Chief Executive Officer’s Report – September 2019 Update

Date: September 24, 2019
To: TTC Board
From: Chief Executive Officer

Summary

The Chief Executive Officer’s Report is submitted each month to the TTC Board, for information. Copies of the report are also forwarded to each City of Toronto Councillor, the Deputy City Manager, and the City Chief Financial Officer, for information. The report is also available on the TTC’s website.

Financial Summary

The monthly Chief Executive Officer’s Report focuses primarily on performance and service standards. There are no financial impacts associated with the Board’s receipt of this report.

Equity/Accessibility Matters

The TTC strives to deliver a reliable, safe, clean, and welcoming transit experience for all of its customers, and is committed to making its transit system barrier-free and accessible to all. This is at the forefront of TTC’s new Corporate Plan 2018-2022. The TTC strongly believes all customers should enjoy the freedom, independence, and flexibility to travel anywhere on its transit system. The TTC measures, for greater accountability, its progress towards achieving its desired outcomes for a more inclusive and accessible transit system that meets the needs of all its customers. This progress includes the TTC’s Easier Access Program, which is on track to making all subway stations accessible by 2025. It also includes the launch of the Family of Services pilot and improved customer service through better on-time service delivery with improved shared rides, and same day bookings to accommodate Family of Service Trips. These initiatives will help TTC achieve its vision of a seamless, barrier free transit system that makes Toronto proud.
Decision History

The Chief Executive Officer’s Report, which was created in 2012 to better reflect the Chief Executive Officer’s goal to completely modernize the TTC from top to bottom, was transformed to be more closely aligned with the TTC’s seven strategic objectives – safety, customer, people, assets, growth, financial sustainability, and reputation. In 2018, with the launch of the new Corporate Plan, this report has undergone progressive changes to align and reflect our reporting metrics to the TTC’s continued transformation.

Issue Background

For each strategic objective, updates of current and emerging issues and multi-year performance are now provided, along with a refreshed performance dashboard that reports on the customer experience. This information is intended to keep the reader completely up-to-date on the various initiatives underway at the TTC that, taken together, will help the TTC achieve its vision of a transit system that makes Toronto proud.

Contact

Ciaran Ryan, Manager – Research & Insights (Acting)
647-465-8659
ciaran.ryan@ttc.ca

Signature

Richard J. Leary
Chief Executive Officer

Attachments

Attachment 1 – Chief Executive Officer’s Report – September 2019
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<td>Safety and security</td>
<td>18</td>
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<td>Ridership</td>
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<tr>
<td>Customer experience</td>
<td>29</td>
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Ongoing trend indicators: Favourable • Mixed • Unfavourable

*Represents four-quarter average of actual results

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## TTC performance scorecard – September 2019

<table>
<thead>
<tr>
<th>Key performance indicator</th>
<th>Description</th>
<th>Latest measure</th>
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<tbody>
<tr>
<td><strong>Safety and security</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Lost-time injuries</td>
<td>Injuries per 100 employees</td>
<td>Q2 2019</td>
<td>4.55</td>
<td>4.71*</td>
<td>✅</td>
<td>✗</td>
<td>18</td>
</tr>
<tr>
<td>Customer injury incidents</td>
<td>Injury incidents per 1M boardings</td>
<td>Q2 2019</td>
<td>1.27</td>
<td>1.15*</td>
<td>✗</td>
<td>✥</td>
<td>19</td>
</tr>
<tr>
<td>Offences against customers</td>
<td>Offences per 1M boardings</td>
<td>Q2 2019</td>
<td>0.67</td>
<td>1.00</td>
<td>✅</td>
<td>✗</td>
<td>21</td>
</tr>
<tr>
<td>Offences against staff</td>
<td>Offences per 100 employees</td>
<td>Q2 2019</td>
<td>4.42</td>
<td>4.16</td>
<td>✗</td>
<td>✦</td>
<td>22</td>
</tr>
<tr>
<td>Fitness for duty</td>
<td>% of employees that tested non-compliant</td>
<td>July 2019</td>
<td>1.2%</td>
<td>1.6%</td>
<td>✅</td>
<td>✅</td>
<td>23</td>
</tr>
<tr>
<td><strong>Ridership</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ridership</td>
<td>Monthly ridership</td>
<td>July 2019</td>
<td>39.8M</td>
<td>39.4M</td>
<td>✅</td>
<td>✅</td>
<td>24</td>
</tr>
<tr>
<td>Ridership</td>
<td>Year-to-date ridership</td>
<td>2019 YTD (to July)</td>
<td>307.6M</td>
<td>311.3M</td>
<td>✗</td>
<td>✦</td>
<td>24</td>
</tr>
</tbody>
</table>

Ongoing trend indicators: ✅ Favourable ✥ Mixed ✗ Unfavourable

*Represents four-quarter average of actual results

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</tr>
</thead>
<tbody>
<tr>
<td>PRESTO ridership</td>
<td>Monthly ridership</td>
<td>July 2019</td>
<td>32.2M</td>
<td>30.3M</td>
<td>✔️</td>
<td>✔️</td>
<td>26</td>
</tr>
<tr>
<td>PRESTO ridership</td>
<td>Year-to-date ridership</td>
<td>2019 YTD</td>
<td>246.4M</td>
<td>242.0M</td>
<td>✔️</td>
<td>✔️</td>
<td>26</td>
</tr>
<tr>
<td>Wheel-Trans ridership</td>
<td>Monthly ridership</td>
<td>July 2019</td>
<td>327.1K</td>
<td>342.0</td>
<td>✖️</td>
<td>🟡</td>
<td>27</td>
</tr>
<tr>
<td>Wheel-Trans ridership</td>
<td>Year-to-date ridership</td>
<td>2019 YTD</td>
<td>2,416K</td>
<td>2,507.3K</td>
<td>✖️</td>
<td>🟡</td>
<td>27</td>
</tr>
</tbody>
</table>

**Customer experience**

| Customer satisfaction       | Customer satisfaction score  | Q2 2019   | 78%      | 80%      | ✖️             | ✔️            | 29   |

**Subway services**

1. **On-time performance Line 1**
   Scheduled headway performance at end terminals
   July 2019 91.1% 90% ✔️ 🟡 30

2. **On-time performance Line 2**
   Scheduled headway performance at end terminals
   July 2019 94.5% 90% ✔️ ✔️ 31

3. **On-time performance Line 3**
   Scheduled headway performance at end terminals
   July 2019 93.2% 90% ✔️ ✔️ 32

Ongoing trend indicators: ✗ Favourable  🟡 Mixed  ✖️ Unfavourable

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td># On-time performance Line 4</td>
<td>Scheduled headway performance at end terminals</td>
<td>July 2019</td>
<td>99.5%</td>
<td>90%</td>
<td>✔</td>
<td>✔</td>
<td>33</td>
</tr>
<tr>
<td># Capacity Line 1</td>
<td>Trains per hour during peak</td>
<td>July 2019</td>
<td>94.5%</td>
<td>96%</td>
<td>✖</td>
<td>✔</td>
<td>34</td>
</tr>
<tr>
<td># Capacity Bloor Station</td>
<td>Trains per hour – 8am to 9am</td>
<td>July 2019</td>
<td>94.1%</td>
<td>96%</td>
<td>✖</td>
<td>✔</td>
<td>34</td>
</tr>
<tr>
<td># Capacity St George Station</td>
<td>Trains per hour – 8am to 9am</td>
<td>July 2019</td>
<td>100%</td>
<td>96%</td>
<td>✔</td>
<td>✔</td>
<td>34</td>
</tr>
<tr>
<td># Capacity Line 2</td>
<td>Trains per hour during peak</td>
<td>July 2019</td>
<td>100%</td>
<td>96%</td>
<td>✔</td>
<td>✔</td>
<td>35</td>
</tr>
<tr>
<td># Capacity Line 3</td>
<td>Trains per hour during peak</td>
<td>July 2019</td>
<td>95.9%</td>
<td>98%</td>
<td>✖</td>
<td>✔</td>
<td>36</td>
</tr>
<tr>
<td># Capacity Line 4</td>
<td>Trains per hour during peak</td>
<td>July 2019</td>
<td>100%</td>
<td>98%</td>
<td>✔</td>
<td>✔</td>
<td>37</td>
</tr>
<tr>
<td># Amount of service</td>
<td>Average weekly service hours delivered</td>
<td>June 2019</td>
<td>10.8K</td>
<td>10.9K</td>
<td>✖</td>
<td>✔</td>
<td>38</td>
</tr>
<tr>
<td># Vehicle reliability T1 trains</td>
<td>Mean distance between failures</td>
<td>July 2019</td>
<td>393,423 km</td>
<td>300,000 km</td>
<td>✔</td>
<td>✔</td>
<td>39</td>
</tr>
<tr>
<td># Vehicle reliability TR trains</td>
<td>Mean distance between failures</td>
<td>July 2019</td>
<td>453,837 km</td>
<td>600,000 km</td>
<td>✖</td>
<td>-</td>
<td>40</td>
</tr>
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Ongoing trend indicators: ✔ Favourable   - Mixed   ✖ Unfavourable

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<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service availability</td>
<td>Daily average service delivered</td>
<td>July 2019</td>
<td>100%</td>
<td>100%</td>
<td>✓</td>
<td>✓</td>
<td>41</td>
</tr>
<tr>
<td>Subway cleanliness</td>
<td>Audit score</td>
<td>Q2 2019</td>
<td>91.0%</td>
<td>90%</td>
<td>✓</td>
<td>✓</td>
<td>42</td>
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</table>

**Streetcar services**

<table>
<thead>
<tr>
<th>Key performance indicator</th>
<th>Description</th>
<th>Latest measure</th>
<th>Current</th>
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<th>Current status</th>
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<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-time performance</td>
<td>On-time departures from end terminals</td>
<td>July 2019</td>
<td>62.9%</td>
<td>90%</td>
<td>✓</td>
<td>✓</td>
<td>43</td>
</tr>
<tr>
<td>Short turns</td>
<td>Monthly total short turns</td>
<td>July 2019</td>
<td>128</td>
<td>1,272</td>
<td>✓</td>
<td>✓</td>
<td>44</td>
</tr>
<tr>
<td>Amount of service</td>
<td>Average weekly service hours</td>
<td>June 2019</td>
<td>20.0K</td>
<td>19.5K</td>
<td>✓</td>
<td>✓</td>
<td>44</td>
</tr>
<tr>
<td>Vehicle reliability LFLRV (Low-Floor Light Rail Vehicle)</td>
<td>Mean distance between failures</td>
<td>July 2019</td>
<td>36,512 km</td>
<td>35,000 km</td>
<td>✓</td>
<td>✓</td>
<td>46</td>
</tr>
<tr>
<td>Vehicle reliability CLRV (Canadian Light Rail Vehicle)</td>
<td>Mean distance between failures</td>
<td>July 2019</td>
<td>3,549 km</td>
<td>6,000 km</td>
<td>✓</td>
<td>uninspired</td>
<td>47</td>
</tr>
<tr>
<td>Road calls and change offs</td>
<td>Average daily road calls or vehicle change offs</td>
<td>July 2019</td>
<td>6</td>
<td>2.4</td>
<td>✓</td>
<td>✓</td>
<td>48</td>
</tr>
<tr>
<td>Service availability</td>
<td>Daily number of vehicles available for service</td>
<td>July 2019</td>
<td>100%</td>
<td>100%</td>
<td>✓</td>
<td>✓</td>
<td>49</td>
</tr>
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</table>

