



National Capital Region

Transportation Planning Board

Item # 5

MEMORANDUM

DATE: February 18, 2015

TO: Transportation Planning Board

FROM: Kanti Srikanth,
Director, Department of Transportation Planning

RE: Steering Committee Report on developments since the Jan. 12, 2015 Metrorail smoke incident near the L'Enfant Plaza train station

SUMMARY:

COG and a number of its public safety committees are active in response to the January 12, 2015 Metrorail L'Enfant Plaza smoke incident. The TPB Steering Committee will work with the COG staff coordinating the follow up activities as related to and in response to the incident; COG staff will keep the Steering Committee informed of the developments and will be available to brief the TPB, at an appropriate time in the future when more information is available, on the outcomes from the various activities currently underway. As events progress the Steering Committee will brief the TPB on any actions that may be warranted.

REPORT:

During its 1/21/2015 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 Metro rail 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 Metro rail system.

The Steering Committee discussed the matter during its Feb. 6, 2015 meeting and has agreed to stay engaged on this matter. The Metropolitan Washington Council of Government (COG) is currently engaged in a number of follow up activities related to the Jan. 12 Metrorail incident. COG's activities are

focused on the emergency preparedness and emergency incident management process and procedures. As a result, the Steering Committee believes that it would be best to have the TPB staff work closely with COG staff to monitor the developments, keep the TPB apprised of developments and particularly any opportunities for the TPB to take action. The Steering Committee was joined by COG's Deputy Executive Director, Mr. Stuart Freudberg, who is currently engaged in convening and coordinating follow up activities to the Jan. 12, 2015 Metro rail incident.

Mr. Freudberg briefed the Committee on various activities underway and planned that COG is coordinating. He noted that all of the people that need to be engaged in follow up activities are engaged. He also outlined the various Policy and Technical Committees under COG that are engaged in the follow up activities. A brief description of these Committees and their work areas is attached.

In conclusion the Steering Committee will continue to work with the COG staff on coordinating the follow up activities as related to and in response to the Jan. 12, 2015 Metro rail incident near L'Enfant Plaza station; COG staff will keep the Steering Committee informed of the developments and, when more information is available, will be available to brief the TPB.

Listed below is a timeline of selected events related to the Jan. 12, 2015 Metrorail incident including the first set of activities within the COG coordination activities.

Timeline of selected events

- | | |
|------------|--|
| January 12 | On January 12, 2015, about 3:15 p.m. Eastern Standard Time , Washington Metropolitan Area Transit Authority (WMATA) Metrorail train 302 stopped after encountering an accumulation of heavy smoke while traveling southbound in a tunnel between the L'Enfant Plaza Station and the Potomac River Bridge. As a result of the smoke, 86 passengers were transported to local medical facilities for treatment. There was one passenger fatality and two passengers were hospitalized in critical condition. (Source: NTSB, Preliminary Report Railroad DCA15 FR004) |
| January 16 | The National Transportation Safety Board (NTSB) releases Preliminary Report Railroad DCA15 FR004 on the 1/12/20-15 WMATA Metrorail Incident.
http://www.nts.gov/investigations/AccidentReports/Pages/DCA15FR004_preliminary.aspx |
| January 17 | <i>DC Fire and Emergency Medical Services Department</i> issues Initial Report by the Fire and Emergency Medical Services Department on the L'Enfant Plaza Metro Station Incident of January 12, 2015.
http://mayor.dc.gov/sites/default/files/dc/sites/mayormb/release_content/attachments/Initial_Report_on_the_L'Enfant_Plaza_Metro_Incident_January-12-2015.pdf |
| January 20 | D.C. Council receives a briefing from WMATA Board Chair Tom Downs on the Jan. 12, 2015 incident. |
| January 21 | Members of the region's Congressional Delegation are briefed on the Jan. 12, 2015 incident by WMATA and NTSB staffs. |

Timeline of selected events (Continued)

January 21 The NTSB holds a media briefing to provide an update on its investigation into the January 12, 2015 Metro rail incident near the L'Enfant Plaza Metro Station in Washington, D.C.

January 22 NTSB briefing to WMATA Board's Safety and Security Meeting.

WMATA announces a range of early-action safety items identified in collaboration with the NTSB investigation team but not related any formal recommendations from the NTSB's investigation that is still ongoing. Completion dates for these actions range from Jan. 22, 2015 through March 31, 2015.

(Copy of WMATA's announcement attached)

Senator Warner writes to the Chairmen of MWCOG and WMATA suggesting that COG and WMATA further partner to design and implement a project to ensure emergency response interoperability and communications infrastructure across the entire system, and ensure that it is and asked for credible work plan, no later than Jan. 30th.

(Copy of the Senator's letter is attached.)

January 30 WMATA Board Chair Mortimer Downey and COG Board Chair Bill Euille jointly respond to Senator Warner's letter.

(Copy of the joint COG and WMATA response is attached)

February 9 Senator Mikulski writes to the Chairman of MWCOG requesting that MWCOG complete a regional work plan for training firefighters on emergency evacuation protocols in the Washington Metropolitan Area Transit Authority (Metro) system. . This request for a work plan has been referred to the Fire Chiefs Committee and CAOs for consideration and development.

(Copy of the Senator's letter is attached.)

February 11 NTSB makes three specific urgent safety recommendations and urges the WMATA to take action on these. These recommendations address the WMATA emergency response to smoke in subway tunnels. The NTSB notes that the recommendations are related to the safety issue the NTSB has identified involving the absence of a written procedure that addresses ventilation procedures during smoke and fire events in tunnels. The NTSB recommends that this vulnerability needs to be immediately addressed by WMATA and the rail transit industry.

(Copy of the NTSB letter attached)

February 13 US Congress, House Oversight Committee Hearing: D.C. Metro, Is There a Safety Gap? Rep. Mica and Rep. Meadows Co-Presiding. Committee members present: Rep. Beyer (VA), Rep. Connolly (VA), Rep. DeSaulnier (CA), Rep. Grothman (WI), Rep. Holmes-Norton (DC) Rep. Maloney (NY)

Panel of witnesses included: Mr. Johnathan Rogers, Metro train passenger, Mr.

