

Toronto Pearson Noise Management Forums Neighbourhood Table

December 1st, 2021



Welcome + Introductions

Neighbourhood Table

Objective

- Provides a forum for community stakeholders who represent residents or ratepayer associations and community groups who have knowledge of and interest in airport operations.
- Topics include updates on progress toward the Noise Management Action Plan, as well as other initiatives related to airport growth that may result in changes to aircraft noise impacts

Representation

Alderwood Airplane Noise

Don Mills Residents Inc. Airplane Noise Committee

Community Alliance Air Safety (CAAS)

Former Community Environment and Noise Advisory Committee (CENAC) Reps

Grand Highland/McKecknie Woods Park Community

Leaside Property Owners' Association

Long Branch Neighbourhood Association

Markland Wood Homeowners Association

Meadow Wood Rattray Residents Association

Quality Airspace for Campbellville Milton

Resident of Etobicoke-Centre

Rockwood Homeowners' Association

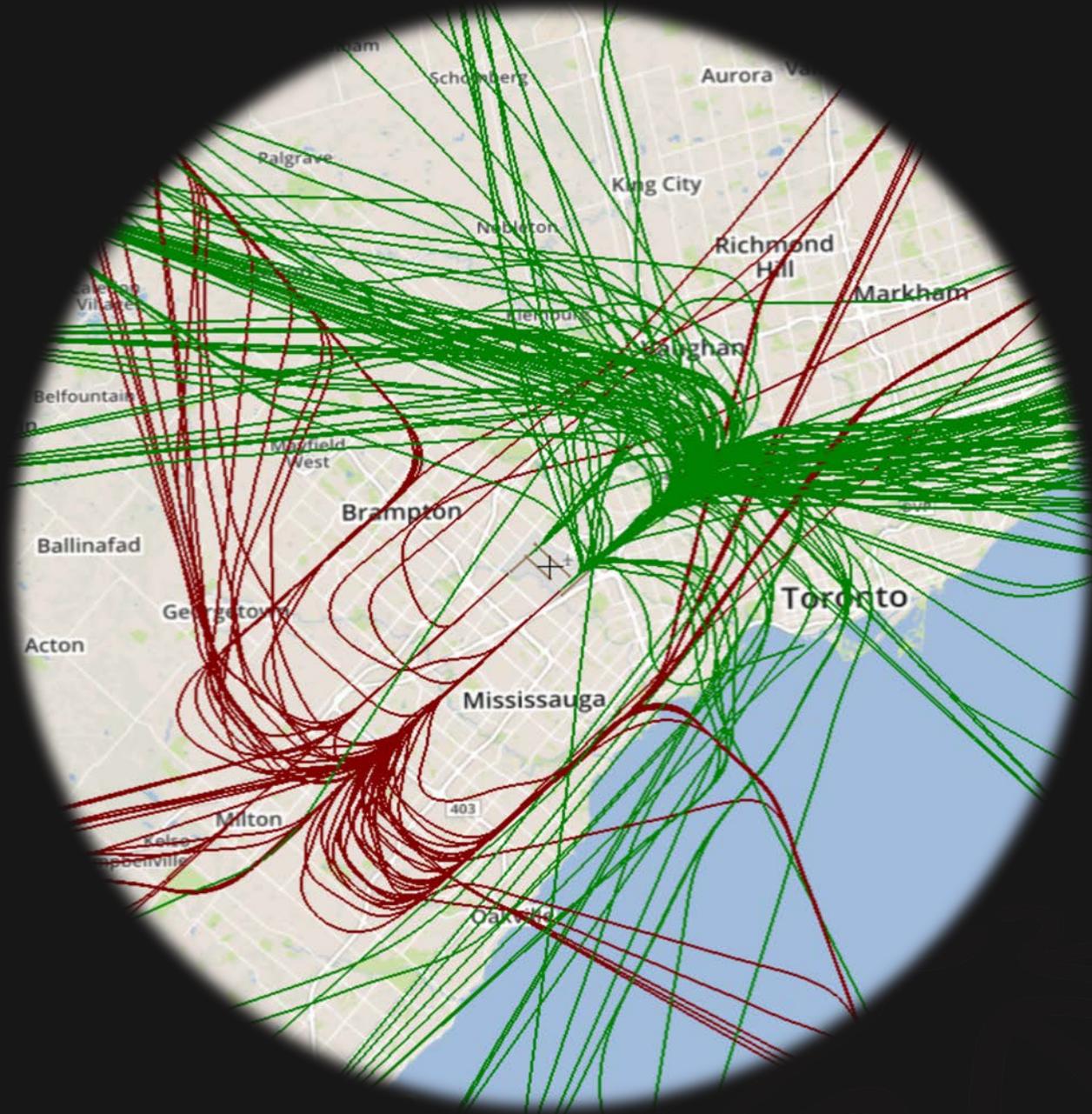
Toronto Aviation Noise Group (TANG)

Agenda

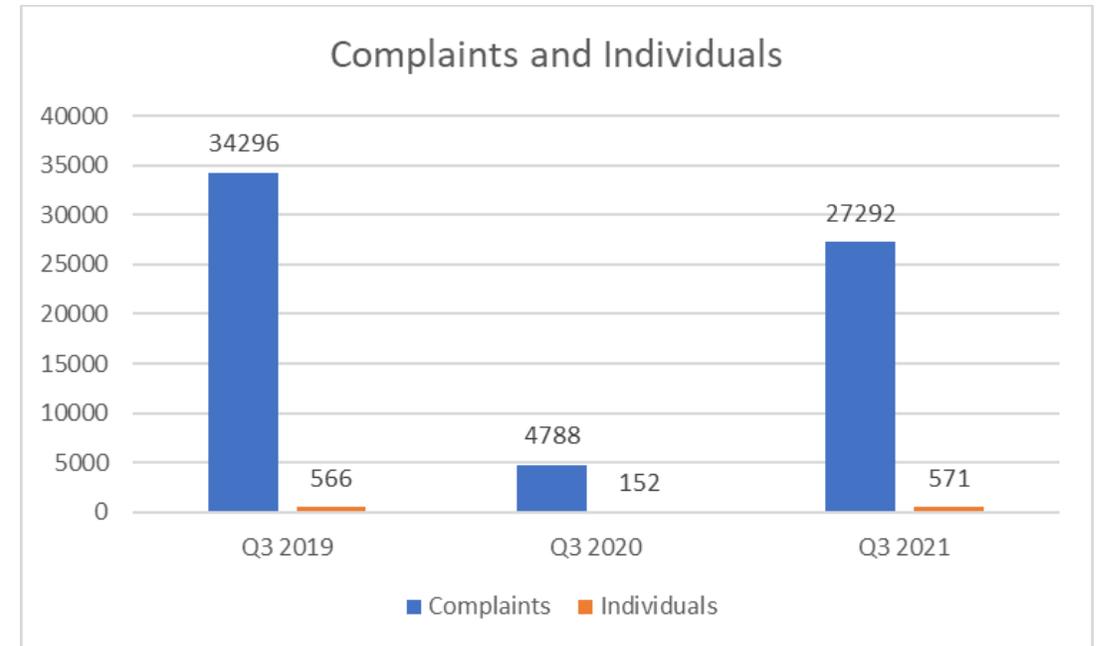
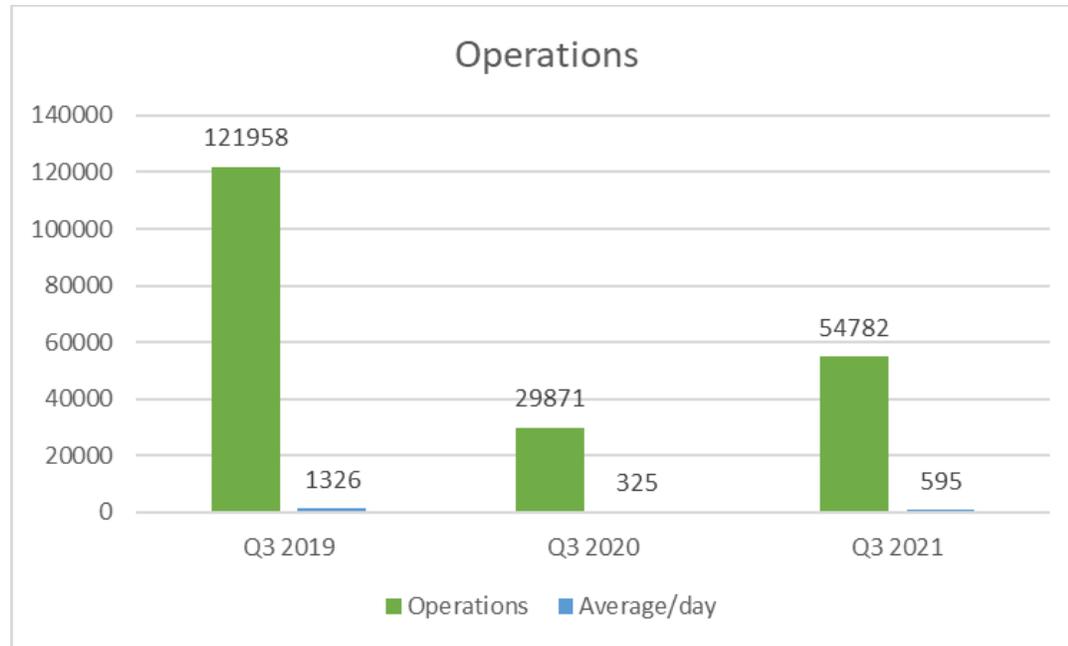
- Airport Updates
 - Healthy Airport Initiatives
 - Trends in Operations and Complaints
- Member Raised Issues
- NAV CANADA Updates
 - Required Navigation Performance (RNP) Consultation
 - Continuous Descent Operations
 - Update: Industry Noise Management Board (INMB)
- GTAA Noise Management Program Updates
 - Airside Maintenance
 - 2020/2021 Night Flight Restriction Program
 - Noise Management Action Plan
- Discussion and Roundtable

Airport Updates

Trends in Operations & Complaints



Operations & Complaints – Q3 comparison

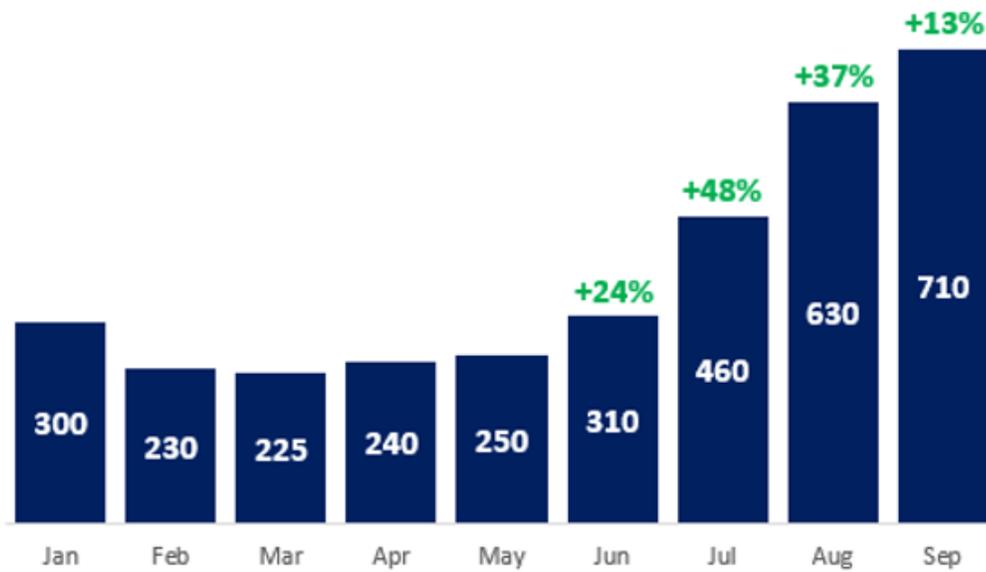


- Movements are **+83%** comparing Q3 2021 with Q3 2020
- However, movements are still **-55%** compared to Q3 '19

