

# O-Train Confederation Line & Bus Service Update

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# Agenda

1. Service Enhancements For Our Customers;
2. Rail Service;
3. Bus Service;
4. Communications & Customer Information;
5. Ongoing Improvements to Stations & Issues;
6. Winter Operations.

# Service Enhancements For Our Customers

- 40 additional buses to deal with reliability and capacity issues;
- In addition to those 40 buses, a dedicated 20 bus fleet for R1 bus replacement service is being deployed (discussed in greater detail later in the presentation); and,
- O-Train Ambassadors (red vest) program will continue.

# Funding Service

## Enhancements For Our Customers

- RTG / RTM has not fulfilled its requirements under the contract;
- The City Manager has instructed that the relevant provisions in the Project Agreement be leveraged to cover all applicable costs;
- The City will exercise its full rights under the Agreement to ensure that RTG / RTM funds all required mitigation measures; and,
- A full update will be provided as soon as the relevant information is compiled.

# Rail Service

- Over the last number of days, the O-Train Line 1 has been operating well with no disruptions to our customers during peak periods;
- RTG / RTM is working on resolving issues so that our customers can receive consistent and reliable service;
- Progress is being made to address issues and reduce delays associated with TCMS, VOBC, door and track switches; and,
- The City continues to hold Rideau Transit Maintenance to account for persistent reliability issues relating to computer systems (TCMS), brakes, rail maintenance, and other system-related issues.

# Rail Service

- Despite ongoing challenges, overall ridership to our system is increasing:
  - Ridership in September 2019 was 9.14 million customer trips; this was 3.7% higher than ridership in September a year ago;
  - A preliminary estimate of ridership in October 2019 was 9.57 million customer trips; this was 3.2% higher than ridership in October a year ago; and,
  - Ridership for the 12 month period ending in October 2019 (Sept. 2018 to Oct. 2019) was 97.2 million; this is 0.8% higher than the same period a year ago (Sept. 2017 to Oct. 2018).

# Update To Four Primary Issues Causing Rail Service Interruptions

1. Train Control and Monitoring System (TCMS)
2. Vehicle On Board Control (VOBC)
3. Doors
4. Switches

# 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.

# 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.

# 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;

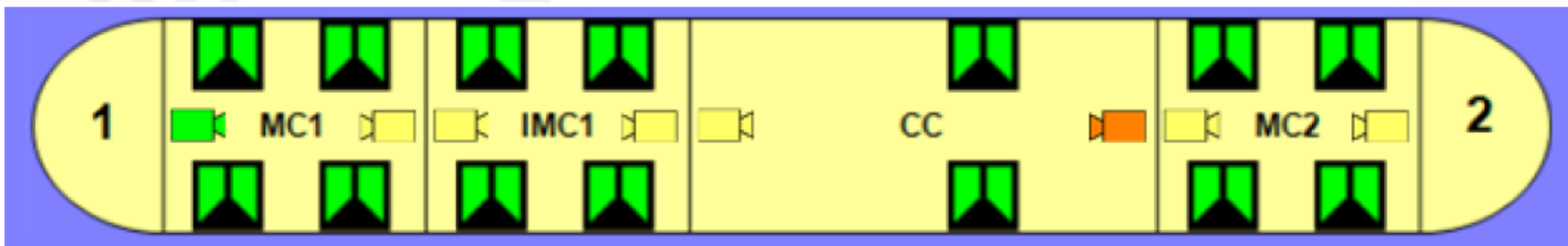
## Door Issues (Cont'd)

- Each two-car train has 14 doors intended to open at each platform;
- There have been intermittent instances where the doors on the rear of the train do not open; and,
- Many if not all do not impact the customer as the doors are opened manually by the operator.

# Door Issues (Cont'd)

- The ERO is trained to be vigilant and identify such situations and act to report and correct the occurrence;
- When this occurs, the ERO manually opens the doors;
- The cause and resolution is being investigated by RTG / RTM.

Driver's Display Unit on the train dashboard



# 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.



# Rail Track Update

## Welded Rail Tracks

- Used on O-Train Line 1 and most modern railways;
- Long sections of rail welded together to create one continuous track (Fig. 1);
- Preferred over jointed rail (Fig. 2) as it allows for increased comfort; and,
- Rail fastening system restricts the movement of rail and reduces the likelihood of breaks.



Fig. 1 welded track (above)



Fig. 2 jointed rail

# Rail Track Update *(Cont'd)*

## Breaks in welded track rails

- Rail fastening system keeps the rail securely in place;
- Customers may feel a slight bump when moving over the break;
- When a suspected rail weld break report is received by Transit Operations Control Centre, an RTG / RTM Guideway Technician or Rail Specialist is sent to assess; and,
- Relatively common during extreme cold weather conditions or rapid changes in temperature.



# Rail Track Update (*Cont'd*)

## Safety measures

- RTG / RTM conducts visual inspections, measurements, ultrasonic rail flaw detection and geometry inspection;
- RTG / RTM conducts inspections at minimum twice per week, or more if required;
- The Confederation Line was designed, certified and approved by an Engineer of Record; and,
- Operators are trained to notify the Transit Operations Control Centre when there is a change in the quality of the ride.

