

# Toronto Pearson Noise Management Forums Neighbourhood Table

September 23, 2020



# Welcome + Introductions

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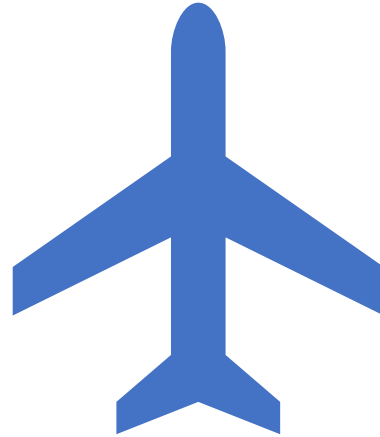
# Agenda

- Airport Situational Update
  - Healthy Airport Initiatives
  - Trends in Operations
- Member Raised Updates
- NAV CANADA Updates
- GTAA Updates
  1. Maintenance Update
  2. Noise Management Action Plan
- Discussion and Roundtable

# Airport Situational Update

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# Operations since COVID-19

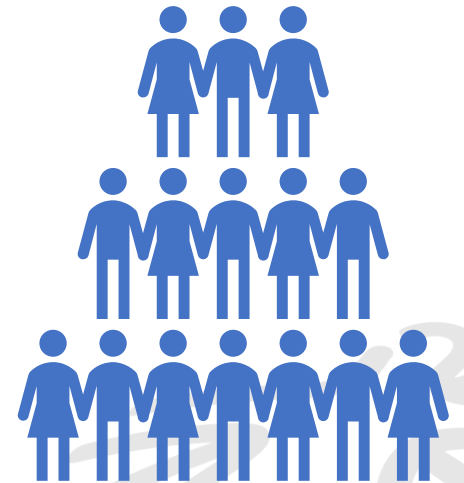


## Operations

- Overall, traffic levels were down 84% in Q2 2020 compared to Q2 2019
- During the restricted hours (12:30 a.m. – 6:29 a.m.), there were 3,896 fewer operations, or approximately 43 fewer flights per night (15 down from 58)

## Passengers

- Processed 96% fewer passengers in Q2 2020 compared to same period in 2019
- Currently passenger traffic through Toronto Pearson is at approximately 1970s operating levels



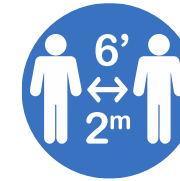
# Healthy Airport Initiatives

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# HEALTHY AIRPORT



- A healthy airport is the most important part of instilling public trust in air travel
- Toronto Pearson's "Healthy Airport" commitment puts the health of passengers and employees first.
- First North American Airport to receive ACI Airport Health Accreditation
- Embracing innovation



# HEALTHY AIRPORT MEASURES

## Transport Canada regulations:

- Passenger health assessment at the final point of departure
- Mandatory temperature checks
- Arrivals health declaration to CBSA with PHAC support
- All incoming passengers must have a 14-day quarantine plan

## Toronto Pearson has implemented our own Healthy Airport measures:

- Mandatory masks in all public areas, for passengers and employees
- Physical distancing: plexiglass barriers, separation at kiosks/seating areas signage, floor decals, and increased passenger comms
- Limiting terminal access to only passengers and workers
- Enhanced hygiene and cleaning in high traffic areas





# Pearson's role in managing international passengers arriving at the airport

- Pearson is 1 of 4 airports designated by government for international flights
- Our role is to facilitate safe and healthy movement of passengers
- All other parts of the journey are managed by government agencies
- [Process Video: https://youtu.be/iByRfDjMOH4](https://youtu.be/iByRfDjMOH4)

Before take off: TC mandate for temperature checks

On arrival: Passengers provide contact information to CBSA

- ArriveCAN app: Provide contact information, Submit self assessment, Quarantine updates
- Web & Paper forms also available

Customs Hall: CBSA health screening questions and quarantine plans

- Instructional handout for mandatory quarantine
- If symptomatic or unsuitable quarantine plans, PHAC steps in for further assessment

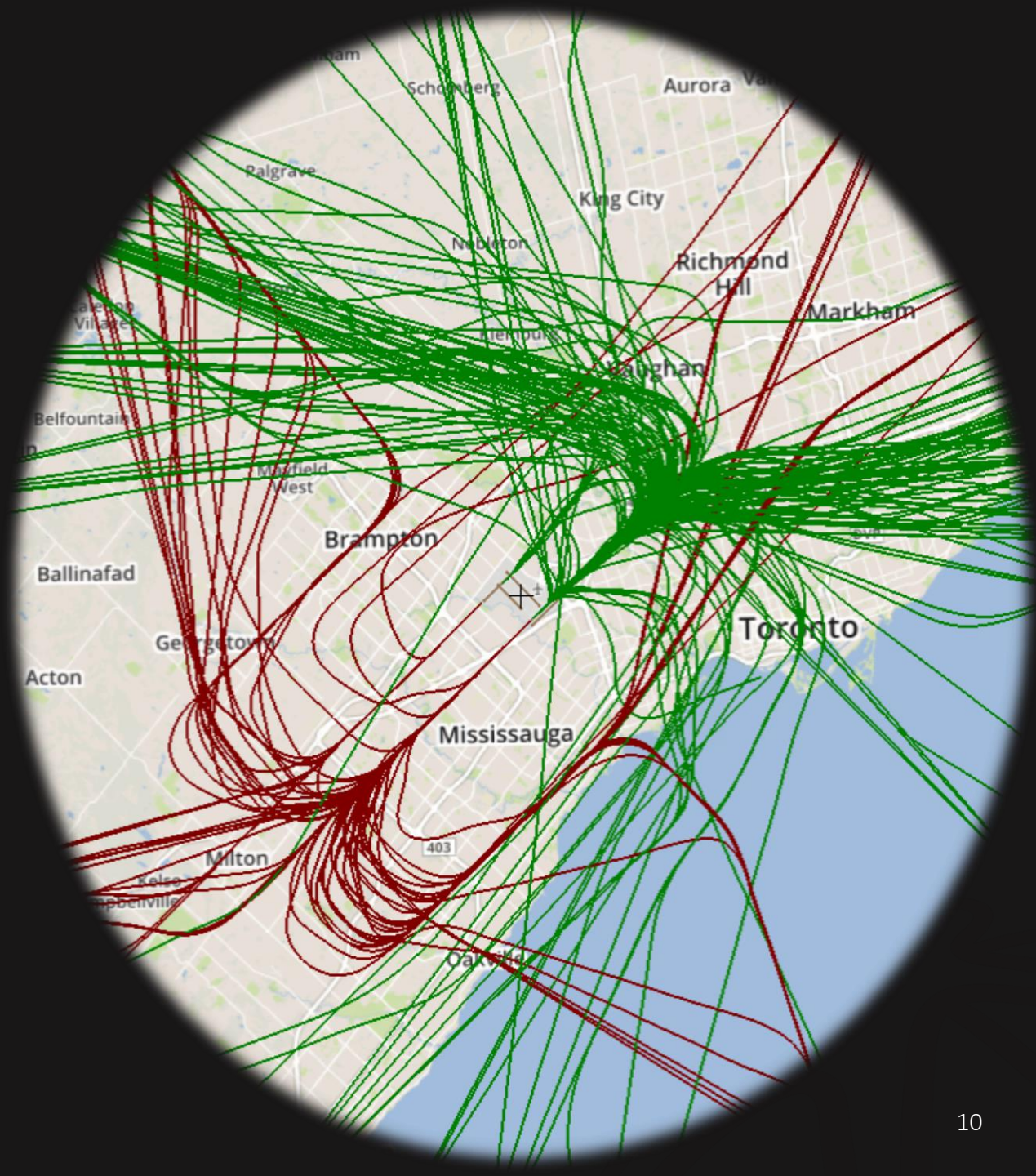
Quarantine

- PHAC process to verify quarantine compliance that includes phone calls, texts and/or emails to all international arriving passengers
- PHAC also collaborates with local police to assist with enforcement of the mandatory quarantine order.

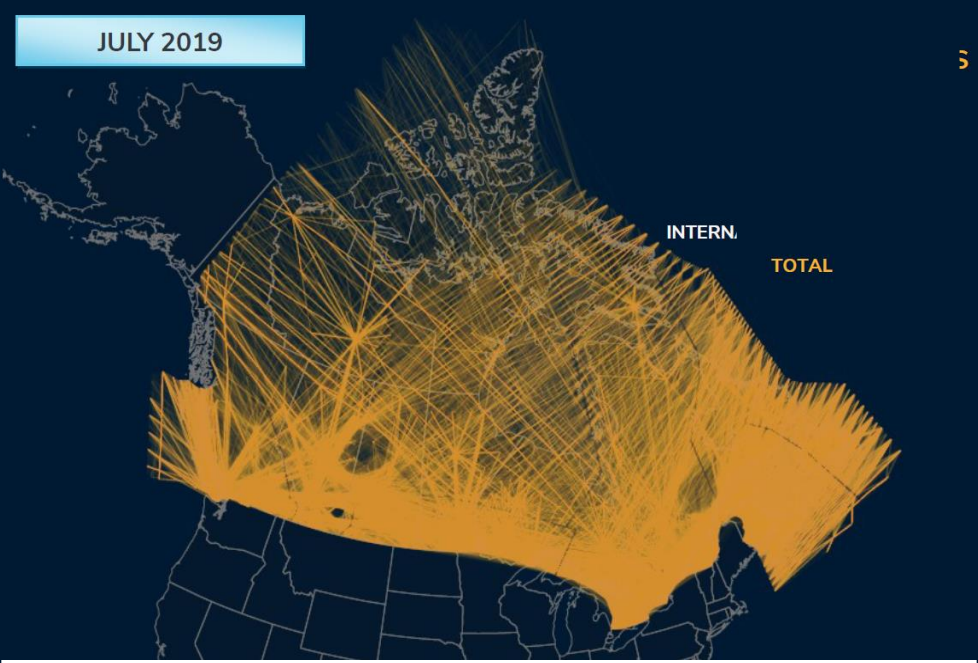
In the community, should a passenger test positive, the local Public Health Unit is responsible for starting contact tracing.

# Operational Trends

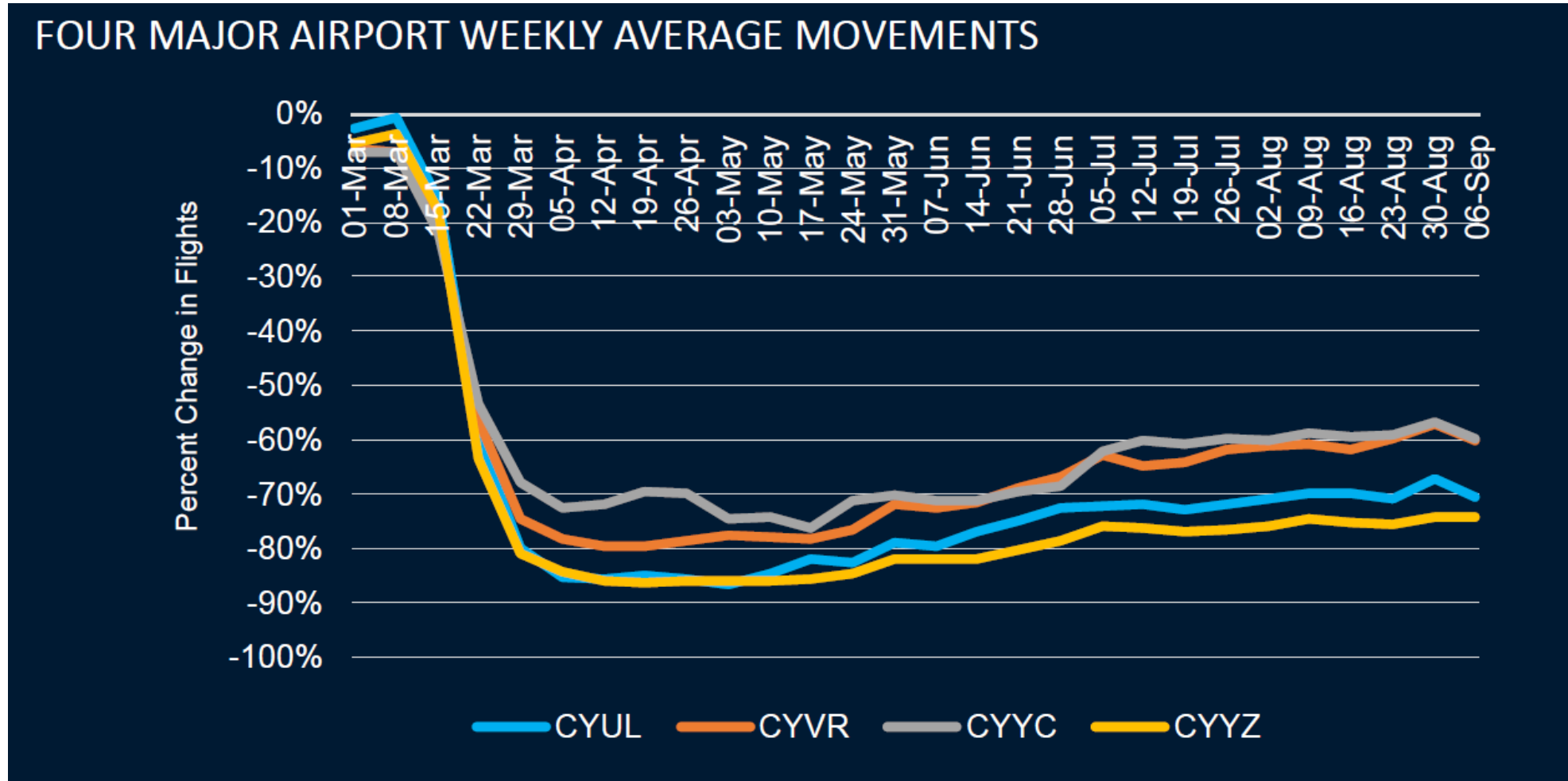
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# National Traffic Changes due to COVID-19 Pandemic



