment.
- Single tracking revenue operation around the incident worked well but created additional hazards and slowed the Fire Department response and rescue.
- The cell phones never went down and provided emergency communication and was relied on by SSRM to confirm and verify personnel on the tracks and in the trains.
- Fire Department personnel instructed personnel to exit the train via the side door and walk to the rescue train. This was a dangerous and unnecessary movement.
- The handling of the sight impaired victims was well done but they complained that very or little information was given after they were relocated to the rescue train.
- WMATA MTPD On-scene Commander was not easily identified - There was no identifying On-Scene Vest or command vehicle.
- WMATA RTRA On-scene Supervisor was not easily identified - There was no identifying Vest.
- Debrief was done immediately following the exercise.
- Hot Wash Meeting was held on October 27, 2006 between DCFD, ACFD, PGFD NCR and WMATA to provide an in-depth analysis of "Deep Rescue".
- Firefighters leading the patrons through the rescue train had difficulty trying to get back because they were walking through oncoming patrons.
- Signage "Danger Live Tracks" was ordered but was not available for the exercise. Snow fencing was installed at Foggy Bottom to separate the revenue passengers from the drill and was effective in keeping the station open.
- The Fire Departments were concerned that the media was not aware of the predetermined objectives of the exercise.
- The Fire Department was concerned that Media relation personnel from WMATA and FD PIO officers did not discuss the event.
- The comment cards and pens issued to the train riders worked well. We received 60 cards with comments. The most common complaints were the lack of information given and more reassurance was needed from the Train Operator. Comments regarding the Fire department, when they arrived they did not administer first aid and had no means or supplies to work with but they did radio

back the status of the injured. Many of the injured were initially checked on but were left alone and not rechecked. Firefighter's seen standing around instead of attending to the wounded. Many cards commented that the train operator left the door open and the keys in the train consol.

## **OBJECTIVES:**

- Notification:

Demonstrate proper and accurate notification by OCC to Arlington Fire Department and the District of Columbia.

Observations:

The notification process did occur in a quick and very timely manner.

**Recommendations** - None needed.

- Incident Command Structure

Establish a command post, perimeter controls and an incident command structure to involve Police, Fire, EMS, and WMATA

The Fire Department's command post was established very early at the Foggy Bottom Station, above ground. Forward division post were established in the Kiosk at Foggy Bottom and top side at the Rosslyn Station. The Fire Department sent an officer to OCC as a liaison.

The police quickly secured the perimeter and conducted a sweep with EOD canines.

The Incident command vehicle worked well but WMATA's Transportation Supervisor was intimidated by the vehicle and did not enter until instructed by a drill coordinator. The MTPD liaison left the command vehicle and did not appoint a replacement but did return to the command vehicle.

**Recommendations** - Identifying vest for MTPD On-scene Commander and RTRA's On-scene commander. WMATA's On-scene Commanders need to report to the Incident Command post and assign replacements when leaving, even for a brief period of time.

- Communication:

Evaluate the ability of police and fire to communicate with each other to resolve this incident. Different radio frequencies complicate this issue and will be evaluated.

The National Capital Region (NCR) radio communications teams from Fairfax, District of Columbia and Montgomery County Fire Departments dropped communication lines in the tunnel but no radio communications was received at the Foggy Bottom Kiosk forward division post which delayed deployment of rescue teams.

The WMATA radios did not transfer to the NCR radio cache system which further delayed the incident.

**Recommendations** - SSRM, MTPD, PGFD, MCFD, DCFD, and the NCR Radio Cache personnel are conducting a exercise on November 20, 2006 between Prince Georges' Plaza and College Park "Operation RF Connection" which will work on problems exposed during "Operation Deep Rescue".

The Command Conference Line did not work - This has been an ongoing problem for the past ten years and needs to be abandoned. The Command Conference Line is a vital link between all players and must work. A quick reliable remedy would be a Verizon Conference line number outside of WMATA and issued by OCC.

· Incident Assessment and Cooperation:

Evaluate the ability of Police, Fire and OCC to quickly assess the incident and identify the hazards and coordinate response activities and priorities.

