# Toronto Transit Commission CEO's Report

**March 2020** 



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# TTC performance scorecard – March 2020

Key p	performance indicator	Description	Latest measure	Current	Target	Current status	Ongoing trend	Page
Safet	y and security							
	Lost-time injuries	Injuries per 100 employees	Q4 2019	5.37	4.77*	$\bigotimes$	$\bigotimes$	10
	Customer injury incidents	Injury incidents per 1M boardings	Q4 2019	1.24	1.22*	$\bigotimes$	•	12
	Offences against customers	Offences per 1M boardings	Q4 2019	0.68	1.00	Ø	0	14
	Offences against staff	Offences per 100 employees	Q4 2019	4.48	4.18	×	×	15
Rider	ship							
	Ridership	Monthly ridership	Jan 2020	44.7M	44.7M			16
	Ridership	Year-to-date ridership	2020 YTD (to Jan)	44.7M	44.7M			16
Ongoing trend indicators: <ul> <li>Favourable</li> <li>Mixed</li> <li>Unfavourable</li> <li>Not applicable</li> <li>*Represents four-quarter average of actual results</li> </ul>							_	

Key performance indicator	Description	Latest measure	Current	Target	Current status	Ongoing trend	Page			
PRESTO ridership	Monthly ridership	Jan 2020	40.0M	39.5M			18			
PRESTO ridership	Year-to-date ridership	2020 YTD (to Jan)	40.0M	39.5M			18			
Wheel-Trans ridership	Monthly ridership	Jan 2020	341.3K	334.4K			20			
Wheel-Trans ridership	Year-to-date ridership	2020 YTD (to Jan)	341.3K	334.4K			20			
Customer experience	Customer experience									
Customer satisfaction	Customer satisfaction score	Q4 2019	81%	80%			21			
Subway services										
1 On-time performance Line 1	e Scheduled headway performance at end terminals	Jan 2020	91.7%	90%		•	22			
On-time performance Line 2	e Scheduled headway performance at end terminals	Jan 2020	96.2%	90%	<b>v</b>		23			
3 On-time performance Line 3	e Scheduled headway performance at end terminals	Jan 2020	98.1%	90%	<b>S</b>		24			
Ongoing trend indicators: <ul> <li>Favourable</li> <li>Mixed</li> <li>Unfavourable</li> <li>Not applicable</li> <li>*Represents four-quarter average of actual results</li> </ul>										

ey performance indicator	Description	Latest measure	Current	Target	Current status	Ongoing trend	Page
On-time performance Line 4	Scheduled headway performance at end terminals	Jan 2020	99.6%	90%		<b>S</b>	25
1 Capacity Line 1	Trains-per-hour during peak	Jan 2020	98.6%	96%		$\bigcirc$	26
1 Capacity Bloor Station	Trains-per-hour (8 a.m. to 9 a.m.)	Jan 2020	98.0%	96%		$\bigcirc$	26
Capacity St George Station	Trains-per-hour (8 a.m. to 9 a.m.)	Jan 2020	98.8%	96%	<b>S</b>	S	26
2 Capacity Line 2	Trains-per-hour during peak	Jan 2020	98.7%	96%	ø	ø	27
3 Capacity Line 3	Trains-per-hour during peak	Jan 2020	99.3%	98%	S		28
Capacity Line 4	Trains-per-hour during peak	Jan 2020	100%	98%		Ø	29
Amount of service	Average weekly service hours delivered	Jan 2020	10,704 h	11,131 h	$\bigotimes$	Ø	30
Vehicle reliability T1 trains	Mean distance between failures	Jan 2020	547,656 km	300,000 km			31
Vehicle reliability TR trains	Mean distance between failures	Jan 2020	769,357 km	600,000 km			32

\*Represents four-quarter average of actual results

Key	performance indicator	Description	Latest measure	Current	Target	Current status	Ongoing trend	Page
	Service availability	Daily average service delivered	Jan 2020	100%	100%	<b></b>	<b>S</b>	33
	Subway cleanliness	Audit score	Q4 2019	90.1%	90%	Ø		34
	Streetcar services							
	On-time performance	On-time departures from end terminals	Jan 2020	76.9%	90%	$\bigotimes$	<b>S</b>	35
	Short turns	Monthly total short turns	Jan 2020	75	1,074	<b>S</b>		37
	Amount of service	Average weekly service hours	Jan 2020	19,002 h	19,139 h	$\bigotimes$		38
	Vehicle reliability LFLRV (Low-Floor Light Rail Vehicle) – Contractual	Mean distance between failures	Jan 2020	50,939 km	35,000 km			39
	Vehicle reliability LFLRV (Low-Floor Light Rail Vehicle) – Operational	Mean distance between failures	Jan 2020	25,470 km	TBD			39
	Road calls and change offs	Average daily road calls or vehicle change offs	Jan 2020	4	2.4	×		41
	Service availability	Daily number of vehicles available for service	Jan 2020	98.8%	100%		ø	42
(	Ongoing trend indicators: <ul> <li>Favourable</li> <li>Mixed</li> <li>Unfavourable</li> <li>Not applicable</li> <li>*Represents four-quarter average of actual results</li> </ul>							

Key	performance indicator	Description	Latest measure	Current	Target	Current status	Ongoing trend	Page	
	Streetcar cleanliness	Audit score	Q4 2019	80.7%	90%	$\bigotimes$	×	43	
	Bus services								
	On-time performance	On-time departures from end terminals	Jan 2020	86.0%	90%	$\bigotimes$		44	
	Short turns	Monthly total short turns	Jan 2020	73	1,590			45	
	Amount of service	Average weekly service hours	Jan 2020	151,439 h	151,866 h	$\bigotimes$	•	46	
	Vehicle reliability	Mean distance between failures	Jan 2020	20,000 km	12,000 km			47	
	Road calls and change offs	Average daily road calls or vehicle change offs	Jan 2020	24	24			49	
	Service availability	Daily average service delivered	Jan 2019	101.0%	100%			50	
	Bus cleanliness	Audit score	Q4 2019	88.1%	90%	×	0	51	
<u>(</u>	Wheel-Trans services								
)	Ongoing trend indicators: Seven average of actual results								