Christopher Hart, Acting Chairman, NTSB, Mr. Mortimer Downey, Chairman, Board of Directors, WMATA, Mr. Ed Mills, Acting Assistant Fire and Emergency Medical Services Chief-Operations, Jackie Jeter, President and Business Agent, ATU Local 689.

Committee co-chairs, Mr. Mica and Mr. Meadows, opened with statements focused on the importance of Metro to the region and the Federal Government, the paramount need for passenger safety, and the expenditure of federal funds for first responder training, emergency response communication hardware, as well as Metro/WMATA system operations. Hearing testimony began with a personal narrative of the incident by Mr. Jonathan Rogers, a January 12th Metro passenger. During his testimony, Mr. Downey announced WMATA is initiating an independent review of the operations center. In statements and questions, the majority of committee members consistently noted interoperability and above- and below-ground communications as a concern. Metro staff and first responder training, with attention to D.C. FEMS, was another significant theme. Several members requested that WMATA address safety culture, from the Board to the employees. In addition, committee members raised the issue of protocols for passenger triage, care, transport and post-evacuation long-term health effects. The Fire Chiefs Committee/MWCOG regional training and three-year plan were referenced at several points throughout the hearing.

COG Coordinated Activities:

The COG Board and a number of its Policy and Technical Committees are currently working with WMATA and other agencies of the various jurisdictions and the States to convene forums to facilitate a broader review and discussion on overall emergency preparedness and regional coordination in emergency situations. The Committees assisting the COG Board in this broader effort are the: (1) Emergency Preparedness Council (EPC), (2) Passenger Rail Safety Subcommittee, Public Safety Communications Subcommittee and Senior Operations Chiefs Subcommittee under the auspices of the Fire Chiefs Committee and (3) 9-1-1 Committee. A brief description of these Committees and their work areas is attached. On February 11, 2015 the COG Board of Directors and the Emergency Preparedness Council (policy advisory body to the COG Board) held meetings where NTSB, WMATA, and the COG Fire Chiefs made presentations. These are summarized below.

February 11 COG Board Meeting

The Board held detailed discussions and received presentations from the NTSB, WMATA and the Chairman of its Fire Chief's Committee. The Board indicated it will expect future periodic updates from NTSB and WMATA and the Fire Chiefs on progress in addressing the January 12th incident, development of new protocols for communication and training/exercises.

- NTSB Acting Chairman Hart briefed the Board about NTSB, its role and responsibilities as well as the structure and policies used during the investigative process. He noted that the NTSB's role is to determine cause of any accident for the sake of prevention, not to assess blame or liability. He did note that the NTSB would release recommendations for any actions that it believes should be taken

immediately based on the investigation and findings completed to date. Mr. Hart noted that the NTSB had just issued such an urgent safety recommendations earlier that day. He also informed the Board that an NTSB public hearing is planned for June 23-24 and that information will be available on their website www.nts.gov.

- WMATA Chairman Mort Downey and Acting General Manager Jack Requa briefed the Board on current emergency protocols in place for the Metrorail system. As part of their briefing they noted a number of safety improvements underway including: staffing additions, training opportunities, and system upgrades. Metro's training program for first responder personnel at the Landover training facility, including a full-scale two-car train in a tunnel, was described noting that training exercises and drills involving over 50 agencies have been held and that approximately 5,400 personnel were trained last year. The briefing also noted current or upcoming actions from WMATA including enhanced drills over the next 3 years; new operator protocols; new signage on the exteriors of rail cars that will aid first responders; a revised and more formalized program of radio testing; revisiting the maintenance schedule for ventilation fans, revising safety information within cars to include multi-lingual signs; and bringing up to modern standards the aging equipment such as electrical connectors as they are being replaced.
- Marc S. Bashoor, Fire Chief, Prince George's County Fire/EMS Chairman and currently the Chairman of COG's Fire Chiefs Committee briefed the Board and issued a statement on Behalf of COG Fire Chiefs Committee. He noted that the COG Fire Chiefs have directed the COG Senior Operations Chiefs along with the Passenger Rail Safety and Public Safety Communications Subcommittees to evaluate all operational procedures over the next 30 days and that they will report back to the COG aboard in April to identify opportunities for standardizing regional protocols and response improvements while also identifying safety and training protocol enhancements. The statement also lists the eight steps taken by the six COG Fire Chiefs, working with COG staff, the WMATA Police Chief, the Public Safety Communications and Passenger Rail Safety Subcommittees, and fire department station personnel in the past 10 days. Also included is a list of four commitments made by WMATA to the COG Fire Chiefs.

(Copy of the Fire Chief's Statement is attached)

February 11 Emergency Preparedness Council Meeting

- Panel Discussion on Emergency Response Protocols And Plans For Incidents In The Metrorail System. The panel comprised of Ron Bodmer, WMATA Director of its Office of Emergency Management; Marc Bashoor, Fire Chief of Prince George's County and Chair of the COG Fire Chiefs Committee; and Stuart Freudberg, Deputy Executive Director of COG coordinating COG's activities following the Jan. 12, 2015 Metro rail incident.
- Mr. Bodmer discussed WMATA's Standard Operations Procedure (SOP), SOP pertaining to Command, Control and Coordination of Emergencies on the Rail

System, Metrorail Train Evacuation Procedures, Emergency Management Training and Exercises and planned activities on these items.

- Mr. Freudberg summarized COG's coordination activities to date including the response letter to Senator Warner, expected response letter to Senator Mikulski, and then provided an overview of the National Capital Region Emergency Preparedness Council the organization structure, its various initiatives and priorities for 2015 and an update of the activities in Emergency Program Management Office. He also informed the Council that COG has engaged former U.S. Capitol Police Chief Terry Gainer as a special assistant to help the region implement some of the planned work activities coming out of the Jan. 12, 2015 Metrorail Train incident.