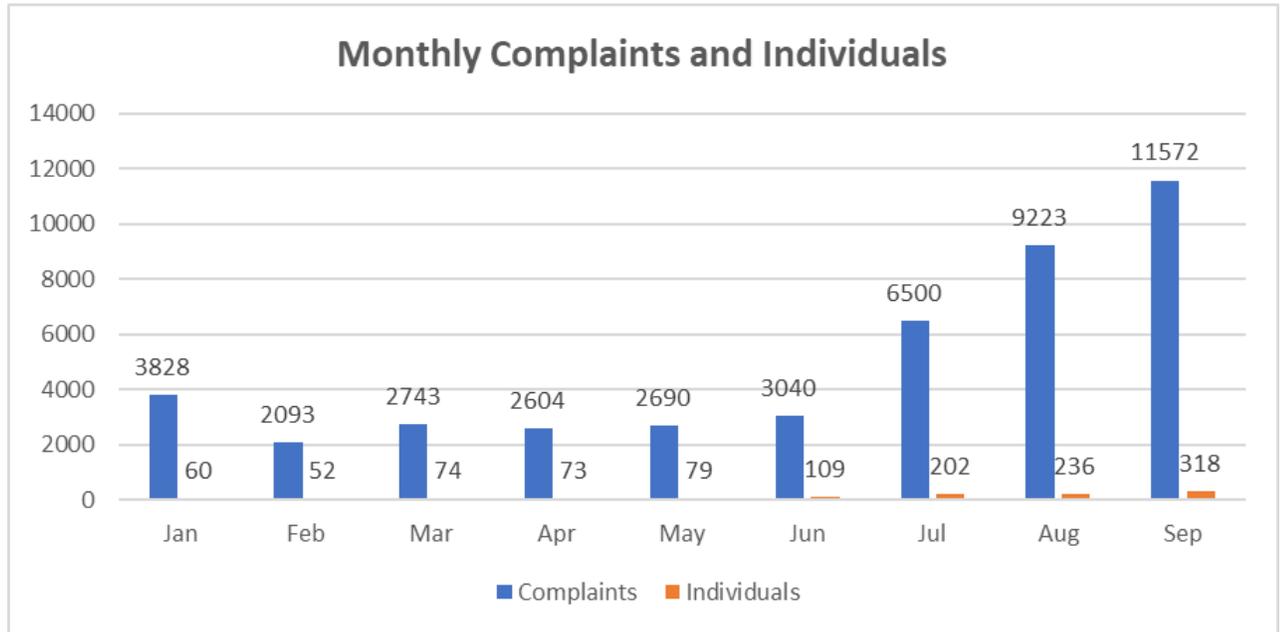
- 470% increase in complaints and 275.7% increase in individuals comparing Q3 2021 to 2020

Operations & Complaints - YTD 2021

Avg. Daily Ops



Monthly Complaints and Individuals



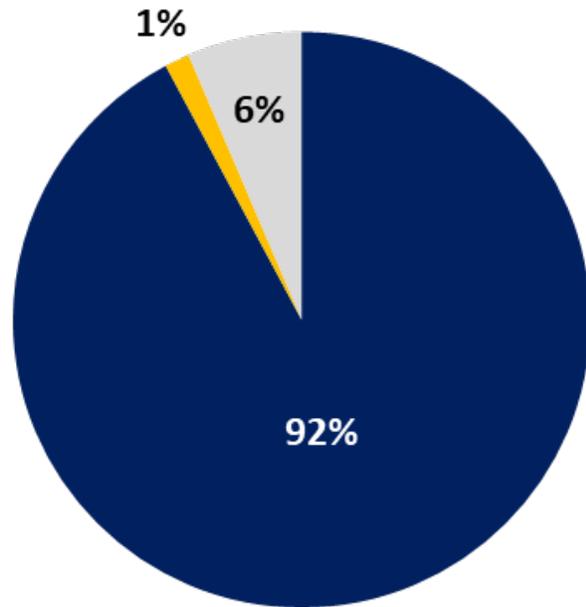
Operations by Type

	<u>Q3 2019</u>		<u>Q3 2020</u>		<u>Q3 2021</u>	<u>2021 vs. 2019</u>
Passenger:	112,809	-89,204 (-79%)	23,605	+18,886 (+80%)	42,491	-70,318 (-62%)
Business Aviation:	7,839	-4,242 (-54%)	3,597	+5,100 (+142%)	8,697	+858 (+11%)
Cargo:	1,702	+1,075 (+63%)	2,777	+896 (+32%)	3,673	+1,971 (+116%)

- Total Movements **+83%** compared to Q3 2020:
 - PAX traffic increased substantially, but still represents just under 80% of traffic (>90% pre-COVID)
 - Cargo operations have been increasing throughout COVID
 - GA/BA traffic outpaced the overall increase in operations and was up 142% compared to Q3 2020
 - Currently >100 GA/BA flights per day

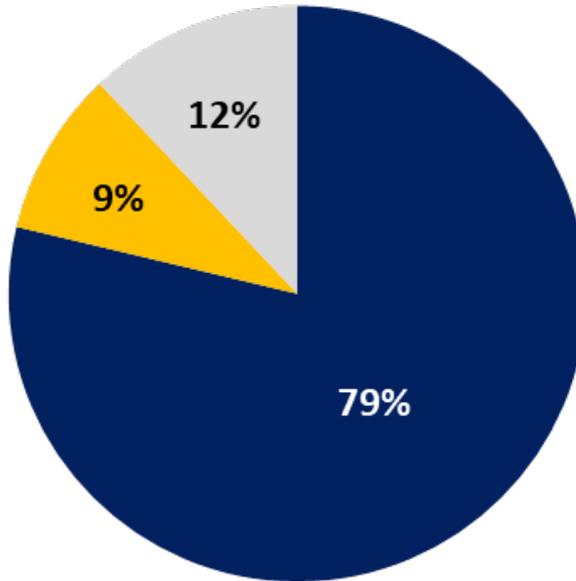
Operations by Type

Q3 2019



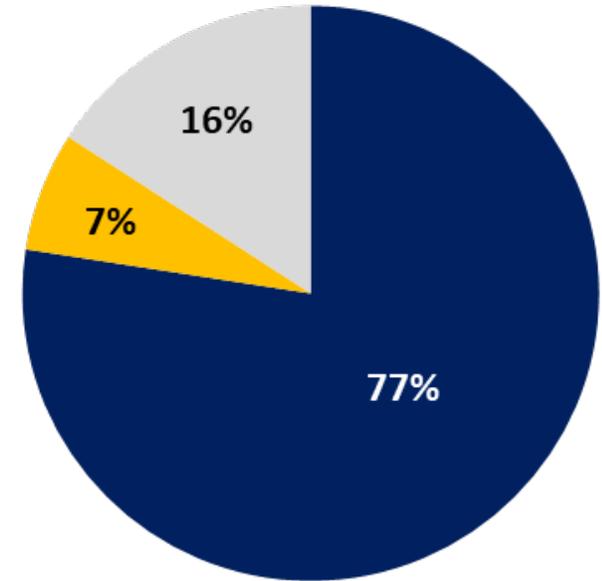
■ PAX ■ Cargo ■ Business Aviation

Q3 2020



■ PAX ■ Cargo ■ Business Aviation

Q3 2021



■ PAX ■ Cargo ■ Business Aviation

Operations by Sector

	<u>Q3 2019</u>		<u>Q3 2020</u>		<u>Q3 2021</u>	<u>2021 vs. 2019</u>
Domestic:	54,450	-35,336 (-65%)	19,114	+12,009 (+63%)	31,123	-23,327 (-43%)
Transborder:	46,387	-40,275 (-87%)	6,112	+9,410 (+154%)	15,522	-30,865 (-67%)
International:	21,357	-16,668 (-78%)	4,689	+3,394 (+72%)	8,083	-13,274 (-62%)

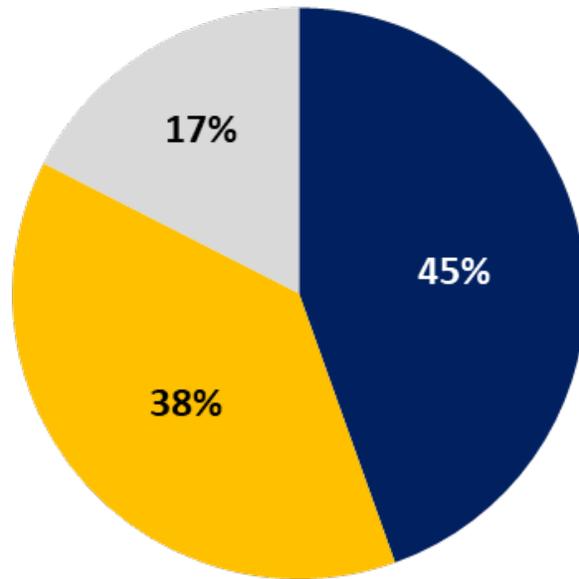
Compared to Q3 2020:

- Domestic flights increased 63%
- Transborder flights increased 154%
- International flights increased 72%
- All sectors still down substantially compared to pre-COVID