Key	performance indicator	Description	Latest measure	Current	Target	Current status	Ongoing trend	Page
	On-time performance	% within 20 minutes of schedule	Jan 2020	93.9%	90%	Ø		52
	Vehicle reliability	Mean distance between failures	Jan 2020	16,751 km	12,000 km		0	53
	Accommodation rate	Percentage of requested trips completed	Jan 2020	99.9%	99%	<b>S</b>	<b>I</b>	54
	Average wait time	Average amount of time a customer waits before call is answered	Jan 2020	3.6 min	15 min		0	55
i	Station services							
	Station cleanliness	Audit score	Q4 2019	74.9%	75%	$\bigotimes$	0	56
	Elevator availability	Per cent available	Jan 2020	96.9%	98%	×	8	57
	Escalator availability	Per cent available	Jan 2020	97.4%	97%	×	0	58
	Fare gates equipped with PRESTO	Per cent available	Jan 2020	99.1%	99.5%	$\bigotimes$	ø	59
	PRESTO fare card readers	Per cent available	Jan 2020	99.30%	99.99%	$\bigotimes$		61
Ongoing trend indicators: <ul> <li>Favourable</li> <li>Mixed</li> <li>Unfavourable</li> <li>Not applicable</li> <li>*Represents four-quarter average of actual results</li> </ul>								

Key performance indicator	Description	Latest measure	Current	Target	Current status	Ongoing trend	Page
PRESTO Fare Vending Machines	Per cent available	Jan 2020	98.87%	95.00%		ø	62
PRESTO Self-Serve Reload Machines	Per cent available	Jan 2020	99.70%	95.00%	S	ø	63
PRESTO Fares and Transfer Machines	Per cent available	Jan 2020	99.06%	95.00%		0	64



# **CEO's commentary**

During unprecedented and uncertain times, the sharing of information is paramount. Although my commentary this month will be brief, we will continue to publish the CEO's Report and its key performance indicators to ensure transparency.

Outside of this report, the TTC is communicating daily and sharing regular updates with our employees, customers, stakeholders and the Board as we all work together to flatten the COVID-19 curve. I want to assure all that the TTC remains resilient and ready to serve the citizens of Toronto.

From the outset of this crisis, the TTC has been participating in daily conference calls with Toronto's Medical Officer of Health and is receiving the most up-to-date information available about the pandemic.

We're also embedded in the City's Emergency Operations Centre and actively reporting on a number of key metrics including ridership, service delivered and the status of our workforce.

The data shared in this report dates back to January — a time when it was very much business as usual for the TTC. It tells a different story from the reality we find ourselves in today.

Ridership is now estimated to be down by nearly 80 per cent. We've made significant adjustments to our daily service. Our workforce, like many other businesses, has been impacted.

We've taken the necessary action to support the health and safety of our customers and employees.

Bus access is now limited to rear doors, except to accommodate accessibility needs, to allow for greater physical distancing.

We've increased cleaning of our vehicles. We've discontinued the use of cash, tickets and tokens on buses. We've implemented physical distancing plans in our workplaces. I'm truly grateful for the understanding and kindness shown by our customers towards our staff during this challenging time. I'm extremely proud of how we have all risen to the occasion.

The TTC is often described as the lifeblood of Toronto. It's an essential service that keeps our great city moving, morning, noon and night. This is an unpredictable and ever-evolving situation.

Come what may, we will carry the city through it.

Richard J. Leary Chief Executive Officer March 2020

# **Safety and security**

# Lost-time injuries rate (LTIR)



#### Definition

Number of lost-time injuries reported per 100 employees.

#### Contact

Betty Hasserjian, Chief Safety Officer (Acting)

**Note:** Q1 2020 data will be available in the June CEO's Report.

#### Results

The LTIR for Q4 of 2019 was 5.4 injuries per 100 employees.

#### Analysis

The LTIR for Q4 was 13% higher than the four-quarter average. There has been an upward trend in the LTIR since 2015.

#### Action plan

Slips, trips and falls injuries account for 15% of all lost-time injuries and represent the third highest injury type since 2014. These types of injuries are higher during the winter months with heavy snow and rain.

In November 2019, in support of National Fall Prevention Month, a slip, trip, and fall prevention campaign was rolled out to employees and customers. Messaging about slips, trips and falls safety was provided to employees through various communications channels, such as TTC-TV and posters on safety boards

Musculoskeletal/ergonomic type injuries (e.g. overexertion, reach/bend/twist, repetition) continue to account for 23% of all lost-time injuries and continue to represent the highest injury event type since 2014. The Ergonomic Musculoskeletal Disorder Prevention Program, currently being implemented, focuses on preventing such injuries and resolving ergonomic concerns. Specific training modules for high risk groups (e.g. Elevating Devices, Wheel-Trans Operators, and Track Maintenance) have been developed. A train-thetrainer session is scheduled for March 2020.

**Note:** 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 workrelated stressors like bullying or 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.

# Customer injury incidents rate (CIIR)



#### Definition

Number of customer injuries per one million boardings. **Contact** Betty Hasserjian,

Chief Safety Officer (Acting)

#### Results

The CIIR for Q4 of 2019 was 1.24 injury incidents per one million vehicle boardings.

#### Analysis

The CIIR for Q4 was 2% higher than the four-quarter average rate of 1.22 injury incidents per one million vehicle boardings.

#### Action plan

The minor increase in the Q4 CIIR was mainly due to the increase in the streetcar customer injury rate. The majority of streetcar customer injuries involved standing customers and were a result of operator hard brake/emergency brake applications to prevent collisions.

To minimize the injuries due to streetcar braking, a review of potential vehicle design improvements is underway. These include increasing the number of handholds and straps, and modification of the master controller to reduce accidental engaging of the emergency brake.

**Note:** Q1 2020 data will be available in the June CEO's Report.

# **Regulatory compliance**

At the May 29, 2019 Audit and Risk Management Committee meeting, a commitment was made to report to the Board on compliance to Safety, Health and 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 from January 1 to December 31, 2019 and their status.

#### Contact

Betty Hasserjian, Chief Safety Officer (Acting)

### **Order compliance**

Туре	Number of	Status	
туре	Requirement Orders <sup>1</sup>	Non-compliance Orders <sup>2</sup>	Otatus
Ministry of Labour			
Orders	16	7	<b>Compliance</b> Achieved
Ministry of the			
Environment,			
Conservation and			
Parks Orders	0	0	Not Applicable
Technical			
Standards and			
Safety Authority			
Orders	0	0	Not Applicable
City of Toronto -			
Notice of Violation	0	2	Compliance Achieved
Toronto Fire			
Services Code			
Violations	8	59	Compliance Achieved

<sup>1</sup> Orders issued to provide documentation/information.