The overall incident took way too long, the accountability of units from Virginia, Maryland and DC delayed power restoration to bring in the incident train.

**Recommendations** - WMATA still does not have a accountability system and SSRM was confirming WMATA personnel clear of the tracks by cell phones. Entry point need to be monitored and ID tags need to be used by WMATA personnel. National Incident Management System (NIMS) requires it.

· Resource Management of Injured Victims:

Demonstrate the ability to move victims from train to train went very quickly. The uninjured passenger were never asked to help or render assistance. A real incident involving an asthmatic passenger onboard the incident train was handled very well and did not impact the exercise.

The sight impaired passengers were moved safely and quickly to a secured area of the rescue train.

The secure triage area at the Foggy Bottom Platform was well done and set-up well in advance of the injured passengers arriving at the Foggy Bottom platform. However, it was only utilized for a short period of time due to time constraints.

**Recommendations** - The triage of passengers on the train was not part of the scenario, however many of the injured were upset that fire personnel were not providing first aid. An incident of this size will require initial units to bring triage supplies to provide at least minimal care. Units from Virginia did bring a medic unit and some triage was provided. The triage area at Foggy Bottom was set up well.

· Proper use of Equipment:

Demonstrate the ability to properly test the third rail and install a WSAD, and the proper deployment of an ETEC cart.

The request to bring down 3<sup>rd</sup> rail power was made, the 3<sup>rd</sup> rail was tested and WSAD properly installed on one side of the river. However, it was observed a unit was installing the Warning Strobe Alarm Device without checking for third rail voltage. Safety personnel stopped them and they did not stick to confirm the

power status. The ETEC cart was used properly.

**Recommendations** - Continued training at The Emergency Response Training Center at CTF for all firefighters to reinforce proper use and sequence of operation. Redistribute the WSAD and Hot Stick DVD's to the jurisdictions.

Safety and Security:

Evaluate the ability of on-scene personnel to work safely.

FD Personnel initially walked the wrong way, Units stopped and called the forward kiosk division post which directed them to return to the platform. One person had a asthma attack and was treated on scene (well done). An unsafe condition existed when passengers were directed to exit the incident railcar and walk on the safety walk, this was corrected quickly by SSRM/MTPD. One group of Fire Department personnel had to be instructed to hot stick the 3<sup>rd</sup> rail.

The Rapid Intervention Teams (RIT) left the fan shaft and entered the trackbed without SSRM escort and delayed power re-energization because of accountability. The scene security by MTPD was set up quickly with a quick search but entry points were not monitored, or it was not evident. Accountability of WMATA personnel was done by cell phone and not through OCC and this also delayed re-energization of 3<sup>rd</sup> rail power.

OCC was instructed to take down power by the FD incident commander once the rescue train reached the incident train to safely transfer passengers. This resulted in additional hazards for the transfer of passengers because the lighting is reduced to emergency lighting, the HVAC system shuts down and the train starts to heat up, in addition, there is the possibility that power may not be restored and we could have two stranded trains. Once power was restored the train operator rolled back twice re-coupling to the incident train.

**Recommendations** - WMATA needs to implement a ID accountability system, one similar to the COP and OPS proposal for WMATA ID tags would work and could be resurrected and implemented in a couple of months. Accountability systems are required by NIMS. The FD incident commander is ultimately responsible for all personnel under NIMS in this exercise and WMATA needs to help them with accountability of all non-FD personnel.

OCC and Rail's On-scene commander need to do a better job of explaining the consequences of impending action by the FD Incident commander. In other words, if OCC is requested to take down power and they feel it may not be the best course of action, explain why to the FD Incident Commander, communication needs to be a two way street. Likewise, the Fire Department's Incident Commander needs to be receptive to WMATA's concerns because we are the resident experts for our system.

The Emergency Evacuation Kits (EEK) need to be readily accessible, presently a 5/16 inch allen wrench is needed to unlock. Recommend removing the locks.

## Comment Card Responses From the Train Passengers

Some comment cards stated No riders were asked for their help but other cards stated that they were asked if they had first aid experience.