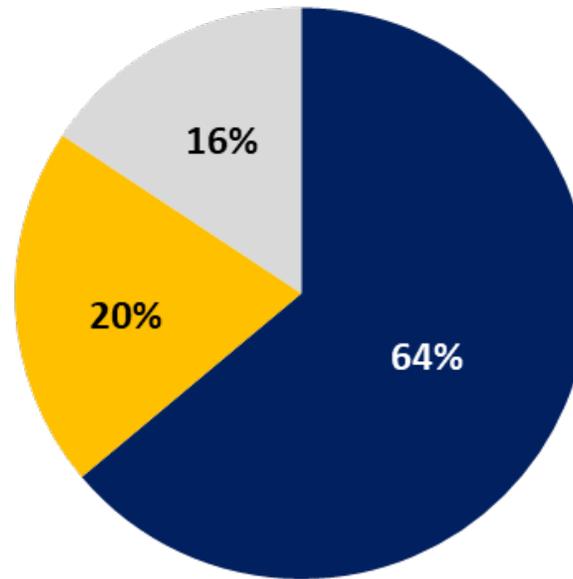
Operations by Sector

Q3 2019



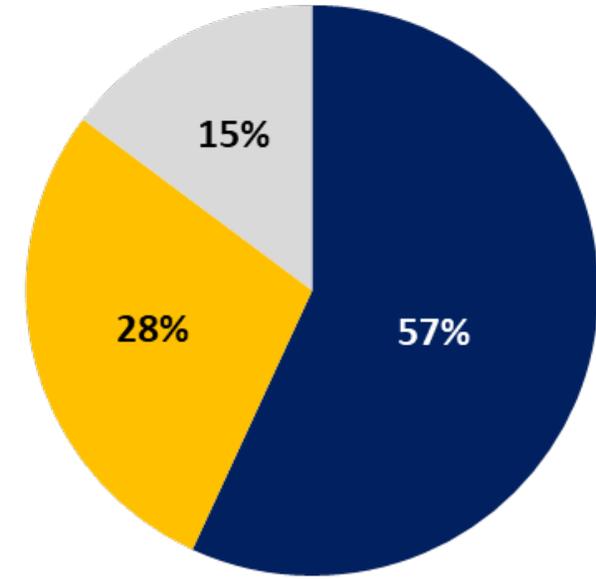
■ DOM ■ TB ■ INT

Q3 2020



■ DOM ■ TB ■ INT

Q3 2021



■ DOM ■ TB ■ INT

Runway Usage Summary

	Q3 2020	%	Q3 2021	%
05	4,397	15%	8,506	16%
06L	6,040	21%	1,290	21%
06R	167		10,068	
23	8,302	28%	13,189	24%
24L	487	34%	9,500	
24R	9,607		3,396	
33L	830	3%	1,315	11%
33R	4		4,981	
15L	3	0%	1,911	5%
15R	34		626	

	Arr	Dep
33L	338	977
33R	120	4,861
15L	1,501	410
15R	610	16

	Q3 2021	
	Hours	%
Single	182	8%
L1D1	95	4%
L1D1 w/ Offloads	823	37%
L2D1	4	0%
Dual	200	9%
Triple	1	0%
Multi-Direction	903	41%

- Tripling remains virtually non-existent
- Construction activities on runways 05/23 and 06L/24R and increasing traffic levels led to the following impacts in Q3:
 - Runway 06R/24L being the primary runway used on the south complex instead of runway 06L/24R
 - Significant increase in multi-direction runway configurations to accommodate demand when 05/23 and 06L/24R were unavailable
 - Multi-direction configurations were also used much more during the preferential runway hours in Q3 2021 whereas single runway configurations were primarily used in Q3 2020

Traffic Distribution & Density

Q3 2020/2021

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

Overall, we found:

Arrivals

- No material change in the location of arrival flight tracks
- Increasing traffic levels have led to higher density along the primary arrival routes
- Altitudes along the downwind remain equal to, or higher than, pre-COVID altitudes
- Increasing traffic levels are resulting in base turn locations expanding along the downwind. This expansion was practically eliminated during the low traffic periods throughout COVID

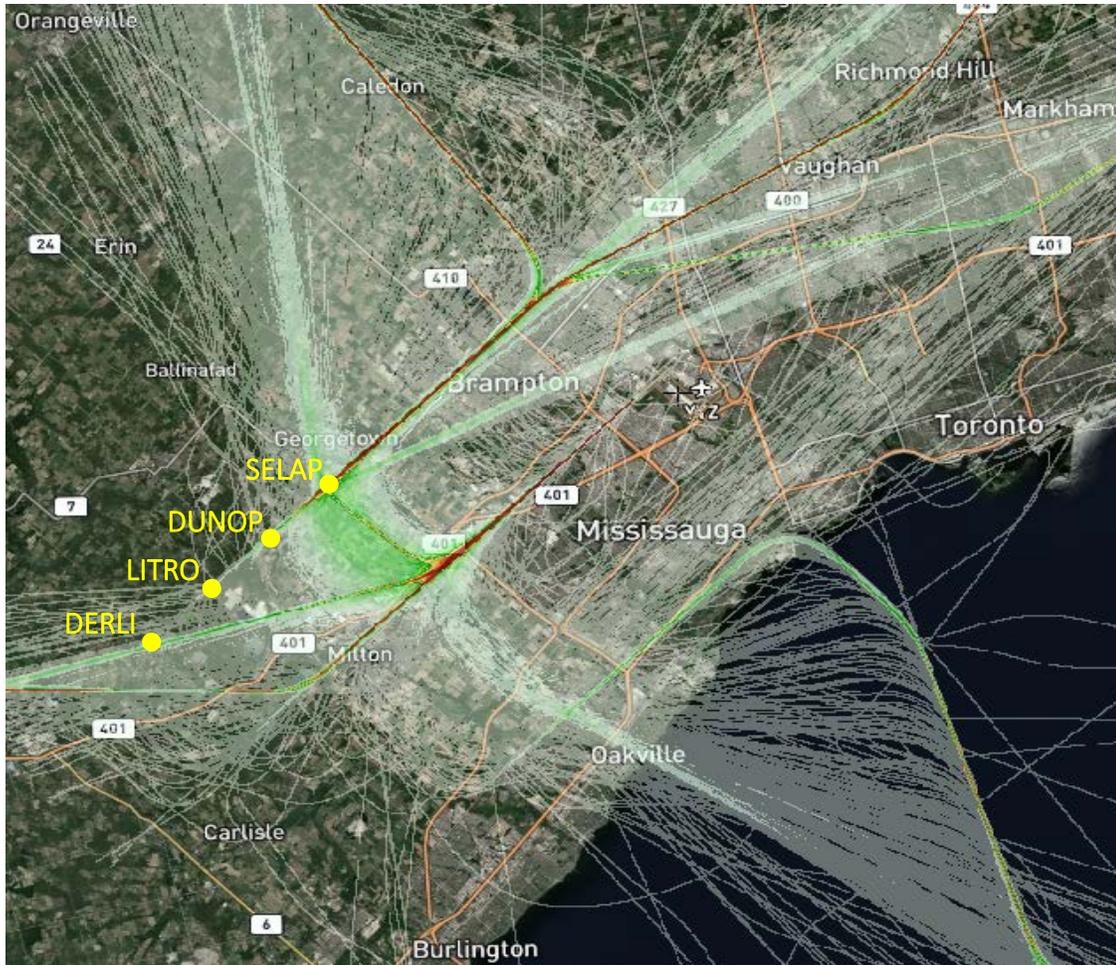
Departures

- No material change in the location of departure flight tracks
- Increasing traffic levels have led to higher density along the primary departure routes