<sup>2</sup> Orders issued to remedy contraventions of the Occupational Health and Safety Act or regulations, Environmental Protection Act, City of Toronto Sewers By-Law and Ontario Fire Code.

**Note:** The next update will be available in the June CEO's Report.

# Offences against customers



#### Definition

Number of offences against customers per one million vehicle boardings.

#### Contact

Kirsten Watson Deputy Chief Executive Officer – Operations

#### Results

In Q4, the total number of offences against customers per one million vehicle boardings increased slightly to 0.68 from last quarter (0.67). The current rate is 6% higher than the same time last year (0.64).

#### Analysis

The number of robberies and sexual assaults decreased in comparison to Q3. However, there was a small increase in the number of assaults and thefts. Overall, there was no change in the number of offences from last quarter.

#### **Action Plan**

This year, we will hire 50 Special Constables to support our revenue protection team. The new Constables will be deployed strategically throughout the TTC system to ensure revenue protection and will also serve as a presence to assist with our customers and employees' safety and security.

# Offences against staff



#### Definition

Number of offences per 100 employees.

#### Contact

Kirsten Watson Deputy Chief Executive Officer – Operations

#### Results

In Q4, the total number of offences against staff increased to 4.48 offences per 100 employees. The current rate is 13% higher than last quarter (3.98) and 9% higher than the same time last year (4.11).

#### Analysis

There was an increase in threats and other offences against employees such as mischief, harassment, indecent exposure, sexual assault and robbery compared to Q3. The number of assaults against employees decreased.

#### **Action Plan**

This year, we will hire 50 Special Constables to support our revenue protection team. The new Constables will be deployed strategically throughout the TTC system to ensure revenue protection and will also serve as a presence to assist with our customers and employees' safety and security.

# Ridership

# 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 1 (January 1 to February 1, 2020) revenue ridership totalled 44.7 million or 9.8 million passengers per week. This was 0.056 million (0.1%) below the budget of 44.7 million rides, but 0.281 million (0.6%) above the comparable period in 2019.

#### Analysis

Period 1 ridership analysis shows that the adult group was 0.345 million over budget while the other groups fell below budget:

- Senior/youth (-0.058 million)
- Children (-0.343 million)
- Weekday ridership was 0.233 million or 0.6% above budget while weekend/holiday ridership was 0.289 million below budget.

Year-over-year weather analysis shows five fewer inclement weather days, 13 fewer extremely cold temperature alerts and two fewer severe snow storms during January 2020 compared to January 2019.

Year-over-year there were 10 more partial closures on Line 1, two fewer partial closures on Line 3 and two fewer full closures on Line 3 in 2020 compared to 2019 for the same period.

PRESTO period pass sales for January were 21,220 or 9.6% below budget, but 6,353 or 3.3% above 2019. Period pass rides were -1.6 million below budget while e-purse rides were +2.4 million above budget.

Adult cash rides were 1.109 million above budget, but PRESTO one-ride and two-rides tickets were -0.521 million below budget.

PRESTO Self-Serve Reload Machines cash rides on streetcars was also above budget by 0.086 million for adults and 0.033 million for senior/youths. Legacy fares collected continue to drop. In Period 1, only 10.5% or 4.7 million rides were paid using non-PRESTO products.

#### **Action Plan**

The vision for the 5-Year Service Plan and 10-Year Outlook is to focus on improvements that directly enhance the TTC's corecompetency: 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.

PRESTO ridership is included in TTC ridership totals.

#### Contact

Josie La Vita, Chief Financial Officer

#### Results

Period 1 (January 1 to February 1, 2020) PRESTO ridership totalled 40.0 million or 8.7 million passengers per week. This was approximately 0.5 million (1.4%) above the budget and 4.7 million higher than period 1 2019 ridership of 35.3 million.

#### Analysis

The PRESTO adoption rate for period 1 was 89.5%, representing a 2.7% increase over period 12, 2019 (86.8.%). This was mainly due to the policy decision to stop the sale of legacy fares in stations, now into its second month.

Substantial progress has been made 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 station entrances.

Period pass year-over-year growth was 3.3% for January or an increase of 6,353 sales. The largest growth was seen in post-secondary period pass sales with an increase of 5,279, which exceeded budget by 846 or 1.9%. The next largest growth in sales was in youth concessions, which was 745 actual sales over last year and 0.2% above budgeted sales. Senior sales were 367 above last year and 6.0% above budgeted sales. The largest group, adults, was slightly below last year (-38 sales) and -14.3% below the budgeted sales. In the adult group, transit fare pass sales were 891 higher than last year, but -3.6% below budget.

Customers continue to use e-purse as their preferred choice of fare payment to benefit from the two-hour transfer.

In period 1, 24.7 million or 46.5% of the rides were paid using e-purse and an additional 3.9 million rides were taken for free within the twohour transfer period.

PRESTO one-ride and two-ride tickets in period 1 had 0.4 million rides of 0.8%.

#### **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 during 2020, reaching approximately 95% once legacy fare media are no longer sold.

# Wheel-Trans ridership



#### Definition

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

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

#### Contact

Kirsten Watson, Deputy Chief Executive Officer – Operations

#### Results

Ridership in period 1 (January 1 to February 1, 2020) was 341,278 or 74,678 passengers per week. This figure was 2.1% higher than the budgeted 73,169 customers per week.

#### Analysis

Ridership trends in the previous three years for Wheel-Trans remain fairly flat with a small decline in 2018 and 2019. The 2020 ridership growth was set at one per cent growth over the previous year's adjusted budget with ridership anticipated to continue to remain flat.

The period 1 increase was higher than anticipated at 2.1%. Weather in period 1 was more favourable when compared to the previous year, resulting in a higher demand for trips from our customers. This first ridership data for 2020 represents the second highest ridership for period 1 when compared to the past six years.

#### **Action Plan**

We will continue to monitor this ridership trend as well as the impact to other key performance indicators. This increase may also have an impact on budget, therefore close monitoring of service will be required to ensure the most cost efficient schedule options are considered.

# **Customer experience**

## **Customer satisfaction**



#### 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

Four in five (81%) customers reported high levels of overall satisfaction in Q4 2019, which is consistent with last quarter (81%) and the same time last year (80%).