Ongoing trend indicators: ✓ Favourable, - Mixed, × Unfavourable

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<table>
<thead>
<tr>
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<th>Ongoing trend</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Streetcar cleanliness</td>
<td>Audit score</td>
<td>Q2 2019</td>
<td>84.8%</td>
<td>90%</td>
<td>🚫</td>
<td>🚫</td>
<td>50</td>
</tr>
<tr>
<td><strong>Bus services</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On-time performance</td>
<td>On-time departures from end terminals</td>
<td>July 2019</td>
<td>77.1%</td>
<td>90%</td>
<td>🚫</td>
<td>🚫</td>
<td>51</td>
</tr>
<tr>
<td>Short turns</td>
<td>Monthly total short turns</td>
<td>July 2019</td>
<td>456</td>
<td>2,062</td>
<td>✔️</td>
<td>✔️</td>
<td>52</td>
</tr>
<tr>
<td>Amount of service</td>
<td>Average weekly service hours</td>
<td>July 2019</td>
<td>154K</td>
<td>151K</td>
<td>✔️</td>
<td>🚫</td>
<td>53</td>
</tr>
<tr>
<td>Vehicle reliability</td>
<td>Mean distance between failures</td>
<td>July 2019</td>
<td>20,000 km</td>
<td>12,000 km</td>
<td>✔️</td>
<td>✔️</td>
<td>54</td>
</tr>
<tr>
<td>Road calls and change offs</td>
<td>Average daily road calls or vehicle change offs</td>
<td>July 2019</td>
<td>25</td>
<td>24</td>
<td>🚫</td>
<td>🚫</td>
<td>55</td>
</tr>
<tr>
<td>Service availability</td>
<td>Daily average service delivered</td>
<td>July 2019</td>
<td>102.2%</td>
<td>100%</td>
<td>✔️</td>
<td>✔️</td>
<td>56</td>
</tr>
<tr>
<td>Bus cleanliness</td>
<td>Audit score</td>
<td>Q2 2019</td>
<td>89.7%</td>
<td>90%</td>
<td>🚫</td>
<td>🚫</td>
<td>57</td>
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</table>

**Wheel-Trans services**

Ongoing trend indicators: ✅ Favourable ✅ Mixed ✖️ Unfavourable  *Represents four-quarter average of actual results
### Key performance indicator

<table>
<thead>
<tr>
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<th>Latest measure</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>On-time performance</strong></td>
<td>% within 20 minutes of schedule</td>
<td>July 2019</td>
<td>93.2%</td>
<td>90%</td>
<td>✓</td>
<td>✓</td>
<td>58</td>
</tr>
<tr>
<td><strong>Vehicle reliability</strong></td>
<td>Mean distance between failures</td>
<td>July 2019</td>
<td>15,581 km</td>
<td>12,000 km</td>
<td>✓</td>
<td>✓</td>
<td>59</td>
</tr>
<tr>
<td><strong>Accommodation rate</strong></td>
<td>Percentage of requested trips completed</td>
<td>July 2019</td>
<td>99.9%</td>
<td>99%</td>
<td>✓</td>
<td>✓</td>
<td>60</td>
</tr>
<tr>
<td><strong>Average wait time</strong></td>
<td>Average amount of time a customer waits before call is answered</td>
<td>July 2019</td>
<td>7.7 min</td>
<td>15 min</td>
<td>✓</td>
<td>✓</td>
<td>61</td>
</tr>
</tbody>
</table>

#### Station services

<table>
<thead>
<tr>
<th>Station services</th>
<th>Description</th>
<th>Latest measure</th>
<th>Current</th>
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<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Station cleanliness</strong></td>
<td>Audit score</td>
<td>Q2 2019</td>
<td>75.06%</td>
<td>75%</td>
<td>✓</td>
<td>×</td>
<td>62</td>
</tr>
<tr>
<td><strong>Elevator availability</strong></td>
<td>Per cent available</td>
<td>July 2019</td>
<td>98.7%</td>
<td>98%</td>
<td>✓</td>
<td>✓</td>
<td>63</td>
</tr>
<tr>
<td><strong>Escalator availability</strong></td>
<td>Per cent available</td>
<td>July 2019</td>
<td>96.9%</td>
<td>97%</td>
<td>×</td>
<td>×</td>
<td>64</td>
</tr>
<tr>
<td><strong>Fare gates equipped with PRESTO</strong></td>
<td>Per cent available</td>
<td>July 2019</td>
<td>98.23%</td>
<td>99.5%</td>
<td>×</td>
<td>×</td>
<td>65</td>
</tr>
<tr>
<td><strong>PRESTO Fare Card Reader</strong></td>
<td>Per cent available</td>
<td>July 2019</td>
<td>98.82%</td>
<td>99.99%</td>
<td>×</td>
<td>✓</td>
<td>67</td>
</tr>
</tbody>
</table>

Ongoing trend indicators: ✓ Favourable  - Mixed  ❌ Unfavourable *Represents four-quarter average of actual results
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</thead>
<tbody>
<tr>
<td>PRESTO Fare Vending Machine</td>
<td>Per cent available</td>
<td>July 2019</td>
<td>93.97%</td>
<td>95.00%</td>
<td>✗</td>
<td>☑</td>
<td>68</td>
</tr>
<tr>
<td>PRESTO Self-serve Reload Machine</td>
<td>Per cent available</td>
<td>July 2019</td>
<td>98.80%</td>
<td>95.00%</td>
<td>☑</td>
<td>☑</td>
<td>69</td>
</tr>
<tr>
<td>PRESTO Fares and Transfer Machines</td>
<td>Per cent available</td>
<td>July 2019</td>
<td>99.54%</td>
<td>95.00%</td>
<td>☑</td>
<td>☑</td>
<td>70</td>
</tr>
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</table>
Appointments

I would like to officially introduce Rich Wong as the TTC's Chief Vehicles Officer. Rich was appointed to the position in late August after serving as Acting Chief for eight months. Rich has 20 years of experience at the TTC and has held progressively responsible positions across the organization over the course of his career.

Rich is part of the executive team. His role sends a strong message to customers, and our workforce, that the TTC's multi-modal fleet, which safely moves 1.7 million customers a day, is maintained in a state of good repair, sees fewer in-service breakdowns and is replaced with new, modern vehicles as needed.

I am pleased to report that Gary Downie, the TTC’s Chief Transit Expansion Officer, is remaining with the TTC in the role of Chief of Major Projects, effective September 8, 2019. Gary has over 35 years’ experience delivering major projects — in both the public and private sector — 18 of which have been managing the infrastructure upgrade and expansion projects for large-scale transit providers in dense metropolitan areas. His prior experience includes Head of Delivery of Major Projects at Transport for London. Gary is a mechanical engineer and has an MBA from Edinburgh Napier University.

The TTC also recently congratulated Dwayne Geddes as the new Head of Wheel-Trans. Dwayne joined the TTC as a Streetcar Operator in 2004. During his 15-year career, he has held several supervisory and management positions, including roles in Streetcar and Bus Transportation, Operations Control Centre, Employee Relations and Wheel-Trans. Dwayne had been serving as Acting Head since March. Dwayne is leading our paratransit division through a vitally important transition, integrating Wheel-Trans and the conventional network via Family of Services as part of our Wheel-Trans Transformation program.

Dwayne will be making a presentation at the Public Forum on Accessible Transit at the Beanfield Centre at Exhibition Place on September 25. The purpose of the forum is to provide an update on accessibility initiatives at the TTC and to gather feedback from the public. Everyone is invited to attend.

This summer

The TTC had a very busy summer season. Since the last Board meeting in July, the TTC and the City participated in numerous meetings and discussions with the Province on realignment of transit responsibilities.

We were elated to hear the Government of Canada announce on August 26 priority funding
consideration for the expansion of Bloor-Yonge Station under the Investing in Canada Infrastructure Plan.

We also retired the last of our 30-year-old articulated streetcars while we continue to receive new replacement buses and streetcars.

**Provincial upload**

In my last several reports I have provided an update on the ongoing discussions the TTC is participating in with the City and the Province of Ontario with respect to the realignment of transit responsibilities.

As previously reported, on July 23 the Province enacted a regulation (O. Reg 248/19) that designated the Scarborough Subway Extension, Yonge North Subway Extension and Relief Line South and North as ‘sole responsibility projects’ of Metrolinx. Under the legislation, the Province has the authority to transfer assets, liabilities, rights and obligations related to the projects from the TTC to Metrolinx.

As a result of the regulation being filed, effective August 30 consultant contracts related to the three transit expansion projects have been reassigned to Metrolinx from the TTC. Consultant staff under these contracts have now relocated to Metrolinx offices.

The TTC is still engaged in discussions with Metrolinx on a potential staff services agreement for TTC staff to provide support to the transit expansion projects that are now under Metrolinx authority. The parameters of such an agreement are still being discussed. In the interim, the TTC is putting a priority on ensuring TTC capital project resource needs are met and my executive team has begun the process of identifying opportunities to realign resources internally. Regular meetings with impacted staff have been occurring to provide information as it becomes available.

As previously reported, the Ministry of Transportation (MTO) has retained a third party consultant to undertake an asset condition inspection of the TTC’s subway assets and an asset valuation exercise. Over the month of August, the TTC provided comprehensive safety and system training for a small team of MTO-led inspectors. The TTC has also provided access to over 250,000 documents requested by the MTO, which the provincial team is currently in the process of reviewing.

On-site inspections commenced in early September and are expected to conclude by the end of the month. The inspections are focusing on a sample of specific asset categories such as stations, vehicles, wayside, tunnels, tracks and bridges. Inspectors are accompanied by assigned TTC staff at all times and have been paired with subject matter experts in each asset category.

I remain committed to providing regular updates to the Board and TTC employees with respect to ongoing discussions and activities with the Province. Further updates will be forthcoming once more information is available.