Arrivals

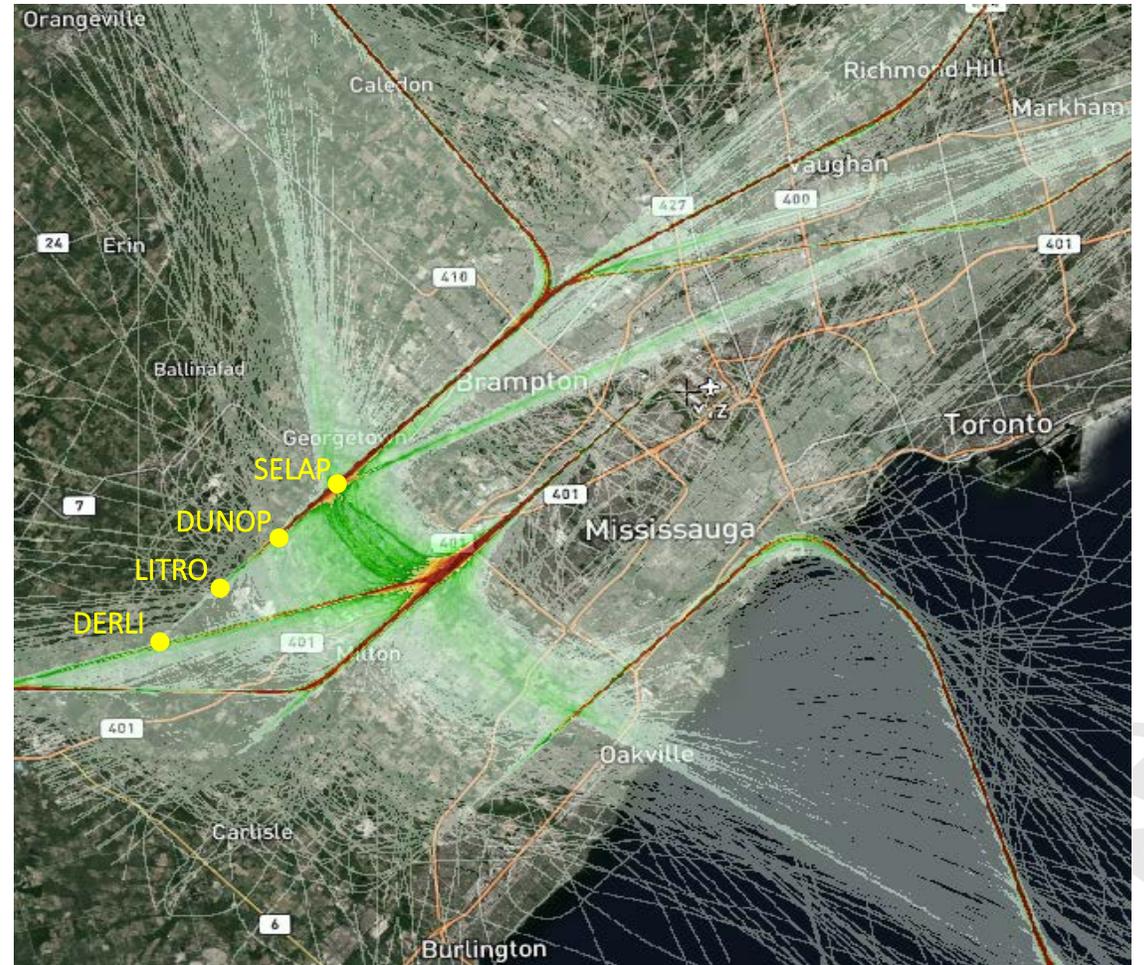
Track Density – Runway 05

Q3 2020



Ops: 3,645

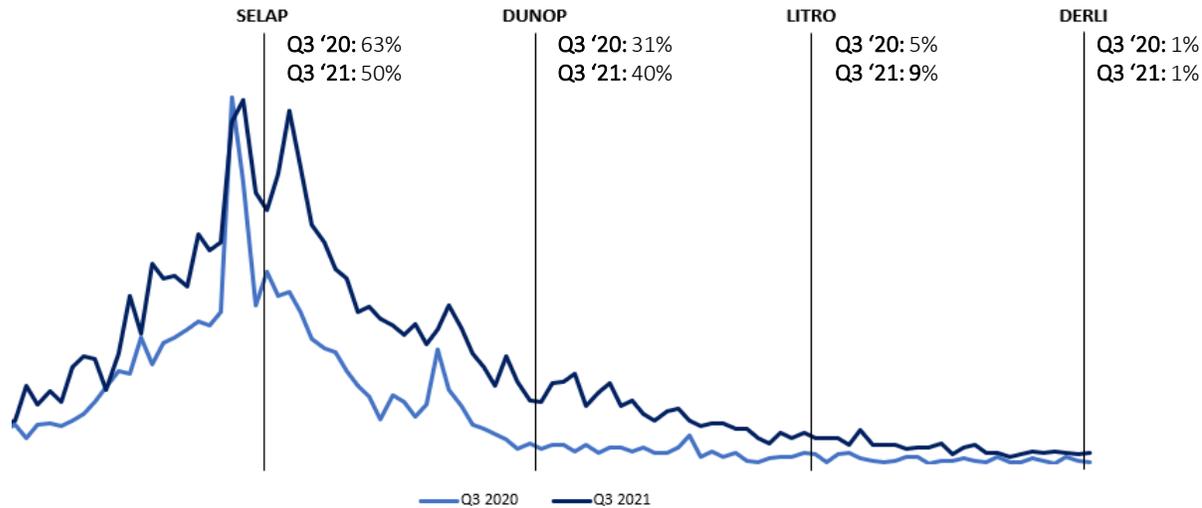
Q3 2021



Ops: 7,538

NW Downwind – Detailed Analysis

Location of Base Turns

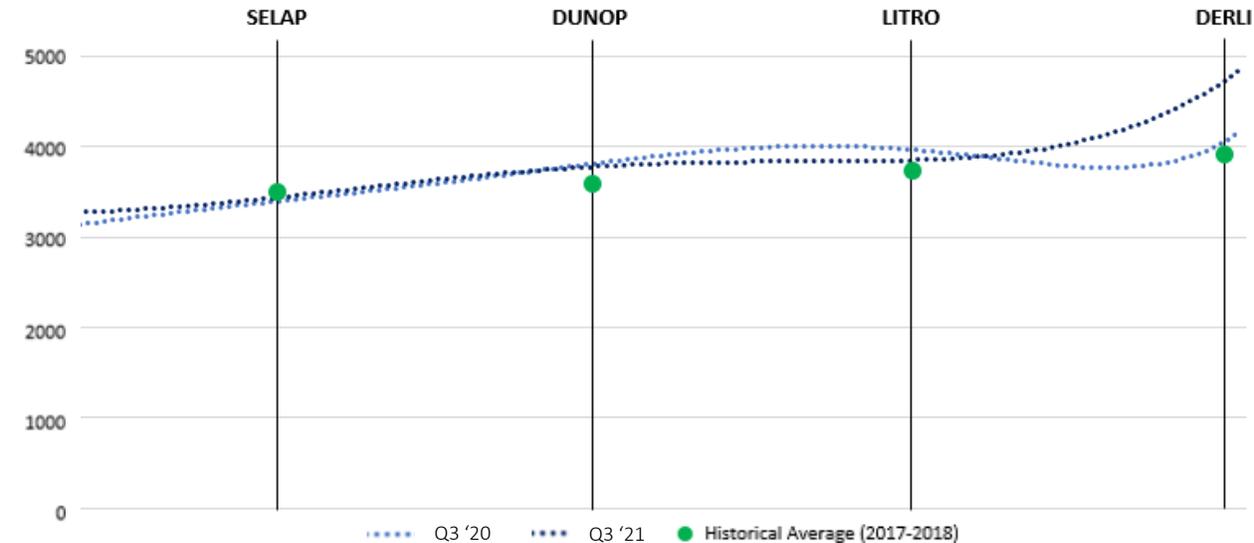


- Increased traffic in Q3 '21 resulted in aircraft flying longer average downwinds
- Base turn locations were more spread out along the downwind compared to Q3 '20

Downwind Counts

Q3 '20: 3,802 operations
Q3 '21: 7,587 operations

Altitude of Base Turns

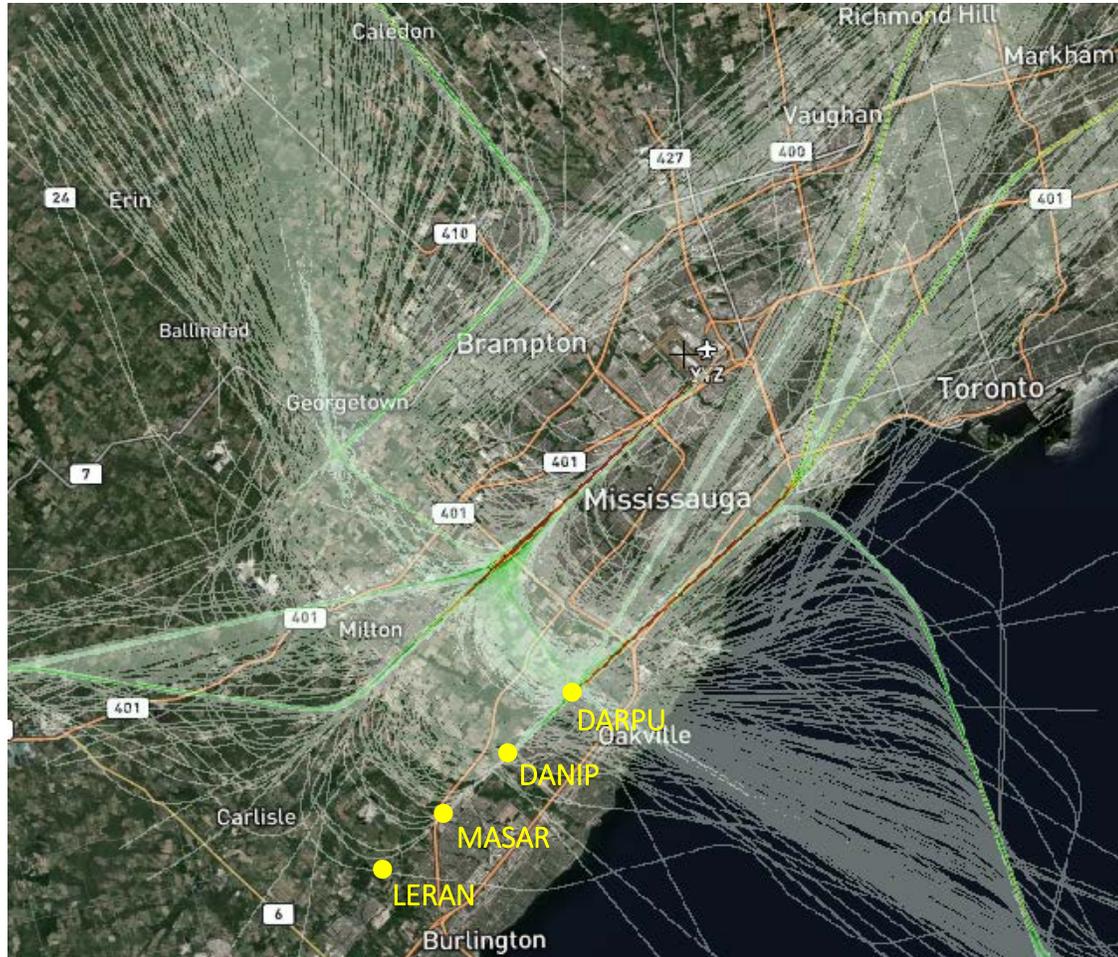


- Average altitudes along the downwind remained very consistent with the historical averages
- There were no points along the NW downwind where the average altitude of arrivals materially decreased relative to historical averages