#### Analysis

Satisfaction with the level of crowding inside streetcars continues to rise, up to 70% this quarter compared to 60% in Q3. Our now fully accessible fleet of streetcars are moving more customers, more comfortably.

Frontline staff continue to deliver a high level of customer service on a daily basis. In Q4 2018, 82% of customers were satisfied with the helpfulness of staff across all modes. Scores on this key driver of customer satisfaction have remained high and consistent over the years, but there is still room for improvement.

#### Action plan

On January 5, 2020, collector booths were closed at 20 additional stations, as part of our Stations Transformation program. The remaining 45 station booths will be closed on March 29, 2020. Outside of the booths, collectors will be more visible and in a better position to actively engage with and assist customers. We expect this transition to have a positive impact on customer satisfaction.

# **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 Mondayto-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

This measure remained almost static from the December 2019 results, with a 91.7% average. Year-over-year, however, we did see an improvement from the 88.7% achieved in January 2019.

Our target of 90% was met.

#### Analysis

The relatively milder weather, and a 12.2% decrease in delay minutes on this line had a favourable impact on OTP. A major track project in the Lawrence Station area may affect this measure later in Q1, but plans are in place to mitigate that impact.

When compared to 2019 year-todate, there has been a 21.9% reduction in delay minutes in 2020.

#### Action plan

Our Automatic Train Control (ATC) project will be commissioning a new phase in Q1 2020, which will have a positive impact trip times. It will also improve reliability and delay avoidance as we have seen in previous phases. Once commissioned, ATC will be in service from Vaughan Metro Centre to Queen stations.

## 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 Mondayto-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

Results for this measure improved in January to 96.2%, up from the 94.9% we recorded in December. Compared to a year ago (January 2019 was 87%), we have seen significant improvements in OTP on this line. These results are the best we've achieved since this performance measure was adopted.

Our target of 90% was met.

#### Analysis

A partial derailment of a train at Keele Yard disrupted morning peak service on January 22, causing a 258-minute delay. However, without that incident, there was an overall reduction in delay minutes on this line.

Compared to last year, we have been relatively fortunate with the minor impact of inclement weather on operations.

#### Action plan

All of the strategies we have been employing throughout 2019 will be maintained, including additional supervisory resources during peaks and the use of Run-As-Directed trains.

## 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 Mondayto-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

OTP in January was 98.1%, which is the highest performance ever recorded for this metric.

Our target of 90% was met.

#### Analysis

When compared to January 2019, the biggest improvement was due to the milder weather, which resulted in 145 fewer delay minutes.

#### Action plan

Line 3 continues to run as scheduled and consistently delivers at or above target.

## Line 4 (Don Mills and Sheppard terminal stations): On-time performance (OTP)



#### Definition

OTP measures the headway adherence of all service trains at end terminals. Data represents Mondayto-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

OTP in January was 99.6%. Our target of 90% was met.

#### Analysis

When compared to 2019 year-todate, there has been an insignificant 8-minute increase in total delay minutes.

#### Action plan

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

# 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

#### Results

The p.m. peak performance improved by 0.1% in January, and the a.m. peak dropped by 0.8%. As a result, resulting the combined average dropped slightly from the 98.9% in December to 98.6%. However, this is a significant improvement from the same time last year (90.1%).

Our target of 96% was met.

#### Analysis

Our worst performing day in January was 20.5 trains-per-hours, or 80%, due to a major delay (injury at track level). This is an improvement from December 2019, when our worst day was 17 trains-per-hour, or 66.7%.

#### Action plan

Major track work will be initiated in the Lawrence Station area of the line towards the end of February and into March, requiring restricted speeds that will negatively impact service. We will be extending our Automatic Train Control area from St. Patrick Station to Queen Station near the end of February, which will improve trip times along the line.



# 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

#### Results

Line 2 capacity in January dropped slightly from 99.3% in December to 98.7%. However, this result is a significant improvement from the 89.0% we achieved in January 2019.

Our target of 96% was met.

#### Analysis

A partial derailment of a train at Keele Yard on the morning of January 22 resulted in 258 minutes of delay and caused capacity to fall to 11.3 trains-per-hour, which brought down the overall monthly average.

Service was also slowed by a restricted speed zone in the second half of the month between Castle Frank and Broadview stations, having a minor impact on capacity delivered.

#### Action plan

As a result of necessary track work at Keele Yard, train storage has been temporarily relocated to Greenwood Yard, but is not expected to have an impact to a.m. service build up.

We continue to see the benefits of Run-As-Directed trains added in 2019, providing resiliency to the service during delay incidents.

# 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

Performance on this measure improved slightly from the 99.1% in December to 99.3%. We saw a significant improvement from the 84.0% we achieved in January 2019.

#### Analysis

Delay minutes increased overall in January by 161 minutes, which is still relatively low when compared to Lines 1 and 2.

The worst performing delay was 8.8 trains-per-hour, caused by a 36-minute delay due to a rolling stock incident.

There were significant year-to-year improvements from January 2019 (84.0%), and January 2018 (93.0%).

#### Action plan

The consistent approach to managing this line as well as peak period line supervision are expected to maintain this level of performance as long as weather conditions remain favourable.

# Line 4: Capacity



#### Results

This measure remained at 100% and met our target of 98%.

#### Analysis

There are relatively few issues on this line and it continues to provide consistent, dependable service to our customers.

#### Action plan

#### 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 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 January 2020 Board Period, 11,119 subway weekly hours were budgeted for service while 11,131 subway weekly hours were scheduled to operate, which represents a variance of 0.11%.

Of the 11,131 subway weekly hours scheduled to operate, 10,704 weekly hours were actually delivered, which represents a variance of -3.84%.

#### Analysis

Scheduled service hours are matched with budgeted service hours. Actual service hours are lower than scheduled service hours due to subway closures during the weekend.

#### **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 January was 547,656 kilometres, an increase from both last month (438,524 kilometres) and the same time last year (306,277 kilometres) with a rolling annual average of 504,223 kilometres.

Our target of 300,000 kilometres was met.

#### Analysis

In January, there were six delay incidents greater than or equal to five minutes. The highest number of delays were attributed to the passenger doors system with four delay incidents. This was followed by the propulsion system with two incidents.

#### **Action Plan**

The four passenger doors system incidents were due to a defective cab side master door control panel, a defective door interlock, a faulty door relay panel and a defective open magnet valve (OMV) and door cylinder.