# National Traffic Changes due to COVID-19 Pandemic

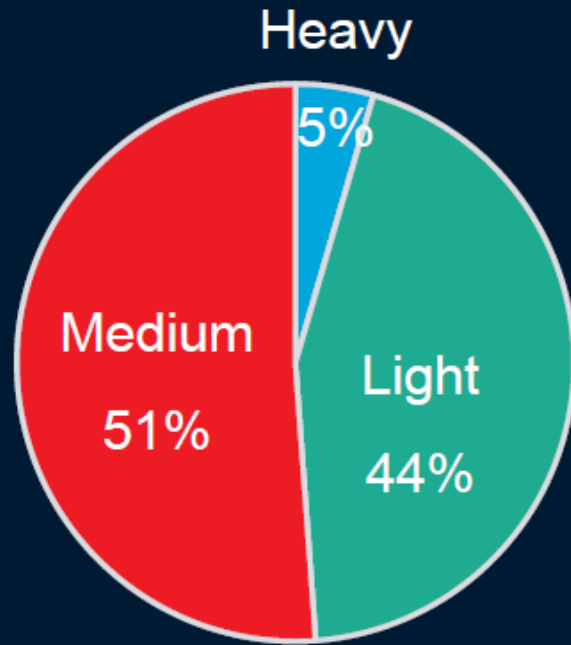


# National Traffic Changes due to COVID-19 Pandemic

2019 Flights Operated –1 September—14 September\* 2020

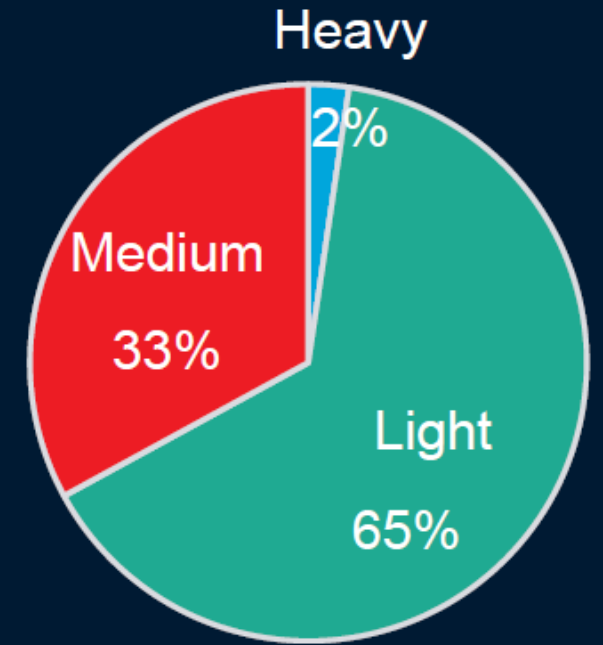
Top 5 Aircraft Types

- DH8D
- C172
- B190
- DH8C
- B738

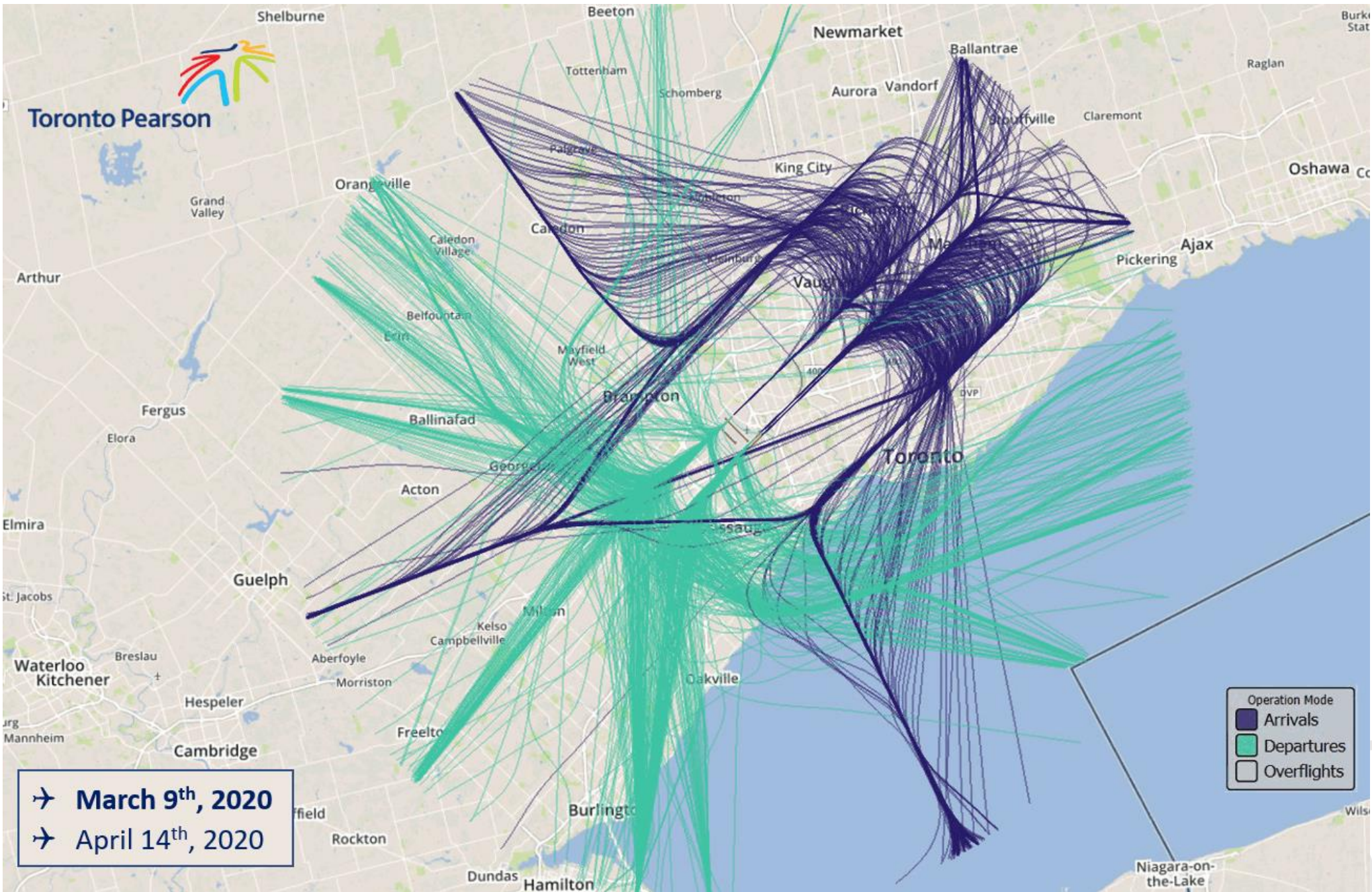


Top 5 Aircraft Types

- C172
- BE20
- C152
- PC12
- DH8D



Sources: FDW, CCARCS, CAPA



# **CYYZ Traffic Distribution Analysis**

March 1<sup>st</sup> – June 30<sup>th</sup>, 2019 & 2020

# Traffic Distribution Summary

*When looking at the following Heat Maps, we are watching for changes in flight track patterns and flight track densities*

Overall, we found:

## Arrivals

- Decrease in density, due to decreased traffic
- Some change in flight track patterns due to:
  - A proportional increase in arrivals being cut-across direct the downwind. However, the actual number of arrivals being cut-across has decreased
  - The RNAV X\_Idea 1: New Nighttime Procedure - being utilized more often during daytime hours leading to an increase in traffic density along these routes
    - Areas which have seen increased track densities due to this include: 1) greenspace west of Georgetown 2) Southern area of Oakville/Mississauga border (Winston Churchill Blvd & Royal Windsor Dr) 3) Nobleton and 4) Vaughan
- Compared to 2019, N/S runways were used proportionally more for one-off operations due to construction impacts and to expedite taxi times. This trend has been addressed and reversed in most recent months

## Departures

- The location of departure flight tracks has remained very consistent
- Departure density along these tracks has decreased significantly



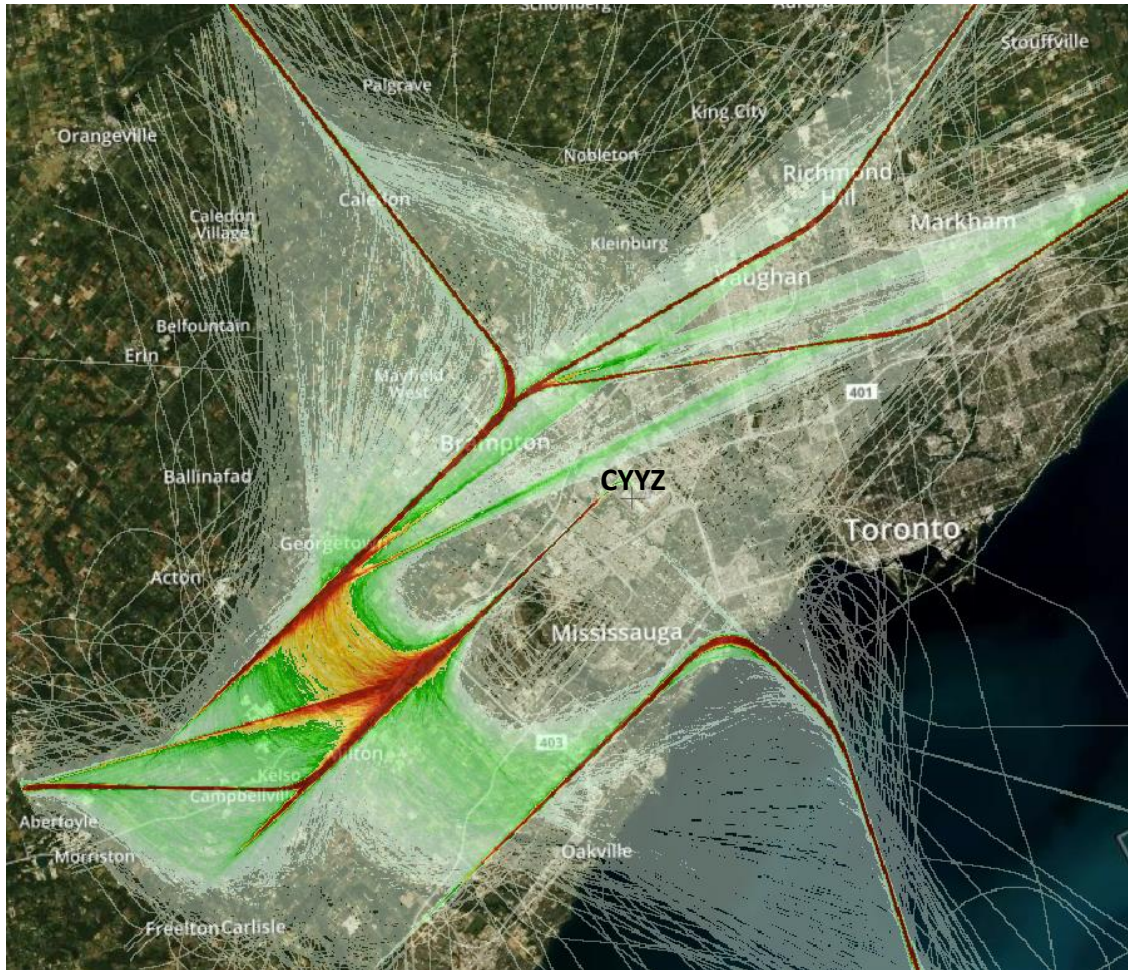
# Arrival Track Densities

March 1<sup>st</sup> – June 30<sup>th</sup>, 2019 & 2020  
Daytime Hours (0630-2359 local)

# Arrivals Track Density – Runway 05

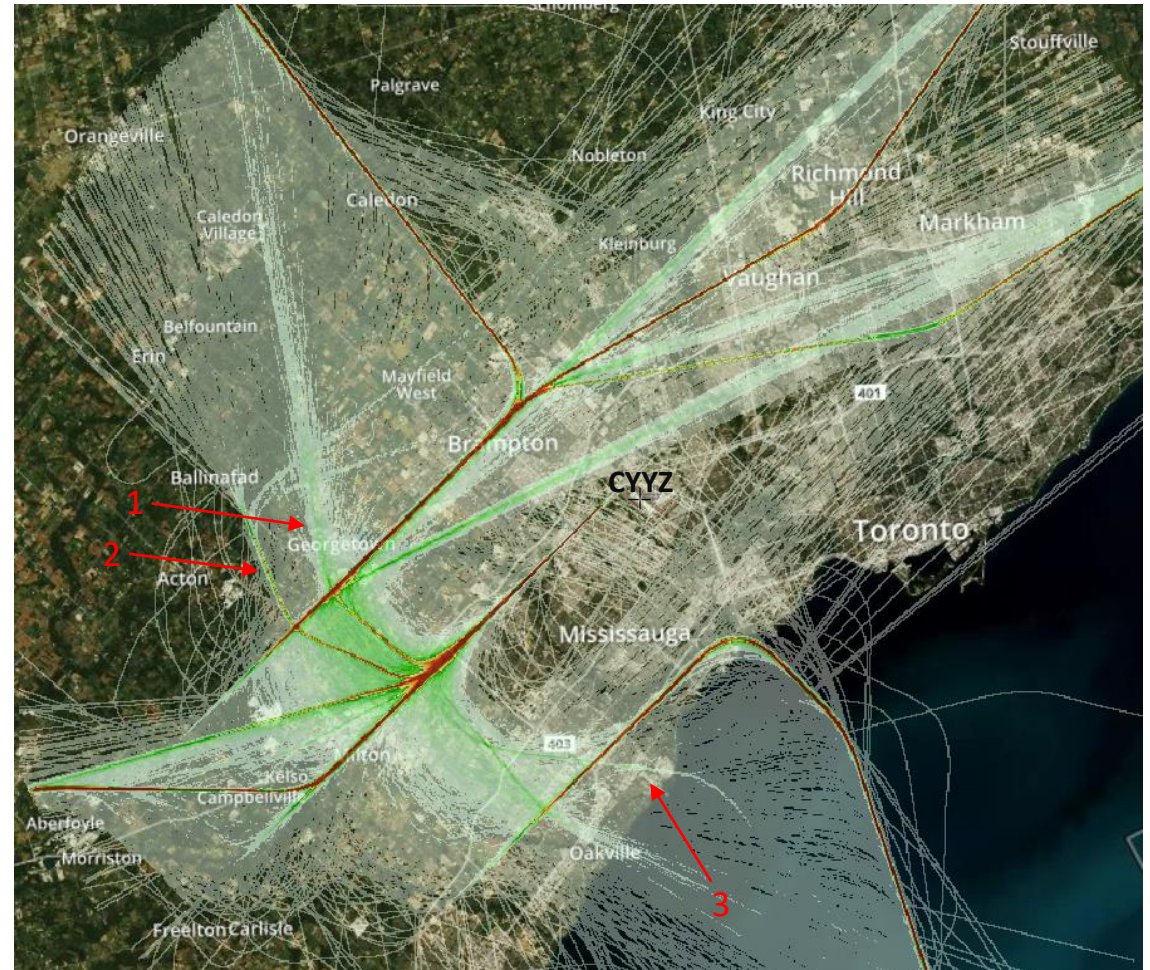


2019



Ops: 19,059

2020

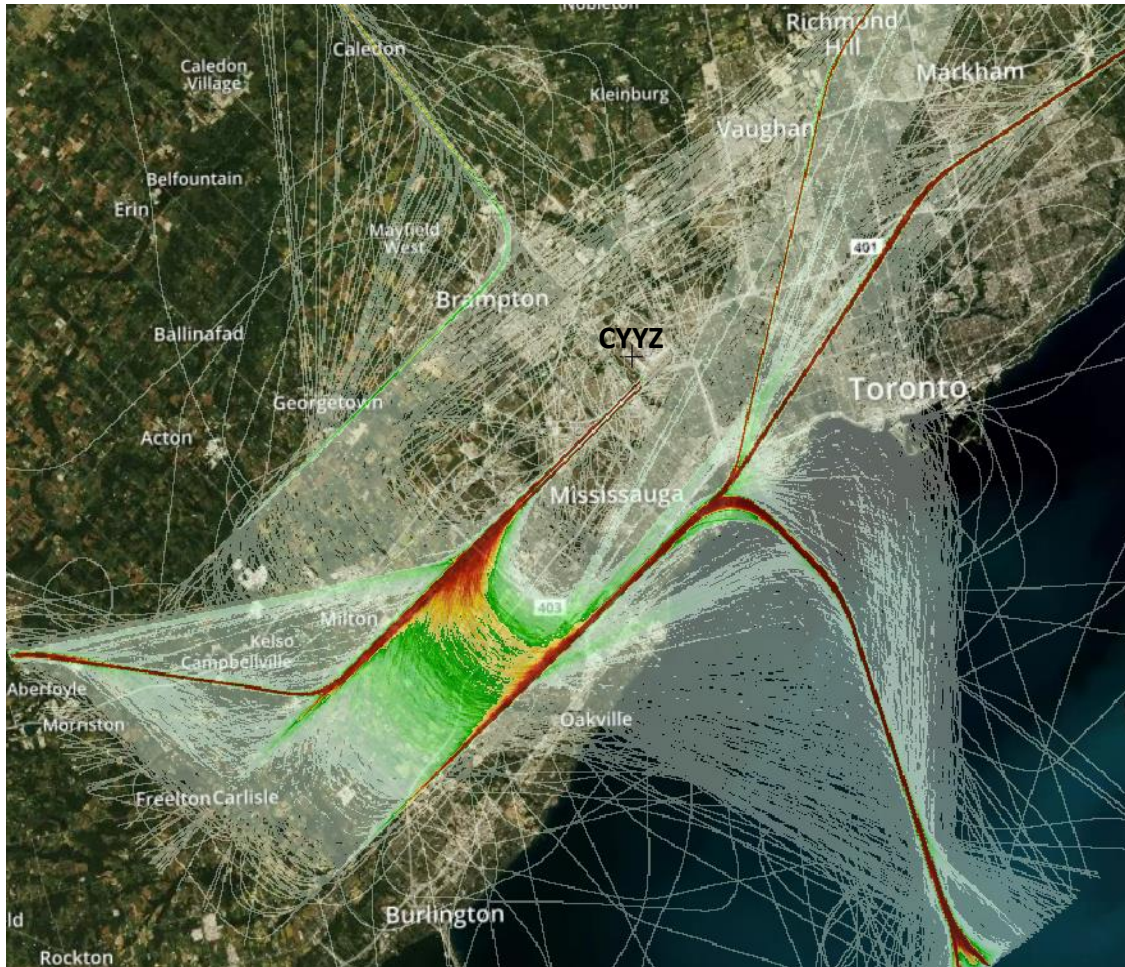


Ops: 6,295  
(-67%)

