



January 31, 2018

The Honorable Mark Warner
United States Senate
703 Hart Senate Office Building
Washington, DC 20510

Dear Senator Warner:

Thank you for your January 18th letter. I want to assure you that we have already taken steps to address the communication issue that occurred on January 15th and are working to implement additional safeguards to improve radio communications while the new system is installed.

As you know, we are investing in a new radio system that uses a modern design and includes key safety features, such as remote monitoring to alert us to outages as soon as they occur. Metro has completed installation of “cable management” equipment on the walls of roughly 60 miles of tunnel (60 percent complete) and has installed new cable in approximately 40 miles of tunnel (40 percent complete).

The radio and cellular infrastructure replacement project underway will provide a new state-of-the-art Metro Area Radio System for the Authority; a new Public Safety Radio System (PSRS) in the underground tunnel system, as well as access to Metro’s entire radio system to our jurisdictional partners; and new cellular infrastructure in the underground tunnel system for wireless providers.

The project remains on schedule, with anticipated activation of the radio system expected by the end of 2021 and additional supplemental coverage areas (in-building coverage) expected by the end of 2022. To date, approximately \$50.95 million of the \$333.352 million estimated project budget has been expended. The majority of the amount spent thus far has concentrated on the design efforts and installation of the cable infrastructure in the underground tunnel system. Funding has been approved and is available to meet the planned completion date and no funding shortfalls are currently identified.

Following the Metropolitan Washington Council of Governments’ (COG) July 2015 report, WMATA meets with COG representatives bimonthly to review and provide updates to COG’s recommendations. COG has developed an internal tracker that identifies WMATA’s progress for each of the recommendations. To date, six of the 15 near-term recommendations are completed and eight additional recommendations require follow-up actions. A few examples of actions taken following the COG report include:

- Instituting a Fire Liaison to the Rail Operations Control Center (ROCC);
- Implementing a radio outage display map to display reported outages system-wide;

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- Conducting signal strength and voice testing on the Public Safety Radio System by both the jurisdictions and WMATA;
- Creating an online reporting portal for jurisdictions to enter their radio test data; and
- Automatically creating Maximo work orders for reported sub-par performing areas.

The final short-term recommendation (Number 5) was not feasible to implement in the short term and the project team is working to identify other long-term solutions. Five of the long-term recommendations are in the process of being implemented.

WMATA's Comprehensive Radio Communications System (CRCS) does not currently have the ability to interoperate with the PSRS. However, the new 700MHz radio system will fully utilize ISSI to link that radio system to other participating jurisdictions through the National Capital Region Network.

With regard to the January 15th derailment, Metro's preliminary investigation found that the public radio system used by the D.C. Fire Department was working as designed. However, Metro's internal radio communication system was working intermittently at the location of the derailment. Radio communication was available approximately 300 feet from the front of the train as well as on the adjacent track. Immediate actions following the derailment included correcting the CRCS uplink issue in the incident area.

In addition, since January 15th, Metro has performed two full system radio scans to test performance and ensure radio coverage. While the results of the second scan are still being analyzed, the first scan did not find any new outages (there were four known outages at the time of the scan and those have been corrected) – either on WMATA's radio system or the Public Safety radio system used by first responders. The scans, performed using equipment on trains including all tunnel segments, identified 18 locations where transmission capacity was above the required threshold (i.e. not outages), but where capacity was lower than optimal. Additional follow-up action is planned to improve the signal strength in these locations, but it is important to emphasize that the transmission capacity was above the required threshold in all 18 locations.

I want to assure you that we are not waiting for the new radio system before taking additional steps. Specifically, Metro is aggressively working on an additional safeguard in the event of radio transmission/signal issues affecting the WMATA radio system used by Metro employees, such as train operators, station managers, and Transit Police officers. As you know, the Metrorail system is equipped with two radio systems: one that handles Metro communication and a second, separate system called PSRS for jurisdictional first responders (e.g. fire/EMS personnel). The two radio systems operate on different frequencies and, historically, there has been no overlap or interoperability between the two systems.

As an additional measure while Metro works to replace its entire radio infrastructure over the next few years, the transit agency is in the process of purchasing roughly 2,500 "dual band" radios that are capable of transmitting on both radio systems. (Currently, Metro-issued radios can only access the WMATA-radio system, and PSRS channels are exclusively used by jurisdictional emergency responders.) The radios will be funded through the existing multi-year radio project and are expected to be delivered later this year.

Through COG, Metro is working with the jurisdictions, which own and control PSRS, to request that they designate a specific frequency that Metro employees can use as a backup if they experience difficulty communicating on the WMATA radio system during an emergency.

The PSRS WMATA-emergency-only radio frequencies would be monitored 24 hours a day at the ROCC Fire Department Liaison Desk. (To be clear, through this initiative, Metro employees would only be communicating with the ROCC Fire Liaison, not directly with jurisdictional responders. All current procedures for Unified Incident Command being the interface between WMATA and responders will remain in place.)

Simply put, this measure is another layer of protection for front-line employees to contact the ROCC in the event of an emergency, building upon existing procedures and infrastructure that includes an emergency telephone every 800 feet.

We will provide you with further updates on the investigation and on the work underway to address radio communications in the system. Thank you for your leadership and support of Metro as we work to restore the system.

If you have any future questions or concerns please contact me directly, or your staff can contact Regina Sullivan in WMATA's Office of Government Relations by phone at 202-962-1632 or by email at RSullivan@wmata.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Paul J. Wierfeld", with a stylized flourish at the end.

Paul J. Wierfeld
General Manager and
Chief Executive Officer