**New buses**

At the time of writing this commentary, Nova Bus had
delivered 124 of 200 hybrid-electric buses scheduled for delivery this year. The remaining hybrid bus deliveries are on schedule.

These latest generation hybrids are performing well above the TTC’s reliability target of 12,000 kilometres mean distance between failures. The latest measurements indicated that they are consuming 25 per cent less fuel than the most advanced clean-diesel buses in our fleet, and are 46 per cent cleaner than the buses they are replacing. Staff has calculated that the reduction in fuel consumption has cut our greenhouse gas emissions by well over 48 per cent.

By mid-August, 10 all-electric buses (eBuses) were delivered by New Flyer Industries. Nine of them have been commissioned and are now serving five different routes. These buses are being maintained and stored at our Arrow Road Garage. Staff has reported that the New Flyers are achieving a range of 200 kilometres under load (with air conditioning) and are consuming on average 1.45 kilowatt hours per kilometre, which is 10 per cent better than initial modelling estimates.

As of September 12, six of 10 eBuses from Proterra arrived at Mount Dennis Garage and are all undergoing commissioning. Details on the launch date of the first bus and its first route will be known soon.

All 10 eBuses from the third manufacturer, BYD, are being completed at its finishing facility in Newmarket. The first BYD eBus is scheduled to arrive in early October.

The installation of charging systems at three of our garages (Arrow Road, Mount Dennis and Eglinton) continues. Arrow Road Garage supports 20 all-electric buses, Mount Dennis Garage supports 14 and, by mid-September, Eglinton Garage will be equipped for 10.

**McNicoll Bus Garage**

Construction of the McNicoll Bus Garage
Garage is approximately 60 per cent complete. Over the summer, underground work was completed and the contractor is now grading the bus roadway and employee parking lot in preparation for paving. The white cool roof has been fully installed and vegetation is being placed on the green roof. The solar thermal wall is complete and almost all windows have been installed. All concrete floor slabs are in place and significant progress has been made on the installation of electrical wiring and mechanical systems.

Major building equipment has also been installed. The Environmental Compliance Approval for the facility was received from the Ministry of the Environment, Conservation and Parks. Within weeks, permanent electrical power will be turned on and commissioning of selected equipment and systems will begin. The contractor will complete the building exterior this fall, which will facilitate installation of the remaining equipment, systems and finishes over the winter and spring. A project update was sent to the local community and posted online in June.

**Automatic Train Control**

Earlier this month, we welcomed representatives from the East Japan Railway Company to the TTC. They were a technical committee interested in learning about our experience with Automatic Train Control (ATC) systems. We shared information on our legacy signalling system and our current transition to ATC. The group was given a demonstration at Wilson Yard and on the Line 1 extension. We had a great exchange of information, as challenges and lessons learned regarding each other’s ATC systems were shared.

Our ATC project is progressing well with the next phase of implementation to Queen Station on schedule to be commissioned in Q1 2020. Testing of this phase is well underway at 70 per cent with more than 500 low-speed test cases.
completed last month. The results of the low-speed testing will feed the development of the high-speed software. After the functional software simulation is completed, high-speed testing will start in Q4 2019.

Results from the high-speed testing will feed the development of the revenue service software enabling ATC up to Queen Station in Q1 2020.

Installation activities in the subsequent phase from Queen to Rosedale stations is nearly complete at 99 per cent. Testing activities of ATC assets has also started and is at five per cent.

Construction teams have taken advantage of the good summer weather and have started installation activities outside the tunnels in the Davisville Station area. Over 4,000 feet of cable trough has been installed along with 75,000 feet of cable. The overall installation of the Rosedale to Eglinton phase is at 12 per cent.

Our subway maintenance vehicles continue to be commissioned with Automatic Train Protection (ATP) to allow greater travel speeds within the ATC portion of Line 1 for maintenance activities. One additional workcar was commissioned with ATP last month, bringing the total number of workcars with ATP to five.

The project team continues to assess project risks and is nearing completion of the quantitative risk assessment. The ATC budget is also being reviewed as part of the assessment and will be reflected in the 2020 Capital Budget as noted during the 2019 budget process.
Subway infrastructure work

To optimize the benefits of the ATC system along the stretch of track north of Eglinton, a number of switches and crossover track need to be replaced. To perform that work, a restricted speed zone will need to be implemented. The work plan and scheduled dates in the fall will be announced soon. Our aim will be to minimize the impact on our customers by keeping the restricted speed zones as short in duration as possible and at the highest speed possible while maintaining safe track conditions for our workers.

Fort Monaco, our Chief of Infrastructure and Engineering, will provide a short presentation on this work at our October Board meeting.

PRESTO update

Since the PRESTO fare payment system arrived at the TTC, we have been working very hard to encourage customers to make the switch from legacy fare media and to modernize our station staff model from Collectors in booths to mobile Customer Service Agents.

With PRESTO readers on every bus, streetcar and fare gate, and with PRESTO fare vending machines and self-serve reload machines at every station, the provincially-led fare card system has given our customers many benefits, but also many challenges.

Over the summer, I met with Metrolinx President and CEO, Phil Verster, to discuss the outstanding claims between the parties and the status of the outstanding deliverables of the contract for the implementation of PRESTO on the TTC. It is clear from our discussions that Metrolinx considers the contract deliverables complete.

So, while these discussions were informative about the positions of each organization, we were not able to reach a common understanding and agreement. We did agree that the next step is to proceed with arbitration, which is the dispute resolution process provided in the contract.

We are working with external counsel to review the process and finalize material and submissions. As we outlined in our report to the Board in June, the TTC does not consider the contract closed. Rather, there are significant deliverables outstanding, including open payment and account-based technology (which includes equipment), equipment to provide PRESTO Tickets on buses and streetcars, an acceptable third-party distribution network and Service Level Agreements for all equipment.

As we work with Metrolinx to resolve the issues noted above, we continue to make headway in our transition to PRESTO. Before the year is over, we will reach another major milestone when we stop selling tickets, tokens and our remaining pass products. The PRESTO adoption rate is now over 80 per cent with many customers still using legacy fare media to access our system. When ticket, token and pass sales are discontinued, we want to ensure the move to PRESTO is as seamless as possible for these customers.
In the coming weeks, we'll be rolling out a comprehensive marketing and communications plan with the objective of further driving PRESTO adoption. We will announce an official stop selling date as we progress.

**Preparing for the winter**

Despite being only one day into the fall season when the TTC Board convenes at City Hall on September 24, winter preparations are already underway at the TTC. Getting service ready for the winter starts in the summer and fall.

The same intensive preventative maintenance program that we conduct for extreme hot temperatures is carried out in anticipation of those biting cold days that lie ahead.

Crews in Subway and Surface Operations each have long checklists of activities that begin as early as July. Some of the items that have already been completed trackside include: inspections and repairs to heating equipment on Lines 1 and 2; replacement of power rail heating equipment on Line 3; and tree pruning along the open cuts on Line 2.

From September through to November the checklist includes:

- Subway yard trackside heating checks.
- Snow fence installation in yards and mainline stretches.
- Switch heater element and infrastructure replacement and trailing switch installations at Leslie Barns.
- Leaf cleanup along tracks.

With more than 2,400 revenue vehicles including buses, streetcars, subways and paratransit vehicles in the fleet, maintenance crews have a lengthy list of inspect-repair-test programs. Examples of these activities include, but are not limited to:

- Heating system (cab, passenger and door threshold heaters inspection and testing).
- Cab defroster (inspection and testing).
- HVAC filter (cleaning and replacement).
- Ramp system (cleaning, testing and lubrication).
- Windshield wipers and fluid top ups.
- Pneumatic system (air dryers’ desiccant replacement, filter change and testing).
- Installation of winter tires on articulated buses.
- Installation of anti-icing tanks on T1 and TR storm trains.

In addition, winter preparations are also conducted on our fleet of automotive and rail non-revenue vehicles. These include inspection, testing and installation of auxiliary equipment such as plows, snow throwers and salting equipment on pickup trucks, dump trucks and rail workcars.

**Reliability improvements**

I would like to quickly highlight that our on-time performance for our streetcar fleet has shown continuous improvement over the last few months. We have implemented new route schedules and a narrowed management focus on affected routes, which has led to better performance despite
challenges faced by construction and annual summer events in the city that impact service. For example, the 501 Queen streetcar service has experienced better performance thanks to improved route management oversight. This has resulted in more on-time departures and reduced short-turning of streetcars. We are expecting these positive trends to continue.

On October 13, we will be introducing service reliability improvements on the following routes: 12 Kingston Rd, 16 McCowan, 17 Birchmount, 34 Eglinton East, 47 Lansdowne, 51 Leslie, 66 Prince Edward, 71 Runnymede, 75 Sherbourne, 77 Swansea, 79 Scarlett Rd, 83 Jones, 87 Cosburn, 96 Wilson, 98 Willowdale-Senlac, 100 Flemingdon Park, 102 Markham Rd, 108 Driftwood, 165 Weston Rd North, 506/306 Carlton, 509 Harbourfront and 510 Spadina.

At the same time, as a result of implementing the recommendations of the Junction Area Study, the 30 High Park route will be changed to the 30 High Park, the 40 Junction-Dundas West and we will be introducing a new service named 189 Stockyards.

The voice of the customer

In May 2015, we implemented a Customer Relationship Management (CRM) system to manage and keep track of complaints, suggestions and inquiries. Customers can reach out to us on a variety of channels, including telephone, our website and social media. Once their message is received, it is categorized in the system (e.g. subway delay, fare dispute, etc.) and forwarded to the appropriate department for a response, or acknowledgement.

Although we monitor and respond to customer complaints on a daily basis, we wanted to take a deeper dive into CRM historical data to better understand evolving customer expectations and assess the impact some improvement initiatives have had on the customer experience over time.

Since 2016, the top four complaint categories have remained unchanged:

1. Surface delay (reliability)
2. Discourtesy
3. Vehicle operation
4. Bypassing of customers

Although the top complaints have held fairly constant, the following complaint categories have trended down in the past two years:

- Fare or transfer disputes
- Complaints about the condition of our vehicles
- Early departure complaints

In Q1 and Q2 of 2019, we saw an 11 per cent decrease in overall complaint volume compared to the same time last year. Complaints about subway delays and short turns have both decreased this year, suggesting our service improvements are having a positive impact on customer experience.

At our October meeting, we will be sharing a presentation with the Board on our CRM data analysis. It
will include findings and insights on high priority issues, and how we plan to leverage this valuable data source going forward to improve the experience for our customers.

We are looking forward to our meeting with the Board this month after a long summer break.

Richard J. Leary
Chief Executive Officer
September 2019
**Lost-time injuries rate (LTIR)**

**Definition**
Number of lost-time injuries reported per 100 employees.

**Contact**
John O’Grady,
Chief Safety Officer

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### Results

The LTIR for Q2 2019 was 4.55 injuries per 100 employees.