# Arrivals Track Density – Runways 06L/R

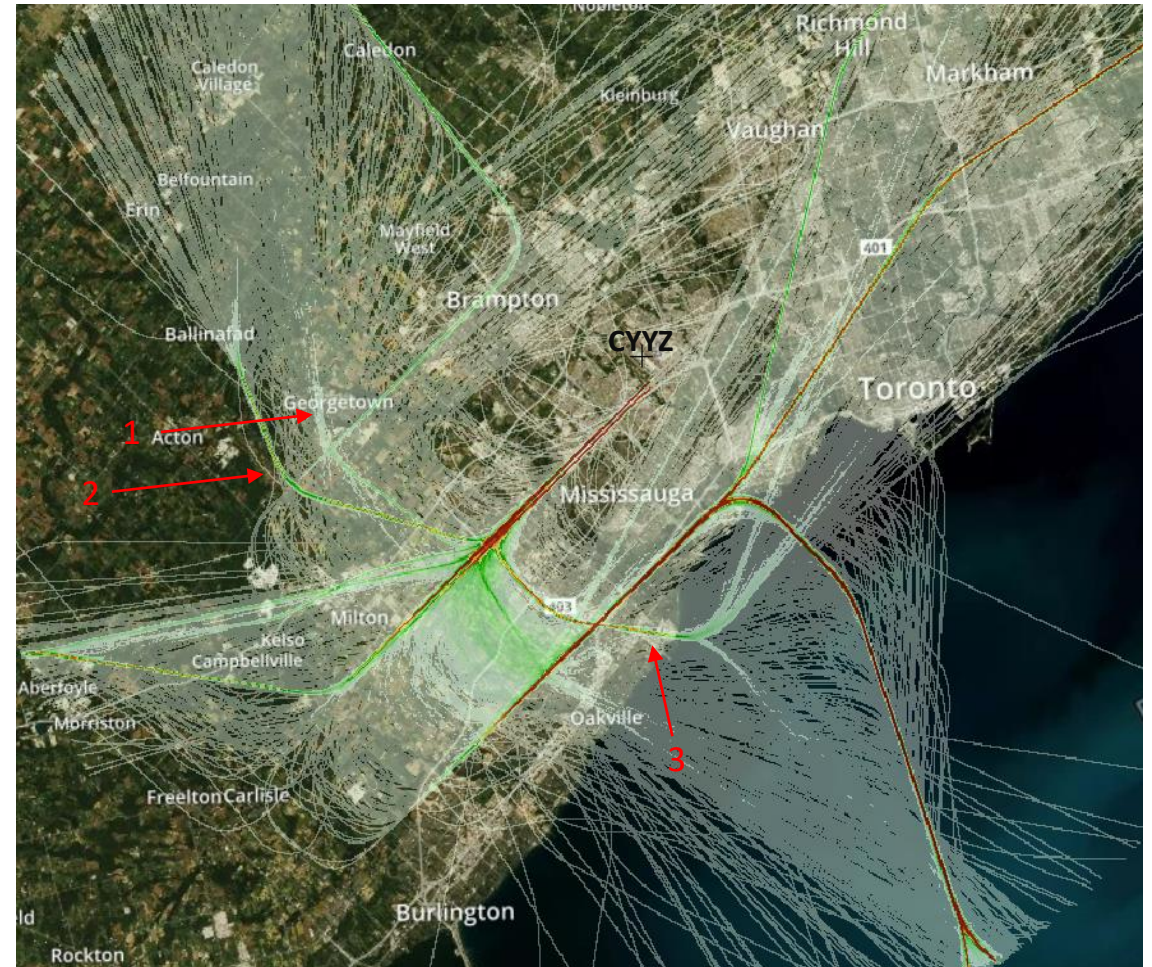


2019



Ops: 10,910

2020

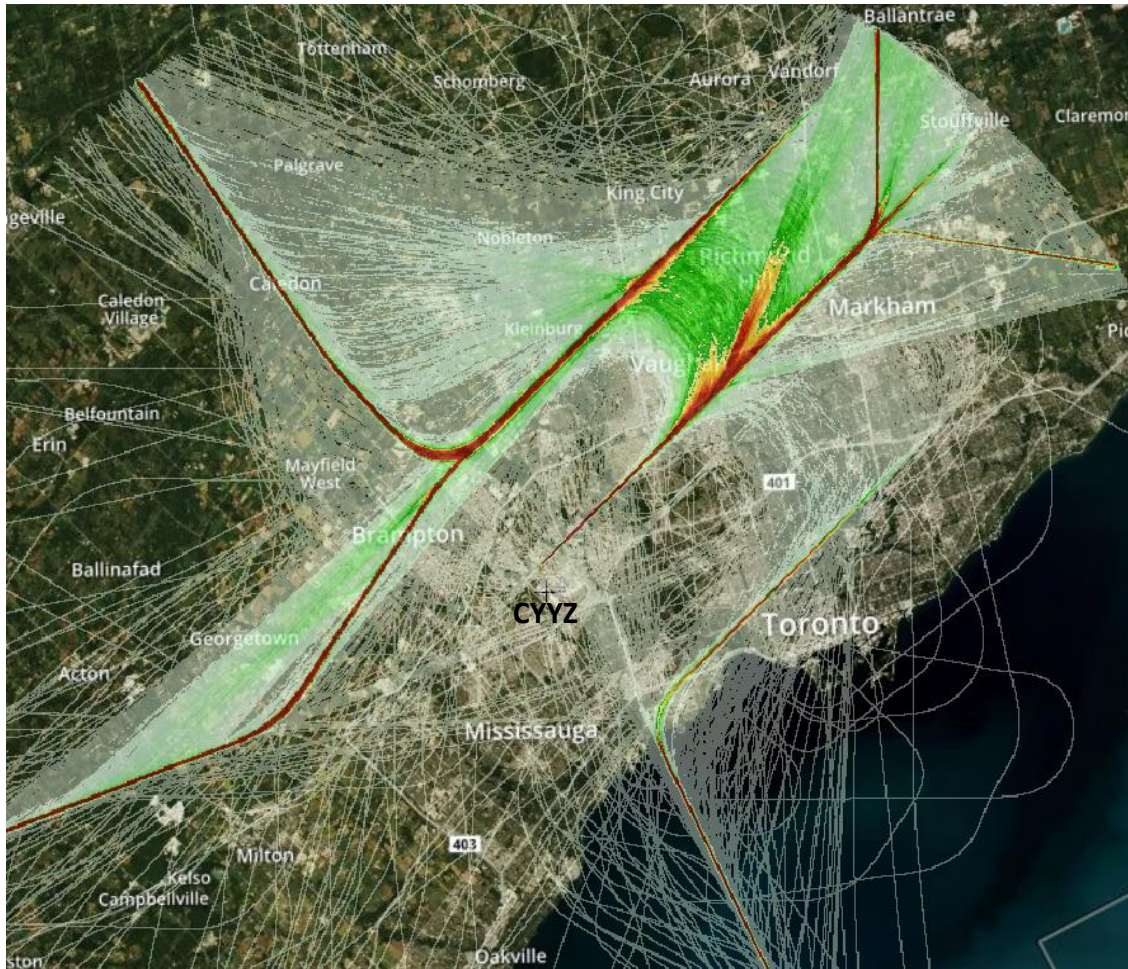


Ops: 3,388  
(-69%)

# Arrivals Track Density – Runway 23

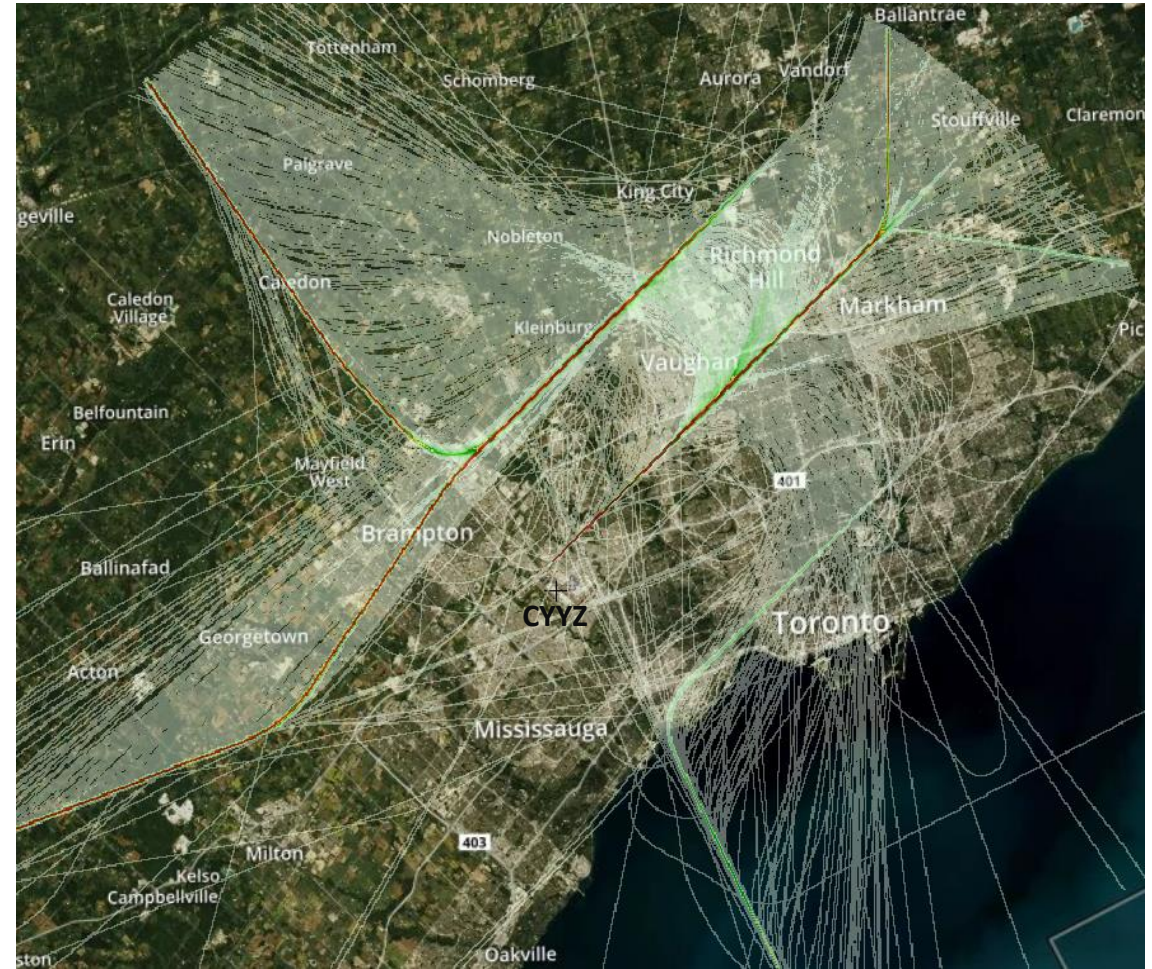


2019



Ops: 13,627

2020

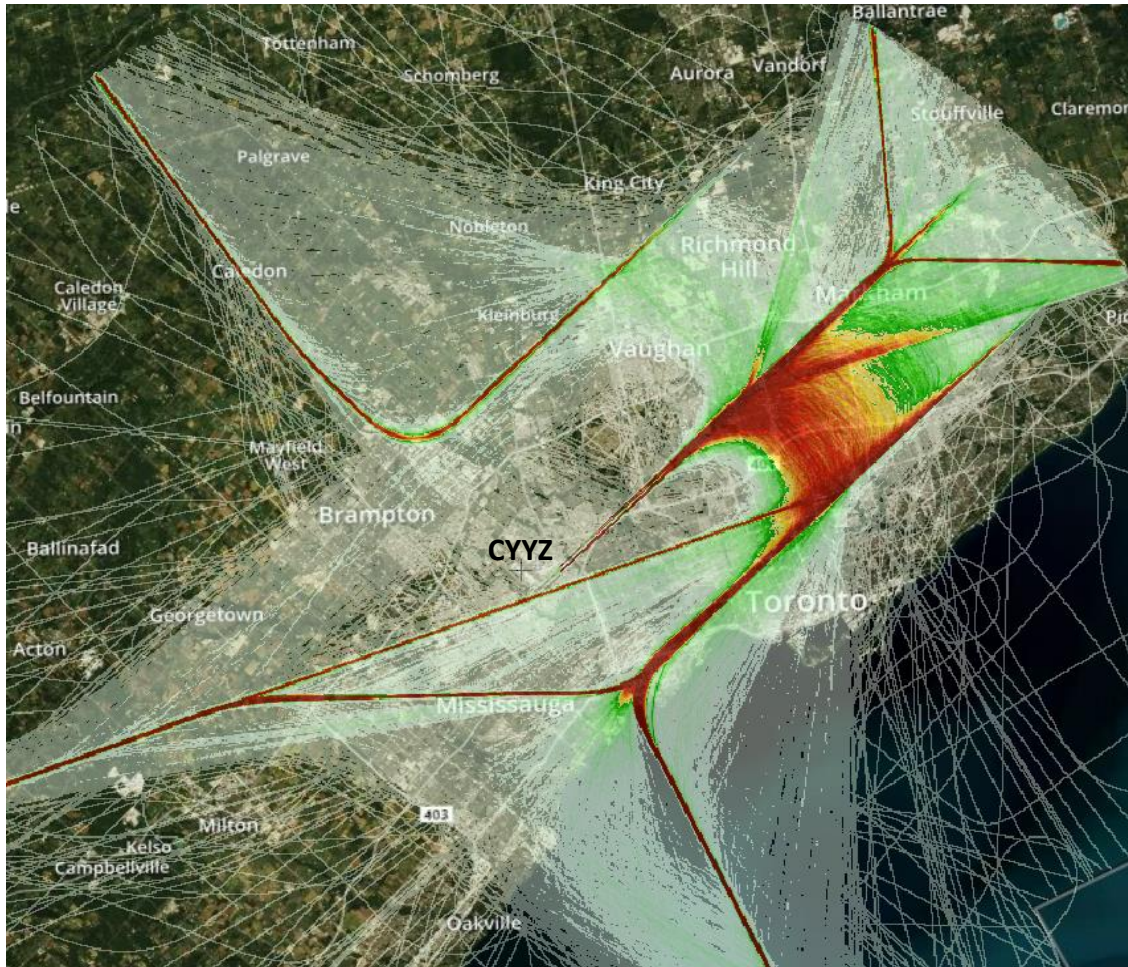


Ops: 2,363  
(-83%)

# Arrivals Track Density – Runways 24L/R

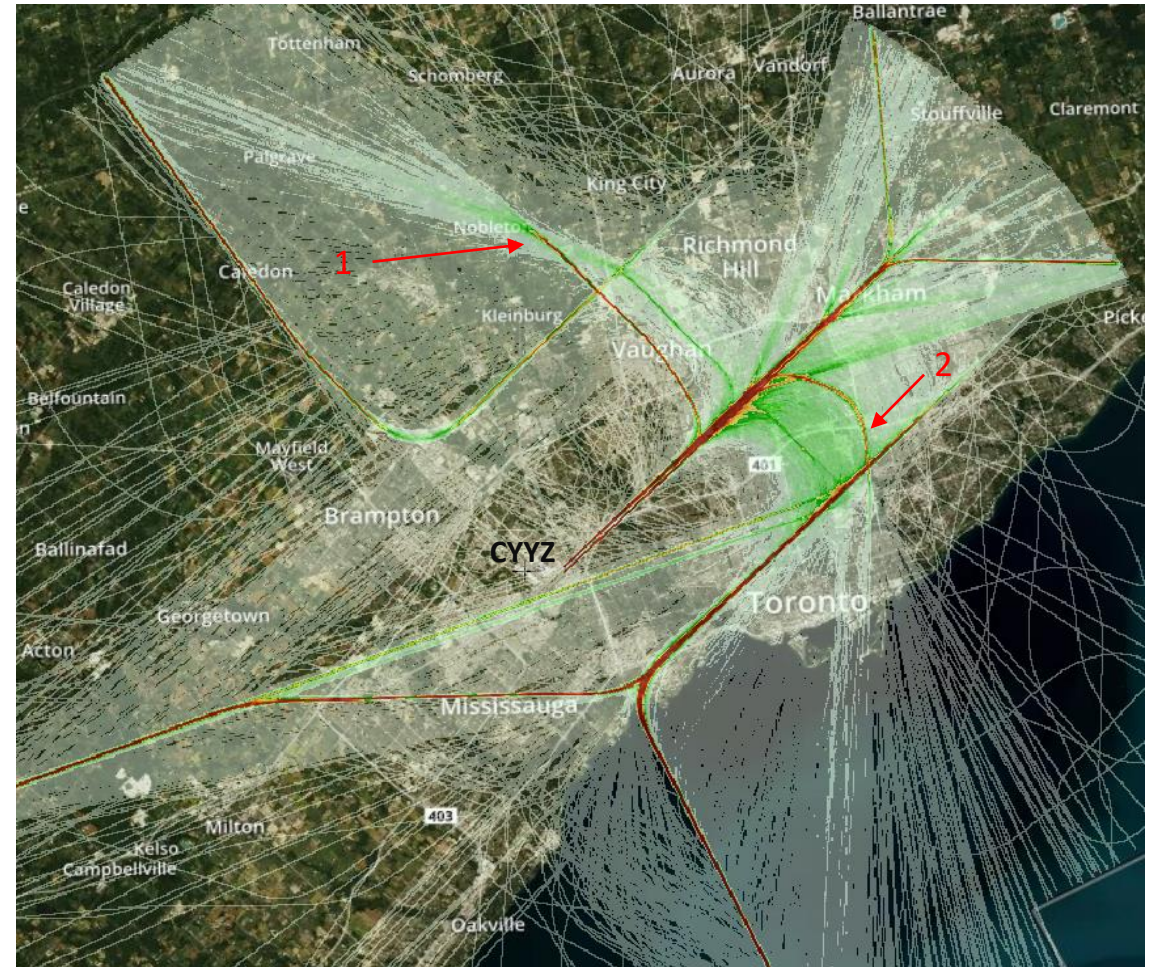


2019



Ops: 24,776

2020



Ops: 7,455  
(-70%)

# Arrivals Track Density – Runways 33L/R



2019



Ops: 2,744

2020



Ops: 1,283  
(-53%)

# Arrivals Track Density – Runways 15L/R



2019



Ops: 222

2020



Ops: 333  
(+50%)\*

*\*In the earlier months, the N/S runways were being utilized more than usual for one-off operations due to construction and to expedite taxi times. This trend has been addressed and reversed in most recent months.*