Memo to: TPB
Developments Related to 1/12/15 Metrorail
Incident

Feb. 18, 2015

Attachments

1. NTSB Preliminary Report, Jan 16, 2015
2. WMATA's 10 early-action safety items.
3. Senator Mark Warner's letter to COG and WMATA Chairmen
4. Joint COG and WMATA Response to Sen. Warner
5. Brief description of selected COG Committees and Subcommittees
6. Senator Mikulski's letter to COG
7. NTSB's Urgent Safety Recommendations, Feb. 11, 2015
8. Statement on Behalf of COG Fire Chiefs Committee to COG Board of Directors - Marc S. Bashoor, Fire Chief, Prince George's County Fire/EMS Chairman, COG Fire Chiefs Committee February 11, 2015



Preliminary Report Railroad DCA15FR004

The information in this report is preliminary and will be supplemented or corrected during the course of the investigation.

On January 12, 2015, about 3:15 p.m. eastern standard time, Washington Metropolitan Area Transit Authority (WMATA) Metrorail train 302 stopped after encountering an accumulation of heavy smoke while traveling southbound in a tunnel between the L'Enfant Plaza Station and the Potomac River Bridge. After stopping, the rear car of the train was about 386 feet from the south end of the L'Enfant Plaza Station platform.

A following train, stopped at the L'Enfant Plaza Station at about 3:25 p.m., and was also affected by the heavy smoke. This train stopped about 100 feet short of the south end of the platform. Passengers of both trains, as well as passengers on the station platforms, were exposed to the heavy smoke.

Both Metrorail trains involved in this incident consisted of six passenger cars and were about 450 feet in length. As a result of the smoke, 86 passengers were transported to local medical facilities for treatment. There was one passenger fatality and two passengers were hospitalized in critical condition.



Figure 1. Damage from the arcing incident in the tunnel near L'Enfant Plaza Station.

NTSB investigators have inspected the area of the incident, where they observed severe electrical arcing damage to the third rail and electrical cables about 1,100 feet ahead of train 302. Recorded data shows that at about 3:06 p.m., an electrical breaker at one end of a section of third rail tripped (opened). At about 3:16 p.m. the WMATA Operations Control Center (OCC) began activating ventilation fans in an effort to exhaust smoke from the area. The electrical breaker at the other end of the third rail section remained closed; supplying power until the WMATA OCC remotely sent a command to open the breaker at about 3:50 p.m.



Figure 2. Damage from the arcing incident in the tunnel near L'Enfant Plaza Station.

NTSB investigators are reviewing maintenance records of track, signal and power inspections, and railcar vehicles; documentation on previous events with smoke generation; maintenance and repair records of the tunnel exhaust fan/ventilation operations; WMATA emergency response and evacuation plans; and employee training records. Investigators have also collected material samples from the incident site and are examining the samples at the NTSB Materials Lab. In addition, NTSB investigators are currently conducting interviews with personnel involved, and have begun the collection and review of all available surveillance video.

The NTSB has formed the following technical investigative working groups:

Operations

Survival Factors

Fire Science

Signal and Power

Track

Civil Engineering/Infrastructure

Mechanical/Equipment

Recorders

The NTSB Transportation Disaster Assistance Division is providing support to the WMATA victim assistance team.

Parties to the investigation include: the Federal Transit Administration, Tri-State Oversight Committee, Washington Metropolitan Area Transit Authority, Amalgamated Transit Union Local 689, and the Bureau of Alcohol, Tobacco, Firearms and Explosives.

Metro News Release

For immediate release: January 22, 2015

Metro Deputy General Manager orders safety actions during investigation

Metro Deputy General Manager Rob Troup today ordered a range of early-action safety items. The steps were identified in collaboration with the NTSB investigation team and are not to be misconstrued as formal recommendations from the NTSB. The NTSB investigation remains ongoing and has not yet determined the cause or identified findings.

“Metro and NTSB have been reviewing standard procedures and looking for opportunities to further enhance the safety of this system,” Troup said. “The ten items that we have identified so far are actions Metro is taking now based on our collaborative review with NTSB.”

“I must emphasize that these steps should not be interpreted as being related to the cause of the L'Enfant incident,” Troup said.

The ten items ordered by Troup are:

1. Write SOP for train operator to cut EV Immediately upon stopping for smoke Incident (RTRA, Completion -1/22/2015)

Note: The minute a train stops for a smoke incident, the train operator will turn off air intake systems. Under the fanner SOP, the instruction for turning off air intake comes from the Rail Operations Control Center. This is not related to tunnel fans.

2. Write SOP for Incident management In ROCC to provide specifics for site discipline In the ROCC to avoid cross-talk and unnecessary Interactions. (RTRA, Completion -1/26/2015)

Note: To ensure that key personnel who are responsible for managing an incident are not distracted, this SOP will ensure that ROCC employees stay at their own desks and not engage those managing the incident.

3. Set schedule for next three years for emergency quarterly drills to be conducted wayside. Sequence station, than a tunnel section, than an elevated section (note tunnel and elevated sections shall be between stations). Please sequence each quarter in a separate Jurisdiction. Coordinate type of drill and logistics with MTPD. (RTRA, Completion -1/26/2015)

4. Design and Implement exterior signage for exterior doors to clearly delineate access In event of emergency. (TIES, Completion -2/13/2015)

Note: Metro has an extensive training program for emergency responders. However, in the event that one of the trained responders is not first on scene, there will be new signage on the outside of the train to identify emergency doors and access points.

5. Provide engineering and operations report on all third rail jumper cables in tunnel sections for condition and Installation. (TIES, Completion -2/27/2015)

Note: Metro personnel will conduct inspections looking for wear and tear on cables and assess the condition of cable installations.

For immediate release: January 22, 2015

6. Recommendation on installation of low smoke/low halogen on high voltage third rail jumper cables. (TIES, Completion -2/13/2015)

Note: Already an ongoing effort under its rebuilding program, Metro is installing low-smoke cables.

7. Install mechanical protection on third rail jumper cables that may be exposed to wear from vibration against other materials. (TIES -Begin work immediately)

Note: Note: If a cable that has begun to lean over the years (as a result of vibration), protection to prevent the cable from corning in contact with other materials.

8. Review of ground fault detectors on third-rail circuit breakers. (TIES, Completion· 2/27/2015)

9. Operational analysis of running trains at 45 MPH in the core with limited acceleration. (TIES and RTRA - 3/31/2015)

Note: This will be an operational analysis to see if Metro can limit current flowing through electrical infrastructure.