The defective cab side master door control was replaced, and doors were cycle tested to be working properly. The defective door interlock was removed and replaced with a new door interlock. Passenger doors were cycle tested and returned back into revenue service. The door control relay panel was replaced on speculation as the initial problem could not be recreated. Replaced door control relay panel was in service for more than 6300 days. The defective OMV and door cylinders were both replaced and doors were tested without further issues. All trains have since returned back into revenue service with no further issues reported.

The two propulsion-related incidents were a result of a faulty propulsion electronic control unit (PECU) and a tachometer board. Both the faulty PECU and tachometer board were replaced and both trains returned back into service with no further issues detected. A failure analysis report has been requested on the faulty PECU.

### 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 January was 769,357 kilometres, an increase from both last month (552,686 kilometres) and the same time last year (596,35 kilometres) with a rolling annual average 658,220 kilometres.

Our target of 600,000 kilometres was met.

#### Analysis

In January, there were six delay incidents greater or equal to five minutes. The passenger door, cab seat, and trainline systems each had two delay incidents.

#### **Action Plan**

The passenger door-related incidents were a result of a broken door roller and a defective door control unit (DCU). The broken door roller and faulty DCU have since been replaced with a new door roller and DCU. Both door sets were cycled tested, and have since returned back into revenue service with no further issues detected. A door rollers replacement program is planned for 2020. This program is scheduled to commence Q2, 2020

The two cab seat-related incidents were due to air leaks in the cab seat. The disconnected air hose was reconnected and the seat was tested to be working. The second cab seat had a defective quick connect fitting, which has since been replaced with a new quick connect fitting. Both cab seats have been utilized in revenue service with no further issues.

The two trainline-related incidents were a result of the train vehicle control unit-operation (TVCU-O) being offline. One TVCU-O was reprogrammed and yard tested to be functioning properly. The other TVCU-O was replaced and both trains were tested to be working. Analysis of the TVCU-O failure history shows a random failure pattern. The replaced unit was in service for more than 500 days. TVCU-Os are being actively monitored by technical staff for an increase in failure trend.

## 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 January 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 subway lines.

### Subway: Vehicle cleanliness



#### Results

The average rating of 90.1% in Q4 was above the target of 90.0%. We have recorded a score greater than 90% since Q4 2016.

#### Analysis

The performance score takes into account pre-service, in-service and post-service audit results.

Areas of strength in vehicle cleanliness across all fleets and lines were the ceilings, etching/scratchitti, graffiti/stickers and mandatory decals. Factors affecting the quarterto-quarter overall cleanliness scores in Q4 2019 were door cleanliness, floors, anti-draft panels and windows.

#### Action Plan

Exterior vehicle washes are generally halted during the winter season as temperatures drop and excess exterior water freezes. Exterior vehicle washes are still performed whenever possible, weather permitting. The floor wash cycle continues to be addressed once every 14 days.

Starting in Q2 2020, the vehicle cleanliness score will be broken down into pre-service cleanliness and in-service/post-service cleanliness. By breaking this out, the scores will provide a better indicator of TTC performance with respect to the cleaning of vehicles and of the condition of vehicles during and after service.

#### 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

# **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 January was 76.9%, an increase compared to December (74.6%), and a significant improvement over the same period last year (57.8%).

Our target of 90% was not met.

#### Analysis

OTP continues to trend positively. The first two weeks of the period showed strong performance. This was due in part to the decrease in road traffic and passenger volumes typically experienced during the first two weeks of the year.

The 505 Dundas route continued to bring down the network figure for the period. When excluding the 505 Dundas route from the network score, the OTP in January increases to slightly more than 82%.

As noted previously, the existing 505 route schedule is deficient in run time. A slightly improved interim schedule will be introduced for the February/March Board Period, followed by a new LFLRV schedule for the April Board Period.

Numerous unplanned events negatively impacted OTP for the period, including:

- A streetcar disablement that caused a major delay to the morning run-outs from Leslie Barns on January 14.
- A major snowfall led to numerous operational challenges on January 18.
- On January 22, the 504B King route was negatively impacted by a broken rail at Dufferin Gate Loop. This branch of the King service was extended to Sunnyside Loop and therefore operated off schedule for most of the day.
- On the last day of the period, a watermain break at King Street and Yonge Street led to an unscheduled westbound diversion for both branches of the 504 King service.

In terms of planned infrastructure work, a Harbourfront tunnel inspection occurred the weekend of January 25 & 26 (impacting the 509 Harbourfront and 510 Spadina routes). As well, road repair work at Queen/Bay Streets led to a westbound diversion on the last day of the period (impacting the 501 Queen service). This planned work negatively impacted OTP.

#### **Action Plan**

Schedule reviews and route structure planning for Spring 2020 has been completed. Several major construction projects will be addressed from the spring into the summer months and will prove challenging, however, lessons learned from previous years have been instrumental in planning efforts to provide the best possible service to customers during these periods. The route management team will continue to work towards our goal of 90% OTP.

### 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 75 short turns in January, a decrease compared to December (77) and a significant decrease from the same period last year (1,153).

#### Analysis

January is the ninth consecutive month with short turn numbers at significantly decreased levels compared to 2018 or early 2019. There were, on average, less than three streetcar short turns per day throughout the network for the January period. The route with the highest number of short turns during the period was the 506 Carlton route (23). More than two-thirds of the 506 Carlton short turns for the period were due to accidents, heavy traffic or emergency services deployed on the route.

#### **Action Plan**

Recent improvements to streetcar schedules and our focus on reducing short turns continues to have a

positive impact on the customer experience, especially during the cold winter months. The day-to-day efforts to keep streetcar short turns low will continue.

# 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 January 2020 Board Period, 19,349 streetcar weekly hours were budgeted for service while 19,139 streetcar weekly hours were scheduled to operate, which represents a variance of -1.09%.

Of the 19,139 streetcar weekly hours scheduled to operate, 19,002 streetcar weekly hours were actually delivered, which represents a variance of -0.72%.

#### Analysis

Scheduled streetcar hours are lower than budgeted due to some changes in construction projects.

Actual service hours are lower 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 incidents (defined contractually) 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. The operational MDBF includes incidents defined contractually, as well as delay incidents that are caused by failures of equipment from other vendors and delays caused by TTC operations.

#### Contact

Rich Wong, Chief Vehicles Officer

#### Results

The monthly contractual MDBF for the LFLRV fleet in January was 50,939 kilometres. This is an increase of 239 kilometres compared to last month and an increase of 43,362 kilometres compared to the same time last year.