### Analysis

The LTIR for Q2 was 3% lower than the four-quarter average of 4.71 injuries per 100 employees. There has been an upward trend in the LTIR since 2015.

### Action plan

Musculoskeletal/ergonomic type injuries (e.g. overexertion, reach/bend/twist, repetition) continue to account for 23% of all lost-time injuries and represent the highest injury event type since 2014. The Ergonomic Musculoskeletal Disorder Prevention Program focuses on preventing such injuries and resolving ergonomic concerns. In preparation for National Ergonomics Month in October, communications to promote ergonomics will be rolled out to the organization through various outlets, including TTC-TV, broadcast emails, pamphlets and department specific Safety Talks.

Acute emotional event injuries caused by sudden and unexpected traumatic events continue to represent the second highest injury type and account for 16% of all lost-time injuries since 2014. In January 2018, under the Workplace Safety and Insurance Board Act, the Province introduced two legislative changes: 1) The new policy on Chronic Mental Stress allows for compensation due to work-related stressors like harassment; 2) The policy on Traumatic Mental Stress is revised to broaden the spectrum of psychological claims. These changes have created an opportunity for an increase in the reporting of claims related to emotional trauma injuries.

**Note:** Q3 2019 data will be available in the December 2019 CEO’s Report.
Customer injury incidents rate (CIIR)

Definition
Number of customer injuries per one million boardings.

Contact
John O'Grady,
Chief Safety Officer

Results

The CIIR for Q2 2019 was 1.27 injury incidents per one million vehicle boardings.

Analysis

The CIIR for Q2 was 10% higher than the four-quarter average rate of 1.15 injury incidents per one million vehicle boardings. This increase is mainly attributed to the increase in the station-related subway customer injury incident rate in Q2. Slip, trip, and fall injuries on escalators and stairs/steps were the highest type of station injuries reported this quarter.

The four-quarter average line shows there has been a downward trend in the CIIR since since 2014.

Action plan

Starting mid-August, in order to reduce the slip, trip and fall injuries at stations, elevator and escalator safety videos have played frequently on most TTC platform video screens and station information screens.

This November, in support of Fall Prevention Month, a slip, trip and fall prevention campaign will be rolled out again to customers and employees. Messaging about slips, trips and falls safety will be shared through various communication outlets, such as posters inside subway stations, platform video screen messages, social media and ttc.ca.

Note: Q3 2019 data will be available in the December 2019 CEO’s Report.
Regulatory compliance

At the May 29 Audit and Risk Management Committee meeting, a commitment was made to report to the Board on compliance to Safety, Health & Environment regulatory orders and to provide assurance that Commissioners have discharged their legal responsibilities. The table entitled “Order Compliance” summarizes the number of regulatory orders issued in 2019 (year-to-date) and their status.

Contact
John O’Grady,
Chief Safety Officer

<table>
<thead>
<tr>
<th>Type</th>
<th>Number of Orders Issued</th>
<th>Status</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Requirement Orders ¹</td>
<td>Non-compliance Orders ²</td>
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<tr>
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<tr>
<td>Ministry of the Environment, Conservation and Parks Orders</td>
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<tr>
<td>Technical Standards and Safety Authority Orders</td>
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<tr>
<td>City of Toronto - Notice of Violation</td>
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</tr>
</tbody>
</table>

¹ Orders issued to provide documentation/information.

² Orders issued to remedy contraventions of the Occupational Health and Safety Act or regulations.
Offences against customers

Definition
Number of offences against customers per one million vehicle boardings.

Contact
Kirsten Watson
Deputy Chief Executive Officer – Operations

Results

The total number of offences against customers decreased in Q2 to 0.67 per one million vehicle boardings. The current rate is 4% lower than the previous quarter (0.70) and 3% lower than the same time last year (0.69).

Analysis

The number of thefts, assaults and other crimes (threats, harassment, indecent exposure, etc.) all decreased in comparison to Q1. There were slight increases in the number of sexual assaults and robberies.

Action Plan

Transit Enforcement Special Constables will continue to engage with the public to provide a visible presence across the system with a greater focus on high-risk areas.

Note: Q3 2019 data will be available in the November 2019 CEO’s Report.
## Offences against staff

<table>
<thead>
<tr>
<th>Year</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>4.22</td>
<td>4.42</td>
<td>4.78</td>
</tr>
</tbody>
</table>

### Results

The total number of offences against staff increased in Q2 to 4.42 offences per 100 employees. The current rate is 4.7% higher than last quarter (4.22) and 7.5% lower than the same time last year (4.78).

### Analysis

There was a significant increase in the number of assaults and threats compared to the previous quarter. Other offences, including mischief, harassment, indecent exposure, sexual assault and robbery, decreased this quarter in comparison to the previous quarter.

### Action Plan

Transit Enforcement Special Constables continue to provide support to surface personnel via the BUS STOP (Bringing Uniform Support to Surface Operating Personnel) initiative, and conduct special details and initiatives to assist with ongoing and emerging issues identified by staff across the system.

*Note: Q3 2019 data will be available in the November 2019 CEO’s Report.*
Fitness for duty

The data shows the percentage of employees that tested non-compliant (drug, alcohol, refusal) under the TTC’s random program on a monthly basis and how each of those months compares to the overall program non-compliance rate (benchmark). This data includes tests performed on unionized and non-unionized employees.

The chart showing “Drug Positive by Substance” is updated on a quarterly basis. The information is up to June 30, 2019. Some results are returned as positive for more than one substance.

Contact
Sean Milloy,
Director – Employee Relations
Human Resources
Ridership

**Definition**
Average number of journeys per week, including paid and free journeys (e.g. two-hour transfers and children 12 and under). A journey with transfers is counted as one journey. The total is derived from cash, tickets and token counts, Metropass and PRESTO data, diary studies and ridership analytics.

**Contact**
Josie La Vita,
Chief Financial Officer

**Results**

Period 7 (July 7 to August 3, 2019) revenue ridership was at 39.8 million or 9.9 million passengers per week. This was approximately 0.4 million (0.9%) above the budget of 39.4 million rides and 0.7 million (1.8%) above the same period in 2018. For the first time this year, ridership was above budget, mainly due to a 3.8% growth in adult ridership. Year-to-date (YTD) ridership at the end of period 7 was 307.6 million, 3.7 million (1.2%) below budget and 1.8 million (0.6%) below the comparable period in 2018.

**Analysis**

For the second period in a row, adult ridership grew (about one million rides per period), indicating a turnaround in both the ridership and revenue trends. Adult ridership growth is usually a result of increased employment and/or a better economy.

The overall decrease in 2019 year-to-date ridership appears to have been affected by several factors compared to 2018, including: severe weather, decreased weekend ridership, increased subway closures and higher PRESTO adoption, which has resulted in fewer monthly pass users and more e-purse users who make fewer trips.

Ridership is affected by heavy snow and severe cold. Our customers experienced more of both last winter. In particular, for the first two periods of the year, there were five severe snow storms compared to none during the comparable period last year.

A decrease was experienced for period 4 (April) compared to both the prior year and budget. This decrease was predominantly driven by reduced weekend ridership that was down 6.5% compared to 2018, largely attributed to the timing of the 2019 Easter holiday weekend.
Higher PRESTO adoption appears to have affected measured ridership in two ways. First, we now have more precise ridership data compared to counting tokens and weighing paper tickets. Second, more than 25% of our former monthly pass customers have converted to PRESTO pay-as-you-go e-purse each month in 2019, likely to take advantage of the two-hour transfer and for some, the TTC/GO discounted co-fare. This would affect measured ridership to the extent that these customers may ride less often than the monthly average of 71 rides per adult monthly pass.

**Action Plan**

We are developing a 5-Year Service Plan and 10-Year Outlook to ensure we are improving the experience for our customers and encouraging non-customers to use TTC services more. The vision for the Plan is to focus on improvements that directly enhance the TTC’s core-competency: mass transit — moving large volumes of customers safely, reliably and swiftly across Toronto. The emerging pillars of opportunity are:

1. **Enhance the Transit Network:** An expansive network that gets customers to where they want to go, when they want to go

2. **Enhance the Customer Experience at Key Stops:** A pleasant experience that begins before our customers get on a vehicle

3. **Improve Service Reliability:** A reliable service that our customers can count on

4. **Prioritize Transit on Key Surface Corridors:** A fast service that values our customers’ journey time

5. **Accelerate Integration with Regional Transit Agencies and Complementary Modes of Transport:** An integrated network that provides our customers with a seamless connection to and from our services
**PRESTO ridership**

Definition
Average number of journeys per week using PRESTO fare media, including PRESTO taps and PRESTO pass rides.

Note: PRESTO ridership is included in TTC ridership totals.

Contact
Josie La Vita,
Chief Financial Officer

**Results**

Period 7 (July 7 to August 3, 2019) PRESTO ridership was 32.2 million or 8.1 million passengers per week. This was approximately 2.0 million (6.5%) above the budget and 21.2 million (193%) higher than July 2018 ridership of 11.0 million.

Year-to-date ridership at the end of period 7 was 246.4 million, 4.4 million (1.8%) above budget and up 169.5 million (221%) above the comparable period in 2018.

**Analysis**

Substantial progress has been made over last year with numerous fare products now available on PRESTO. Fare card readers have been installed on all buses and streetcars. Fare gates equipped with PRESTO and fare vending machines are at all subway entrances.

The PRESTO adoption rate for period 7 was 81.1%. Since last December, the adult adoption rate has increased from 51.0% to 88.1%, the senior adoption rate has increased from 35.8% to 67.2% and the youth adoption rate has increased from 36.7% to 62.9%.

We are in discussions with Metrolinx about the adoption rate calculation given measurement uncertainties related in particular to two-hour transfer and PRESTO monthly pass ridership.

**Action Plan**

PRESTO adoption is expected to increase over time as legacy media is phased out, more PRESTO fare options are made available and marketing initiatives encourage further PRESTO adoption. The PRESTO adoption rate is expected to continue to increase significantly during 2019, reaching approximately 95% once legacy fare media are no longer sold.

Note: PRESTO ridership is included in TTC ridership totals.
Wheel-Trans ridership

Definition
Average number of journeys per week using both Wheel-Trans dedicated services and contracted services.

Note: Wheel-Trans ridership is not included in the TTC ridership totals.

Contact
Josie La Vita,
Chief Financial Officer

Results

Ridership in period 7 (July 7 to August 3, 2019) was 327,140 (or 81,785 passengers per week). This figure was 4.3% lower than the budgeted 85,491 customers per week. In terms of year-over-year results, the July ridership of 327,140 was 0.2% lower compared to the same period in 2018.