10. Provide report on installing zoned smoke detectors using ETS boxes for location and transmitting of information, also investigate use of wireless smoke detectors. (TIES, Completion -2127/2015)

Note: The report will determine feasibility.

News release issued at 9:54 am, January 22,2015.

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United States Senate

WASHINGTON, DC 20510-4606

January 22, 2015

Mort Downey
Board of Directors, Chairman
WMATA
600 5th St. NW
Washington, D.C. 20001

William Euille
Board of Directors, Chairman
Washington Council of Governments
777 North Capitol St. NE, Suite 300
Washington, D.C. 20002

Dear Mr. Downey and Mayor Euille,

Leaders of the Washington Metropolitan Area Transit Authority (WMATA) and the National Transportation Safety Board (NTSB) briefed members of the Virginia, Maryland and District of Columbia congressional delegations on Wednesday to provide preliminary information on the fatal Jan. 12, 2015 smoke incident at Metro's L'Enfant Plaza station. We discussed the current status of the NTSB's investigation into the incident, as well as broader current efforts to make safety improvements to the Metro system serving hundreds of thousands of daily commuters and visitors to the national capital region. Although we received answers to some of our questions, many other questions have been left unanswered.

One area of particular concern to me was the breakdown in radio communications among first responders as they attempted to reach the stationary train car to rescue stranded passengers. It is apparent that the process WMATA and its partners currently employs to address communication problems needs greater oversight and urgency. According to officials participating in Wednesday's briefing, WMATA was alerted to problems with radio communications at L'Enfant Plaza by D.C. Fire and Emergency Medical Services on January 8th. Although there are reports which suggest Metro employees began looking into the problems over the weekend of Jan. 11-12, WMATA apparently did not schedule a time to collaboratively address the issue with D.C. fire officials until January 14 -- nearly one week later. Tragically, as we all know, the fatal accident occurred in this intervening period.

Radio communication for first responders in any emergency is of vital importance. I strongly urge WMATA to work more closely with its local partners, and in a more transparent and robust way, to correct specific interoperability issues in a much more timely and responsible way. Metro's riders deserve better than to rely on a transit system in which emergency communications equipment is known to be inadequate or ineffective, yet no sense of urgency is demonstrated to fix the problems.

I know that local public safety networks and radio systems operate independently. I would strongly suggest that WMATA, in conjunction with COG, develop a process in which each jurisdiction notifies its partners and tests equipment whenever updates or other significant changes are made. Because WMATA owns and maintains much of the infrastructure through which those systems operate during emergency events, it is imperative that WMATA proactively

engage its local emergency response partners on a regular and sustained basis to ensure that all of its communications infrastructure and equipment is properly up-to-date and functioning appropriately. Passenger safety on the nation's second largest transit system requires no less.

Yesterday, we were assured that WMATA has corrected the specific communication problem that existed at L'Enfant Plaza on Jan. 12. However, I would request some assurances that WMATA has proactively tested the entire system – in close coordination with local first response agencies – to ensure the interoperability and integrity of the entire network over the entire Metro system. I further understand that COG already is actively engaged in assessing the effectiveness of cellular telephone capacity across the Metro system. I would suggest that COG and WMATA further partner to design and implement this project to ensure emergency response interoperability and communications infrastructure across the entire system, and ensure that it is maintained going forward. I would appreciate a status update, or at least a credible work plan, no later than Jan. 30th.

Since the 9/11 attacks more than thirteen years ago, our nation has invested hundreds of millions of dollars to improve emergency communications and provide reliable and secure interoperable public safety networks. Progress should not be undone, and more lives should not be put at risk, because we have failed to maintain and update our emergency communication infrastructure.

Sincerely,



MARK R. WARNER
United States Senator



January 30, 2015

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

Dear Senator Warner:

We write to jointly respond to your letter of January 22, 2015, asking for a work plan to enhance effective emergency communications across the Metro system. We share your resolve that the Metro transit experience be as safe as possible, and want to assure you that we are working together to establish formal protocols and procedures for radio testing that will be incorporated into an agreement between the regional emergency responders and WMATA. In addition to the testing that already takes place, following the incident at L'Enfant Plaza on January 12th, WMATA and jurisdictions with Metrorail stations report that they have tested the radio communications. We are working systemically to address any issues that were found during the testing in order to assure that radio communication within the Metrorail system is in good working order. In addition, we are working together to identify any other areas where improvements can be made in emergency communications and incorporate them into the agreement. Our goal is to proactively build upon the work done to date.

Background on Current Metro Transit – Fire/Rescue Emergency Procedures Policy Agreement

Before explaining the particulars of our work plan, we want to provide background on the existing agreement between WMATA and the regional emergency responders. Protocols for emergency response in the Metro system are formalized in an agreement, coordinated through the Metropolitan Washington Council of Governments (COG), which is signed by WMATA and every fire chief in the region: the “Metro Rail Transit - Fire/Rescue Emergency Procedures Policy Agreement 2011.” (“Policy Procedures Agreement”)

The Procedures Policy Agreement details roles and responsibilities around incident command, with the National Incident Management System (NIMS) serving as the foundation of that agreement. Under NIMS, during an emergency when the Fire Department is called in, the Fire Department assumes full control of the emergency upon arrival on the scene and is responsible for coordinating all activities at the scene, including all actions taken by Metro. Specifically, the battalion chief or other senior fire official is designated as the Incident Commander. This unified command structure is used to coordinate and control activities at the scene. The Incident Commander establishes a command post where face-to-face coordination takes place, and then messages are sent out to the respective teams.

Radio communication takes place through two separate radio systems operating in the Metrorail system – the radio system that Metro uses and the radio system that the local jurisdictions use. Metro is responsible for assuring that it maintains a robust and redundant capability to link with its regional radio partners.

With nearly 5,000 Metro employees using radios – including train operators, station managers and Metro Transit Police Department officers – Metro is responsible for constantly troubleshooting and testing the system. Whenever an issue is detected, a work order is placed through Metro’s Maintenance Operations Center and the radio connection is restored quickly.