The 12-month average contractual MDBF was 26,718 kilometres. The contractual target of 35,000 kilometres MDBF must be met within one year of commissioning the 204th vehicle.

The monthly operational MDBF for the LFLRV fleet in January was 25,470 kilometres. This is an increase of 11,721 kilometres from the previous period.

#### Analysis

In January, there were a total of 19 relevant failures under the contractual reliability method. The top contributors were the train and cab controls system with six, the communication system with four and the door system with three relevant failures. With respect to the operational MDBF method, there were a total of 38 delays. The top contributors to these failures in addition to the contractual reliability failures include the high voltage system with seven, the ramp system with three and the carbody structure with two failures.

Compared to December, failures related to the air conditioning, sanders and passenger door systems have decreased, which has contributed to improved operational reliability in January.

#### **Action Plan**

Bombardier and TTC Engineering staff continue to develop, implement and complete vehicle modification programs. These programs are designed to improve overall vehicle reliability and maintainability. At the same time, front line operations continue to collect and analyze inservice data to perform root cause analysis of operational and maintenance issues. As more data is collected on the fleet, operational processes and preventative maintenance activities will be adjusted and refined through a continuous improvement process. The combination of vehicle modification programs and refinement of operational/maintenance activities will help improve both the contractual and operational MDBF.

#### Train and cab control system: We

are continuing to work with Bombardier to design and implement a more reliable master controller on the fleet through an upcoming fleet modification. An inspection of all electrical connectors is being carried out on all new cars.

**Communication system:** A camera modification program has recently commenced that addresses known issues with image quality and stability. Also passenger information system failures are under investigation.

**Door system:** Failures are under investigation

#### High voltage power system:

Multiple modifications aimed to improve various sub-systems are being implemented on the fleet. This includes adjusting the limit switch on the main switch, and replacement of some of trolley pole and pantograph components with more robust ones (e.g. bracket and chain).

**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 2020.

#### Carbody structure and interior:

Vehicle modification program to install improved inter-car dampers and articulation flooring designs is currently underway to address these failures.

In addition to the contractual programs, operational reliability improvements being made to improve MDBF include:

#### High voltage power system:

Continuous improvement of wear item inspections and additional auditing to ensure quality of repairs.

**Ramp system:** Implement an improved maintenance program to include updated processes as specified by TTC Engineering staff.

#### Carbody structure & interior:

Prioritize vehicle modification program and improve inspection requirements.

In total there are 52 vehicle modification programs in progress to assist with improvement to vehicle reliability.

# Streetcar: Road calls and change offs (RCCOs)



#### Definition

Average daily number of vehicleequipment 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 January, 2.5% (or 4 of 160 vehicles) of the peak daily service, including Run-As-Directed vehicles, resulted in a RCCO.

#### Analysis

The daily average number of RCCOs for January decreased by one compared to December 2019.

The improvement from the previous month can be attributed to the decommissioning of the legacy fleet. In addition, failures of systems related to car body, high voltage and ramp equipment were offset by a reduction in failures of air conditioning, passenger door and vehicle control related systems. Overall there was a net reduction in RCCOs.

#### **Action Plan**

Staff will continue to focus on underperforming systems on the vehicles to reduce failures.

Bombardier is aware of the issues related to the LFLRV reliability and is implementing various modification programs to address the issues. Preservice inspections and preventative maintenance activities will continue to address RCCOs.

### 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 January, an average of 98.8% of the required 160 vehicles was provided for service.

#### Analysis

The availability numbers for January were impacted due to all the legacy vehicles being decommissioned by Dec 31, 2019. As there was a minor delay in the delivery and commissioning of the last remaining vehicles delivered, there was a temporary shortage of five LFLRVs for service at the beginning of the month

#### **Action Plan**

Newly commissioned LFLRVs have replaced the legacy fleet and through proper maintenance will be available to meet 100% of the service requirements.

## **Streetcar: 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 streetcar cleanliness score decreased in Q4 2019 to 80.7%. This is a decrease from the previous quarter (86.5%) and the same time last year (91.8%). Overall performance on streetcar cleanliness is below the target of 90%.

#### Analysis

The performance score takes into account pre-service, in-service and post-service audit results.

High demand for service vehicles limited the availability for exterior/interior wash scheduling. Unfavourable weather conditions have also affected cleanliness results, particularly flooring.

Heavy snowfall in December caused an accumulation of snow and dirt residue on the floors, and contributed to a decrease in overall cleanliness. Efforts to improve scores in these areas are underway.

#### **Action Plan**

Staff continues to investigate opportunities to further improve cleanliness, including increasing the frequency of cleaning activities.

Starting in Q2 2020, the vehicle cleanliness score will be broken down into pre-service cleanliness and in-service/post-service cleanliness. By breaking this out, the scores will provide a better indicator of TTC performance with respect to the cleaning of vehicles and of the condition of vehicles during and after service.

# **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

#### Results

OTP in January was 86.0%, a significant improvement compared to the 73.6% achieved in the same period last year, and compared to the 81.2% we recorded in December.

Our target of 90% was not met.

#### Analysis

OTP in January was the highest monthly performance across the system over the last five years and included a 90.1% weekly average in the first week of the period — the highest weekly performance since this measure was adopted in 2014. Daily performance remained consistently above 80% throughout the period, except during the snowstorm on the January 18 and 19 weekend. Six days in the month of January met the 90% target.

Four schedule changes were implemented as part of the January 5, 2020 Board Period with a combined average of 89.0%, a significant improvement from 72.9% in 2018. These weekday reliability improvements include:

- 45 Kipling (79.4% in 2019 to 90.7% in 2020)
- 52 Lawrence West (69% in 2019 to 88% in 2020)
- 112 The West Mall (74% in 2019 to 89% in 2020)
- 954 Lawrence East Express (75% in 2019 to 94% in 2020)

#### Action plan

The following reliability improvements will be implemented in the February 2020 Board Period: 21 Brimley, 53 Steeles East, 54 Lawrence East, 116 Morningside, 129 McCowan North, 945 Kipling Express and 953 Steeles East Express.

### **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 73 short turns in January, a significant improvement from the same period last year (2,195), and from last month (187). Our target of 1,590 short turns this period was met.

#### Analysis

The significant reduction in short turns for January continued to be driven by increased management oversight, focusing on alternate route management techniques to minimize the impact on 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.

Short turns this period continued to be mainly driven by increased traffic congestion and weather.