Arrivals

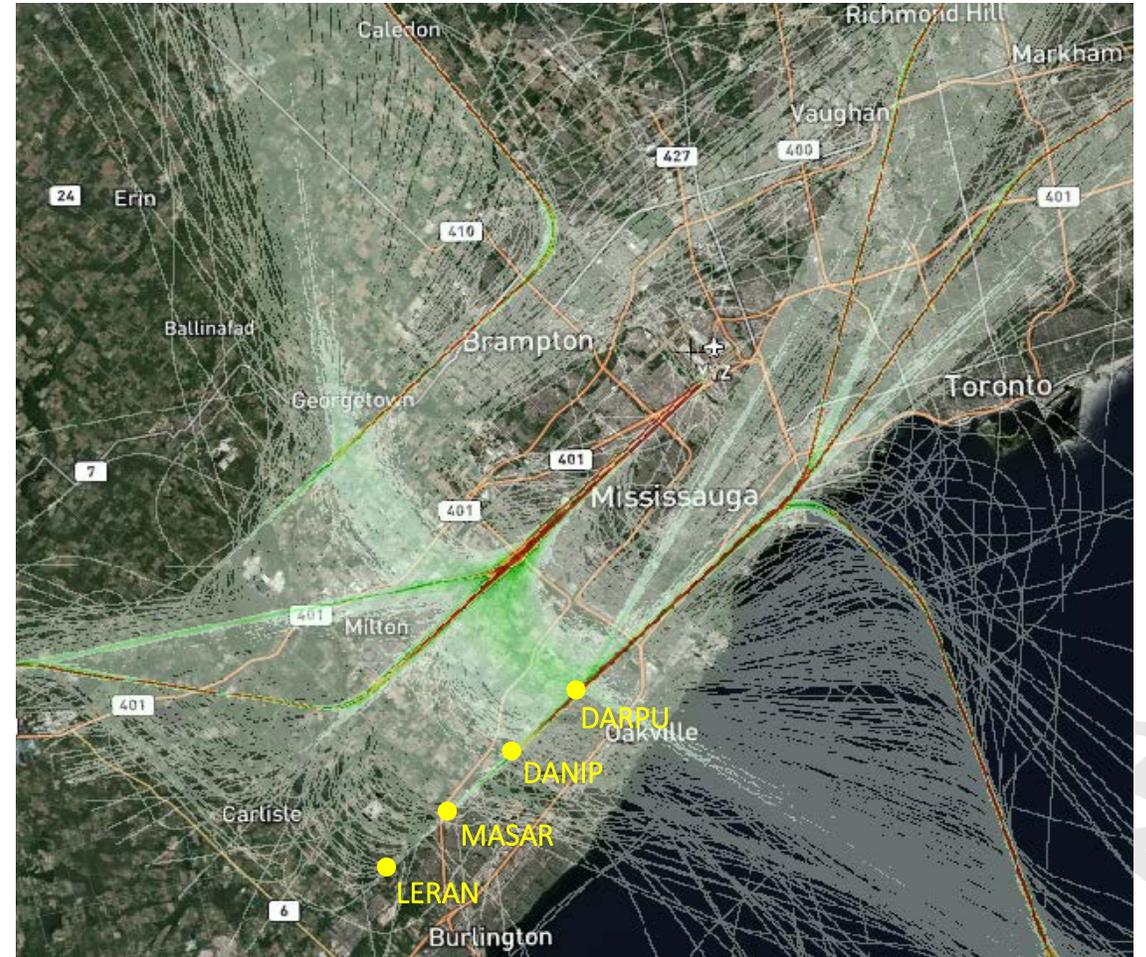
Track Density – Runways 06L/R

Q3 2020



Ops: 1,797

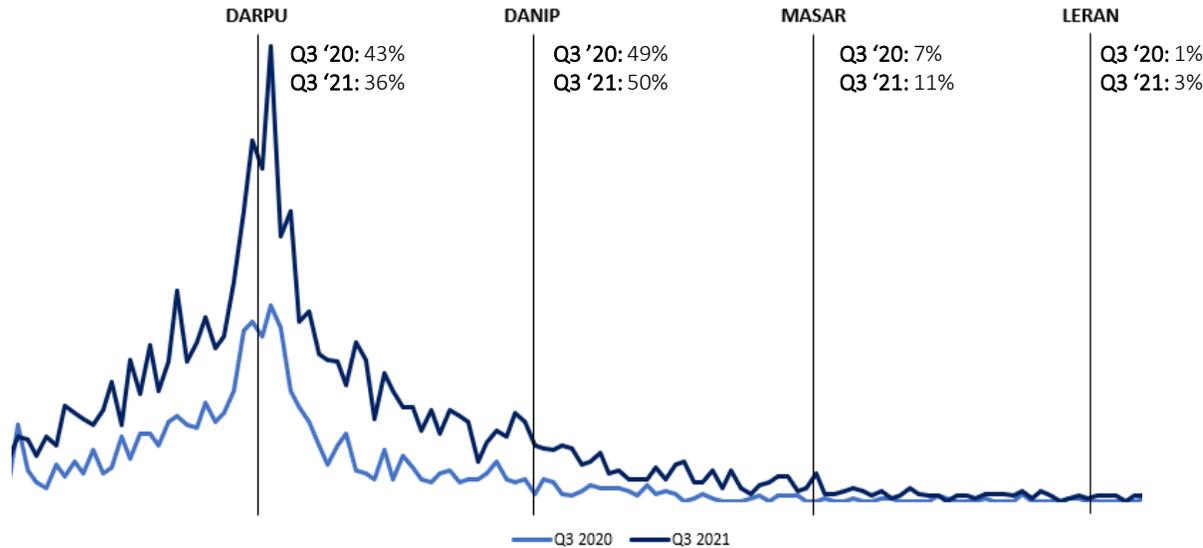
Q3 2021



Ops: 3,825

SW Downwind – Detailed Analysis

Location of Base Turns

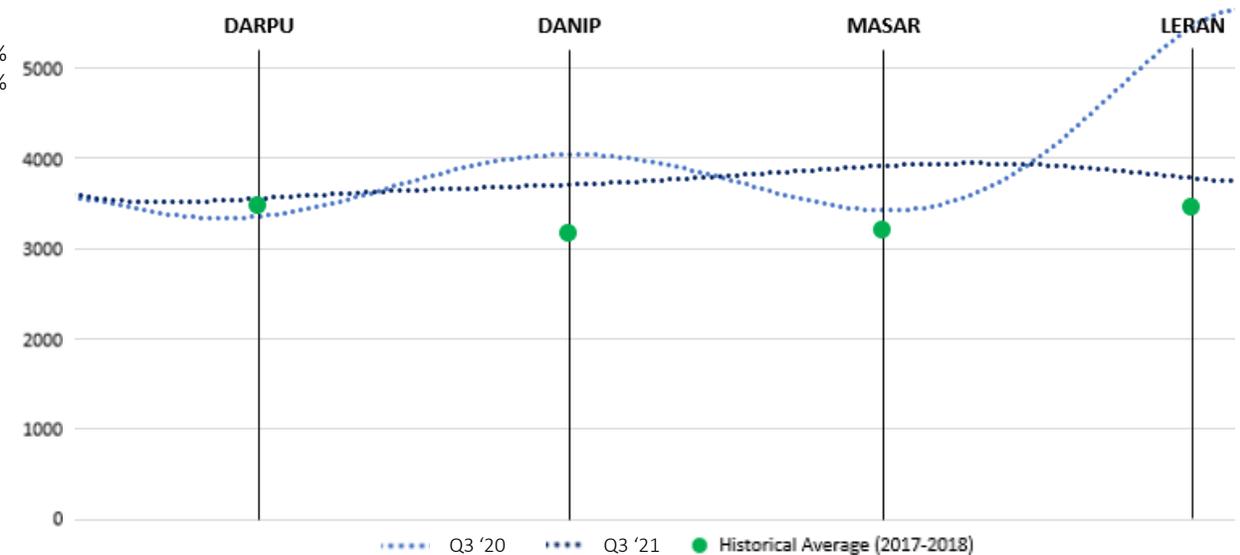


- The distribution of base turn locations in Q3 '21 was very similar to that of Q3 '20
- There was an increase in arrivals along the SW downwind in Q3 '21 relative to Q3 '20

Downwind Counts

Q3 '20: 1,360 operations
Q3 '21: 3,363 operations

Altitude of Base Turns

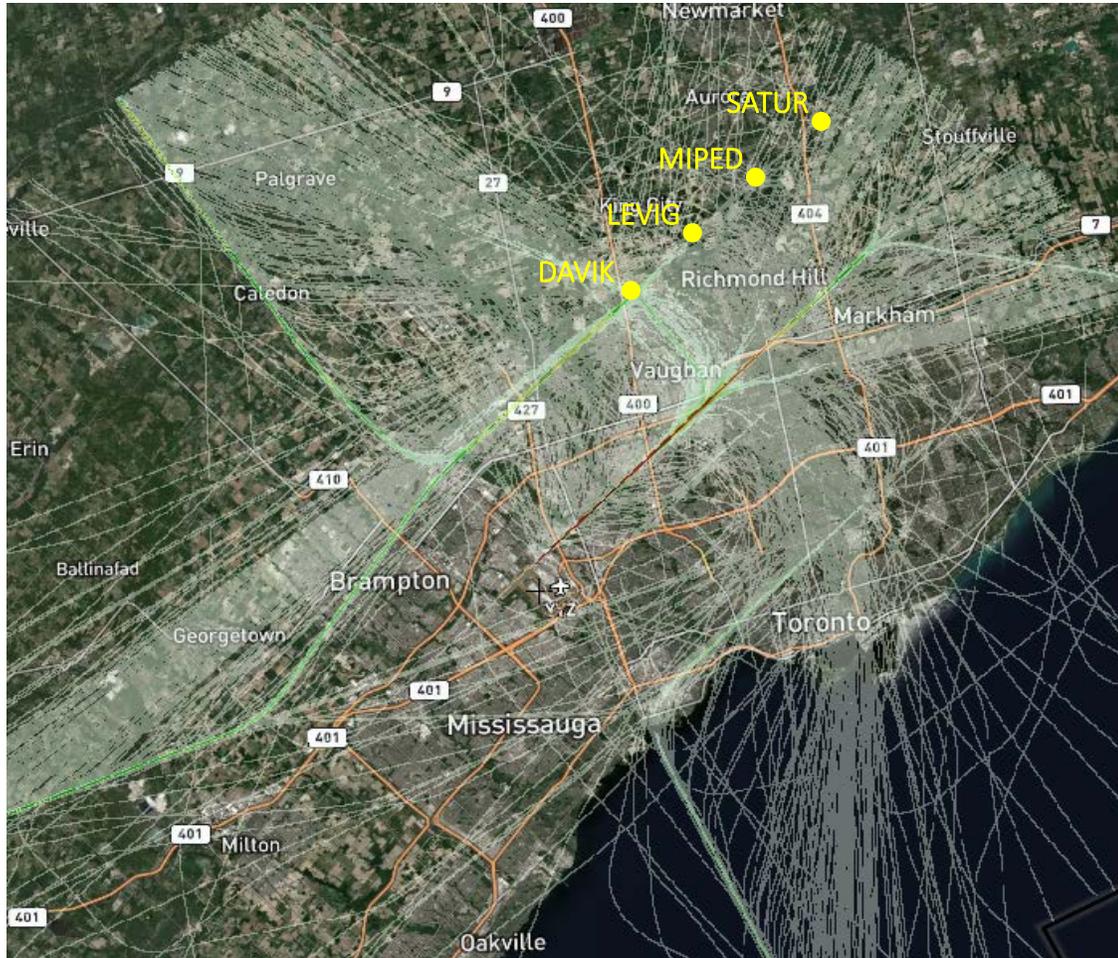


- Average altitudes along the SW downwind remained higher than historical averages in Q3 '21