# Departure Track Densities

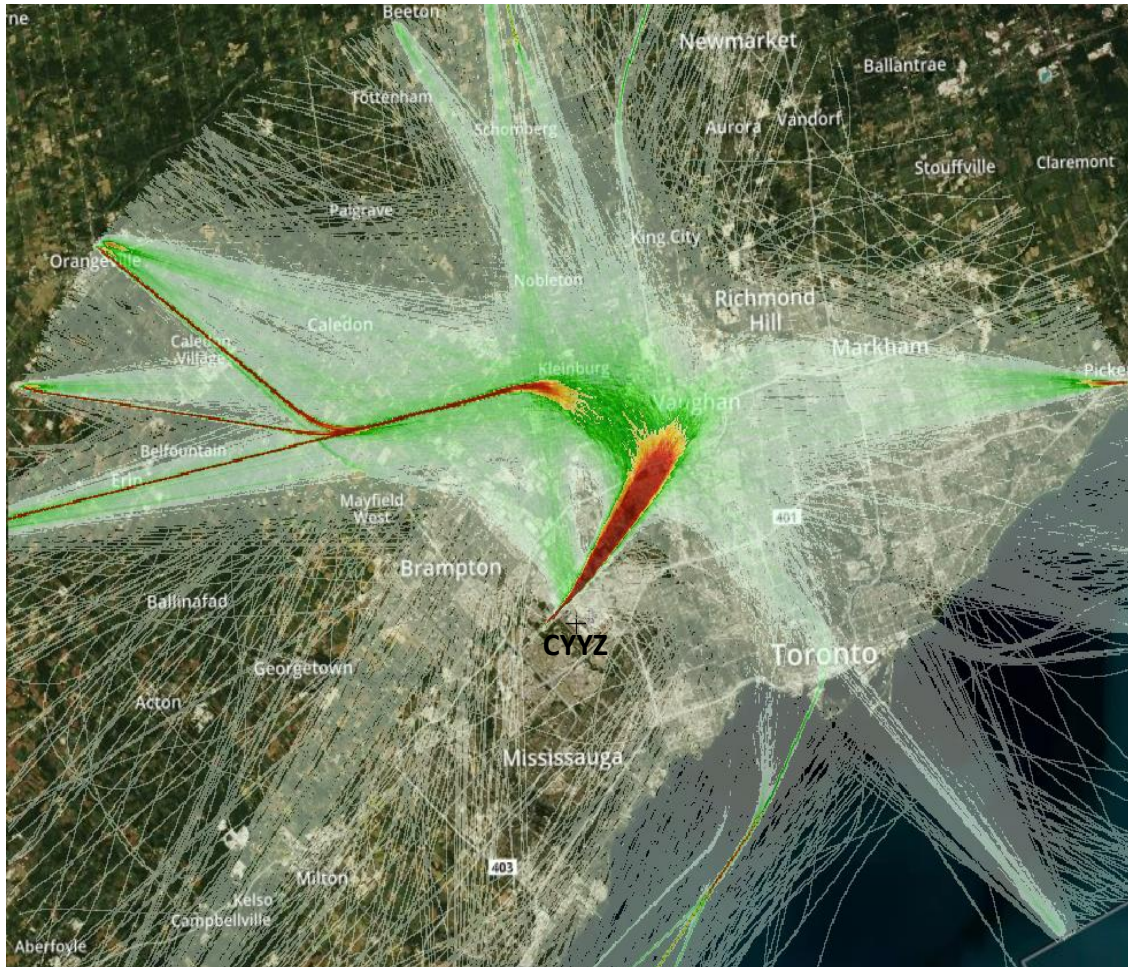
March 1<sup>st</sup> – June 30<sup>th</sup>, 2019 & 2020  
Daytime Hours (0630-2359 local)



# Departures Track Density – Runway 05



2019



Ops: 9,027

2020

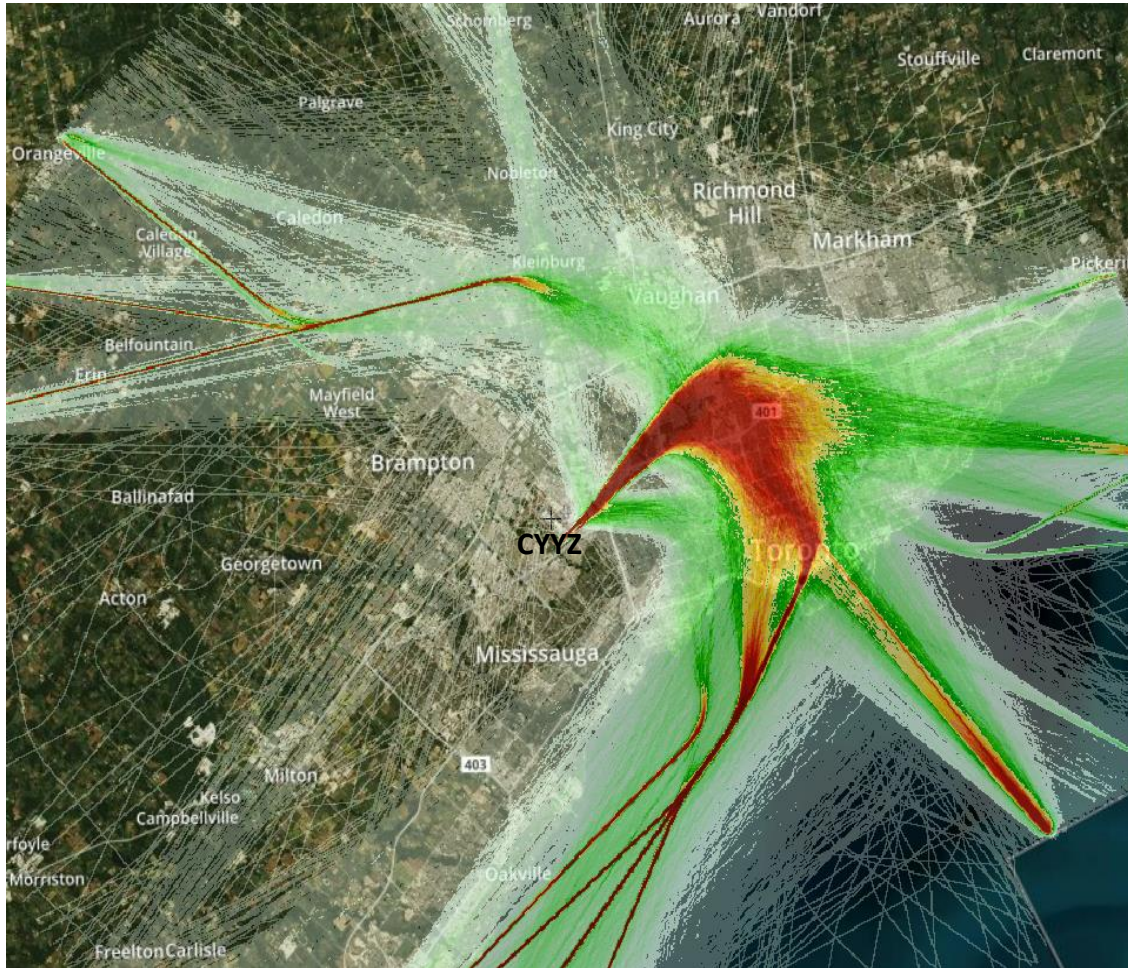


Ops: 1,673  
(-81%)

# Departures Track Density – Runways 06L/R



2019



Ops: 23,012

2020

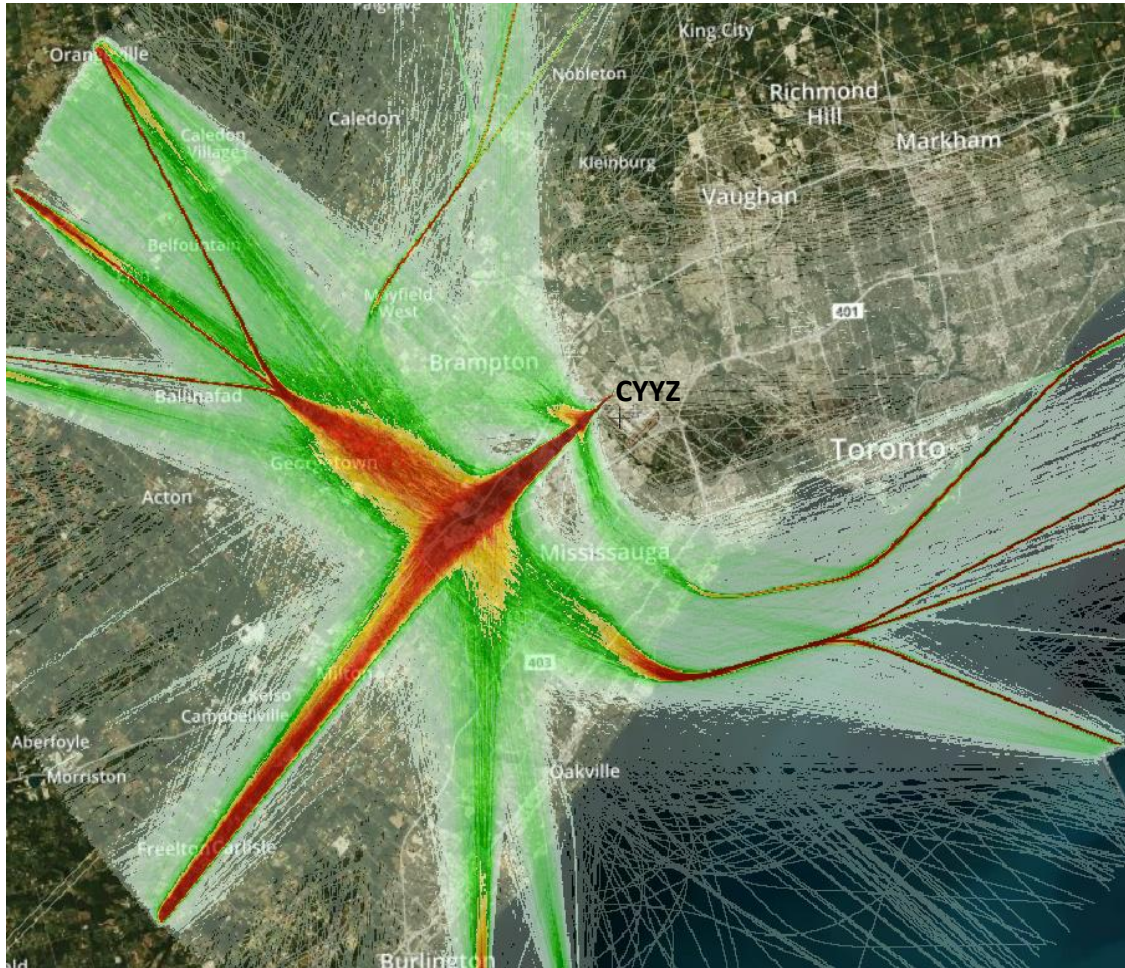


Ops: 8,303  
(-64%)

# Departures Track Density – Runway 23

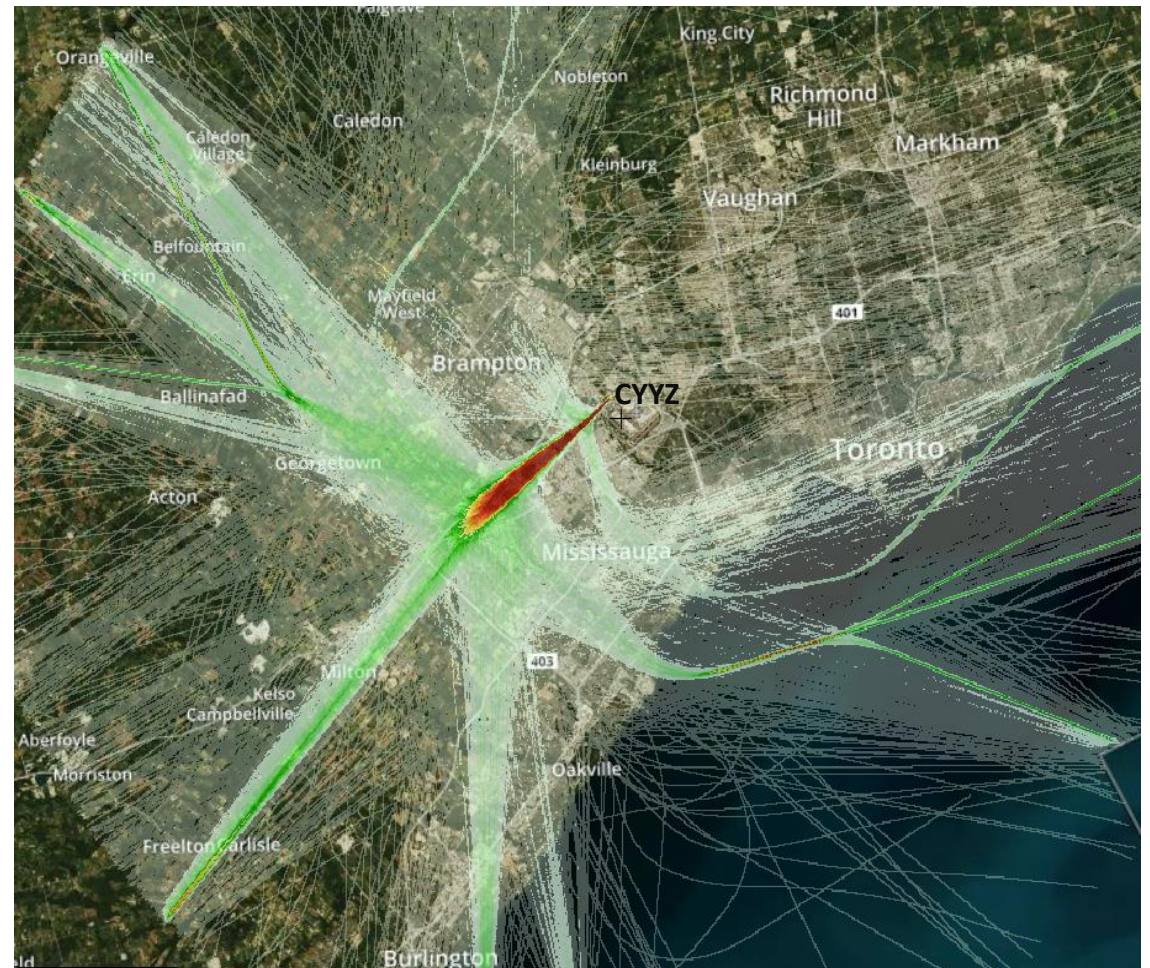


2019



Ops: 24,881

2020

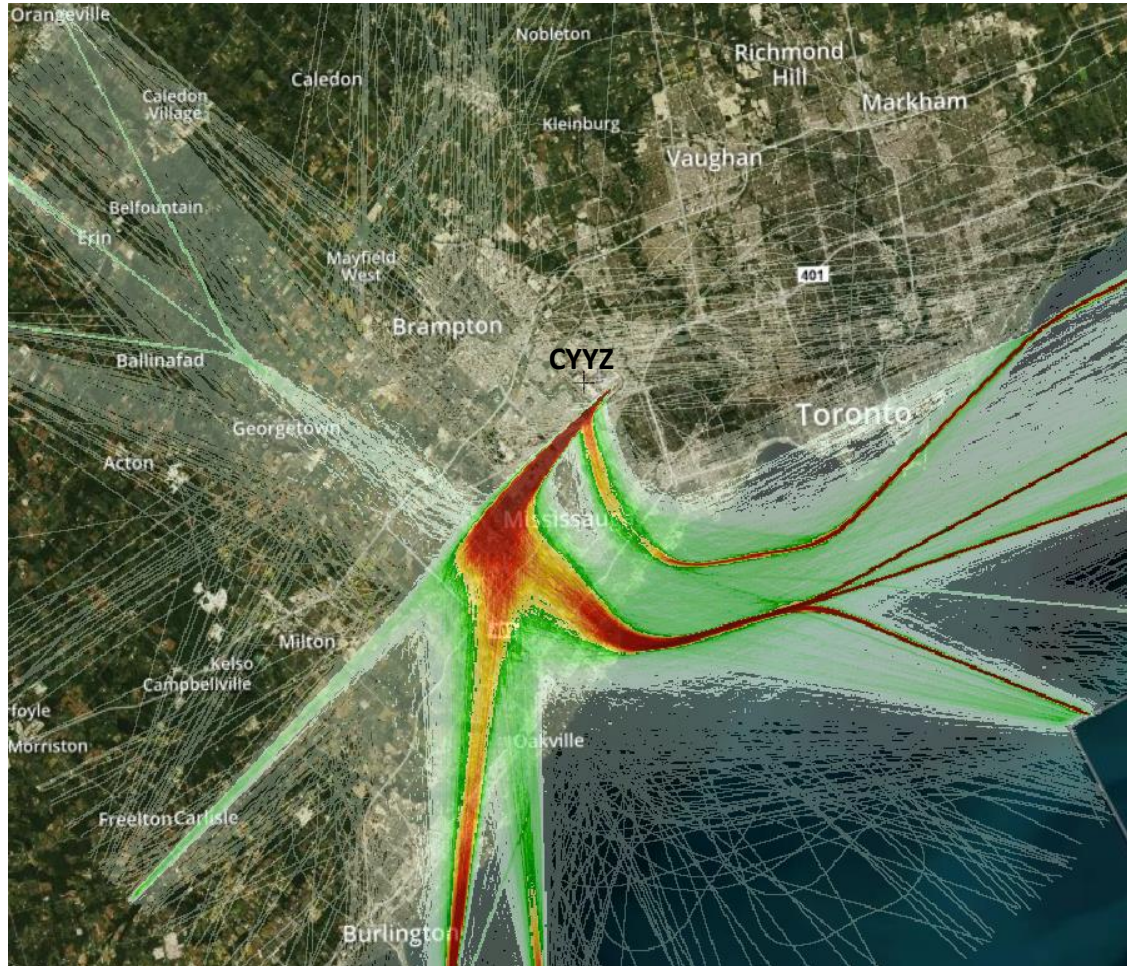


Ops: 5,820  
(-77%)

