Corrective Action Plan - TCMS

- RTG and RTM have been directed to mobilize a dedicated team of experts to investigate and solve the issue that results in the TCMS errors;
- Experts include TCMS architect/designer, train system engineer, train control engineer, train validation engineer, train systems analyst, and other experts/support personnel;
- This team is actively investigating all potential root causes and is meeting every day; and,
- Actions include:
  - Complete review of all TCMS error occurrences;
  - Identification of all potential root causes;
  - Identification of pre-warning to Controller of potential occurrence;
  - Testing various solutions with out of service trains on the line; and,
  - Develop procedures to expedite response and rectification.

Train Control and Monitoring System (TCMS)

- RTG / RTM have mobilized a dedicated team of experts to investigate and resolve the issue that results in the TCMS issues;
- This team is taking a multipronged approach:
  - Root cause analysis;
  - Implementation of short-term mitigations; and,
  - Permanent solutions.

Train Control and Monitoring System *(Cont'd)*

- Train Control and Monitoring System (TCMS) issues are trending down;
- Updated procedures for resetting the system allow for quicker recovery and improve the ability to maintain trains in service, reducing impacts to customers; and
- New software for containment of TCMS issues is being deployed this week.

Corrective Action Plan - VOBC

- Direction has been provided to Thales and Alstom to provide the necessary engineers and work collaboratively to identify root causes and resolve the ongoing issues with their systems;
- Experts include both Thales and Alstom train and systems engineers and other experts/support personnel;
- Teams are actively investigating all potential root causes including communication links, potential connection with TCMS issues and associated hardware; and,
- Actions include:
  - Complete review of all VOBC communication errors;
  - Identification of all potential root causes; and,
  - A review of the software logs and reports has been completed and the data is being analysed.

Vehicle On Board Controller

- The Vehicle On Board Controller (VOBC) analysis is being run in parallel with the Train Control and Monitoring System (TCMS) analysis; and,
- The VOBC is integrated with the TCMS and any adjustments to the VOBC are dependent on the findings of the TCMS working group.

Corrective Action Plan - Doors

Since the launch, the following actions have been taken:

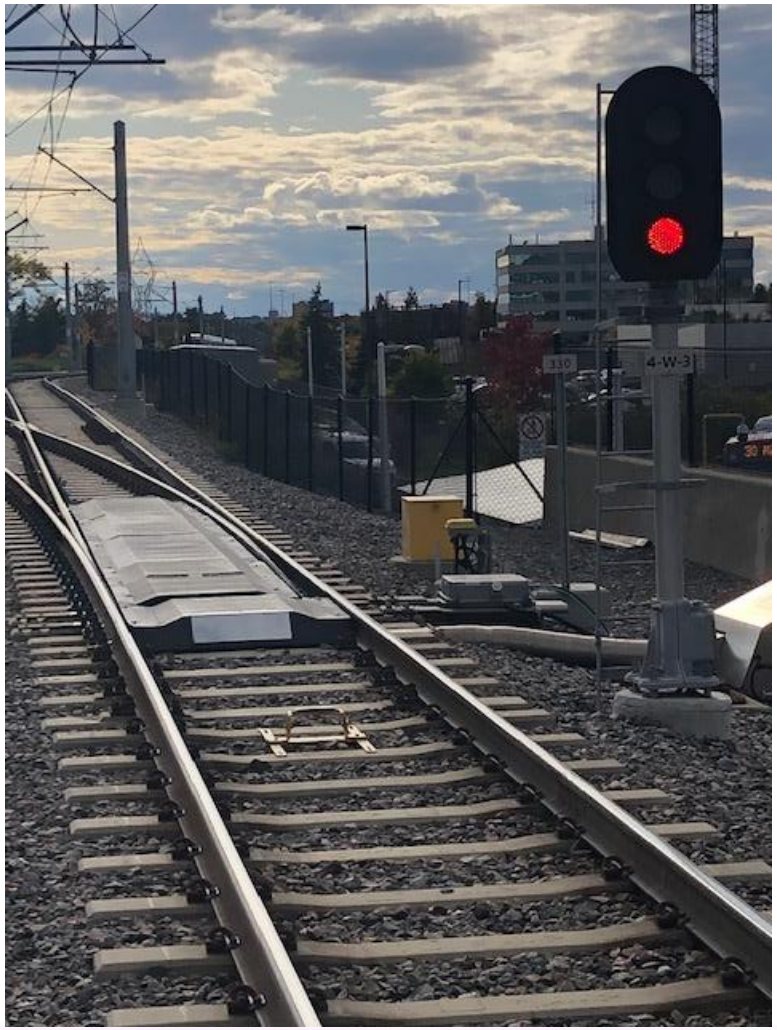
1. Enhanced customer communications to "*not hold the doors*";
2. An inspection of all door mechanisms;
3. Voltage inspection of all doors;
4. Modified procedures to permit consistent "door isolation" which enables affected train to return in service;
5. Dwell times have been adjusted at Hurdman, uOttawa, Rideau, Parliament, Lyon Stations as well as other stations as required;
6. Door sensitivity adjustments will be recalibrated;
7. Door default sequencing is being reviewed to prevent additional cycling of doors;
8. All door software has been inspected which enables the shift to manual door operations; and,
9. Signal engineers (Thales) and door supplier (Vapor) are part of the team reviewing and addressing these issues.

Door Issues

- Technical adjustments have been made to door isolation mechanisms and processes to enable EROs to move more quickly and to more easily respond to door issues;
- Staff have adjusted dwell times to keep the doors open longer at stations;
- As a result, fewer door issues are being reported;
- Where issues occur, door isolation procedures (locking down doors) are enabling trains to continue in service with minimal interruptions;

Corrective Action Plan - Switches

- RTG and RTM have been directed to have dedicated guideway technicians assigned at terminus stations during peak periods;
- A complete inspection and review of all switches has also been ordered;
- Switch covers, which were installed to assist with the upcoming winter season, have been removed at Tunney's and Blair Stations, and will be removed at other locations; and,
- Switch maintenance, inspection plans and greasing programs will be revisited to ensure reliability.



Switches

- Staff directed RTM to remove winter switch covers, which were contributing to switch problems;
- Additional resources have been brought in by RTM to address potential issues with the switches; and,
- Enhanced monitoring has been implemented to ensure active elements such as switch heaters are functioning properly.