# Rail Track Update *(Cont'd)*

**November 13, 2019**

- Two rail weld breaks reported 300 metres apart on O-Train Line 1;
- The initial rail break was discovered early Wednesday morning and the second mid-day;
- They did not present a safety risk: 25 and 27 millimetres in size;
- RTG / RTM Rail Specialist inspected and repaired; and,
- Speed reductions caused an additional 4 minutes of end-to-end O-Train Line 1 travel time.

# Bus Service



# Improving Bus Service Reliability

- As of November 4, 40 buses have been placed in service to increase bus reliability throughout the transit network;
- The assignments of the buses were determined based on feedback from customers, both through Councillors and directly to OC Transpo, and based also on operational data; and,
- Council and Transit Commissioners received a memo on Friday, November 15 outlining the distribution of these buses.



# Improving Bus Service Reliability (*Cont'd*)

- Staff are currently preparing new schedules for many routes for the January 2020 service change, also based on reports from customers and on operational data and observations;
- Schedule changes will help to address on-time performance and capacity issues where required; and,
- The 40 buses will be incorporated into the new schedule.

# Improving Bus Service Reliability (*Cont'd*)

## Service expansion - an additional 19 buses

- To be used to:
  - Improve service reliability – standby buses at key locations, additional time on routes in congested traffic;
  - Increase capacity and reduce waiting time – routes with high ridership, routes with ridership increases following the opening of O-Train Line 1; and,
  - Provide new and improved connections to Line 1 – new growth areas, earlier/later trips, employment locations, new Chapel Hill Park and Ride lot.

# Improving Bus Service Reliability (*Cont'd*)

- Staff are proposing investment in these areas:
  - Barrhaven and Riverside South – Reliability, capacity, service to growth areas;
  - Bayshore and Bells Corners – Reliability, capacity;
  - Downtown – Reliability, capacity;
  - Greenboro and Riverside South – Reliability, capacity;
  - Kanata and Stittsville – Reliability, capacity, service to growth areas
  - Nepean – Reliability, capacity;
  - Orléans and Blackburn Hamlet – Reliability, capacity, service to growth areas;
  - Ottawa East – Reliability, capacity;
  - Ottawa South – Reliability, capacity, service to growth areas; and,
  - Ottawa West – Reliability, capacity, service to NDHQ Carling.
- Staff will continue to discuss all service evaluation and proposals with Councillors for the wards affected.

# Improving Bus Service Reliability (Cont'd)

- OC Transpo has created a dedicated fleet of 20 buses to support R1 bus replacement service during peak commutes;
- By creating a dedicated fleet, R1 bus replacement operations can be implemented without impacting reliability across the transit network;
- The 20 buses will be available as of the first week of December;
- Operators are being assigned to these buses so as to not impact existing service; and,
- Staff are working with the Ministry of Transportation of Ontario (MTO) to use the Highway 417 bus lanes.
- The 417/174 ramp and Lees Avenue ramp will not be closed.



# Customer Service Improvements

- OC Transpo is actively working to improve communications to customers;
- A new and improved Twitter strategy has been implemented to provide regular service updates throughout AM and PM peak periods;
- Public Information and Media Relations staff have been brought in to provide additional resources and to enhance the external lens being brought to customer information strategies; and,
- Staff continue to implement suggestions from the Toronto Transit Commission and are actively consulting with and researching best practices used by peer Transit operations, such as Vancouver and London.

# Ongoing Improvements

## Trains

- Strap hangers – orders have been placed and 500 units are due shortly;
- 500 units will enable almost half the fleet to be equipped;
- The remaining strap hangers will start being installed upon receipt;
- Dates are being finalized with RTG / RTM.

## Stations

- Tunney's Pasture Canopy to be completed first week of December; and,
- Sewer repair work adjacent to Parliament station is scheduled for completion by November 25 (potential cause of the odour at Parliament Station).

# Ongoing Improvements (Cont'd)

## Tunney's Pasture Canopy





## Ongoing Improvements (Cont'd)

- Mats installed at Lyon, Parliament and Rideau stations;
- Cleaners on duty throughout the service period to clean stairs and flooring; and,
- Anti-slip coating of stairs and flooring in these stations began on November 14 and is scheduled for completion by November 29.



# Ongoing Improvements (*Cont'd*)

## Platforms

- Hurdman Station Pedestrian Bypass Lane with coverage - Work scheduled between November 16 and 22 with scaffolding to be in place by November 29; and,
- Platform markings are complete at 3 stations, full platform marking installation scheduled for completion by early December (weather permitting).



# Ongoing Improvements (Cont'd)

## Hurdman Station Pedestrian Bypass Lane





# Winter Operations



# Winter Operations

- RTM is responsible for ensuring the winter readiness of the train fleet, snow clearing and salting in stations and along the line and maintenance of all rail infrastructure; and,
- OC Transpo is responsible for snow clearing of the bus loops, bus platforms, shelters and sidewalks in fare paid zones.



# Winter Operations *(Cont'd)*

- Since the first winter storm on November 13, winter operations have proceeded well with no major issues; and,
- The City is exercising continuous oversight and allocating resources as necessary to ensure operations are maintained.



# Questions?