Analysis

Wheel-Trans year-to-date ridership remains flat when compared to 2018 with a slight decrease in period 7. Year-end ridership is expected to be approximately 1.5% above 2018 actuals with an increase in ridership expected in the fall. The volume of fully diverted trips during the summer period is consistent with the expected travel patterns, weather and reduced summer ridership on conventional services, providing an opportunity for Wheel-Trans customers to fully divert their trips.

There have been fewer customer applications received in 2019 when compared to 2018, with 42% of customers identified as conditional. These new conditional customers — those who may be able to use conventional transit for all or part of their trip — are taking fewer Wheel-Trans door-to-door trips, with data indicating that they are diverting trips to conventional services.

Wheel-Trans has seen a positive impact on wait times and reduced call return volumes with the increase in contact centre staff in the past two months. In period 7, the average wait time was 7.7 minutes vs. 16.2 minutes in 2018. Customers continue to use online booking services with 57% of all trip requests booked using the online system.

Action Plan

Customer trip requests will continue to be analyzed to better understand new travel trends. Forecasting demand takes into consideration the classification of new and current customers, previous service trends, new service options with increased Family of Services options, as well as the improved capability of scheduling and dispatching software. This
analysis has also recently incorporated the impact of full-diverted trips. The process for booking and scheduling trips has changed significantly with the focus remaining on providing trips for all customer requests. The change in policy regarding same day cancellations has impacted the cancellation rate. However, staff are working on implementing service, policy and software changes to continue to provide an efficient service.

*Note:* Wheel-Trans ridership is not included in TTC ridership totals.
Customer satisfaction score

**Definition**
Overall satisfaction: How satisfied were you overall with the quality of the TTC’s service on the last TTC trip you took?

**Contact**
Kathleen Llewellyn-Thomas, Chief Customer Officer

**Results**
About four-in-five (78%) customers reported high levels of overall satisfaction in Q2 2019, which is consistent with last quarter (78%) and the same time last year (77%).

**Analysis**
Overall levels of satisfaction are similar across subway, bus and streetcar customers, at 78%, 75% and 78% respectively. The TTC’s service is becoming more consistent, as evidenced by the decreased variability year-over-year in overall satisfaction and the key drivers of satisfaction (trip duration, helpfulness of staff, comfort of ride, wait time and crowding).

Perceived value for money remains high with nine-in-10 customers finding our service to be average or above average value for money.

**Action plan**
As we continue to implement reliability improvements on our surface routes, we expect to see increased levels of customer satisfaction with wait time and trip duration.
Subway services

Line 1 (Finch and Vaughan Metropolitan Centre terminal stations): On-time performance (OTP)

Definition
OTP measures the headway adherence of all service trains at end terminals. Data represents Monday-to-Friday service between 6 a.m. and 2 a.m. To be on time a train must be within 1.5 times of its scheduled headway.

Contact
James Ross,
Chief Operating Officer

Results

Line 1 OTP improved from 89.4% in June to 91.1% in July. This measure has remained relatively stable since January. Our target of 90% was met.

Analysis

The number of delay incidents was almost identical to June, while total delay minutes resulting from those incidents decreased by 42%, indicating incidents were cleared more quickly in July. Delay minutes caused by equipment issues were down by 69.5%. There was also a decrease in delays caused by trespassers on the tracks.

Additional staff resources deployed at our terminals in peak periods continue to positively impact dwell times, improving our on-time departures. This initiative will continue, and will be expanded to off-peak periods.

Action plan

Transit Control and Subway Transportation staff continue to work together to bring greater focus on reduced dwell times and prompt departures.
Line 2 (Kennedy and Kipling terminal stations): On-time performance (OTP)

Definition
OTP measures the headway adherence of all service trains at end terminals. Data represents Monday-to-Friday service between 6 a.m. and 2 a.m. To be on time a train must be within 1.5 times of its scheduled headway.

Contact
James Ross, Chief Operating Officer

Results
Performance at both end terminals improved. OTP increased from 94.1% in June to 94.5% in July. Our target of 90% was met.

Analysis
Two restricted speed zones were removed later in July and performance improved even though total delay minutes for this line increased by 328 minutes.

Action plan
We will continue to monitor the performance of this line’s terminal departures, and take appropriate action as required to reduce dwell times and maintain scheduled departures.
Line 3 (Kennedy and McCowan terminal stations): On-time performance (OTP)

Definition
OTP measures the headway adherence of all service trains at end terminals. Data represents Monday-to-Friday service between 6 a.m. and 2 a.m. To be on time a train must be within 1.5 times of its scheduled headway.

Contact
James Ross,
Chief Operating Officer

Results
Line 3 OTP fell from 96% in June to 93.2% in July. Our target of 90% was met.

Analysis
Performance decreased in July due to trains operating at slower speeds in hot weather and an 87% increase in delay minutes. Line 3 trains ran at reduced speeds on 19 days due to the hot weather protocol, which is implemented when temperatures exceed 25 degrees Celsius.

Action plan
In order to protect our equipment, we have a hot weather protocol to reduce our maximum speed and braking efforts, increasing round-trip times beyond what is scheduled. As cooler temperatures return in September, this measure is expected to improve.
Line 4 (Don Mills and Sheppard terminal stations): On-time performance (OTP)

Results

Performance on the Line 4 remained relatively stable. We achieved 99.5% OTP in July.

Our target of 90% was met.

Analysis

A minor increase of 14 incidents, along with an equally minor increase of 42 delay minutes had no significant impact on overall performance.

Action plan

Line 4 will continue to be managed in the same, effective manner providing consistent, reliable service to our customers.

Definition

OTP measures the headway adherence of all service trains at end terminals. Data represents Monday-to-Friday service between 6:00 a.m. and 2:00 a.m. To be on time a train must be within 1.5 times of its scheduled headway.

Contact

James Ross, Chief Operating Officer
**Line 1: Capacity**

**Definition**
Total number of trains that travelled through 12 key sampling points during a.m. and p.m. peak as a percentage of trains scheduled. Data is based on Monday-to-Friday service.

Peak periods: 6 a.m. to 9 a.m. and 3 p.m. to 7 p.m.

**Contact**
James Ross, Chief Operating Officer

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**Results**

There was a slight improvement during the p.m. peak, but this was more than offset with an a.m. peak decline and the overall average dropped from 95.9% to 94.5%. We also saw a drop in performance in the peak-of-the-peak results at Bloor Station, which fell from 98% to 94.1%.

Our target of 96% was not met.

**Analysis**

Even though the number of delay incidents was similar to June, delay minutes decreased as issues were cleared quickly.

Restricted speed zones in place for infrastructure work in several locations for multiple weeks negatively impacted performance.

A speed restriction at Lawrence Station went in on July 11 as our infrastructure crews perform much needed track and switch work on the Lawrence crossover. This increased travel times through the area and resulted in backups extending well south of the actual restricted speed zone. A similar restricted speed zone from Yorkdale Station to Lawrence West Station was in place up until July 22, which was also increasing the travel time through that area and impacted our ability to deliver capacity.

Peak-of-the-peak capacity delivered had only three days with 28 trains-per-hour or more, while June had six.

**Action plan**

Our early access subway closure program returns in September, when we will be closing portions of the system at 11 p.m., four nights a week, to allow for increased infrastructure work. This will help limit the need for restricted speed zones like the ones noted above.

The work at Lawrence Station is progressing and will be completed as scheduled, returning the area to regular speeds and throughput.
**Line 2: Capacity**

**Definition**
Total number of trains that travelled through 10 key sampling points during a.m. and p.m. peak as a percentage of trains scheduled. Data based on Monday-to-Friday service.

Peak periods: 6 a.m. to 9 a.m. and 3 p.m. to 7 p.m.

Note: Capacity delivered is the actual train count divided by the scheduled train count for each hour at sampled locations. Data is based on weekday service from Monday to Friday.

**Contact**
James Ross,
Chief Operating Officer

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**Results**

Results on Line 2 were at the highest they've been since the introduction of this measure. This is a considerable improvement year-over-year, as we achieved 95.1% in July 2018.

**Analysis**

Similar to June, there were very few significantly poor days. The current schedule, combined with the addition in June of a second Run-As-Directed (RAD) train, has ensured the continued high delivery of capacity.

There were restricted speed zones in place for most of July between Warden and Victoria Park stations and Islington and Kipling stations, but their impact on capacity and travel times was less significant than those on Line 1.

**Action plan**

As noted, the RADs for a.m. and p.m. peaks were added permanently to our schedule for Line 2 on June 24, improving the resiliency of the service and helping us continue to achieve increased capacity.
Line 3: Capacity

Definition
Total number of trains that travelled through two key sampling points during a.m. and p.m. peak as a percentage of trains scheduled. Data is based on Monday to Friday service.

Peak periods: 6 a.m. to 9 a.m. and 3 p.m. to 7 p.m.

Contact
James Ross,
Chief Operating Officer

Results
The a.m. peak continues to improve on Line 3. A decline during the p.m. peak resulted in an overall drop from 97.7% in June to 95.9% in July.

Our target for this measure is 98%. Although we recorded 100% in the a.m. peak, our combined score of 95.9% failed to meet our target.

Analysis
In order to reduce the number of equipment failures resulting from hot weather, on this line we reduce our speeds and braking profile when ambient temperatures exceed 25 degrees Celsius. This increases round trip times and decreases our delivered capacity, and is reflected in the drop in our p.m. performance. In July, our hot weather protocol was implemented 19 times.

Restricted speed zones for track issues also reduced performance throughout the day. The most significant of these was from Ellesmere to Lawrence East stations and was in place for all of July.

Action plan
Similar p.m. performance should be expected until cooler temperatures return in September.
Line 4: Capacity

**Definition**
Total number of trains that travelled through two key sampling points during a.m. and p.m. peak as a percentage of trains scheduled. Data is based on Monday to Friday service.

*Peak periods: 6 a.m. to 9 a.m. and 3 p.m. to 7 p.m.*

**Contact**
James Ross,
Chief Operating Officer

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**Results**

Line 4 capacity has remained at 100% for 19 consecutive months. Our target of 98% was met.

**Analysis**

The number of delay incidents increased by 14 and the number of delay minutes increased by 42 minutes. Delay incidents and minutes were low compared to the other lines and had little impact on our ability to deliver scheduled capacity.

**Action plan**

Line 4 continues to run as scheduled and consistently delivers at 100% capacity.
### Subway: Weekly service hours

**Definition**
Calculated duration of time that all revenue trains are in service.

**Contact**
Kathleen Llewellyn-Thomas, Chief Customer Officer

### Results

In the June 2019 Board Period, 10,878 subway weekly hours were budgeted for service while 10,880 subway weekly hours were scheduled to operate, which represents a 0.02% variance.