The top five routes accounted for approximately half of the short turns in the period: 109 Ranee (14%), 35 Jane (14%), 24 Victoria Park (7%), 53 Steeles East (7%) and 41 Keele (7%).

#### Action plan

We will continue 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 operating conditions.

### **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

#### Results

In the January 2020 Board Period, 152,220 bus weekly hours were budgeted for service while 151,866 bus weekly hours were scheduled to operate, which represents a variance of 0.23%.

Of the 151,866 bus weekly hours scheduled to operate, 151,439 hours were actually delivered, which represents a variance of -0.28%.

#### Analysis

Scheduled service hours are slightly lower than budgeted service hours due to a few construction projects being delayed.

Actual service hours are lower than scheduled service hours.

#### Action plan

No action required at this time.

# 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

#### Results

The MDBF in January was 20,000 kilometres, exceeding the target of 12,000 kilometres.

#### Analysis

The MDBF for the bus fleet remains high and above target. Recent vehicle procurement additions to the fleet contribute to this high reliability.

Another contributing factor is the implementation of several key reliability and retrofit programs. Examples include: state of good repair inspections, road call and change off root cause analysis, special seasonal preventive maintenance programs, engine oil analysis, engineering modifications and upgrades to assets, and various other system specific programs targeting high failure rate systems.

Notable highlights of current engineering projects include ramp snow guard addition, front door sensitive edge sensors, forward camera activation, idle shutdown functionality, and auxiliary heater filter design change due to obsolescence.

#### **Action Plan**

We continue to monitor the effectiveness of the winter preparedness program. Results so far are trending positively with record low interruptions to service, however this winter has been unusually mild. We will continue to monitor fleet performance closely and will report on lessons learned.

We are in the process of procuring parts for the spring seasonal program based on the submitted bill of materials. None of the parts are at risk of short supply. Spring Seasonal Standard Operating Procedure for the Nova Hybrid buses has been verified and in process for field validation, planned to be released before February 28, 2020.

We are in the testing phase of several VISION on road health monitoring reports that will enable us to better predict and mitigate service interrupting failures related to complex systems such as the latest Cummins engines and associated exhaust after-treatment systems, electric and hybrid drive powertrain and controls. We are also reviewing proposals from firms providing predictive and prescriptive engine and exhaust after-treatment diagnostic services using VISION vehicle health monitoring data.

# Bus: Road calls and change offs (RCCOs)



#### Definition

Average daily number of vehicleequipment 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 January was 24 per day.

#### Analysis

Peak revenue service was 1635 buses per day, including Run-As-Directed buses in January. The average number of RCCOs per day equates to 1.46% of service, below the 1.50% target.

#### **Action Plan**

We continue to monitor and control road calls via daily tracking, gap analysis, reliability programs, and working closely with the transportation department and service line contractor to look at opportunities to reduce road calls.

## **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

#### Results

The average number of buses provided for a.m. peak service in January was 1,635 per day or 101.0% of planned service, above the target of 1,619 buses.

#### Analysis

The significant number of new bus procurements from 2016 into period 12, 2019 (~950) has boosted fleet performance and permitted a higher number of vehicles available for service. The available vehicles are being utilized for training purposes and permitting additional state of good repair preventative maintenance inspections.

#### **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 Q4 was 88.1%, which is below the target of 90%. The average score for 2019 was 90%.

#### Analysis

The performance score takes into account pre-service, in-service and post-service audit results. The preservice score was 97%. However, this score was offset by the postservice score, which was 81.3%. Poor post-service scores are attributed to winter weather conditions. Snow, salt and debris accumulate on the floor throughout service.

#### **Action Plan**

We will be investigating the root cause of the lower audit score for wheel assemblies by reviewing audit criteria, contractor performance and other discovered contributing factors. We will continue to closely monitor and control cleaning contractor performance. Starting in Q2 2020, the vehicle cleanliness score will be broken down into pre-service cleanliness and in-service/post-service cleanliness. By breaking this out, the scores will provide a better indicator of TTC performance with respect to the cleaning of vehicles and of the condition of vehicles during and after service.

# **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 January increased by 3.5% from the previous period to 93.9%, and is 1.1% higher than the same period in 2019.

Our 90% target was met.

#### Analysis

OTP increased due to the continued focus on service adjustments and vehicle lateness being monitored by our dispatch team.

#### **Action Plan**

A daily plan is in place for consistent service adjustments to keep OTP above 90%.

# 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

#### Results

The January MDBF of 16,751 kilometres exceeded the target of 12,000 kilometres. This is a marginal increase compared to the same time last year (16,264 kilometres).

#### Analysis

The Wheel-Trans fleet currently consists of 128 ProMaster and 127 Friendly buses. 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. Some water leaks and side ramp issues have been experienced on the ProMaster bus fleet.

#### Action Plan

To help mitigate exhaust system issues on the Friendly bus fleet, we continue to perform post repair exhaust system checks on all Friendly buses. A small pilot has just begun on a new programing feature for second-generation Friendly buses that will allow the operator to preform parked regens through the steering wheel functions while remaining in service, we have reprogrammed 53% of the second-generation fleet and are aiming for a mid-March completion.

Engineering retrofit programs are underway on our ProMaster fleet to correct side ramp failures (85% complete) and water leaks (30% complete).

# 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

#### Results

The accommodated rate in January was 99.9%. This is 0.9% higher than our target, and consistent with the same period last year.

#### Analysis

Our service delivery goal is to provide every customer with a trip. For the past 16 months, Wheel-Trans has been able to maintain an accommodation rate of 99.9% of all trip requests.

#### **Action Plan**

As ridership grows and the Family of Services program expands, we will continue to find scheduling efficiencies in order to maintain the high rate of accommodation.

# 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

#### Results

The average wait time in January was 3.6 minutes. This is 11.4 minutes below our target.

#### Analysis

January is historically less busy as many schools, day programs and offices are closed due to the holidays in the first week. We have had several weather contingency days where trip bookings and times are impacted as a result of inclement weather. This, combined with strategic scheduling of resources has assisted in the favorable trend in the average wait time numbers.

#### **Action Plan**

With ongoing upgrades and improvements to our self-booking website, we expect our customers will continue to take advantage of this option to book their trips. Supervisory staff monitor call volumes daily to ensure the average wait time for our customers remains below our target. More focus has been placed on call handling techniques and professionalism to improve the customer experience.