The most common complaints were the lack of information given and more reassurance was needed from the Train Operator. Comments regarding the Fire Department, when they arrived they did not administer first aid and had no means or supplies to work with but they did radio back the status of the injured.

Many of the injured were initially checked, but were left alone and not check again. Firemen seen standing around instead of attending to the wounded.

Train operator left the door open and the keys in the train consol.

Passengers were not told to look for suspicious packages.

No Indications that Firemen were looking for secondary devices.

Exercise went too long, no bathrooms.

Passengers were confused which way to go. When instructed to move to the back of the train, which way is back?

Conductor/Train Operator needs to talk slower, more frequent messages.

The tunnel lights need to be frequently cleaned in case of emergencies so everyone involved can see better.

Railcars get very hot, very quickly, need fresh air.

No information about the incident, only told people were injured.

More detailed briefing for the passengers were needed.

The triage area needed to be free of observers and the press, too many people.

Observers need to be better identified.

Stanchion poles created barriers for the skids and stokes baskets.

## **OPAS TRAINING:** (after-action response)

Chuck Novick (SSRM) held a meeting with Cindy Ganaway (OPAS) on September 20, 2006 to discuss what lessons were learned from the "Deep Rescue" exercise, the following notes were distributed to the OPAS trainers by Cindy Ganaway (OPAS).

### **Lessons Learned from Operation Deep Rescue September 2006**

These are items that Chuck Novick observed that we can help with in TRNG.

- Operators need to ask for help from customers - who are on the train, are there any METRO employee's? Are there any medical personnel on the train? Fire, police, first responders all have experience in emergencies, Customers can be a valuable resource. Train Operator can use them to provide information to the other passengers, calm passengers, hand out light sticks from the Emergency Evacuation Kits (EEK), - Use the train passengers they can and will step up to help... don't go it alone.
- Customers don't know where the front of the train is - ALWAYS let people know the orientation of the train.....
- Let customers know what's happening REGULARLY
- Operator on the rescue train did not use the Snow Brake and the train re-coupled (twice) - know the console.
- Make Emergency Announcements - stay calm, remain in charge, be reassuring but do not mislead them, if you do not know, say so. Use the passengers to pass along information that you have, your going to be busy enough as it is.
- If you see something going wrong - SPEAK UP and let the other officials know WHY you might disagree with them. The FD doesn't have all the answers if they are doing something unsafe say so, this is your ship and nobody knows it better than you.
- Operator didn't get Emergency Evacuation Kit (EEK) from the railcars (the bag in the B car has a Bull Horn) - use these items Light sticks, vests, flashlights... do not wait until it is too late, or the train goes dark, get them out from each car and pass the items out...Trying to find the EEK bags in the dark with panicking passengers is much more difficult.

## Operation "Deep Rescue"



Participating Agencies DHS



Support units from DCFD.



Fire Personnel boarding the rescue train.



Additional units boarding the rescue train.

## Operation "Deep Rescue"



First Responders arrive and provide first aid.



Train Operator of the incident train.

Critically injured patron.



One of 14 critically injured patrons. A



splint was made by another patron.

## Operation "Deep Rescue"

Patrons assisted with the evacuation.



More patrons assisting with the evacuation.



Injured moved by skid to the rescue train.



Realistic wounds for critically injured.



Operation "Deep Rescue"  
Two sight impaired riders participated.



is their guide dog)

(shown above



The Incident train IED blast area.



## NCR Radio Cache Drill Operation Deep Rescue September 17<sup>th</sup>, 2006

### Communication:

This exercise provided the opportunity for firefighters to practice their skills as they relate to WMATA's trains, persons with disabilities, radio system failures, and the National Capital Regions (NCR) Radio Cache from Virginia, Maryland, and the District of Columbia.

This drill demonstrated the many horrors that face the first responders on a global scale. From recent terror attacks in Madrid Spain and London England to power black outs in New York City, this drill was as authentic as you can create. As in any disaster drill or real time event communications has and will be a show stopper. Far too often our first responders become comfortable with the every day reliable communications that are provided in a below grade subway system. Personnel not familiar with back up ways to communicate during a power outage created a significant delay in the rescue operations. It was realized early during this event that many first responders were not familiar w/ their equipment and use of their radios.