Of the 10,880 subway weekly hours scheduled to operate, 10,755 weekly hours were actually delivered, which represents a variance of -1.15%.

### Analysis

Actual service hours are matched with scheduled service hours.

### Action Plan

No action required at this time.
Subway T1 train: Mean distance between failures (MDBF)

**Definition**
Total kilometres travelled in month compared to the number of rolling stock equipment incidents resulting in delays of five minutes or more. Includes all seven days of service.

**Contact**
Rich Wong,
Chief Vehicles Officer

**Results**
The MDBF in July was 393,423 kilometres, exceeding the target of 300,000 kilometres. This is the ninth consecutive month that the T1 fleet has met the target.

**Analysis**
In July, there were seven delay incidents greater than or equal to five minutes. The worst performing system was the passenger doors system with three delay incidents greater than or equal to five minutes. This was followed by the brake and the body systems, each with two delay incidents greater than or equal to five minutes.

**Action Plan**
The three passenger doors system-related failures were a result of a defective door interlock, out of adjustment door pocket guide, and a defective open magnetic valve (OMV). The door interlock was repaired with a new switch, the OMV was replaced and the out of adjusted door pocket guide was adjusted to specifications. All doors were tested to be working with no further issues detected.

The two brake-related issues were a result of two defective master controllers. Both master controllers were replaced, and one was sent to Greenwood Shop for a Failure Analysis Report. Both cars have since been tested and returned to revenue service with no further issues.

The two body-related incidents were both related to broken straps and chains on the end gates. Both end gates have been repaired with new straps and chains and tested to be working.
Subway TR train: Mean distance between failures (MDBF)

Definition
Total kilometres travelled in month compared to the number of rolling stock equipment incidents resulting in delays of five minutes or more. Includes all seven days of service.

Contact
Rich Wong,
Chief Vehicles Officer

Results

The MDBF in July was 453,837 kilometres, which is below the target of 600,000 kilometres.

Analysis

In July, there were nine delay incidents greater than or equal to five minutes. The worst performing system was the passenger doors system with four delay incidents greater than or equal to five minutes. This was followed by the brake system with two incidents, and the automatic train control, body and propulsion inverter systems each with one delay incident greater than or equal to five minutes.

Action Plan

The four passenger door-related incidents were a result of an unresponsive door electronic control unit (DECU), sticky door nosing, broken micro switch, and a faulty door control unit (DCU). The DECU was reset, and the issue cleared. DECU issue on newer versions of the control unit is being jointly investigated by the TTC and Bombardier Engineering. The sticky door nosing was freed and doors were tested to be working. The broken micro switch was replaced, and doors were cycled multiple times and returned back to revenue service with no further issues. The DCU was reset and doors were cycle-tested multiple times.

The two brake-related incidents were a result of a defective digital driver board (DDB), brakes holding due to faulty applied magnetic valve (AMV) and release magnetic valve (RMV). The defective DDB was replaced and performed propulsion self-test as well as yard tested to be working positively. The AMV and RMV valves were swapped with mate trucks for issue isolation. Both brakes on train have been confirmed to be working as per specifications.
Subway: Service availability

**Definition**
Daily average number of trains put into service (including RADs) compared to the number of trains scheduled for the a.m. peak period. Data represents Monday to Friday only. Holidays excluded.

**Contact**
Rich Wong, Chief Vehicles Officer

**Results**
The vehicle availability in July was 100%.

**Analysis**
We continue to meet the service requirements, meeting the target of 100% vehicle availability. All vehicles were available for service when required.

**Action Plan**
We will continue with the delivery of safe, reliable and clean vehicles to service on all four subway lines.
Subway: Vehicle cleanliness

Definition
Average results of third party audit conducted each quarter. Average of “prior” “mid-day” and “end of service” results. Audits conducted weekdays only, excluding holidays.

Contact
Rich Wong,
Chief Vehicles Officer

Results
The average rating of 91.0% in Q2 2019 for subway cleanliness was above the target of 90.0%. We have recorded a score of greater than 90% since Q4 2016.

Analysis
Areas of strength in the vehicle cleanliness across all fleets and lines were the ceilings, lighting, mandatory decals, etching/scratchitti and graffiti/stickers.

Major factors affecting the quarter-on-quarter overall cleanliness scores in Q2 2019 were the exterior, floors, door cleanliness and windows. The overall exterior and floor cleanliness scores should increase next quarter as the exterior body wash cycle resumes once every 10 days, while the floor wash cycle is addressed once every 14 days. With the winter weather season behind us, Q3 results are anticipated to be positive.

Action Plan
Exterior vehicle washes will continue to take place through Q3 with a focused exterior program started in late Q2. These focused exterior wash programs will increase the overall exterior cleanliness of the vehicles.
Streetcar services

Streetcar: On-time performance (OTP)

Definition
On-time performance measures vehicle departures from end terminals. Vehicles are considered on time if they depart within 59 seconds earlier or five minutes later than their scheduled departure time. Includes all seven days of service. Night routes are excluded.

Contact
James Ross,
Chief Operating Officer

Results

OTP in July was 62.9%, an improvement compared to last month (60.6%) and the same period last year (57.7%).

Our target of 90% was not met.

Analysis

Streetcar OTP showed continued improvement this period and represents the best July period in the past five years. We were challenged by rail repair work on the 504 King route from July 27-28, and overhead incidents on July 7 and 10, both of which negatively impacted performance during the period.

Further challenges to performance included a number of special events that impact streetcar routes, including Salsa on St Clair, the Honda Indy, Beaches International Jazz Festival, and the Caribana Toronto Grande Parade.

Our 505 Dundas service continues to be the worst performing route of the period, largely due to ongoing construction work in the middle portion of the route. Construction work along the southern end of Bathurst Street also negatively impacted the 511 Bathurst performance during the period.

Action Plan

New route schedules will be implemented on remaining streetcar routes between now and the fall. The August Board Period saw improved schedules introduced on the 505 Dundas, 506 Carlton and 512 St Clair (weekend) routes. The September Board Period will see new schedules introduced on the 501 Queen route (west of Humber), as well as an updated schedule and consolidation of the 502 Downtowner and 503 Kingston Rd routes into a single route on a temporary basis. This includes providing layover space at the western terminal (i.e., King/York Streets) while blending the service (as one route) at the eastern terminal (i.e., Bingham Loop).
Streetcar: Short turns

**Definition**
Total short turns per month. Includes all seven days of service, excluding night routes.

**Contact**
James Ross, Chief Operating Officer

**Results**

There were 128 short turns across the streetcar network in July, an increase compared to last month (108), but a significant decrease from the same period last year (1,695).

Our target for this measure was 1,272 and was achieved.

**Analysis**

The recent trend of very low short turn figures continued throughout July and is expected to be sustained moving forward.

With the increased level of management oversight and appropriate use of resources, including Run-As-Directed (RAD) vehicles and operator change-overs, short turns occurred fewer than five times per day over the period (on average) throughout the network as a whole. A focus on operator change-overs instead of short turning vehicles continues to be the key response to impactful incidents that delay service. The routes with the highest number of short turns over the period were the 501 Queen, followed by the 506 Carlton.

**Action Plan**

A continued high level of management oversight will ensure low short turn figures can be sustained. Upcoming improvements to several streetcar schedules in August will further reduce pressure to short turn streetcars, except in rare instances. Appropriate use of RADs and operator change-overs will help keep short turn figures low.
**Streetcar: Weekly service hours**

**Definition**
Service hours are calculated from the time a streetcar leaves the yard to when it returns to the yard. Measured daily.

**Contact**
Kathleen Llewellyn-Thomas, Chief Customer Officer

**Results**

In the June 2019 Board Period, 18,547 streetcar weekly hours were budgeted for service, while 19,532 streetcar weekly hours were scheduled to operate. This represents a variance of 5.31%.

Of the 19,532 streetcar weekly hours scheduled to operate, 19,975 streetcar weekly hours were actually delivered, which represents a variance of 2.27%.

**Analysis**

Actual service hours are higher than scheduled service hours.

**Action Plan**

No action required at this time.
LFLRV streetcar: Mean distance between failures (MDBF)

**Definition**
Total kilometres travelled by the Low-Floor Light Rail Vehicle (LFLRV) compared to the number of mechanical incidents resulting in delays of five minutes or more. Includes all seven days of service. A threshold of 35,000 km was established to reflect the manufacturer’s obligations for reliability.

**Contact**
Rich Wong,
Chief Vehicles Officer

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**Results**

The MDBF for the LFLRV fleet in July was 36,512 kilometres. This is an increase of 17,107 kilometres from last month and 22,234 kilometres from the same time last year.

The 12-month rolling average MDBF is 16,401 kilometers, which is below the 35,000 kilometre target.

**Analysis**

July marked the best month ever recorded for the LFLRV fleet’s MDBF. The monthly target of 35,000 kilometres was met for the first time.

There were 18 delay incidents in July. The worst performing systems were the communication and door systems, each with four delays. Delay incidents related to the brake system are still occurring, but remain low.

**Action Plan**

We continue to work closely with Bombardier and have developed various vehicle modification programs to help improve the reliability of the vehicles.

**Door System**: Design and component improvements (e.g. installation setup, guide channels, and end-stops) have been implemented on the fleet and a wire chain retrofit is underway.

**Brake System**: Quality control containment and improvements have been implemented at supplier sites. In addition, component improvements (e.g. seals, guidance shaft and locking pins) are in validation and planning stages with implementation targeted for Q4 2019.

**Communication System**: A camera modification program has recently commenced that addresses known issues with image quality and stability.

These reliability improvement programs continue to be refined as more operational data becomes available with the increased use of the vehicles and an increasing fleet size.
CLRV streetcar: Mean distance between failures (MDBF)

**Definition**
Total kilometres travelled by the Canadian Light Rail Vehicle (CLRV) compared to the number of mechanical incidents resulting in delays of five minutes or more. Includes all seven days of service.

**Contact**
Rich Wong, Chief Vehicles Officer

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**Results**

The MDBF for the CLRV fleet in July was 3,549 kilometres. This is an increase of 51 kilometres from the same time last year and a decrease of 2,189 kilometres from last month.

The MDBF remains below the target of 6,000 kilometres.

**Analysis**

The reliability of the CLRV fleet declined in July due to an increase in the number of low voltage and passenger door-related failures. Heavy rain entering the Isolation and Protection Panel resulted in blown fuses causing multiple low voltage power supply faults that contributed to the decrease in reliability.

**Action Plan**

We will continue to perform preventative maintenance on the CLRV fleet to reduce failures. At the same time, unreliable CLRV vehicles will be decommissioned as more low-floor streetcars become available for service.