The jurisdictions are responsible for and regularly conduct their own testing which includes the radio connections through Metro’s bi-directional amplifier. WMATA and COG are committed to creating a regionally coordinated schedule for testing, reporting and resolving issues that are identified. This is one of the key issues that we expect that the revised Policy Procedures Agreement will address.

To build upon these protocols, COG will serve as a forum and a convener to address issues affecting the National Capital Region jurisdictions, and help foster cooperation and coordination between WMATA and the region’s emergency first responders. COG will convene the appropriate committees, and assist in facilitating needed outcomes.

Proposed Work Plan

Attached is the work plan which we will use as a focus of our joint efforts. The policy and procedures of the work plan will be developed by the region’s emergency first responders with the assistance of appropriate subject matter experts. The COG Fire Chiefs Committee will oversee and facilitate the work plan. The current effort of updating the “Metro Rail Transit – Fire/Rescue Emergency Procedures Policy Agreement 2011” will be expanded to address collaborative testing of radio communications by WMATA and emergency responders, assessing the effectiveness of cell phone communication across the Metro system, and ongoing protocols for emergency communications. A third party or other means of certification will be identified for the assurance part of this work plan.

Because of the broad implications of transit communications, COG’s Fire/Rescue Passenger Rail Subcommittee of the Fire Chiefs Committee will solicit input from representatives from other disciplines or refer specific issues to other relevant COG Committees, such as the COG 9-1-1 Committee and the COG Public Safety Communications Subcommittee. Funding implications will be considered. The work plan contains immediate and long term phases.

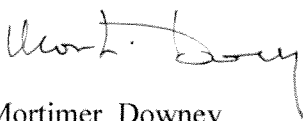
We are prepared to develop an amendment to the existing Procedures Policy Agreement between WMATA and the regional emergency first responders. The revised Agreement will formalize commitments to ongoing protocols and a long term operational plan for insuring radio communication and related issues.

We will begin this work with the next monthly meeting in February of the COG Fire Chiefs Committee. Work plan activities will be meshed with the various other ongoing actions that relate to WMATA and emergency response.

In addition, the COG Board of Directors will meet on February 11th at which time WMATA will provide a briefing on Emergency Response protocols, including radio communications. WMATA and COG both recognize the critically important role effective emergency communications play in the safety of Metrorail riders.

We appreciate your concern for the region and assistance on transit matters.

Sincerely,



Mortimer Downey
Chairman, Board of Directors
Washington Metropolitan Area Transit
Authority



William Euille
Chairman, Board of Directors
Metropolitan Washington Council of
Governments

Attachment: Work Plan

cc: NCR Congressional Delegation
WMATA Board of Directors
WMATA Interim General Manager
COG Board of Directors
COG Executive Director
COG Chief Administrative Officers Committee
Chair, COG Fire Chiefs Committee

**REGIONAL WORK PLAN
FOR ENHANCING FIRST RESPONDER COMMUNICATIONS SYSTEMS IN THE
METRO SYSTEM**

Purpose: The purpose of this Regional Work Plan is to establish a system to ensure that WMATA and first emergency responders test communications systems at each Metro stations and all rail tunnels to make certain that the communications systems are continuously operational. The work plan contains immediate and long term phases.

Process: The COG Fire Chiefs Committee will oversee and facilitate the work plan. The details of the work plan will be provided by the region's emergency first responders with the assistance of appropriate subject matter experts. Because of the broad implications of transit communications, the COG Fire/Rescue Passenger Rail Subcommittee of the Fire Chiefs Committee will solicit input from representatives from other disciplines, such as the COG 9-1-1 Committee and the COG Public Safety Communications Subcommittee.

Short Term Actions: Testing of all Metro stations and tunnels and agreement by WMATA and the region's Fire/Rescue Chiefs for ongoing testing.

Deliverables:

- 1) Documentation of test results of Metro stations and all rail tunnels – WMATA and jurisdiction testing.
- 2) Agreement by WMATA and Fire/Rescue Chiefs to protocols for ongoing testing, reporting and correction of deficiencies, to include timing and frequency.

Deadline:

- 1) Documentation report on testing: 30 days to WMATA General Manager and COG Executive Director.
- 2) Initial agreement on testing protocols between WMATA and jurisdictions: 60 days

Phase Two Actions:

- 1) Development of an amendment to the "Metro Rail Transit – Fire/Rescue Emergency Procedures Policy Agreement 2011" ("Procedures Policy Agreement") to formalize commitments to ongoing protocols and a long term operational plan for insuring radio communication and related issues. A third party or other means of certification will be identified for the "assurance" part of this work plan.
- 2) Funding implications will be considered.

Deliverables:

- 1) Agreement by WMATA and Fire Rescue/Chiefs to revision to Policy Procedures Agreement.
- 2) Funding recommendations.

Deadline: Proposed agreement within 120 days to the WMATA and COG Boards of Directors.

ANNOTATED LISTING OF SELECT METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS COUNCILS, COMMITTEES AND SUB-COMMITTEES

1. National Capital Region Emergency Preparedness Council

- a. **Reports to** the COG Board of Directors on matters directly related to homeland security to include the NCR Homeland Security Strategic Plan and the Regional Emergency Coordination Plan (RECP) to include the Regional Emergency Support Functions (RESFs) and Regional Programmatic Working Groups (RPWGs) and leads inquiries into incidents that occur in the region as requested by the COG Board.
- b. **Membership** is broader than of any organization at COG it includes 9 elected officials from Maryland, the Commonwealth of Virginia, and the District of Columbia and multiple other local, state, federal, private, and non-profit organizations as specified in the By-Laws.
- c. The National Capital Region Emergency Preparedness Council (EPC) is an advisory body established by the Metropolitan Washington Council of Governments (COG) Board of Directors. The EPC provides a forum for local, state and federal governmental official collaboration with business, education and community stakeholders on regional emergency planning, coordination and response. The EPC works in conjunction with the Senior Policy Group, the Chief Administrative Officers, the new Project Management Office (PMO), the U.S. Department of Homeland Security's Office of National Capital Region Coordination (ONCRC), and others in the enhancement of regional preparedness activities and acquisitions. It serves as the custodian of the National Capital Region Homeland Security Strategic Plan, oversees the Regional Emergency Coordination Plan (RECP), and helps to coordinate activities of various support function working groups, and assists in the development and conduct of preparedness training and exercises