# **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 station cleanliness audit score in Q4 was 74.9%, a slight decrease of 0.82% from last quarter (75.7%). The result was just below our target of 75%.

#### Analysis

Of 22 components that are scored, two increased, eight remained the same and 12 saw a slight decrease.

The top three scoring stations in Q4 were: York University (92.2%), Pioneer Village (88.8%) and Downsview Park (87.3%)

The bottom three scoring stations were: Yorkdale (67.5%), Dufferin (66.9%) and Dundas West (65.5%). Yorkdale has been impacted by construction, while Dufferin and Dundas West saw slight improvements for the second straight quarter.

#### **Action Plan**

Seasonal projects will start up again near the end of Q1 2020. The focus

until then will be maintaining stations during winter months.

### **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 in January was 96.9%, below the target of 98%. Performance marginally decreased compared to December (97%).

#### Analysis

Ongoing elevator overhaul work at Bathurst and Scarborough Centre stations negatively impacted performance in January.

### **Action Plan**

The overhaul work is scheduled to be completed by mid-March 2020.

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

## **Escalator availability**



#### Results

Escalator availability in January was 97.3%, above the target of 97%. Performance increased compared to the previous month (96.5%).

#### Analysis

Escalator maintenance was completed as planned and scheduled.

### **Action Plan**

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

#### Definition

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

#### Contact

Fort Monaco, Chief Infrastructure and Engineering Officer

# 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 99.1% in January, which represents a 0.29% increase from last month and an increase of 1.77% of the same time last year. Availability was below the 99.5% target.

#### Analysis

This increase reflects the continued ongoing efforts by both TTC and Scheidt & Bachmann (S&B) to address the hardware and software issues with the fare gates. We expect performance to continue to improve throughout 2020 with the current modification programmes in place.

The issue related to the availability data has been addressed and the data for the past three months has been corrected.

#### **Action Plan**

We continue to work with S&B to address ongoing hardware and software issues. A number of programs have been developed and are currently being implemented. These include:

- The program to replace the industrial computers in the fare gates was completed in Q4 2019. It is expected that S&B's secondgeneration industrial computer with a new Solid State Drive, will provide a number of improvements including: Extending the hard drive capacity, improving and protecting the hard drive sectors, increasing the hard drive speed (faster read/write - start-up time will be improved), extending the data logging, and helping address USB disconnect issue we are currently having with the fare gates.
- A software update was installed in late Q3 2019. This software update has improved passage detection, leading to a more reliable interface for the customers; provided an upgrade to the motor control interface, improving motor reliability; and resolved an ongoing issue with the card readers on the gates.

 S&B development teams are currently completing an in-depth review of ongoing issues with the fare gate motors. The final report is still outstanding; steps are being taken to implement some of the fixes indicated in the initial reports. Once the final report is completed and the recommendations are reviewed an action plan will be developed based on the findings.

These plans will help to address the following issues: screen freezing, tap/no entry, card reader failures, motor and heater failures. We have additional software and hardware updates scheduled, which will add functionality and provide further fixes to know problems, improving gate availability for customers.

## **PRESTO card readers**



#### Definition

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

PRESTO card readers are devices that are installed onboard TTC surface vehicles (buses and streetcars) and allow customers to pay their fare by tapping on the device.

#### Contact

Kirsten Watson, Deputy Chief Executive Officer – Operations

#### Results

PRESTO card reader availability averaged 99.30% in January, which represents an increase of 0.09% from last month. Availability remains below the target of 99.99%.

#### Analysis

Metrolinx has enhanced their backend monitoring capability to remotely recover/resolve some device failures. This has resulted in an increase in card reader availability.

#### **Action Plan**

Metrolinx continues to investigate the root cause of card readers freezing intermittently.

**Note:** Availability data from Metrolinx may be subject to inaccuracies, as indicated in previous updates and confirmed by the Auditor General's recent report. We are working with Metrolinx to improve the methodology for determining availability, including the frequency at which the devices are polled for availability status. Technical changes are also being developed to improve the reliability of card readers. Further updates will be provided.

## PRESTO Fare Vending Machines (FVM)



#### Definition

The average percentage of daily availability of PRESTO FVMs are based on duration of identified fault incidents to time of resolution. Cash collection incidents are currently not reflected in the calculation.

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 98.87% in January, which represents an increase of 0.70% from the previous month. Availability remains above the target of 95.00%.

#### Analysis

Continued enhancements to remote device monitoring and incident management resulted in improved availability.

#### **Action Plan**

We will continue to monitor availability.

**Note:** Availability data from Metrolinx may be subject to inaccuracies, as indicated in previous updates. We are working with Metrolinx to improve the methodology for determining availability. Further updates will be provided.

# PRESTO Self-Serve Reload Machines (SSRM)



#### Definition

The average percentage of daily PRESTO SSRM availability are based on duration of identified fault incidents to time of 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

#### Results

PRESTO SSRM availability averaged 99.70% in January, which represents an increase of 0.01% from the previous month. Availability remains above the target of 95.00%.

#### Analysis

The software update to address incidents where the device touchscreen freezes intermittently has resulted in improved availability. No incidents of device touchscreen freezing occurred in January.

#### **Action Plan**

We will continue to monitor availability.

**Note:** Availability data from Metrolinx may be subject to inaccuracies, as indicated in previous updates. We are working with Metrolinx to improve the methodology for determining availability. Further updates will be provided.

# PRESTO Fares and Transfer Machines (FTM)



#### Definition

The average percentage of daily availability of PRESTO FTMs are based on duration of identified fault incidents to time of resolution. Cash collection incidents are currently not reflected in the calculation.

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

#### Results

PRESTO FTM availability averaged 99.06% in January, which is an increase 0.24% from the previous month. Availability remains above the target of 95.00%.

#### Analysis

The increase in availability is attributed to a decrease in a number of device coin vault related issues. Additional changes to the process for scheduling streetcars for PRESTO equipment maintenance have also been implemented, which has resulted in improved availability.

#### **Action Plan**

Additional changes are planned to align cash collection activities with vehicles availability. **Note:** Availability data from Metrolinx may be subject to inaccuracies, as indicated in previous updates and confirmed by the Auditor General's recent report. We are working with Metrolinx to improve the methodology for determining availability. We are also in discussions with Metrolinx to restore the debit/credit payment feature for new streetcars. Further updates will be provided. For further information on TTC performance, projects and services, please visit ttc.ca