The scenario was deliberately designed to remove the communications that would normally be present in the tunnel operations and cause the first responders to come up with a back up plan. These included Fire/EMS, Law Enforcement and the WMATA personnel. A solution would be in place for the first responders by the National Capitol Region Public Safety Radio cache facilitators. This was designed to be pre deployed and tested before the drill began. The plan was to allow the first responders to access the tunnel area, recognize the failure of the everyday use communications infrastructure to have failed and then see their response. A pre determined time line of 15 minutes was agreed on before the drill started in which the first responders would then have reliable communications from the NCR Facilitators up and running for them.

The importance of this scenario was to share the lessons learned from London and other disasters with our first responders and WMATA personnel. The two terrorist bombings in Spain and England showed us that if the similar event was to occur here in the US, we can expect a compromised communications infrastructure that will be site specific or larger in scale. A couple of variables are that the power for these devices are loss along the tunnel or that the antenna cabling "leaky cable" that runs along the tunnel is vulnerable to low heat levels and will fail early. Knowing this intel from these events the NCR Facilitators requested this to be a part of the Deep Rescue scenario.

## NCR Radio Cache Drill Operation Deep Rescue September 17<sup>th</sup>, 2006

### **Lessons Learned:**

#### **Law Enforcement:**

The Law enforcement discipline that was a part of this scenario was the WMATA Metro Police agency. Their operations are currently on two different frequencies. 490 mhz and a VHF 150mhz systems. This presented a complicated solution to create. (See attachment) For all of the scenarios mentioned from this point, the need for an enhancement or rebuilding of communications will require a simplex frequency (direct talk) radio to be placed in the tunnel area. This is demonstrated in the attachment diagram. The solution was designed like this. The facilitators would use one of the NCR pre programmed portables on the Metro Police 490 mhz simplex frequency in the tunnel. Then attach a cable reel that would extend upwards to a gateway device which would then be attached to another NCR pre programmed 490mhz trunking radio on the "Talk Group" selected by the Police Incident Commander. This is where the problems started for the police solutions. When the MOU was agreed on by the Metro Police and the NCR radio facilitators more than two years ago, the radio information inside the NCR portables had changed since then. Therefore, we could not use the NCR pre programmed radios to support this drill. It was then that we asked to borrow two of their portables to provide reliable communications that we were hoping for. We were able to accomplish this w/out delay and the solution was in place. However, more issues would occur. As it turns out there are many different radio configurations in these WMATA metro police radios. Not all are the same. Some are encrypted; some seem to have different frequencies or different digital access codes in them. This creates an internal interoperability crisis that was not able to be remedied on site for this drill. An attempt was made to use the older VHF system late in the drill and this worked but was not as reliable as the 490 mhz trunking solutions would have been. Following this drill efforts have been underway with the Metro Police to clean up the different types of radio configurations. Montgomery County Government has also offered to co- share their 490mhz frequencies for them. This would allow more options during a total infrastructure failure should one occur. We are hoping to try this again in a couple of months after the changes are made so we can test this scenario or one like it.

#### **WMATA Personnel:**

(See attachment) The solutions for their ops were successful as far as we have been told. Providing the VHF simplex in the tunnel area and then bringing it up for the operational channel was completed. These channels were used extensively during this drill. We have not heard of any strong complaints from the operations following the solutions made by the NCR folks for the WMATA personnel.

## NCR Radio Cache Drill Operation Deep Rescue September 17<sup>th</sup>, 2006

### **Fire and Rescue:**

(See attachment) This scenario resulted in two jurisdictions responding in for this event. Arlington Fire/Ems and the District of Columbia Fire/Ems would be alerted to respond. At a pre design meeting it was decided that all operations would be on the DC radio system and even though Arlington would be responding in on their side of the event, they would use the DC system for interoperability concerns. This would NOT be how these operations would be delivered normally. With that being said, it was determined that the NCR facilitators would build duplicated solutions on each side of the event on the DC system. This is another out of the norm that would NOT be how operations would be carried out. This was going to be an experiment as well as hands on drilling for the NCR folks. Many different back up solutions were in place if a problem should occur.