Arrivals

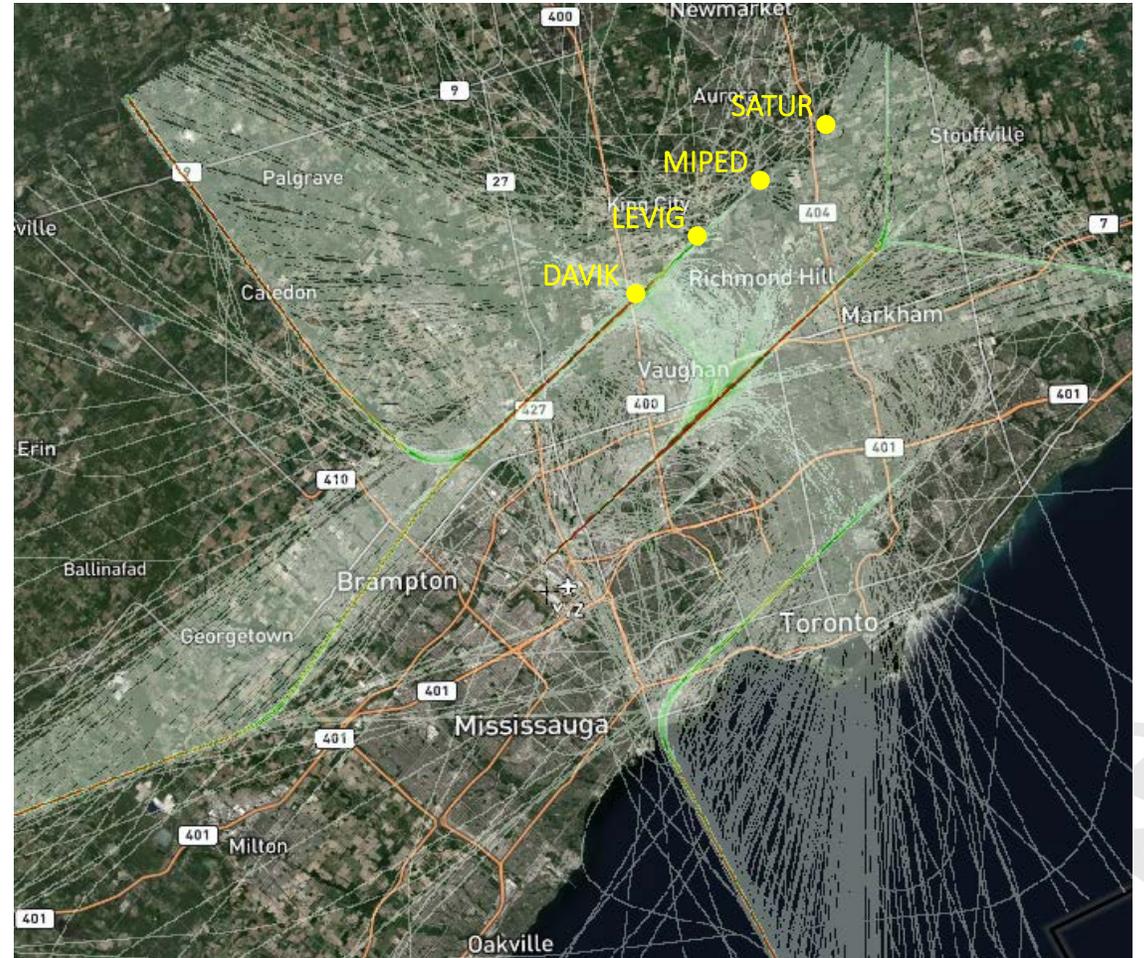
Track Density – Runway 23

Q3 2020



Ops: 1,536

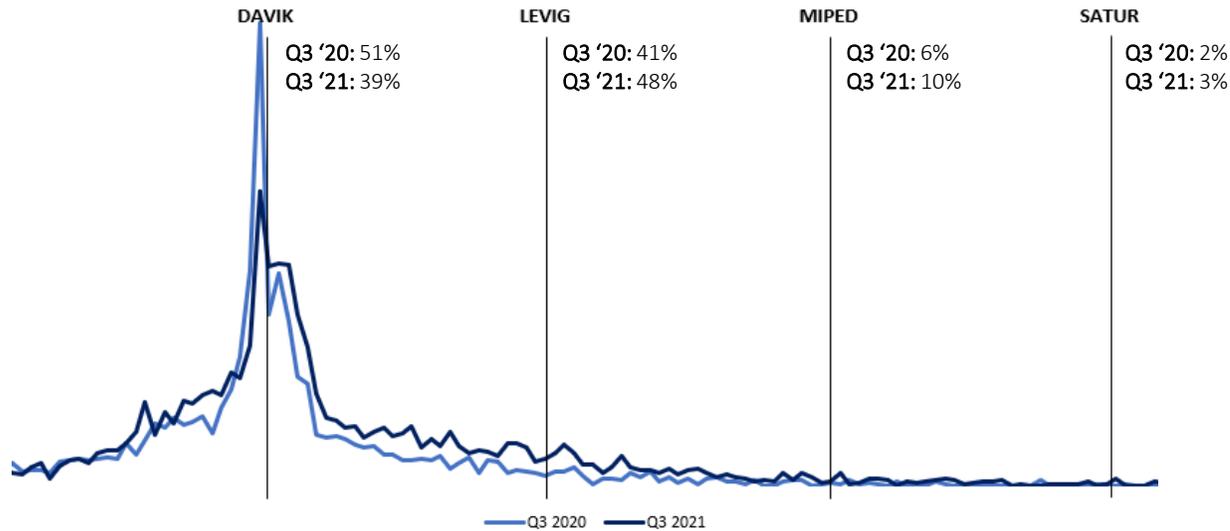
Q3 2021



Ops: 2,298

NE Downwind – Detailed Analysis

Location of Base Turns

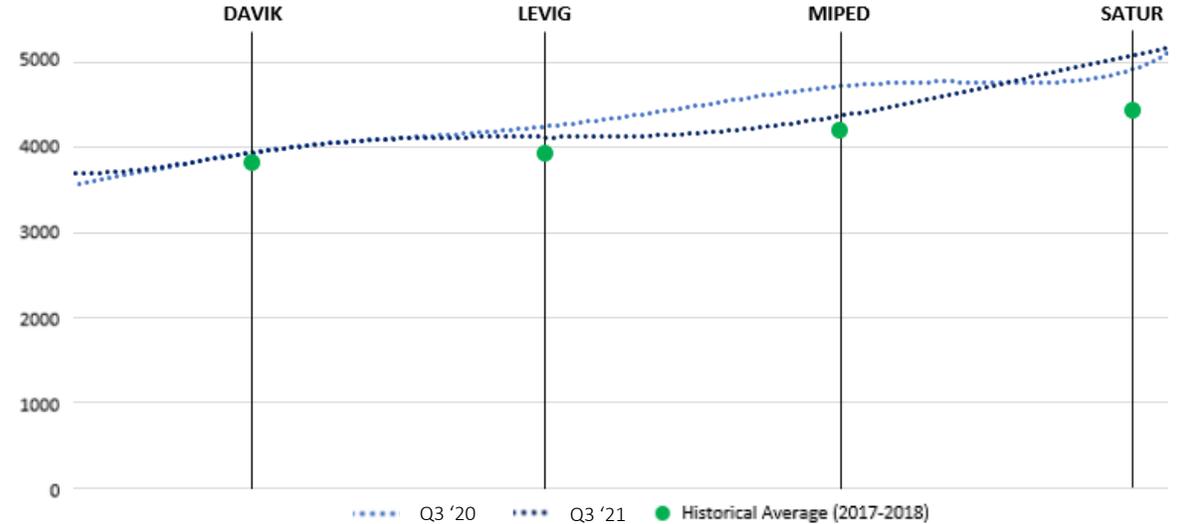


- The distribution of base turn locations in Q3 '21 was very similar to that of Q3 '20

Downwind Counts

Q3 '20: 4,362 operations
Q3 '21: 5,596 operations

Altitude of Base Turns

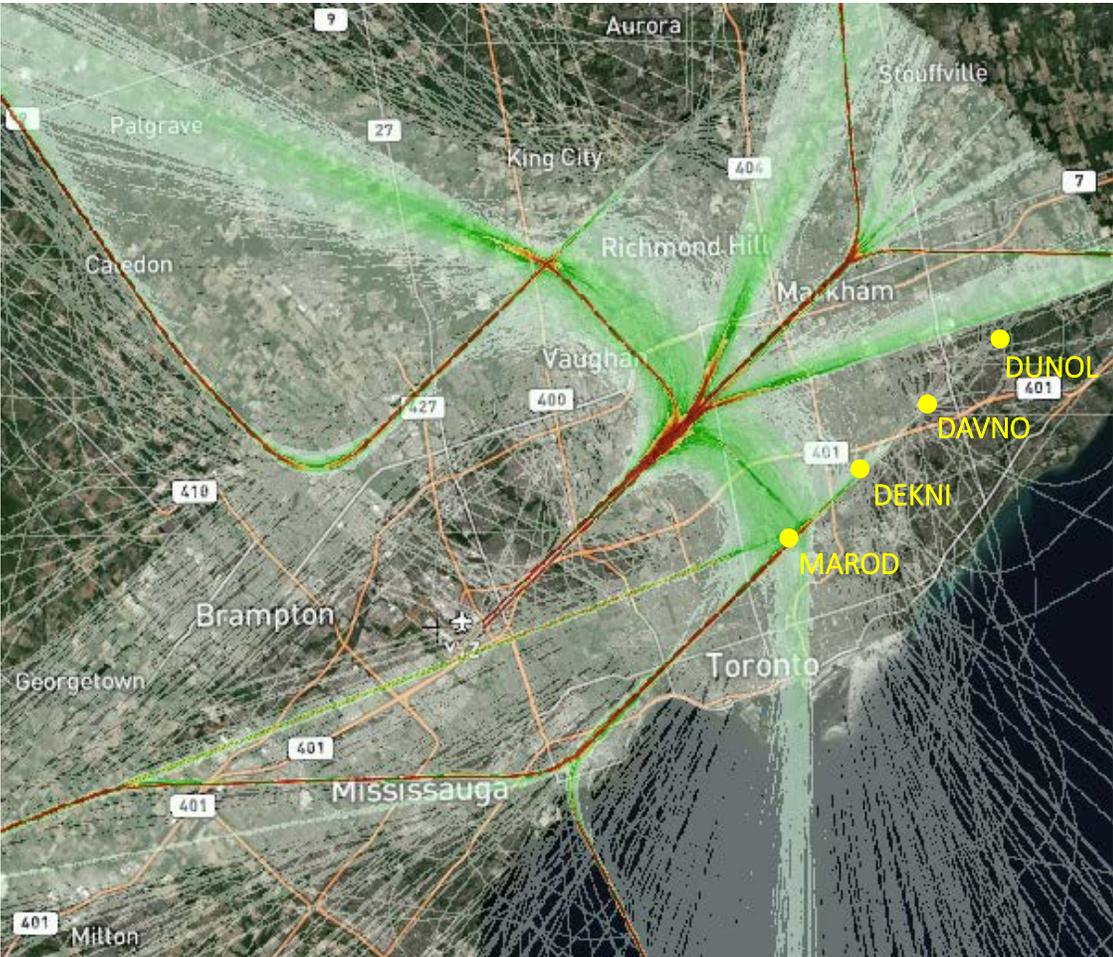


- Average altitudes along the NE downwind were slightly lower around MIPED in Q3 '21 compared to Q3 '20, but still in line with historical averages