---

**Streetcar decommissioning schedule**

<table>
<thead>
<tr>
<th>Year</th>
<th>CLRV</th>
<th>ALRV</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>7</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>2016</td>
<td>16</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>2017</td>
<td>30</td>
<td>0</td>
<td>30</td>
</tr>
<tr>
<td>2018</td>
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<td>33</td>
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</tr>
<tr>
<td>2019*</td>
<td>113</td>
<td>10</td>
<td>123</td>
</tr>
<tr>
<td>Total</td>
<td>194</td>
<td>51</td>
<td>245</td>
</tr>
</tbody>
</table>

*Projected
Streetcar: Road calls and change offs (RCCOs)

Definition
Average daily number of vehicle-equipment failures requiring a road call for service repair or a change off to a repair facility for a replacement vehicle. Includes Monday to Friday only.

Contact
Rich Wong
Chief Vehicles Officer

Results
The target for the maximum number of RCCOs is 1.5% of peak daily service. In July, 3.6% (or six of 164 vehicles) of the peak daily service, including Run-As-Directed vehicles, resulted in a RCCO.

Analysis
The daily average number of RCCOs remained the same compared to last month. There was a reduction in failures of the propulsion control and high voltage systems on the CLRV fleet. Reduced car body, high voltage, air conditioning and passenger door system issues on the LFLRV fleet were also realized. However, failures of the low voltage, warning alarm and the door systems on the CLRV fleet and ramp issues on the LFLRV fleet increased and offset the reductions.

Action Plan
Staff will continue to monitor and improve inspection and preventative maintenance performance to reduce failures. Bombardier is aware of the issues related to LFLRV reliability and is implementing and refining modification programs to address the issues. All legacy vehicles are expected to be decommissioned by the end of 2019.
Streetcar: Service availability

Definition
Daily average number of streetcars put into service (including RADs) compared to the number of streetcars scheduled for the a.m. peak period. Data represents Monday-to-Friday only. Holidays excluded.

Contact
Rich Wong,
Chief Vehicles Officer

Results

The target for streetcar availability is 100% of peak daily service, including Run-As-Directed vehicles. In July, the target requirements were met with an average of 164 vehicles available for service.

Analysis

With the increasing number of LFLRV vehicles being commissioned and the continued decommissioning of unreliable legacy fleet vehicles, target availability numbers are being met.

Action Plan

We will continue to commission LFLRVs in order to replace legacy vehicles.
Streetcar: Cleanliness

**Results**

The audit score for streetcar cleanliness in Q2 2019 was 84.8%. This is a decrease from both Q2 2018 (93.4%) and Q1 2019 (86.0%). Overall performance on streetcar cleanliness is below the target of 90%.

**Analysis**

High demand for service vehicles limits the availability for exterior/interior wash scheduling.

Wet conditions during May and the accumulation of salt and sand deposits impacted cleanliness results, particularly flooring, which contributed to a decrease in overall cleanliness.

**Action Plan**

Scheduled cleaning activities will continue. Staff continue to investigate and identify further improvements, including additional equipment to make cleaning more effective.

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**Definition**

Average results of third-party audit conducted each quarter. Average of “prior,” “mid-day” and “end of service” results. Audits conducted weekdays only, excluding holidays.

**Contact**

Rich Wong, Chief Vehicles Officer
Bus services

Bus: On-time performance (OTP)

**Definition**
OTP measures vehicle departures from end terminals. Vehicles are considered on time if they depart within 59 seconds earlier or up to five minutes later than their scheduled departure time. Includes all seven days of service. Night routes are excluded.

**Contact**
James Ross,
Chief Operating Officer

<table>
<thead>
<tr>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTP in July improved to 77.1% from last month (74.5%), but was slightly lower than the same period last year (77.5%). Our target of 90% was not met.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>The reliability improvements implemented in July on the 90 Vaughan and 6 Bay routes have significantly improved OTP from 61% in 2018 to 95% in 2019 and from 58% in 2018 to 89% in 2019, respectively. We continue to see challenges on routes impacted by construction projects. For example, performance on the 31 Greenwood route declined from 90% in 2018 to 84% in 2019 as a direct result of traffic overflow from the adjacent Coxwell bridge construction project.</td>
</tr>
</tbody>
</table>

| Metrolinx construction activities on the above surface section of the Crosstown and lane restrictions on the Don Valley Parkway have resulted in increased delays to routes operating in the east end of the city. These disruptions are expected to continue until the end of the project, with major intersection closures expected during the summer months. Routes affected by this construction include: 17 Birchmount (54%), 34 Eglinton East (65%), 25 Don Mills (55.5%), 925 Don Mills Express (45.08%) and 68 Warden (58%). |

| The implementation of the VISION dispatch system continues across the network. We have identified a number of data quality issues that we are currently working with the vendor to resolve. These issues may result in the over reporting of missed/late trips mainly affecting shorter routes such as 92 Woodbine South (42%), 49 Bloor West (58%) and 40 Junction (56%). Updated results will be provided as they become available. |

<table>
<thead>
<tr>
<th>Action plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>The following reliability improvements were implemented in the August Board Period: 11 Bayview, 15 Evans, 24 Victoria Park, 39 Finch East, 48 Rathburn, 61 Avenue Rd North, 62 Mortimer, 63 Ossington, 64 Main, 73 Royal York, 76 Royal York South, 88 South Leaside, 120 Calvington and 924 Victoria Park Express.</td>
</tr>
</tbody>
</table>
Bus: Short turns

**Definition**
Total short turns per month. Includes all seven days of service, night routes excluded.

**Contact**
James Ross,
Chief Operating Officer

**Results**

There were 456 short turns in July, an improvement from last month (634) and a significant improvement over the same period last year (1,503).

Our target for this measure is 2,062 and was achieved.

**Analysis**

The significant reduction in short turns in July was driven by increased management oversight, focusing on alternate route management techniques to minimize the impact to customers. On routes where schedules did not reflect actual operating conditions, vehicles were allowed to operate late with a reduced emphasis on schedule adherence and allowing full trips to be completed, reducing the impact to customers. Short turns continued to be mainly driven by increased traffic congestion around Metrolinx construction zones on Eglinton Avenue.

The top five routes for short turns were: 35 Jane (10%), 63 Ossington (8%), 935 Jane Express (7%), 60 Steeles West (5%) and 29 Dufferin (5%). These represent 35% of all short turns.

**Action plan**

We are continuing to review and implement schedule changes to target high incident routes where increased traffic congestion has resulted in unreliable service and schedules that no longer reflect actual operating conditions.

The 63 Ossington service will have schedule improvements in the August Board Period, while the 35 and 935 Jane services will have new schedules in Q1 2020 once the construction at Jane Station is completed.
Bus: Weekly service hours

**Definition**
Service hours are calculated from the time a bus leaves a garage to the time it returns to the garage. Measured daily. Board Period total calculated using a weekly average.

**Contact**
Kathleen Llewellyn-Thomas, Chief Customer Officer

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**Results**
In the March 2019 Board Period, 151,192 bus weekly hours were budgeted for service, while 151,254 bus weekly hours were scheduled to operate. This represents a variance of 0.04%.

Of the 151,254 bus weekly hours scheduled to operate, 153,711 weekly hours were actually delivered, representing a variance of 1.62%.

**Analysis**
Actual service hours are matched with scheduled service hours.

**Action plan**
No action required at this time.

*Note: Current data is unavailable due a technical issue with our VISION system. We are working to resolve this issue.*
**Bus: Mean distance between failures (MDBF)**

**Definition**
Total kilometres accumulated over the entire fleet compared to the total number of chargeable mechanical road calls. Data included for all seven days of service.

**Contact**
Rich Wong
Chief Vehicles Officer

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**Results**
The MDBF in July was 20,000 kilometres, exceeding the target of 12,000 kilometres.

**Analysis**
MDBF for the bus fleet remains high and above the target. New vehicles entering the fleet including the 113 Nova hybrids, the seven New Flyer electric buses commissioned to date in 2019 and the 387 diesel buses commissioned in 2018 contribute to this reliability. Despite this high reliability, we continue to deal with coolant leak failures.

**Action Plan**
New Nova buses accounted for 70% of all cooling system on-road failures. Several alternate design options are being evaluated to alleviate the temperature and age dependent torque requirements on Nova bus coolant hose clamps. This failure mode is affecting all transit agencies in regions that have high seasonal temperature swings like Ontario. We are starting to see a reduction in coolant system failures with the introduction of the cooling system State of Good Repair packages.

The second trending failure mode is related to the charging system on first-generation hybrid buses, which are now 10-13 years old. Buses with reoccurring failures are being decommissioned as new buses enter the fleet.
Bus: Road calls and change offs (RCCOs)

Definition
Average daily number of vehicle-equipment failures requiring a road call for service repair or a change off to a repair facility for a replacement vehicle. Monday to Friday data only.

Contact
Rich Wong,
Chief Vehicles Officer

Results
The average number of RCCOs in July was 25 per day.

Analysis
Total average daily RCCOs are trending in a favourable direction, well below the historical average.

The majority of road calls were caused by challenges with the coolant system on the new Nova buses.

Peak revenue service was 1,556 buses per day, including Run-As-Directed buses in this period. The average number of RCCOs per day equates to 1.60% of service, slightly above the 1.5% target.

Action Plan
We will proceed with continuous improvement initiatives and monitor and control accordingly. The body system State of Good Repair package, which includes new driver protection barriers will be released by October 2019.
**Bus: Service availability**

**Definition**

*Daily average number of buses put into service (including RADs) compared to the number of buses scheduled for the a.m. peak period. Data represents Monday to Friday only. Holidays excluded.*

**Contact**

Rich Wong, Chief Vehicles Officer

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**Results**

The average number of buses provided for a.m. peak service in July was 1,556 per day or 102.2% of planned service, well above the target of 1,522 buses.

**Analysis**

The significant number of new bus procurements from 2016 to 2018 (870 buses) has boosted the fleet performance and permitted a higher than projected spare ratio. The higher spare ratio supports additional buses available for service.

**Action Plan**

We will continue to monitor and control all aspects of maintenance that support continuous improvement initiatives.
Bus: Cleanliness

Definition
Average results of third party audit conducted each quarter. Average of “prior,” “mid-day” and “end of service” results. Audits conducted weekdays only, excluding holidays.

Contact
Rich Wong, Chief Vehicles Officer

Results

The bus cleanliness audit score in Q2 2019 was 89.7%, which is slightly below the target of 90%.

Analysis

The performance score takes into account pre-service, in-service and post-service audit results. Q2 2019 had the worst end-of-service result this year, well below the yearly average. Pre-service (contractor performance) was below target at Arrow Road, Mount Dennis, and Queensway garages for exterior clean. Improvements to wash rack performance is required to boost exterior cleaning scores.