The solutions were in place early and drill started. During the event it was recognized that both systems were conflicting to each other because of there close proximity. An attempt to relocate these receiver radios in the tunnel area and move them farther away from each other only created more difficulties. If the receivers were moved farther away from each other then the mission critical radio transmissions from the first responders would be missed. It was finally decided to go back the way we have been disciplined and provide only one solution and to disable the second rebuild on the Virginia side. By turning the Virginia side off and moving the DC receiver radios closer to the event, the critical radio transmissions were more reliable. The only downfall was that now the weaker signals coming from the Arlington first responders were not being captured and reproduced up top for the Incident Commander to receive.

Solution – If an actual event like this should occur, then two separate solutions would be built on each side of the event. The use of totally separate frequencies on each side would lesson the chance of RF conflicts. This would also prevent any the delay of mission critical radio transmissions to be lost. For example, if Arlington is responding in then we would use the Arlington (simplex or National Tac) channels in the tunnel area and bring them up. For the DC side we would use their (simplex or National Tac) channels in the tunnel and bring them up to the DC system. Above ground will be a unified command talk group created by an NCR gateway that can give the two jurisdictions safe communications to orchestrate a safe mitigation. In this case the lead agency would have been DC Fire/Ems so they would have the unified command TG on their system.

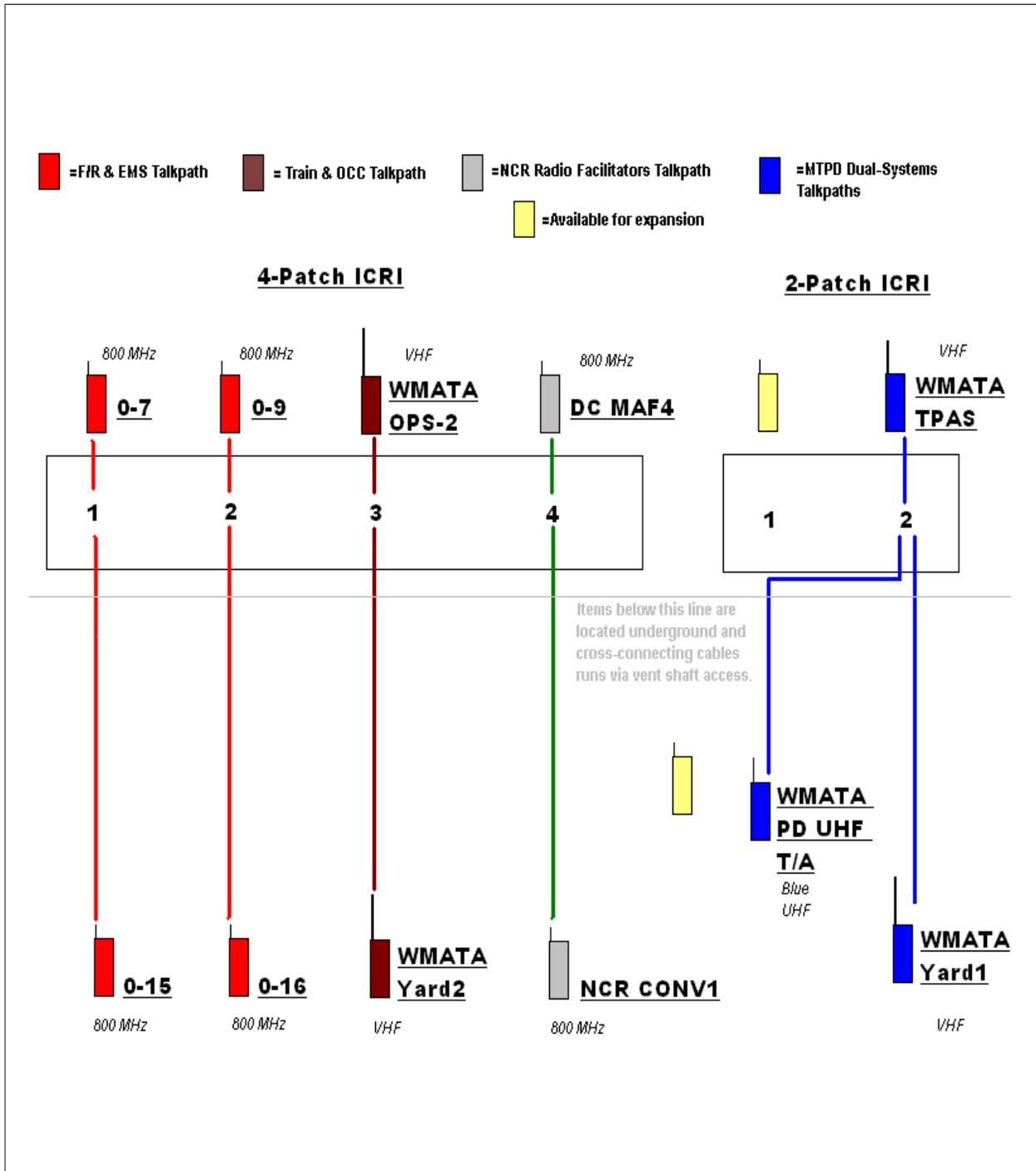
The communications were less than desirable for any NCR designed response. It did however; provide some improvement to the first responders that would NOT have been in place following the destruction of the everyday infrastructure.