2. Emergency Managers Committee

- a. **Reports to** Emergency Preparedness Council on matters directly pertinent to homeland security or the UASI grant; reports to the Human Services & Public Safety Policy Committee on matters not directly pertinent to homeland security or the UASI grant
- b. **Membership** consists of any COG member jurisdiction that has an Emergency Management Director or Coordinator (no more than one per jurisdiction), the Emergency Management Coordinators of Maryland and Virginia, the Director of FEMA's Office of National Capital Region Coordination.
- c. The committee's primary purpose is to advise the Public Safety Policy Committee, Emergency Preparedness Committee, Chief Administrative Officer's Committee, various regional emergency support committees and the COG Board of Directors on matters pertaining to emergency management issues. A secondary purpose is for representatives of the various emergency management agencies, within the Washington metropolitan area, to meet and exchange information and ideas concerning the delivery of emergency management services and such other matters of mutual concern.

**ANNOTATED LISTING OF SELECT METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS
COUNCILS, COMMITTEES AND SUB-COMMITTEES**

3. COG Fire Chiefs Committee

- a. **Reports to** Emergency Preparedness Council on matters directly pertinent to homeland security or the UASI grant; reports to the Human Services & Public Safety Policy Committee on matters not directly pertinent to homeland security or the UASI grant
- b. **Membership** consists of the principal Fire Chiefs of any COG member jurisdiction that has a career Fire/Rescue/EMS Service, including the Metropolitan Washington Airports Authority.
- c. The committee's primary purpose is to advise the Public Safety Policy Committee, Emergency Preparedness Committee, Chief Administrative Officer's Committee, various regional emergency support committees and the COG Board of Directors on matters pertaining to fire and rescue service issues. A secondary purpose is for representatives of the various fire and rescue service agencies, within the Washington metropolitan area, to meet and exchange information and ideas concerning the delivery of emergency management services and such other matters of mutual concern.

4. COG Passenger Rail Safety Subcommittee

- a. **Reports to** the COG Senior Operations Chiefs Committee
- b. **Membership** consists of at least one designated representative from each COG Fire Chiefs Committee member agency as well some other entities with interest to rail safety such as WMATA, Amtrak, MTA, VRE, NTSB, TSA and other
- c. The subcommittee's purpose is to convene regional rail safety experts to address passenger safety issues as it pertains to both light and heavy passenger rail transit throughout the NCR.

5. Public Safety Communications Subcommittee

- a. **Reports to** both the COG Fire Chiefs Committee and the COG Police Chiefs Committee
- b. **Membership** consists of at least one designated representative from each COG Fire Chiefs and Police Chiefs Committee member agencies. Included in this membership are some radio managers of regional jurisdictions and other communications experts from each of the COG jurisdictions.
- c. Provide a forum for collaboration on regional communications systems. The subcommittee will utilize a strategic approach to maintain and enhance systems that provide interoperability in voice, video, data and PSCC operations within the NCR while providing subject matter expertise to the Police and Fire Chiefs in support of their needs.

6. Senior Operations Chiefs Committee

- a. **Reports to** the COG Fire Chiefs Committee
- b. **Membership** consists of at least one designated representative from each COG Fire Chiefs Committee member agency, oftentimes the senior most Chief beneath the principal Fire Chief of an agency.
- c. Provide for operational guidance and support to the following technical subcommittees of the Fire Chiefs Committee: Hazmat Subcommittee, Technical Rescue Subcommittee, EMS Subcommittee, Metrotech, Passenger Rail Safety Subcommittee

**ANNOTATED LISTING OF SELECT METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS
COUNCILS, COMMITTEES AND SUB-COMMITTEES**

7. 9-1-1 Directors Committee

- a. **Reports to** Emergency Preparedness Council on matters directly pertinent to homeland security or the UASI grant; reports to the Human Services & Public Safety Policy Committee on matters not directly pertinent to homeland security or the UASI grant
- b. **Membership** consists of primary and associate committee members. *Primary member.* The term “primary member” refers to the Director of 9-1-1 Emergency Communications Services for a local government member of COG. Each primary member shall have the right to vote on any issue brought before the committee. When these by-laws refer to a vote of the committee, such reference refers to the primary (voting) members of the committee. *Associate member.* The term “associate member” refers to representatives of federal, state, local or other 9-1-1 emergency communications agencies within the Washington Metropolitan Statistical Area, but who are not components of a local government jurisdiction that is a member of COG. Associate members may include (but are not limited to) representatives from emergency communications officials from federal and state agencies, the military, the private sector, volunteer organizations, homeland security organizations, and others. Associate members shall be non-voting committee members.
- c. The committee's primary purpose is to advise the COG Board of Directors, the Human Services and Public Safety Policy Committee, the NCR Emergency Preparedness Council, the Chief Administrative Officers Committee, and various regional emergency support committees, on matters relating to 9-1-1 emergency communications. A secondary purpose is to provide a forum in which representatives of the various 9-1-1 communications agencies serving the Washington metropolitan area can meet and exchange information and ideas concerning the delivery of 9-1-1 emergency communications services.

United States Senate
WASHINGTON, DC 20510-2003

February 9, 2015

Mr. William Eulle
Chairman
Board of Directors
Metropolitan Washington Council of Governments
777 North Capitol Street NE
Washington, DC 20002

Dear Chairman Eulle:

I request that the Metropolitan Washington Council of Governments (COG) complete a regional work plan for training firefighters on emergency evacuation protocols in the Washington Metropolitan Area Transit Authority (Metro) system. I also request that this pressing issue be added to the agenda of COG's Board of Directors meeting on Wednesday.

I was shocked to learn that the training of firefighters is not mandatory. There are only voluntary emergency practice drills between Metro and the region's fire departments. In addition, we have recently learned that the training practices of the region's fire departments are uneven and fall below what should be required to keep riders safe in some jurisdictions.

As COG begins its regional work plan for improving interoperability throughout the Metro system, I request that a similar plan be developed establishing mandatory training requirements for emergency evacuations. Once the work plan is completed, I request the existing Procedures Policy Agreement between the Metro and emergency first responders be amended with the new training requirements.