# Departures Track Density – Runways 24L/R

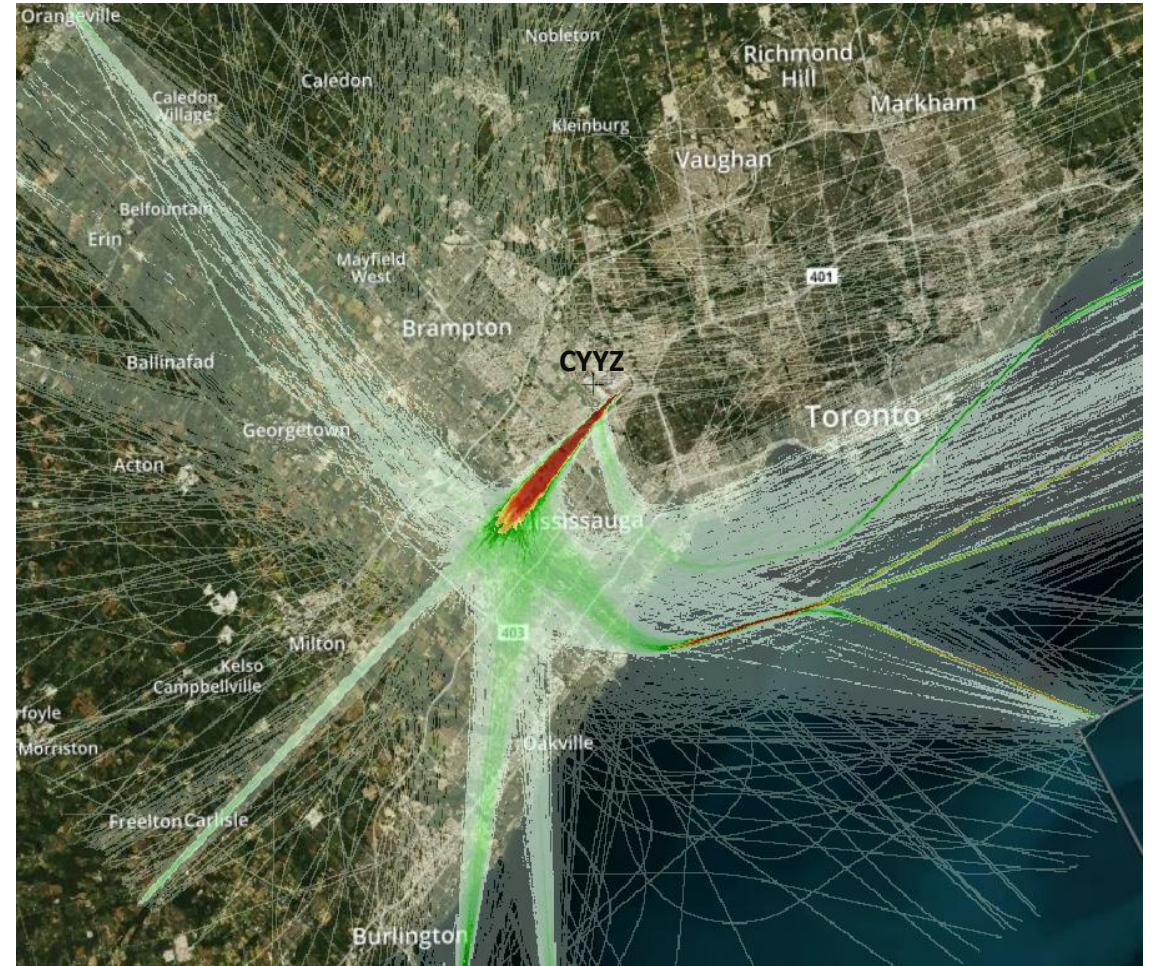


2019



Ops: 14,531

2020

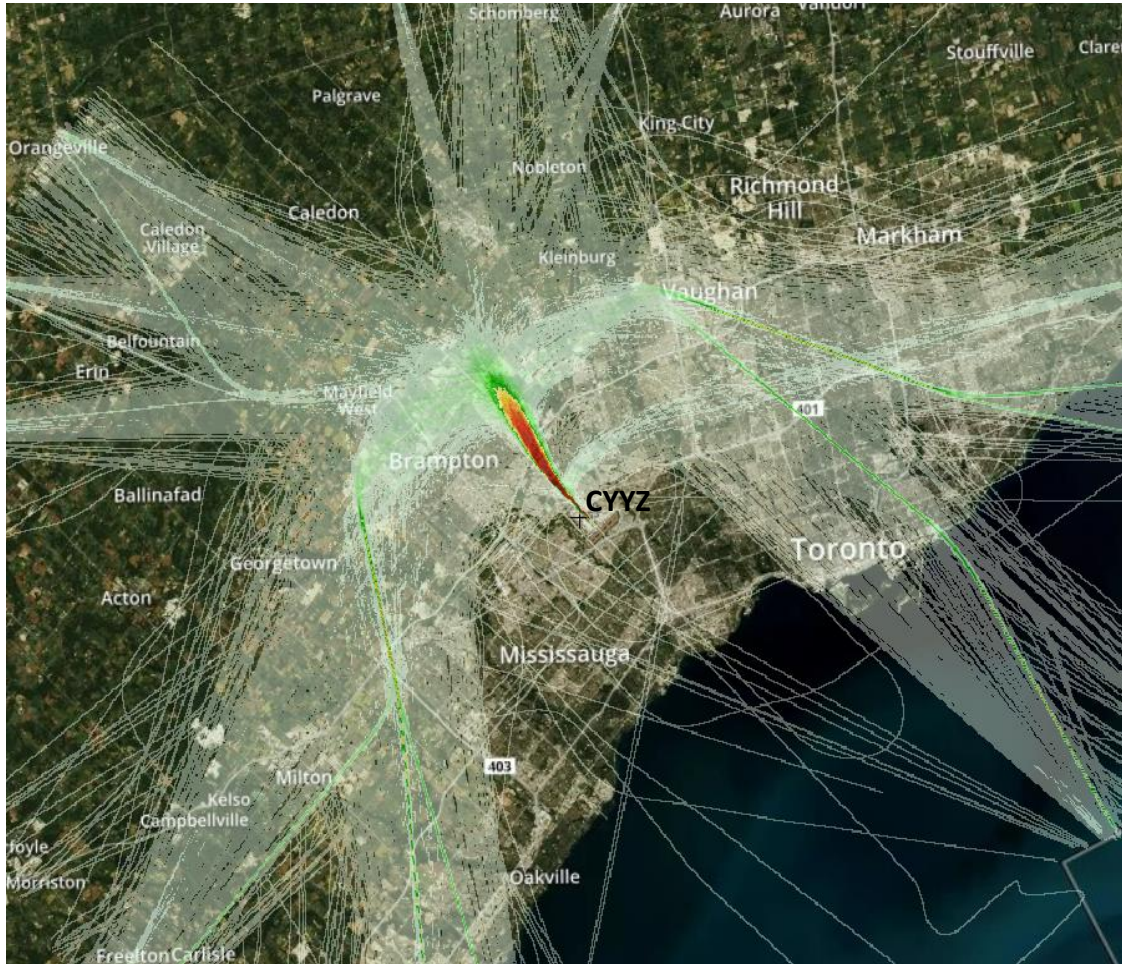


Ops: 4,452  
(-69%)

# Departures Track Density – Runways 33L/R

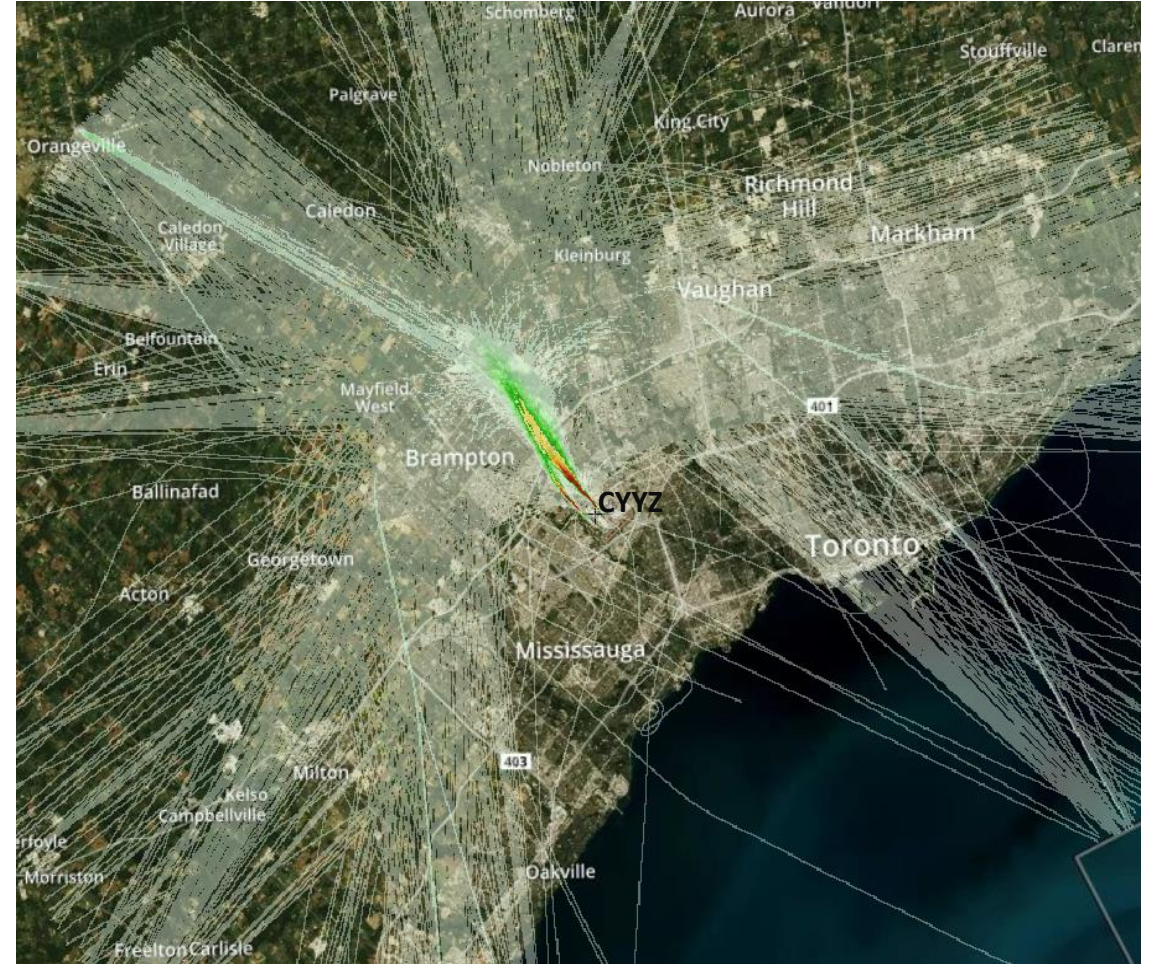


2019



Ops: 2,785

2020



Ops: 1,688  
(-39%)

# Departures Track Density – Runways 15L/R

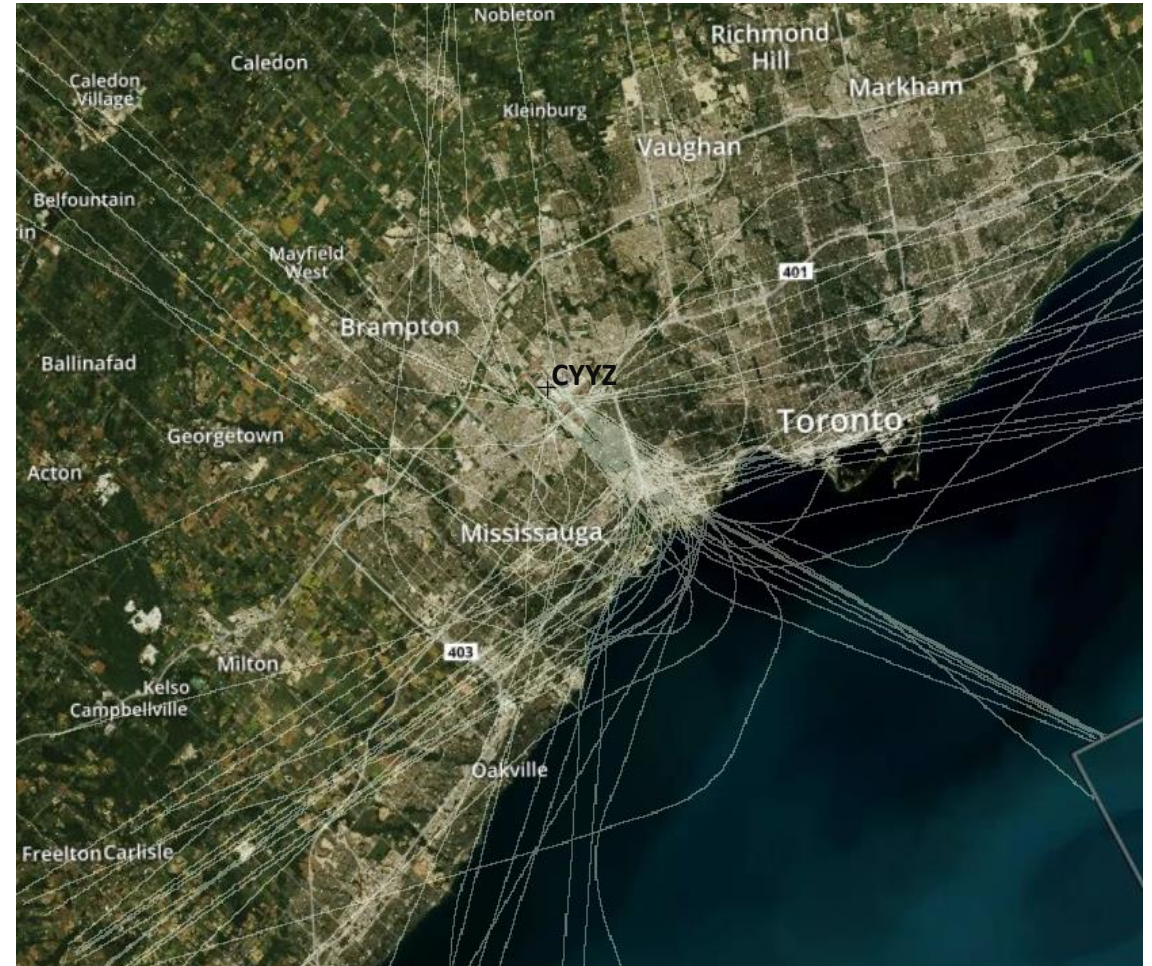


2019



Ops: 246

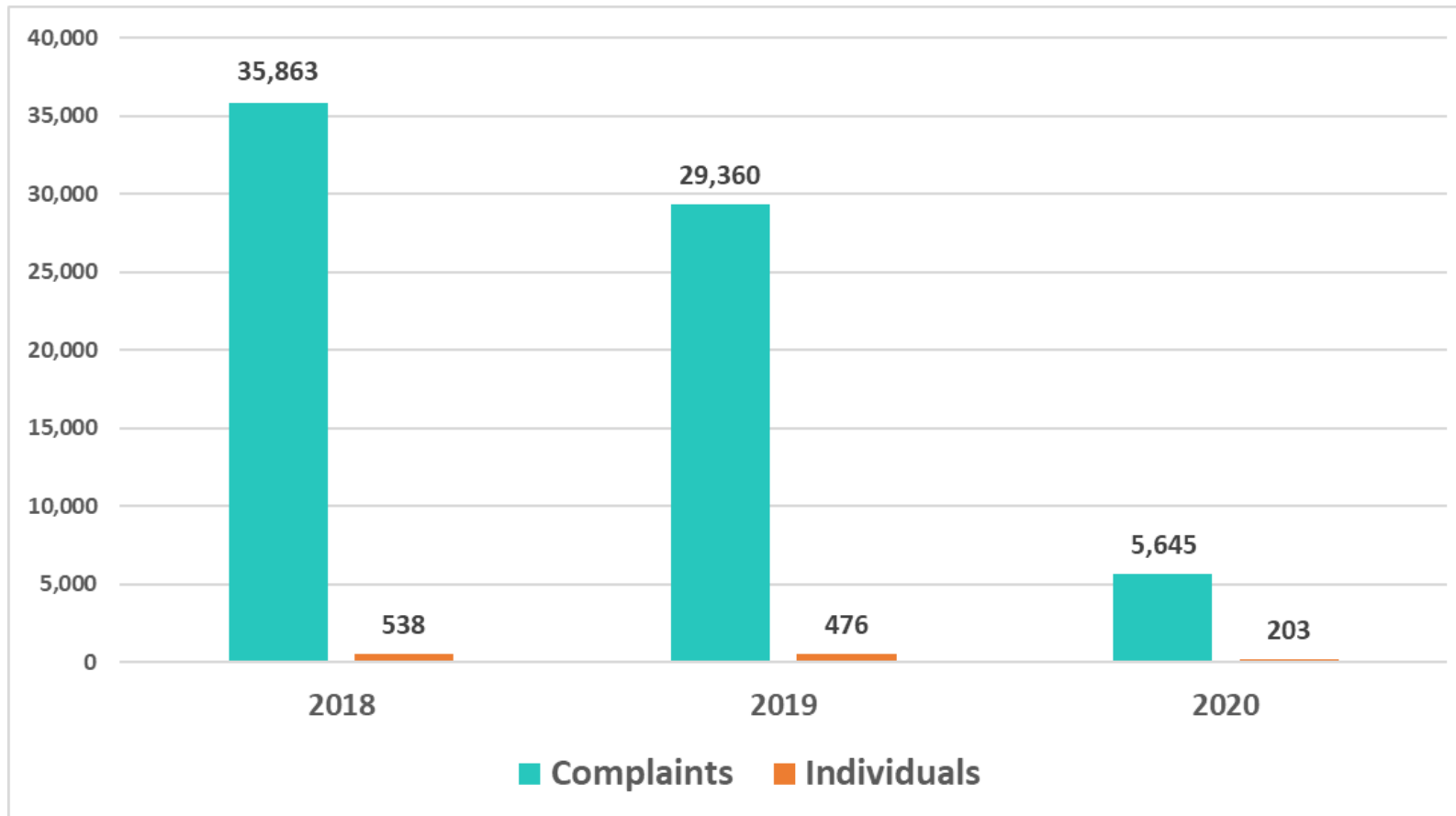
2020



Ops: 70  
(-72%)