Action Plan

The cleaning contract administrator has been notified, and meetings have been scheduled with our vendor, TBM Service Group, to discuss the audit findings and corrective actions.
Wheel-Trans Services

Wheel-Trans: On-time performance (OTP)

**Definition**
Measures on-time performance of all trips conducted by Wheel-Trans buses. Seven days a week, all time periods included. To be on time, the trip must arrive within 20 minutes of its scheduled arrival.

**Contact**
Kirsten Watson,
Deputy Chief Executive Officer – Operations

### Results

OTP in July decreased by 0.3% from the previous period to 93.2%, and is 0.8% above the same period last year.

### Analysis

Although there was a slight decrease in performance this month, we continue to meet our target by focusing on efficient service adjustments.

### Action Plan

We continue to focus on minimizing delay incidents in order to reduce out of service minutes to maintain service delivery.
Wheel-Trans: Mean distance between failures (MDBF)

**Definition**
Total kilometres accumulated over the entire fleet compared to the total number of chargeable mechanical road calls. Data included for all seven days of service.

**Contact**
Rich Wong, Chief Vehicles Officer

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**Results**

The July MDBF of 15,581 kilometres exceeded the target of 12,000 kilometres, and is above last month’s average of 14,886 kilometres.

**Analysis**

Mechanical driveline failures and diesel exhaust fumes detected by operators continue to account for the most road calls and change-offs for the Friendly bus fleet.

With the delivery of the new ProMaster buses and the decommissioning of the first-generation Friendly fleet, the MDBF will improve moving forward. Wheel-Trans continues to trend in a positive direction due to the influx of new vehicles and maintenance programs that have been implemented.

**Action Plan**

To help mitigate exhaust system issues on the Friendly bus fleet, we continue to perform maintenance checks on all Friendly buses, following each major repair.

Wheel-Trans is currently taking delivery on the 2019 procurement of ProMasters. Five vehicles were delivered to the garage in July and another eight arrived in August for a total of 25 ProMasters on property from the latest procurement. Problematic first-generation Friendly buses are currently being removed from service.
Wheel-Trans: Accommodated service

**Definition**
Accommodated rate is the percentage of passengers requesting Wheel-Trans services that are actually provided trips by either a Wheel-Trans bus, accessible taxi or sedan taxi.

**Contact**
Kirsten Watson, Deputy Chief Executive Officer – Operations

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**Results**
The accommodated rate in July was 99.9%. This is 0.9% above target, and consistent with the same period last year.

**Analysis**
We continue to work towards providing trips to all customers. Our schedulers work to produce the most efficient schedules in order to accommodate all trip requests.

**Action Plan**
We continue to work towards ensuring that all customers receive their trip requests. Continued strategic scheduling is the best approach in order to accommodate all requested trips.
Wheel-Trans Contact Centre: Average wait time

**Definition**
The average amount of time a customer waits in the queue before their call is answered.

**Contact**
Kirsten Watson,
Deputy Chief Executive Officer – Operations

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### Results

The average wait time in July was 7.7 minutes. This is 7.3 minutes below our target.

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### Analysis

The average wait times for the Wheel-Trans Contact Centre have decreased for the last three periods as a result of hiring additional reservationists. Along with the reduction in wait times for our customers, we are also seeing a higher number of processed calls, which means more customers are able to get through and book their trips.

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### Action Plan

The recruitment plan to add resources to the Contact Centre is ongoing. We added more reservationists in August to assist the department in maintaining an average wait time within the 15-minute target. As we prepare for the upcoming busy September period, we are planning to better manage shift schedules to ensure consistent workforce throughout all shifts from Sunday to Saturday, 5:30 a.m. to 11 p.m.
Station services

Station cleanliness

Definition
Average results of a third party audit conducted each quarter of all 75 stations. Audits are conducted weekdays only, excluding holidays.

Contact
James Ross, Chief Operating Officer

Results

The Q2 station cleanliness score was 75.06%, which is an increase of 1.69% from last quarter (73.38%), and meets our target of 75%.

Analysis

Q2 audits saw an overall increase from Q1 with 11 components receiving higher scores, while 10 other components remained consistent. Floors and escalators saw the biggest improvement, while stairs, platform edge markers, metals and waste/recycling units saw a slight uptick.

The bottom three scoring stations in Q1 — Main (64.10%), Woodbine (63.46%) and Runnymede (63.25%) — all saw increases. The lowest scoring station in Q2 was Dundas West at 65.01%.

Action Plan

Summer students and seasonal projects will help improve cleanliness activities across the system.
Elevator availability

Definition
Percentage of total available subway elevator service hours during subway revenue service in a given month.

Contact
Fort Monaco,
Chief Infrastructure and Engineering Officer

Results

Elevator availability was above the target of 98% for July 2019, and performance decreased to 98.7% compared to 98.9% in June.

Analysis

Elevator maintenance was completed as planned and scheduled.

Action Plan
We will continue performing preventative maintenance to meet reliability and availability targets.
Escalator availability

Definition
Percentage of total available escalator service hours during subway revenue service in a given month.

Contact
Fort Monaco, Chief Infrastructure and Engineering Officer

Results

Escalator availability was below the target of 97% in July. Performance marginally decreased to 96.9% compared to 97.1% in June.

Analysis

Two escalators were out of service at Runnymede Station due to construction, negatively impacting performance in July.

Action Plan

The construction work was completed on July 29, 2019 and the escalators were returned to service.

We will continue performing preventative maintenance to meet reliability and availability targets.
Fare gates equipped with PRESTO

Definition
Percentage of time fare gates are available for use. Availability data provided by manufacturer for 24 hours a day, seven days a week.

Contact
James Ross, Chief Operating Officer

Results
Fare gate availability averaged 98.23% in June, which represents a slight increase from last month and an increase of 1.5% over the same time last year.

Our target of 99.5% was not met.

Analysis
This increase in availability reflects the continued ongoing efforts by both the TTC and Scheidt & Bachmann (S&B) to address the hardware and software issues with the fare gates. With the current modification programs in place, we expect performance to continue to improve throughout 2019.

Action Plan
A number of programs have been developed and are currently being implemented. These include:

- Replacing the industrial computers in the fare gates
  S&B has a second-generation industrial computer with a new Solid State Drive (SSD). This new hardware will provide a number of improvements, including: extending the hard drive capacity, improve and protect the hard drive sectors, increase the hard drive speed (faster read/write – start-up time will be improved), extending the data logging, and help address USB disconnect issue we are currently having with the fare gates. This program is ongoing and will require both hardware and software testing to be implemented;

- New software deployments
  The next software update will: improve passage detection leading to a more reliable interface for the customers, provide an upgrade to the motor control interface improving reliability of the motors, and resolve one of the major issues we experience with the card reader. This upgrade will be available for deployment in Q3;
the information obtained and is developing recommendations for next steps. The report is expected to be completed shortly, and an action plan will be developed based on those findings.

These plans will help to address the following issues: screen freezing, tap/no entry, card reader failures, motor and heater failures.
**PRESTO card readers**

**Result**
PRESTO card reader availability averaged 98.82% in July, which represents an increase of 0.04% from last month. The availability for July remains below the target of 99.99%.

**Analysis**
The increase in availability continues the positive trend from June, which is a result of a reduction in the number of devices with memory card issues.

**Action Plan**
The results of the in-field observations and validations of card reader availability have been provided to Metrolinx for review. A response from Metrolinx is expected in September.

**Note:** Availability data from Metrolinx may be subject to inaccuracies.

**Definition**
The total percentage of all PRESTO card readers that are in working order and available for customer use.

**Contact**
Kirsten Watson, Deputy Chief Executive Officer – Operations
PRESTO Fare Vending Machine (FVM)

Definition
The average percentage of daily availability of PRESTO FVMs based on duration of incidents from open to resolution.

PRESTO FVMs allow customers to load funds onto their PRESTO cards via credit or debit payment, purchase new PRESTO cards, view balance and card history, and activate any products purchased online. The FVMs are installed at station entrances.

Contact
Kirsten Watson, Deputy Chief Executive Officer – Operations

Results
PRESTO FVM availability averaged 93.97% in July, which represents a decrease of 1.39% from last month. The availability for July is below the target of 95.00%.

Analysis
The decrease in availability is attributed to delays in cash collection activities and problems with bill acceptance equipment.

Action Plan
Metrolinx has implemented a solution to address the cash collection delays.

A hardware and software fix for bill acceptance equipment has tested successfully at 28 stations. Full rollout to all stations is anticipated to be completed in September.

The results of the in-field observations and validations of FVM availability have been provided to Metrolinx for review. A response from Metrolinx is expected in September.

Note: Availability data from Metrolinx may be subject to inaccuracies.
PRESTO Self-Serve Reload Machine (SSRM)

**Definition**
The average percentage of daily PRESTO SSRM availability based on duration of incidents from open to resolution.

PRESTO SSRMs allow customers to load funds onto their PRESTO cards via credit or debit payment. The device also allows customers to view their balance and card history, and activate any products purchased online. The SSRMs are installed at subway station entrances.

**Contact**
Kirsten Watson,
Deputy Chief Executive Officer – Operations

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**Results**

PRESTO SSRM availability averaged 98.80% in July, which represents a decrease of 0.66% from last month. The availability for July remains above the target of 95.00%.

**Analysis**

The decrease in availability is due to a low volume of paper stock for receipts at some machines.

**Action Plan**

Metrolinx is working to improve SSRM performance and has increased the scheduled frequency for replenishing paper stock.

The results of the infield observations and validations of SSRM availability have been provided to Metrolinx for review. A response from Metrolinx is expected in September.

**Note:** Availability data from Metrolinx may be subject to inaccuracies.
PRESTO Fares and Transfer Machine (FTM)

**Definition**
The weighted percentage of all FTMs onboard and off board that are in working order and available for customer use.

The FTMs are Single Ride Vending Machines (SRVMs), installed on the new TTC streetcars and at selected streetcar stops. These allow customers to purchase Proof of Payment tickets.

**Contact**
Kirsten Watson,
Deputy Chief Executive Officer – Operations

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**Results**

PRESTO FTM availability averaged 97.68% in July, which represents a decrease of 1.85% from last month. The availability for July remains above the target of 95.00%.

**Analysis**

During the first two weeks of July, the network experienced connectivity issues that resulted in some devices going offline.

The issue was resolved in the second half of the month.

**Action Plan**

Metrolinx will continue to monitor network connectivity.

The results of the infield observations and validations of FTM availability have been provided to Metrolinx for review. A response from Metrolinx is expected in September.

*Note: Availability data from Metrolinx may be subject to inaccuracies.*
For further information on TTC performance, projects and services, please visit ttc.ca