Arrivals

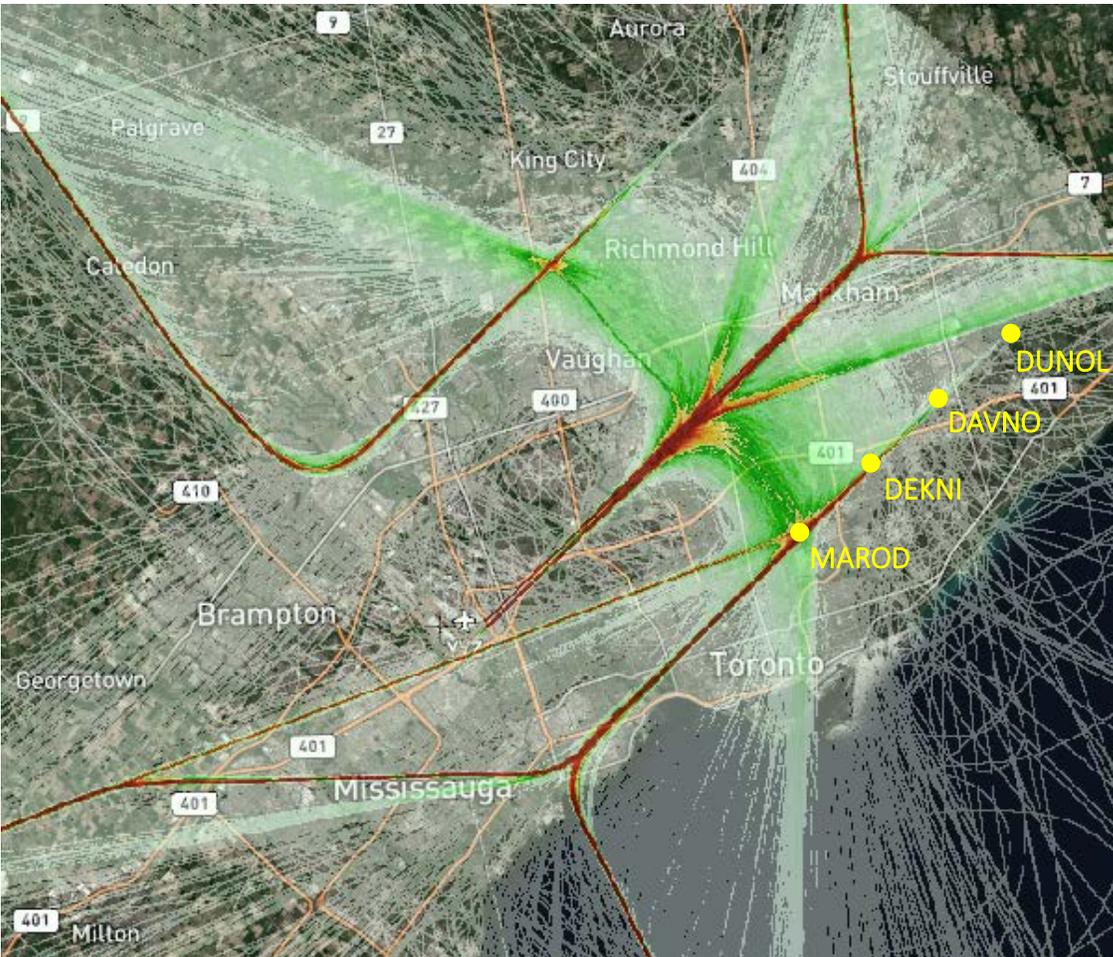
Track Density – Runways 24L/R

Q3 2020



Ops: 7,770

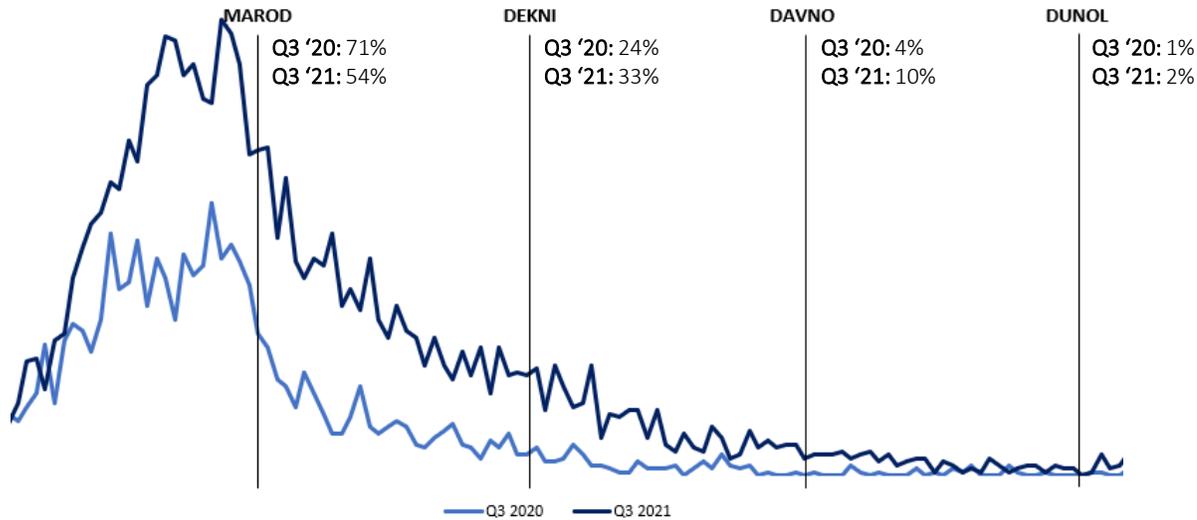
Q3 2021



Ops: 11,102

SE Downwind – Detailed Analysis

Location of Base Turns

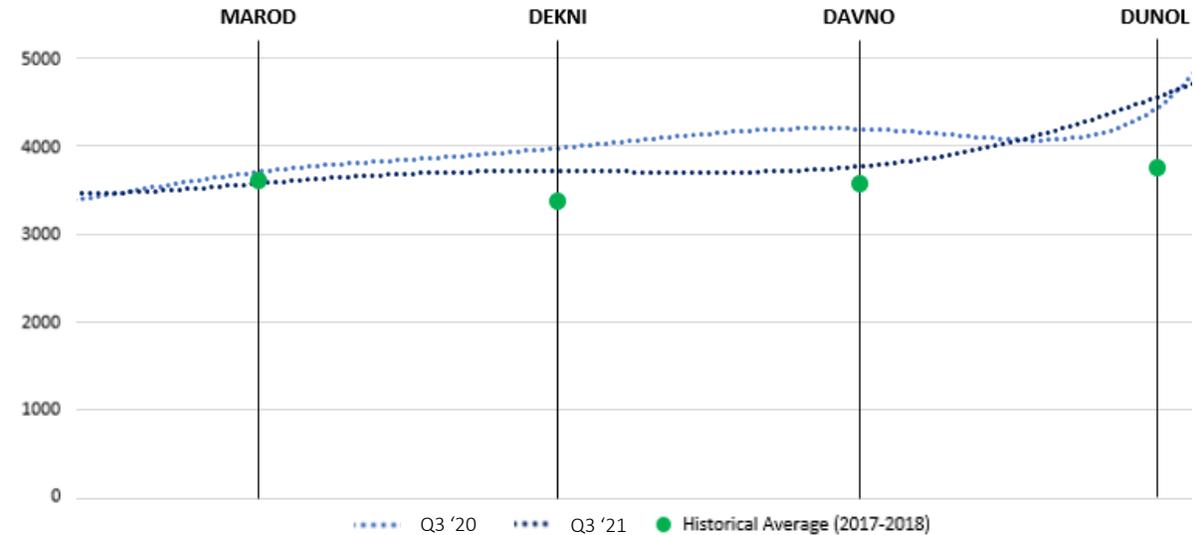


- Increasing traffic in Q3 '21 resulted in aircraft flying longer average downwinds
- There was an increase in arrivals along the SE downwind in Q3 '21 relative to Q3 '20

Downwind Counts

Q3 '20: 3,134 operations
Q3 '21: 6,172 operations

Altitude of Base Turns

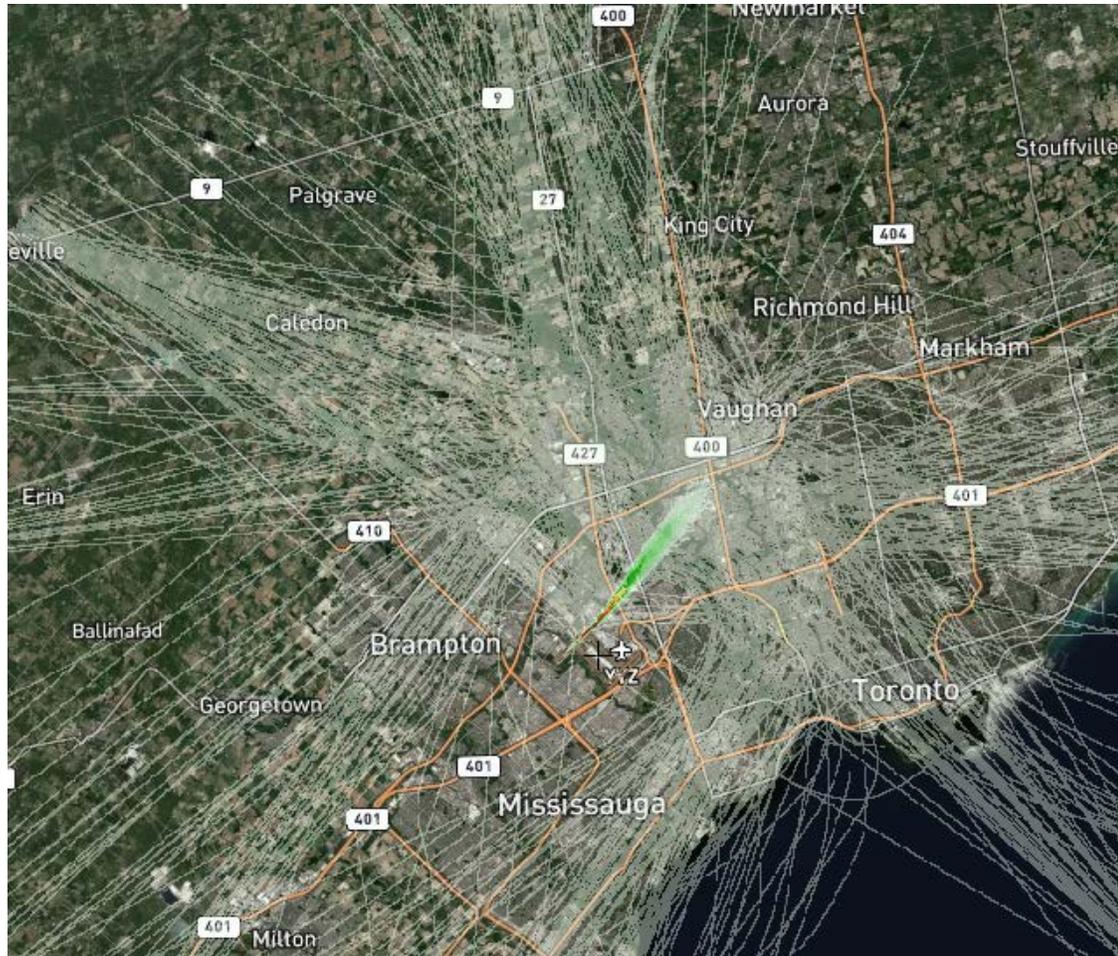


- Average altitudes along the SE downwind were lower in Q3 '21 compared to Q3 '20, but still above the historical averages