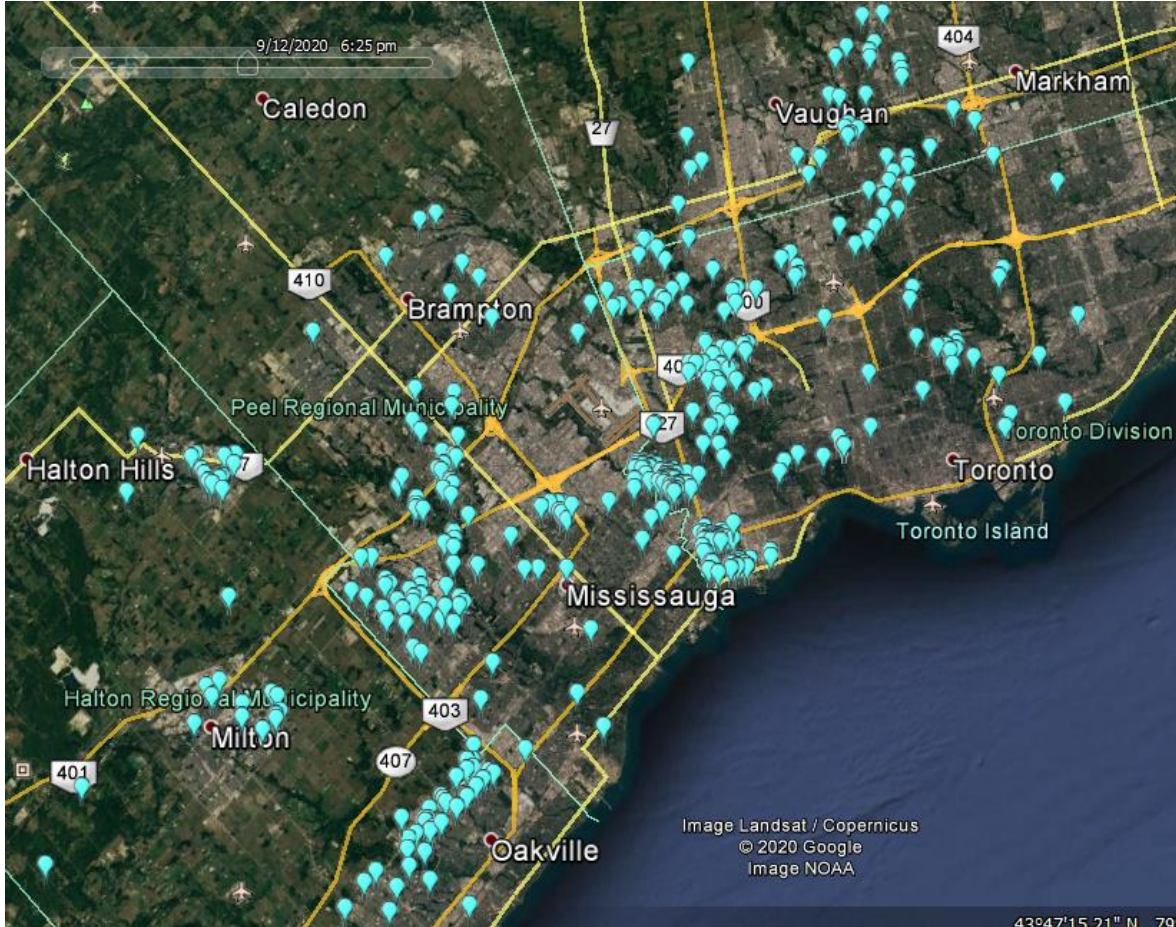
# Complaints Summary

- Compared to Q2 2019, there were 23,715 fewer complaints (-81%) from 273 fewer individuals (-57%) in Q2 2020
- Overall, from January to August 2020, we have received complaints from 409 residents. Of these, 114 individuals were either new or had not complained since 2010.

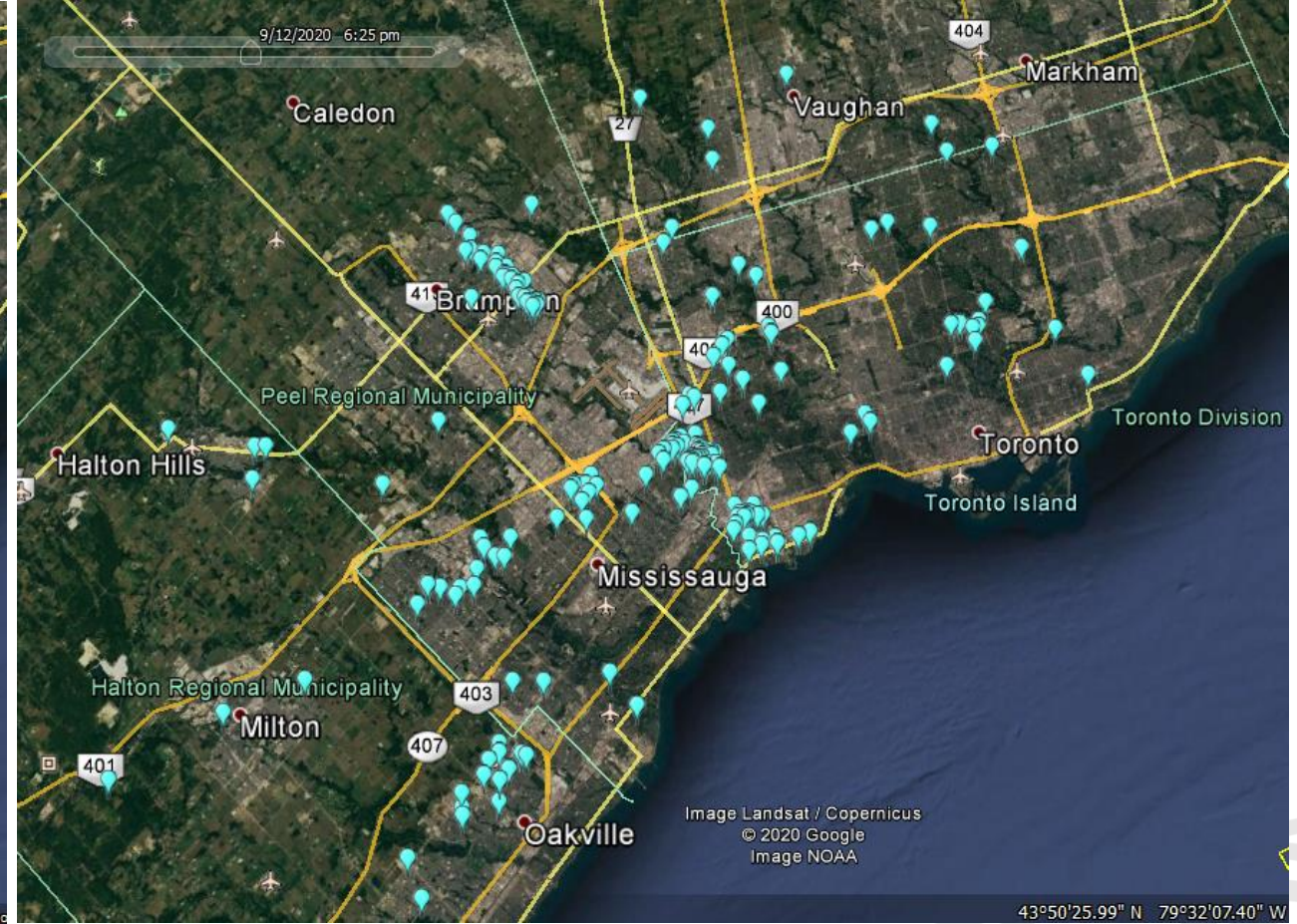


# Complaint Distribution

Q2 2019: 29,360 complaints from 476 individuals



Q2 2020: 5,645 complaints from 203 individuals



There was a noticeable decrease in the number of individuals in Brampton South and Etobicoke North, likely because these areas are affected by operations on Runway 05/23, which was impacted by the capital construction work between May 25 to July 9



# Member Raised Updates

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# Departures

*Member asked if the GTAA and NAV CANADA to look at departures to determine if there has been a change*

- *Published crosswind limits still favour east-west operations*
- *A significant drop in traffic volume has led to a reduced need to use the dual runway operation.*
- *We will often land one and depart another for routine operations.*

*However:*

- *05/23 was not accessible during taxiway construction*
- *15L/33R closed for resurfacing*
- *Runway 15R/33L was subject to a NOTAM*

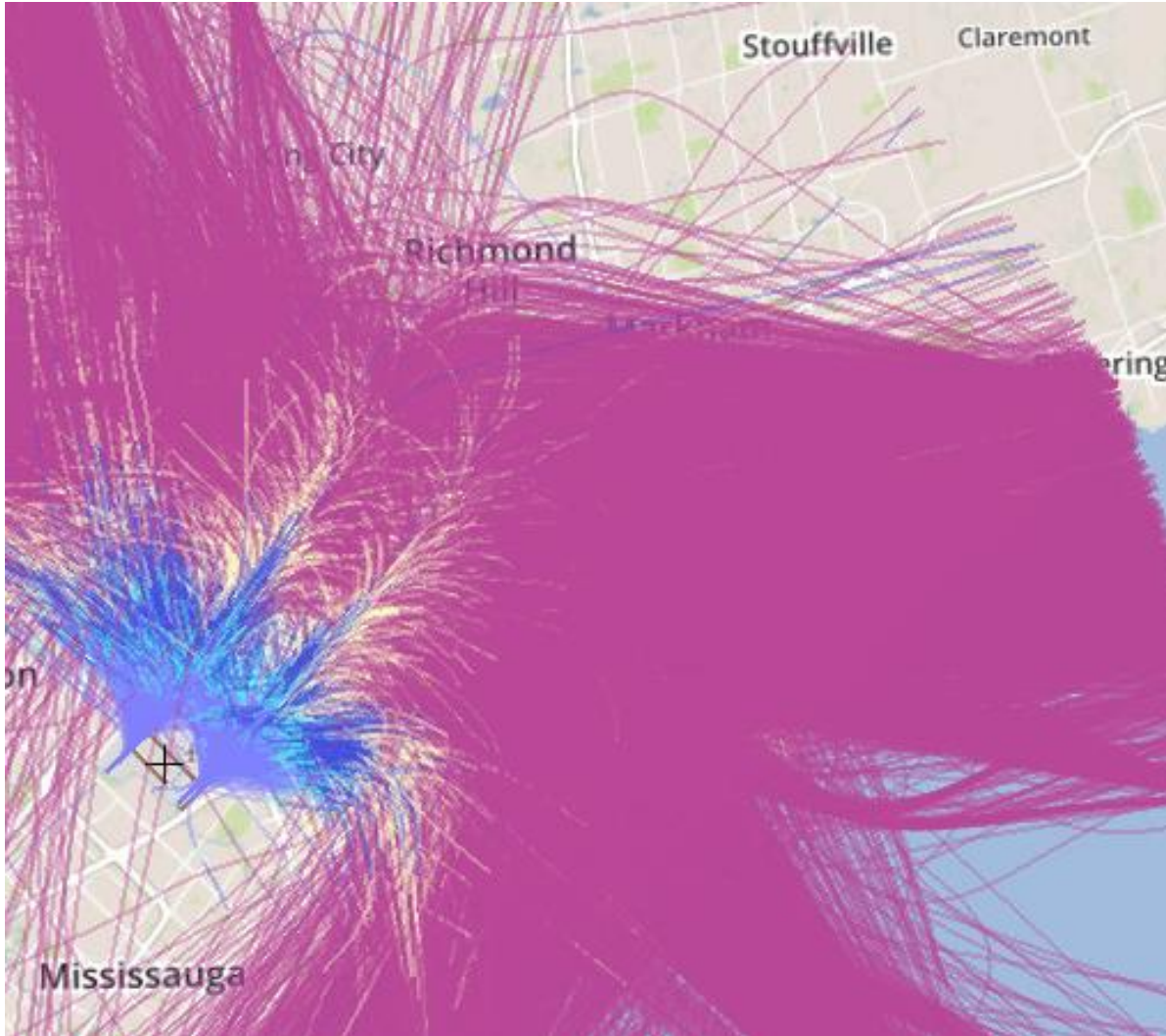
# Altitude Legend

- 2500' ASL or below
- 2501' - 3000' ASL
- 3001' - 4000' ASL
- 4001' - 5000' ASL
- 5001' ASL and above