Every firefighter should be required to attend training at Metro's Rail Operations Control Center and Emergency Management Facility. This should be a requirement during their initial training and then re-certification should be required.

Thank you for your prompt attention to my requests.

Sincerely,



Barbara A. Mikulski
United States Senator



National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: February 11, 2015

In reply refer to: R-15-8 through -10 (Urgent)

Mr. Jack Requa
Interim General Manager and Chief
Executive Officer
Washington Metropolitan Area Transit
Authority
600 5th St. NW
Washington, DC 20001

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. We determine the probable cause of the accidents and issue safety recommendations aimed at preventing future accidents. In addition, we carry out special studies concerning transportation safety and coordinate the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters.

We urge the Washington Metropolitan Area Transit Authority (WMATA) to take action on the urgent safety recommendations issued in this letter. These recommendations address the WMATA emergency response to smoke in subway tunnels and are derived from our ongoing investigation of the electrical arcing and smoke accident near the WMATA L'Enfant Plaza station in Washington, D.C., on January 12, 2015. Facts supporting these recommendations are discussed below.

Background

On January 12, 2015, at 3:15 p.m., eastern standard time, southbound WMATA Metrorail train 302 stopped after encountering heavy smoke in a subway tunnel between the L'Enfant Plaza station and the Potomac River bridge. After stopping, the rear car of the train was about 386 feet from the south end of the L'Enfant Plaza station platform. The train operator contacted the WMATA Operation Control Center (OCC) to announce that the train was stopped due to heavy smoke.

A following train (train 510), which was stopped at the L'Enfant Plaza station at 3:25 p.m., also was affected by the heavy smoke. This train stopped about 100 feet short of the south end of the platform, but its cars were entirely within the station. Train 510 was evacuated while it was stopped at the station platform.

Police officers provided assistance in guiding passengers from the underground platform to the surface. Some of the passengers aboard train 302 self-evacuated. Emergency responders were dispatched to the scene and assisted evacuating passengers from both trains, as well as the station.

Both Metrorail trains had six passenger cars. The length of each train was about 450 feet. As a result of the smoke, 86 passengers were transported to local medical facilities for treatment. One passenger fatality occurred. Initial damages were estimated by WMATA to be \$120,000.

The parties to the investigation include the Washington Metropolitan Transit Authority; the Federal Transit Administration; the Tri-State Oversight Committee; the Bureau of Alcohol, Tobacco, Firearms and Explosives; the Amalgamated Transit Union, Local 689; the International Association of Fire Fighters, Local 36; the District of Columbia Fire and Emergency Medical Services Department; and the District of Columbia Metropolitan Police Department.

Although the NTSB investigation is still in the early stages, we have identified safety issues that require immediate attention and are making one urgent safety recommendation to the Federal Transit Administration, three urgent safety recommendations to WMATA, and two urgent safety recommendations to the American Public Transportation Association.

Discussion

The WMATA subway system has ventilation fans at strategic locations to remove smoke and heat from the tunnels. These fans can be operated in either a supply mode that pulls fresh air into the tunnels and stations or an exhaust mode that pulls air from the tunnels and stations to the outside. The fans can be operated either remotely from the WMATA OCC or locally from control panels near the fans.

Smoke was not present as train 302 departed the L'Enfant Plaza station. After encountering heavy smoke, the train operator stopped the train with the lead car about 836 feet beyond the south end of the station. At 3:16 p.m., the WMATA OCC activated the under-platform fans in the exhaust mode at the L'Enfant Plaza Green and Yellow Line platforms. The location of these under platform fans was behind the stopped train 302. This action pulled smoke toward trains 302 and 510 from the electrical arcing event that caused the smoke. The source of the smoke was later determined to be about 1,100 feet ahead (south) of train 302.

A vent shaft with additional ventilation fans was about 24 feet ahead (south) of the source of the smoke. At 3:24 p.m., these ventilation fans, which are about 1/3 mile south of L'Enfant Plaza station, were activated in exhaust mode. At this point train 302 was already blanketed with smoke. Also, the train ventilation system that draws air from the outside into the cars was not shut off by the train operator. Existing WMATA procedures required the train operator to receive permission from the OCC to shut off the train ventilation system. Because both the station and vent shaft fans were all activated in exhaust mode, there was not a supply of fresh air to aid in moving the smoke through the tunnel to the exhaust.

A smoke detector located at the bottom of the vent shaft near the location of the heavy smoke activated at 3:04 p.m. Smoke detectors in the service rooms located southwest of the L'Enfant Plaza station platform activated at 3:19 p.m. and 3:20 p.m.

The vent shaft near the source of the smoke contained four fans. Each fan had a rated capacity of 50,000 cubic feet per minute (air flow). NTSB investigators found during post-accident inspection that two of the four fans had tripped an overload circuit breaker and were non-operational. This means that either (1) only two of the four fans were operational during the accident or (2) two of the fans became non-operational sometime during the accident.

Currently, WMATA does not have the means to determine the exact location of a source of smoke in their tunnel network. However, the initial reports from the train operator suggested that the smoke was ahead of train 302, since the train had travelled from a smoke-free environment into a smoke-filled environment.

The OCC rail controllers are guided by various emergency Standard Operating Procedures (SOPs). WMATA SOP No. 6, *Smoke and Fire on The Roadway*, contains a number of key actions that must be taken when a train encounters smoke in a tunnel. This SOP does not address tunnel ventilation strategies. Other transit agencies (such as the San Francisco Bay Area Transit District) have developed detailed ventilation procedures for addressing train fires and smoke events in tunnels. A common approach in these tunnel ventilation procedures is (1) to identify the most likely location of the smoke or fire, (2) to start the ventilation fans on one side of the smoke or fire in supply mode, and (3) to start the ventilation fans on the other side in exhaust mode. This strategy is designed to move smoke away from the passengers and the evacuation route. Once implemented, the controllers are to check with personnel at the site to verify the ventilation fans are properly working and to make any necessary adjustments.