Some of the emergent needs recognized from this drill are mentioned below. These are not in any priority.

## NCR Radio Cache Drill Operation Deep Rescue September 17<sup>th</sup>, 2006

- 1 – Education! After the first responders recognize that there is failure of the day to day reliable comm. in the tunnels, they need to know who and how to call for the NCR response.
- 2 – The response at any time of day will be extremely delayed. Recognition and request will be key to a fast solution for comm. support.
- 3 – Do NOT try to duplicate solutions on either side of an event.
- 4 – Many jurisdictions are not keeping up with radio template changes for their neighbors templates – Arlington radios do not have the latest DC Fire/Ems config.
- 5 – Metro Police radio configurations –
  - More 490 mhz frequencies from Montgomery County
  - Clean up the multiple radio templates in the different types of police disciplines.
  - Perhaps add “UCALL and UTACS” 460 mhz for national interoperability solutions for the NCR
- 6 – Better cable management while advancing down the ladder/vent shafts
- 7 – Key access to different ladder/vent shafts – new keys? Vent shaft louver keys? NCR has zero of these tools. (Completed - by SSRM)
- 8 – Be careful if you choose a “Fan “ shaft. Know that they might turn on during your event and you will hear -0- while activated.
- 9 – Frequently check the non 800mhz radios for the latest changes and true interoperability in each one. RED 380-470mhz / Orange 144-174mhz / Blue 440-520mhz i.e., Metro Police
- 10 – Bring many extra batteries down with you – Use “throw a ways” for tunnel ops.
- 11 - Mark the tunnel ops reels while in use w/ the designated channels in case if you loose power or bump the channel selector.
- 12 – Color code your reels and the cables
- 13 – Tie up the cables in the right of way in case the responders decide to use the “Rescue Train” Always leave a “service loop” at the reel location for a poss. Relocation off the tracks or up on the catwalk.
- 14 – Provide safety vest or coveralls approved for WMATA ops for the NCR folks
- 15 – Need to build in the COML/NCR into the Integrated Command Structure.
- 16 - NCR drill scheduled in the shaft between PG Plaza and College Park Stations scheduled for November 20, 2006.

# NCR Radio Cache Drill Operation Deep Rescue September 17<sup>th</sup>, 2006



This configuration to be set-up at both the Virginia and District side of the tunnel vent shafts. NCR Comm personnel should locally monitor radio traffic at each ICRI to be able to intervene (by temporarily disconnecting, then reconnecting the receiving side of the patch) should end-less repeater looping occur on either end of the networks.