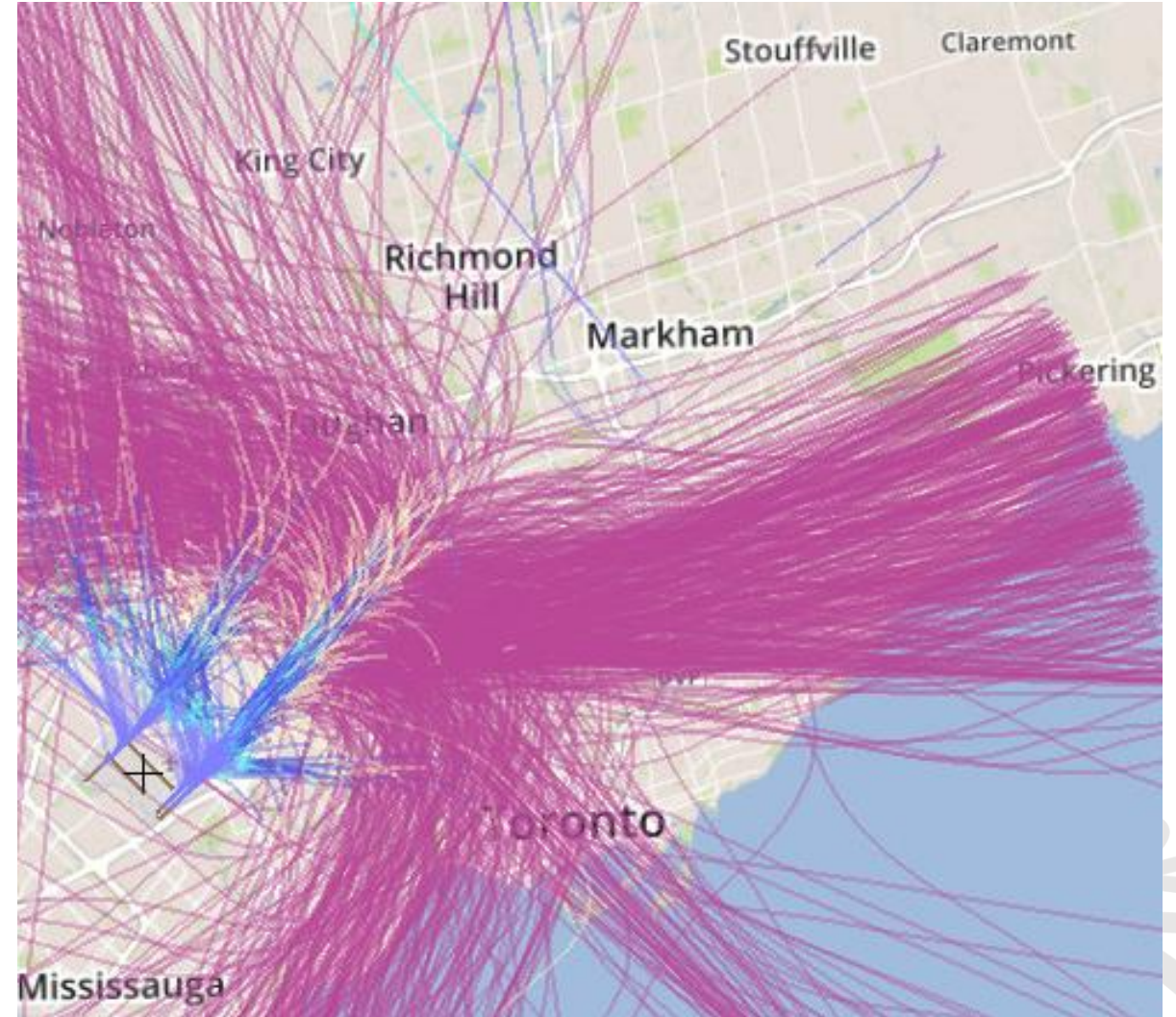
# Departures - Easterly - Daytime

April 2019

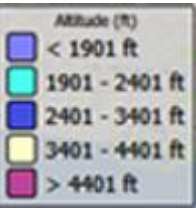


Ops: 9,511

April 2020

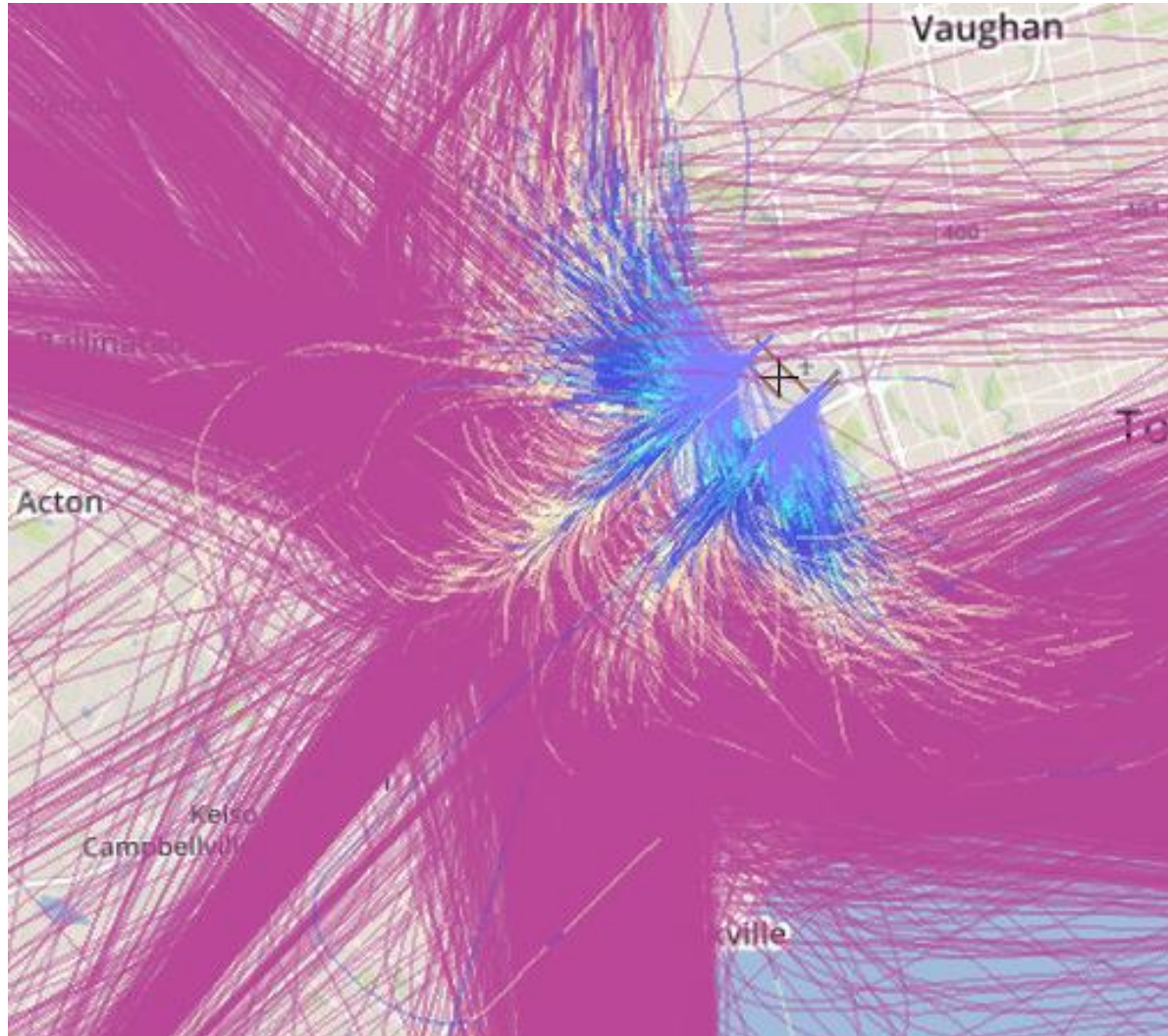


Ops: 1,247



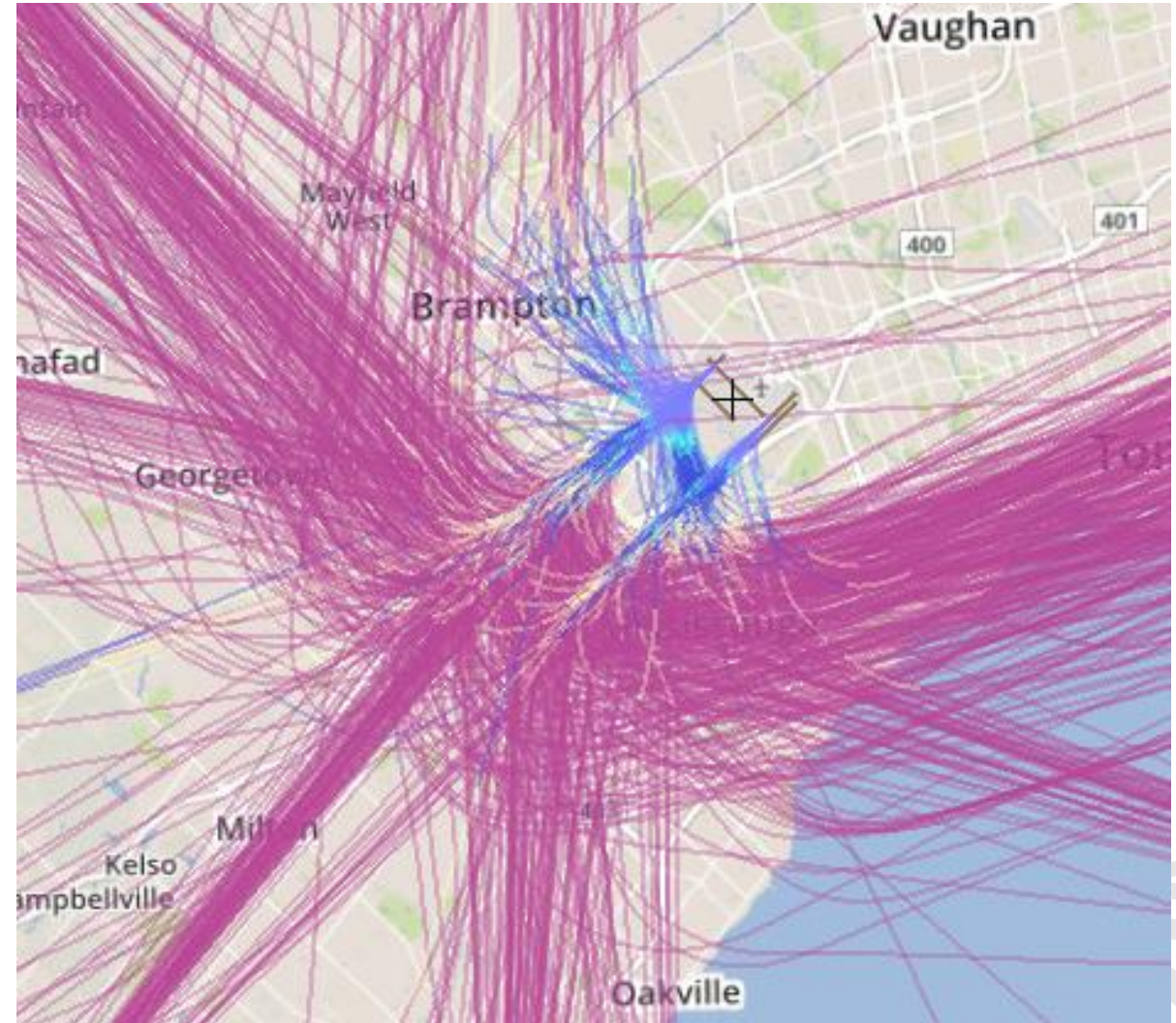
# Departures - Westerly - Daytime

April 2019



Ops: 6,930

April 2020



Ops: 880

# Compliance

*Member asked why arriving aircraft do not fly a consistent route over the Milton/Campbellville area on their way to the runway, questioning whether they are compliant*

- NAV CANADA has designed standard procedures for use by arriving and departing aircraft based on Transport Canada's criteria
- Air Traffic Controllers may also direct pilots to operate off these routes for safety and/or efficiency
- There can also be variation depending on where the aircraft is coming from, which runway it is landing on, and which approach it is utilizing. These are not considered as non-compliant operations.

# MD88 Usage

*Member had raised the issue of MD88 aircraft usage at Toronto Pearson and how this could be addressed with Action Plan initiatives*

- 4080 operations by 120 aircraft in 2019 at YYZ (1% of total ops, approx. 11/day)
- MD88s for both American Airlines and Delta have been retired
- Our Quieter Fleet Incentive Program is intended to incentivize airlines to use the quietest aircraft in their fleets or expedite purchase of quieter aircraft
- While the A320 Family Retrofits were the first phase in rolling out this program, it is intended to be a broader initiative
- We will look towards identifying marginally-compliant Chapter 3 aircraft that can be addressed with the next phase of the Quieter Fleet Incentive Program

# Meeting Format and Materials

*Members requested agenda and relevant materials be provided a week in advance, a mechanism for contributing to the agenda, enable more time to discuss member-raised issues, and meeting summary following the meeting.*

- The GTAA sends meeting agendas to members a week prior to the Neighbourhood Table meeting; Residents who wish to contribute to the agenda can do so by responding to this email
- While we understand that members would like to receive presentations in advance of the meeting, these are living documents that are being worked on during the Noise Forums Week. As such they cannot be provided in advance
- We have added this Member Raised Updates section to respond to action items and discussions from previous meetings; This section will continue to be used at future meetings to discuss member raised issues
- Meeting summaries are always included in the Monthly Neighbourhood Table update that follows the meeting. The summary for this meeting will be included in the September Neighbourhood Table Monthly Update



# NAV CANADA Updates

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2020-06-05

# POST-IMPLEMENTATION COMMUNITY IMPACT REVIEW

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**Assessing the implementation of  
airspace changes at Toronto Pearson**

To reduce environmental and noise impacts on communities



# PURPOSE & BACKGROUND

- › This review examines the implementation of new procedures during YYZ's nighttime hours as well as those associated with Continuous Descent Operations
- › Follow up to the six noise mitigation initiatives, which were studied and proposed by NAV CANADA and the Greater Toronto Airport Authority (GTAA).
- › The period between February 28, 2019 and January 24, 2020 was examined. (Pre-pandemic)
- › Sample monitoring, completed by acoustic, shows that noise modeling was accurate.
- › Low number of attributable complaints.
- › Full report posted on [www.navcanada.ca](http://www.navcanada.ca) under "information for communities"

2020-06-05

# USAGE OF NIGHT PROCEDURE



Serving a world in motion  
[navcanada.ca](http://navcanada.ca)



# USAGE OF NIGHT PROCEDURES

- › Designed for lower traffic periods, to fly over fewer residences.
- › Under normal conditions, between 00:30-06:30 and dependent on traffic picture, but used earlier when possible.
- › Given the significant reduction in air traffic volumes, there was an opportunity use them outside of these hours.
- › Advertised on the Automated Terminal Information Service (ATIS).
- › Result was a significant but temporary increase in usage of these procedures.

**RNAV X at CYYZ**

	Total RNAV X	RNAV X Between 0900-2200	Total Arrivals
Jan-20	323	N/A	17,847
Feb-20	322	N/A	16,563
Mar-20	337	N/A	14,057
Apr-20	84	51	2,786
May-20	589	384	2,804
Jun-20	1,358	828	3,719
Jul-20	184	76	4,957
Aug-20	126	51	5,221

Corporate Performance  
Source: RDPSR, FDW  
Sep-20

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# INMB UPDATE










Departure Operations



# HELIOS WORKPLAN DASHBOARD

Recommendation Areas	Status
Supporting retrofitting of A320 (1A, 1B)	Supported in Principle
Establish INMB (2A)	✓
Code of Conduct (2B)	✓
CDO Definition (2C)	✓
Examine Reduced Flap Landing (2D)	✓
CDO Reporting (2E)	✓
CDO Benchmarking (2F)	🕒

# HELIOS WORKPLAN DASHBOARD

Recommendation Areas	Status
Design RNP-AR Procedures (3A), Maximize Use (3B)	
Develop RNAV procedures to support CDO (3C)	
Consider 3.2 degree glideslope (4A)	
Support Runway GTAA Runway Alternation (5A)	
Increase use of Short Cuts over the Lake (6A)	
Investigate Point Merge (7A)	
Implement an Arrival Manager (AMAN) (8A)	
Extend Horizon of AMAN (8B)	
Invest in Time-Based Separation	



## 3A – IMPLEMENT RNP-AR

Design RNP-AR procedures that can reduce the need for a high / low operation

- > NAV CANADA, the GTAA and INMB are undertaking preliminary analysis work on how the concept could be deployed at Toronto Pearson
- > New 'Established on RNP-AR' separation standard approved by ICAO and NAV CANADA has worked with Transport Canada to gain approval for use in Canada (3B).