WMATA told the NTSB investigators that the OCC controllers are trained on ventilation procedures and on the strategy of using ventilation fans in supply and exhaust modes to provide air to passengers. WMATA told the NTSB investigators that since this accident it has re-trained its controllers on the proper operation of tunnel ventilation fans. However, during the investigation, the NTSB investigators determined (1) WMATA does not have a written ventilation procedure for smoke and fire events in a tunnel, and (2) the ventilation strategy implemented during this accident was not consistent with best practices. This issue is critical because SOPs, which are readily available to the controllers, can serve as a checklist during an emergency.

The safety issue the NTSB has identified involve the absence of a written procedure that addresses ventilation procedures during smoke and fire events in tunnels. This vulnerability needs to be immediately addressed by WMATA and the rail transit industry. Therefore, the NTSB makes the following urgent safety recommendations to the WMATA:

R-15-8

Assess your subway tunnel ventilation system to verify the state of good repair and compliance with industry best practices and standards, such as those outlined in the National Fire Protection Association's NFPA 130,[®] *Standard for Fixed Guideway Transit and Passenger Rail Systems.*[®] (Urgent)

R-15-9

Develop and implement detailed written tunnel ventilation procedures for operations control center staff that take into account the probable source location of smoke and fire, the location of the train, the best evacuation route, and unique infrastructure features; these procedures should be based on the most effective strategy for fan direction and activation to limit passengers' exposure to smoke. (Urgent)

R-15-10

As part of the implementation of the procedures developed in response to Safety Recommendation R-15-009, incorporate the use of the procedures into your ongoing training and exercise programs and ensure that operations control center staff and emergency responders have ample opportunities to learn and practice activating ventilation fans. (Urgent)

We also issued one urgent safety recommendation to the Federal Transit Administration and two urgent safety recommendations to the American Public Transportation Association.

Acting Chairman HART and Members SUMWALT and WEENER concurred in these recommendations.

We are vitally interested in these recommendations because they are designed to prevent accidents and save lives. We would appreciate receiving a response from you within 30 days detailing the actions you have taken or intend to take to implement them. When replying, please refer to the safety recommendations by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Acting Chairman

*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

**Statement on Behalf of COG Fire Chiefs Committee to COG Board of Directors
Marc S. Bashoor, Fire Chief, Prince George's County Fire/EMS
Chairman, COG Fire Chiefs Committee**

February 11, 2015

The National Capital Region COG Fire Chiefs are committed to ensuring the safety of the public, our responders and the WMATA employees within the METRO system at all times. It is imperative that each of us work together to build and maintain a system of operations and response that instills confidence and constantly improves the culture of safety in our response systems.

The area Fire and EMS Departments have been a part of the planning, training and operational response within the WMATA system, since its inception. The six Fire Chiefs whose jurisdictions are directly impacted by the Metrorail system have been intimately involved in the discussions related to the recent incidents surrounding the WMATA Metrorail system.

These six COG Fire Chiefs, working with COG staff, the WMATA Police Chief, the Public Safety Communications and Passenger Rail Safety Subcommittees, and fire department station personnel have taken the following steps in the past 10 days:

1. Tested all underground radio systems
2. Reported all system gaps to WMATA
3. Identified gaps in the radio system testing processes
4. Agreed to weekly testing in the District and bi-weekly testing outside the District
5. Approved a common web-based recordation methodology for radio system quality testing and reporting (draft developed by WMATA)
6. Agreed to a common above ground Incident Command Post methodology
7. Requested additional on-site and web-based training opportunities from WMATA, including 24/7 access to the Landover training facility
8. Offered Fire Department personnel to assist as train-the-trainers where possible

In addition, WMATA has made the following commitments to the COG Fire Chiefs:

1. Agreed to have "boots on the ground" to investigate system deficiencies within 24 hours
2. Conceptually agreed to radio system repairs within one to two days
3. Agreed to host the web-based reporting system, with protocols which will email-notify responsible parties within each jurisdiction when deficiencies are noted and updates or repairs to the deficiencies are made
4. Agreed to the concept of additional training (no specifics at this time)

Identifying solutions to the process for testing and reporting deficiencies in the radio testing, along with the protocols to repair and make notification of repairs is a critical step ensuring the underground portions of the system are safer for everyone. Similarly, agreements to collaborate on testing, reporting and repair is a critical step in the public safety continuum.

It is certainly true that the radio system is aging with the rest of the infrastructure. Through the Council of Governments, discussions continue to identify funding for a system-wide radio system evaluation, which will ensure all previously unidentified gaps and improvement solutions are identified swiftly.

The COG Fire Chiefs have directed the COG Senior Operations Chiefs along with the Passenger Rail Safety and Public Safety Communications Subcommittees to evaluate all operational procedures over the next 30 days. They will report back in April to identify opportunities for standardizing regional protocols and response improvements while also identifying safety and training protocol enhancements.

Training for first responders is a critical component to ensuring safety for everyone in the WMATA system. Many personnel have been afforded the opportunity to train at the current WMATA training facility on Pennsy Drive in Prince George's County. There has been an active and ongoing training and exercise program between WMATA and the area Fire Departments, to include tabletop, functional, and full-scale exercises remote of the Pennsy Drive training facility. As stated above, the COG Fire Chiefs are requesting additional training opportunities at the WMATA facility, including 24/7 availability. However, training at the Landover facility alone is not a practical solution to the training needs. A combination of Landover-based and computer or simulator-based opportunities along with system-wide opportunities for access to underground spaces during off-hours will ensure maximum exposure for the thousands of firefighters located across the National Capital Region. This will become increasingly important as the system expands into a seventh jurisdiction with the expansion to Dulles Airport impacting Loudoun County.

The safety of WMATA patrons and employees as well as our First Response personnel is of paramount concern. There must be a transparent culture of safety that ensures early 9-1-1 notification and swift standardized dispatch protocols combined with expertly trained employees and responders. All aspects of the emergency response system will be under operational review, including 3rd rail power protocols, exhaust systems, emergency evacuation procedures, and door operations to mention a few. Safety will be enhanced with continued collaboration and focus on systemic improvements for the long term.

The COG Fire Chiefs appreciate the opportunity to work together with WMATA to have a quality-improvement process for safety, response and training in the METRO system.