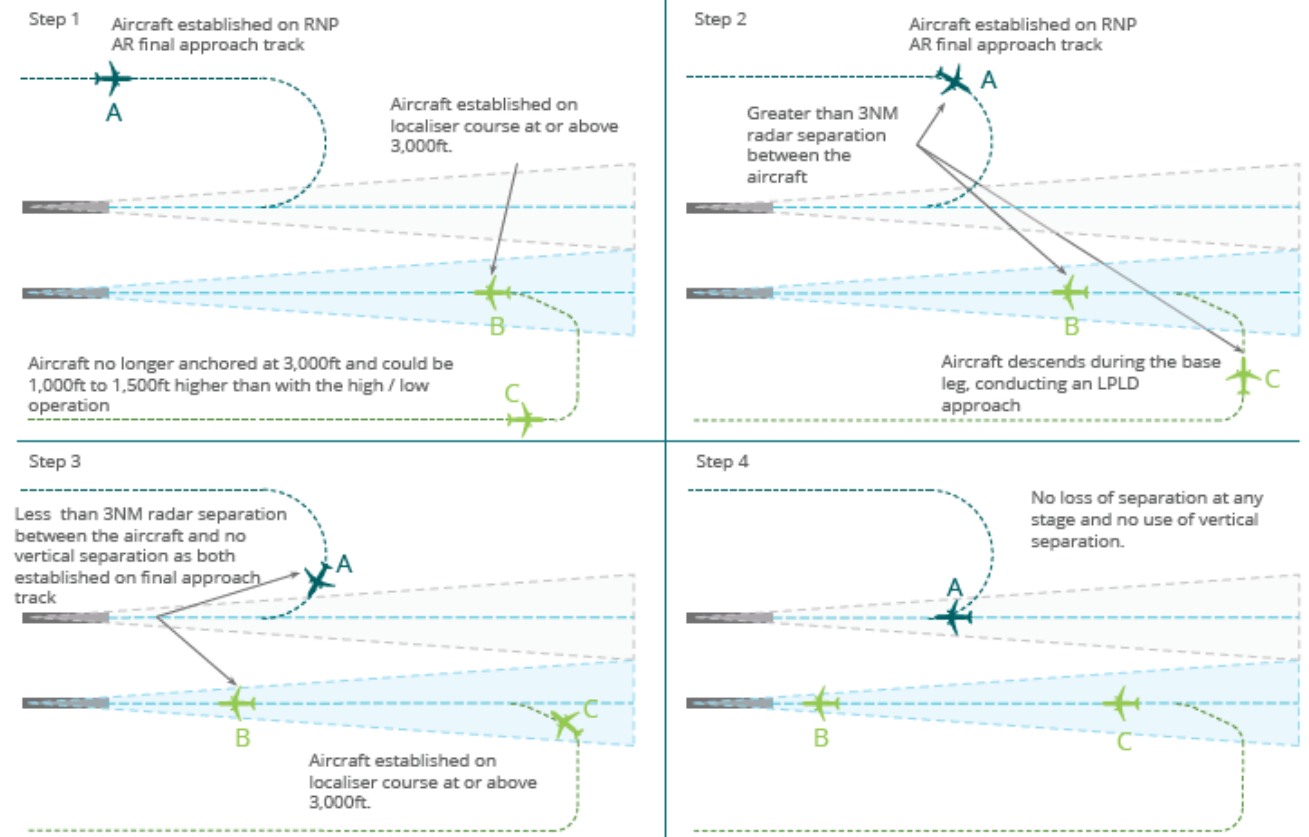


Figure 26. Established on RNP AR

# GTAA Updates

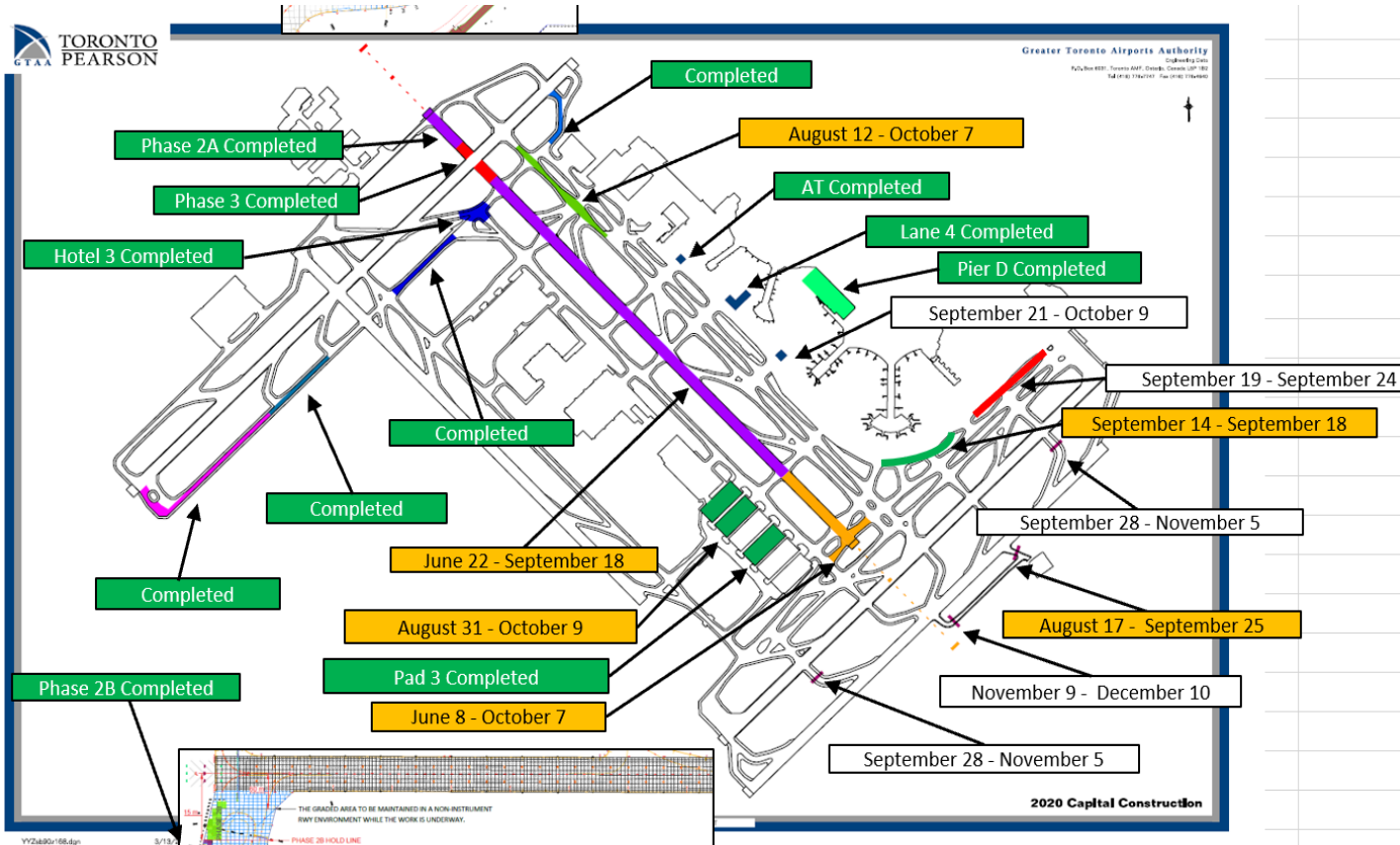
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# Maintenance Update

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# 2020 Work Program



- Work began in Spring 2020, and potential impacts were communicated through:
  - Briefing sessions for Elected Officials and Neighbourhood Table
  - Advertisements in local newspapers
  - Social media and Checking In
  - Digital advertising
  - Media outreach
- Runway 05/23 fully re-opened to traffic on July 9
- Runway 15L/33R is substantially complete, scheduled to re-open mid-October

# Noise Management Action Plan

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# Noise Management Action Plan

Night Flight Restrictions

Communications, Outreach & Noise Committees

Noise Complaints

New Quieter Fleet Incentive Program

New Fly Quiet Reporting Program

Noise Reporting and Metrics

Noise Abatement Procedures

Land Use Planning

Runway Usage

# NMAP Deliverables to Date

- ✓ Launched Noise Management Forums
- ✓ Published updated Complaint Process
- ✓ Completed A320 Family Audit and began tracking usage against 2019 audit
- ✓ Six Ideas:
  - ✓ Ideas 1-4 implemented
  - ✓ Idea 5 tested summer 2018, trialed summer 2019 (will not be pursued based on trial results and community feedback)
  - ✓ Idea 6 trial began February 2020
- ✓ Launched InsightFull, a new noise management website
- ✓ Began publishing standard noise reports
- ✓ Began working with selected school on the Pilot School Air Conditioning Program










# A320 Family Retrofit Program

## A320 Family Retrofit Program

- We are monitoring usage of the A320 family operations at Toronto Pearson against the audit conducted in 2019
- We will share the reports on the usage through the Noise Management Forums and in the Noise Management Action Plan updates on our website at [torontopearson.com/nmap](https://torontopearson.com/nmap)
- **A320 Usage Report Summary**
  - The reports for January to June 2020 show that:
    - 32% of A320 family aircraft operating at CYYZ are retrofitted
    - 53% of A320 family movements are performed by retrofitted aircraft
  - This means that airlines are using proportionally more of their retrofitted aircraft for operations at CYYZ
  - Based on the reports, more than 90% of A320 movements will be performed by retrofitted aircraft by the end of 2021












# A320 Family Usage by Total Movements

January - June 2020							
Airline	Retrofitted	% Retrofitted	Scheduled for Retrofit*	% Scheduled for Retrofit	Not Scheduled for Retrofit	% Not Scheduled for Retrofit	Total A320 Movements
Air Transat 	479	68%	0	0%	228	32%	707
Air Canada Family 	9,584	56%	7,391	44%	0	0%	16,975
American Airlines 	231	36%	414	64%	0	0%	645
United Airlines 	60	21%	0	0%	228	79%	288
Interjet 	23	7%	0	0%	303	93%	326
Avianca 	0	0%	0	0%	149	100%	149
Delta Airlines 	0	0%	0	0%	184	100%	184
Azores Airlines 	0	0%	0	0%	116	100%	116
Sunwing 	0	0%	0	0%	64	100%	64
<b>TOTAL</b>	<b>10,377</b>	<b>53%</b>	<b>7,805</b>	<b>40%</b>	<b>1,272</b>	<b>7%</b>	<b>19,454</b>

\*Although not currently retrofitted, the airline has indicated these aircraft will be retrofitted in the near future.

# A320 Family Usage by Aircraft

January - June 2020							
Airline	Retrofitted	% Retrofitted	Scheduled for Retrofit*	% Scheduled for Retrofit	Not Scheduled for Retrofit	% Not Scheduled for Retrofit	Total A320 Aircraft
Air Transat 	7	54%	0	0%	6	46%	13
Air Canada Family 	56	52%	51	48%	0	0%	107
American Airlines 	35	34%	67	66%	0	0%	102
United Airlines 	24	26%	0	0%	70	74%	94
Interjet 	8	22%	0	0%	28	78%	36
Avianca 	0	0%	0	0%	14	100%	14
Delta Airlines 	0	0%	0	0%	39	100%	39
Azores Airlines 	0	0%	0	0%	3	100%	3
Sunwing 	0	0%	0	0%	2	100%	2
<b>TOTAL</b>	<b>130</b>	<b>32%</b>	<b>118</b>	<b>29%</b>	<b>162</b>	<b>40%</b>	<b>410</b>

\*Although not currently retrofitted, the airline has indicated these aircraft will be retrofitted in the near future.

# Quieter Fleet Incentive Program

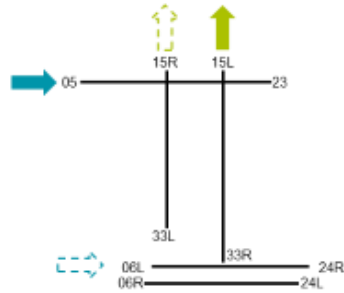
- Next Steps
  - Determine timing for the next A320 family audit
  - GTAA exploring “impact charge” for airlines that operate non-retrofitted A320 family aircraft after 2022
  - Explore options for Phase 2 of the Quieter Fleet Incentive Program including encouraging quieter fleet operations, looking at a potential phase out of noisier aircraft or possible noise charges.
    - Starting with an audit of aircraft operating at Toronto Pearson to determine Chapter type

# Preferential Runway System Trial

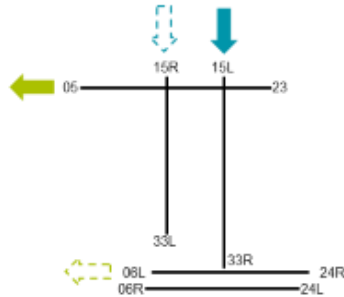
- The GTAA began a trial of the updated Preferential Runway System on February 27, 2020
- Trial will last for one-year to test usage of the updated system across multiple weather conditions, during runway construction season, and winter operations
- Reports on the usage of the updated Nighttime Preferential Runway System are published on our [website](#) every three months
- Feedback survey will be open during trial for residents to provide their input on the same webpage as the reports

# Updated Nighttime Preferential Runway System

**1st Choice - Whenever crosswind, tailwinds & winds-aloft allow**

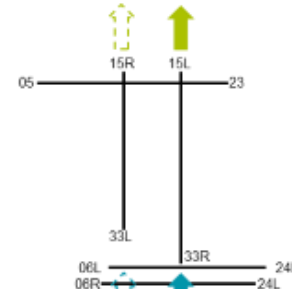


**2nd Choice - Whenever crosswind, tailwinds & winds-aloft allow**

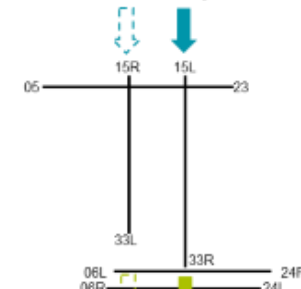


**Selection driven by weather conditions and infrastructure availability when 1st or 2nd choice are not operable. Ultimately any single or pair of runways can be used.**

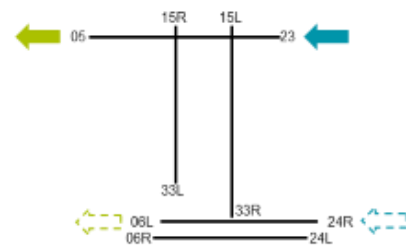
Operation for northerly wind



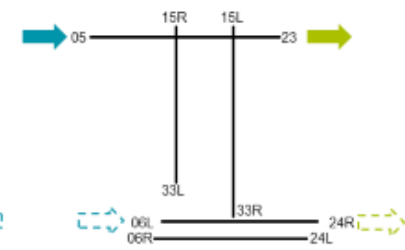
Operation for southerly wind



Operation for westerly wind



Operation for easterly wind



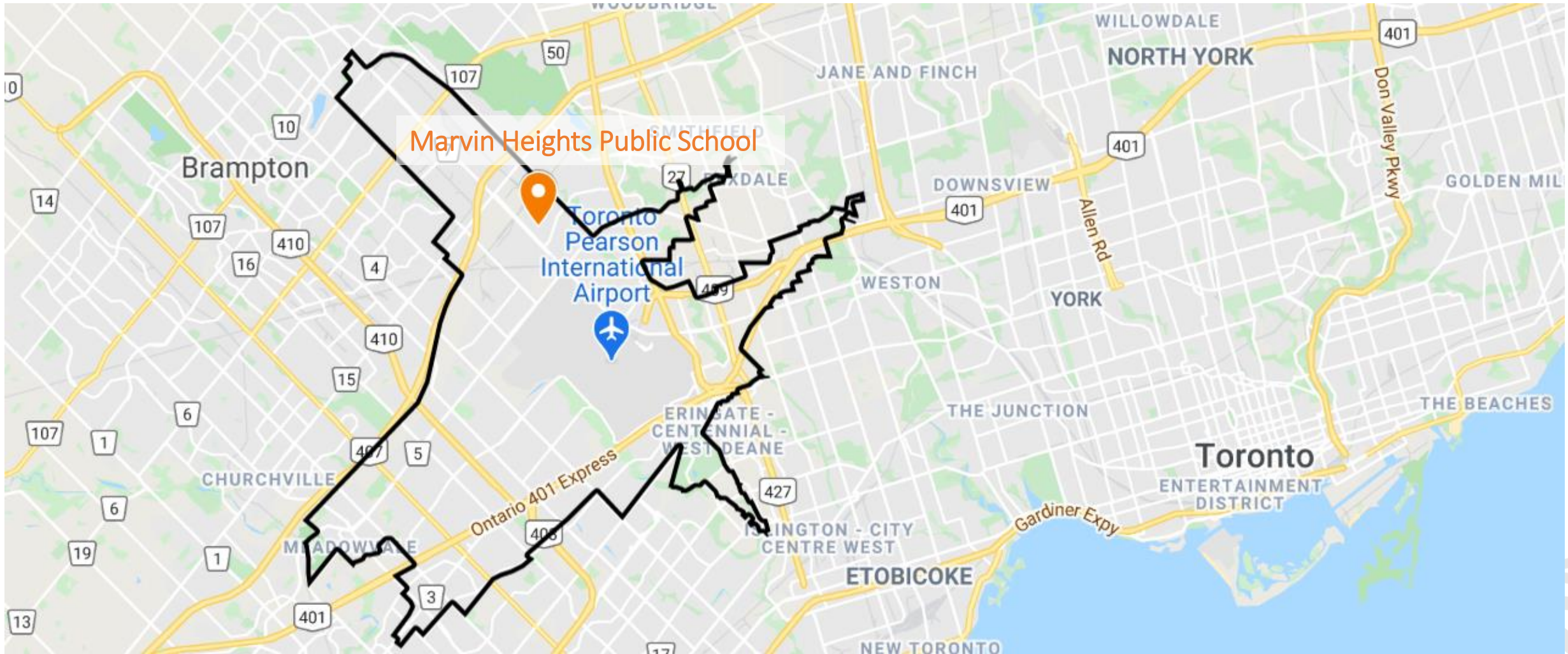
**Key:**

-  Primary departures
-  Primary arrivals
-  Maintenance adjusted departures
-  Maintenance adjusted arrivals

# Pilot: School Air Conditioning Program

- As part of the 2018-2022 Noise Management Action Plan (NMAP), Toronto Pearson committed to exploring a pilot program to provide funding for HVAC systems to one or a small number of local schools within the most noise impacted communities. Similar programs have been offered by leading international airports.
- Based on criteria matrix, selected Marvin Heights Public School in the Peel District School Board was selected, and work is currently underway
- When operational in Spring 2021, the system will have an added benefit of improving the air quality at the school
- We have learned lessons and started working on plans to evolve the program, however given the airport's current financial constraints, determining what phase 2 of the program is on hold

# Marvin Heights Public School within the AOA



# Noise Management Forums

- As part of the Noise Management Forums launched in 2019, the GTAA also committed to adding a Community-Proposal Review Process and an External Process Audit
- These two initiatives ensure continued accountability and representation of the community interests
  - Community-Proposal Review Process: a formalized way to have community-submitted noise management proposals reviewed
  - External Process Audit: a third-party review of Toronto Pearson's activities and progress towards the Noise Management Action Plan
- Both these processes are currently being developed, and updates will be shared with the community later this year



# Q4 2020 NMAP Workplan

- Trial continues for Idea 6: Review of the Preferential Runway System with quarterly reports
- Launch final pieces of Noise Management Forums
- Develop metrics and engage with industry and community stakeholders for the Fly Quieter and Greener Reporting Program
- Continue review of the Night Flight Restriction Program
- Continue to publish noise data and enhance content on InsightFull

# Discussion + Roundtable

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# Next Meeting

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December 2, 2020

Thank You