Departures

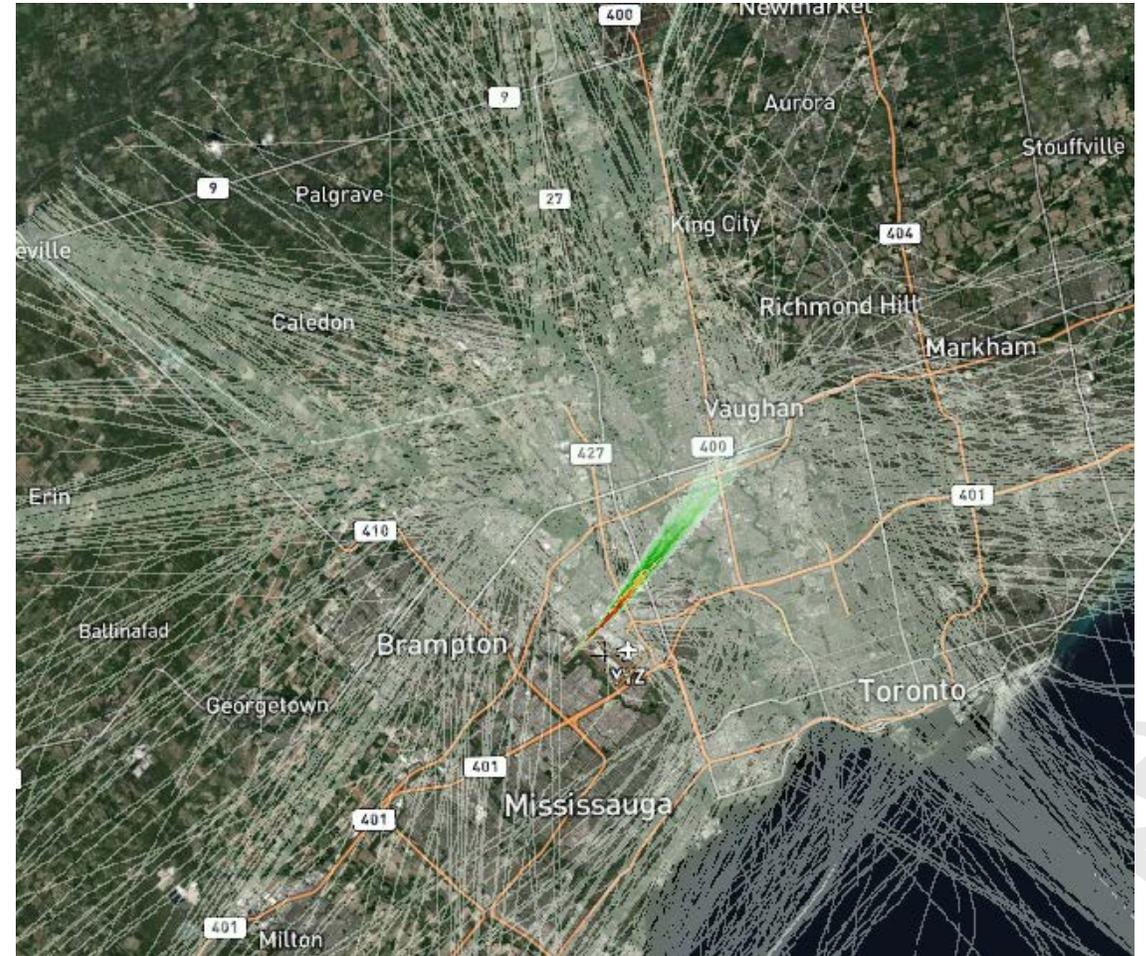
Track Density – Runway 05

Q3 2020



Ops: 752

Q3 2021

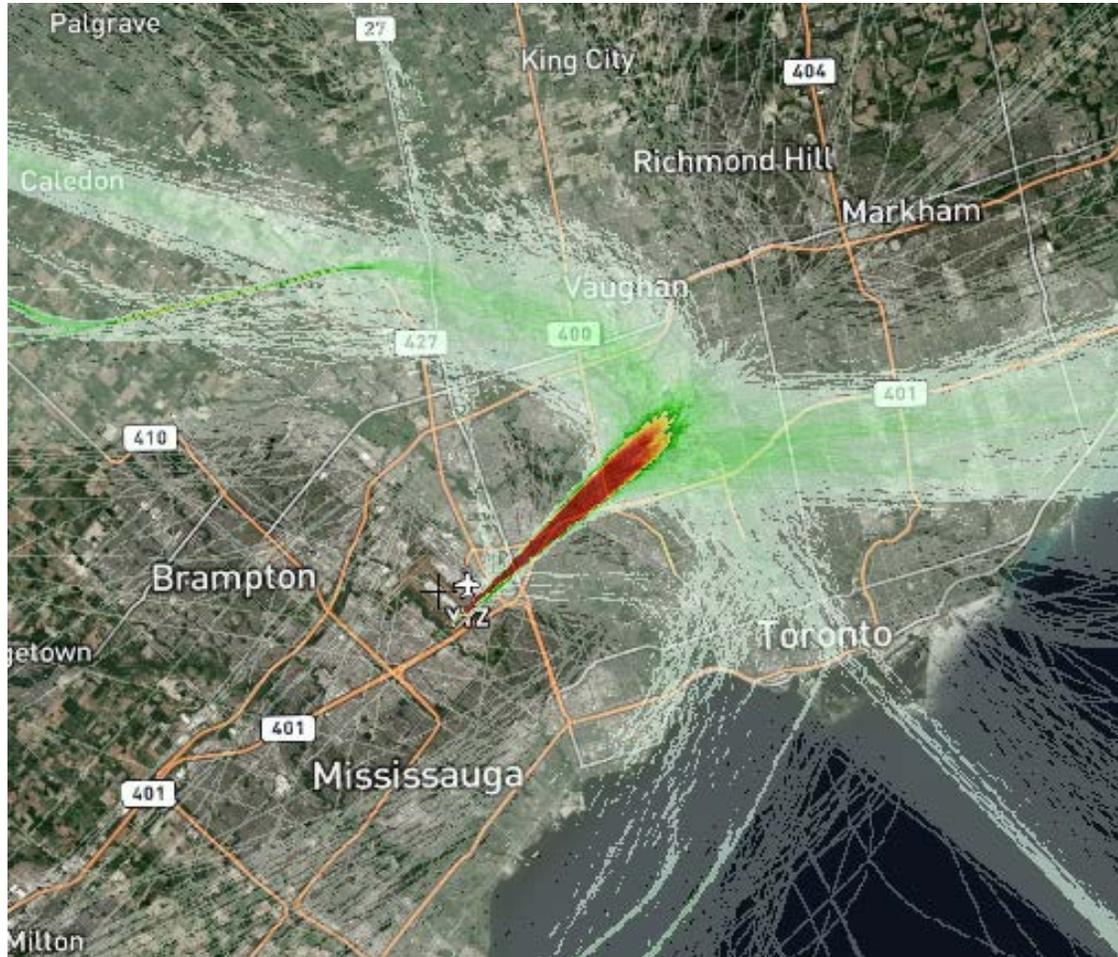


Ops: 968

Departures

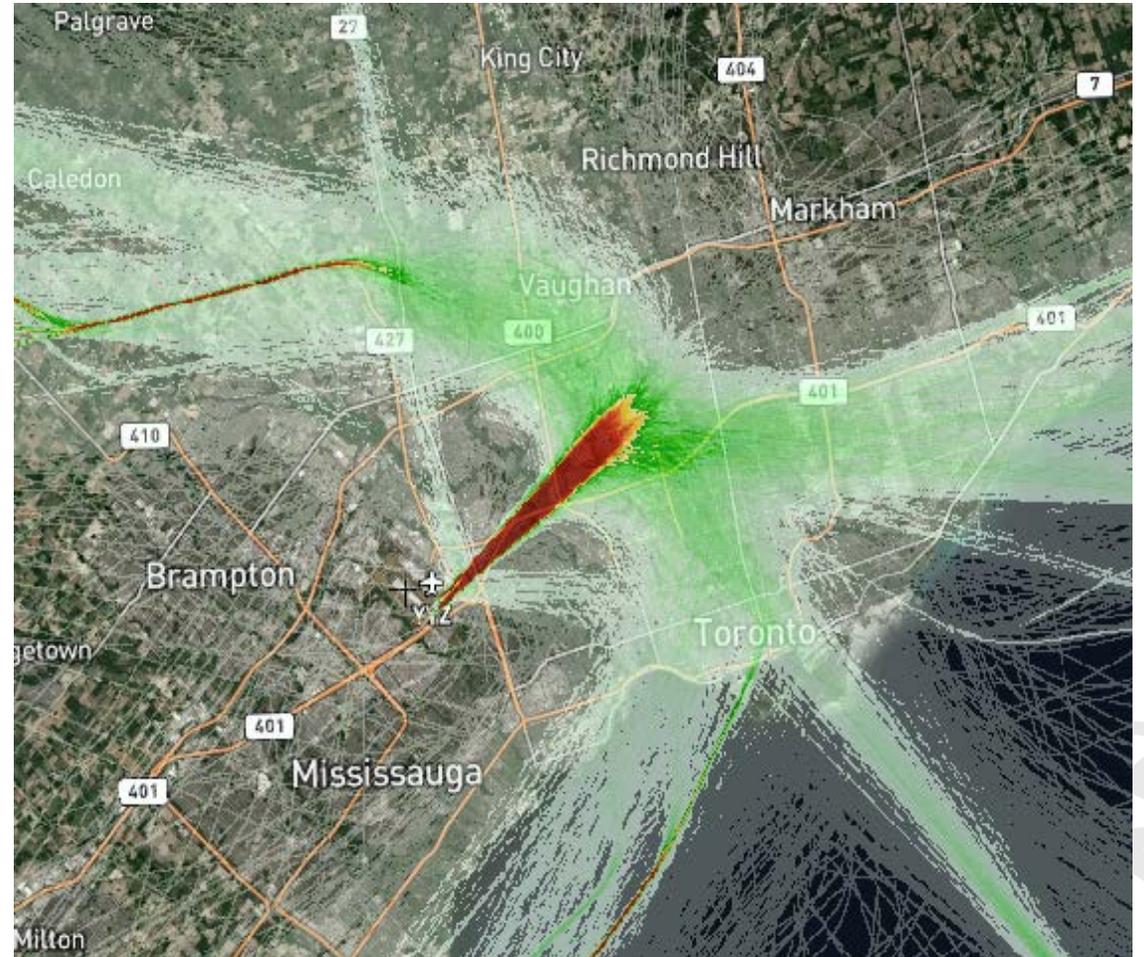
Track Density – Runways 06L/R

Q3 2020



Ops: 4,410

Q3 2021

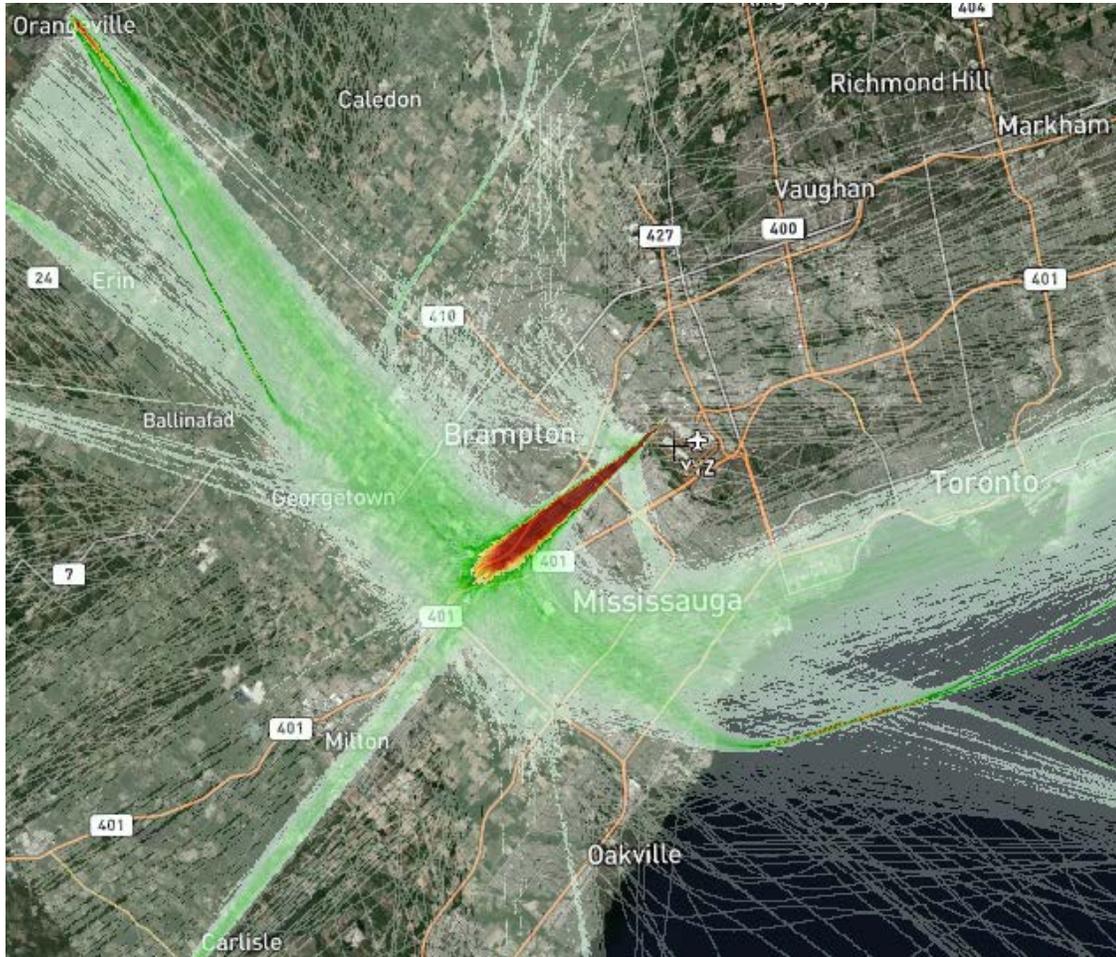


Ops: 7,533

Departures

Track Density – Runway 23

Q3 2020



Ops: 6,790

Q3 2021

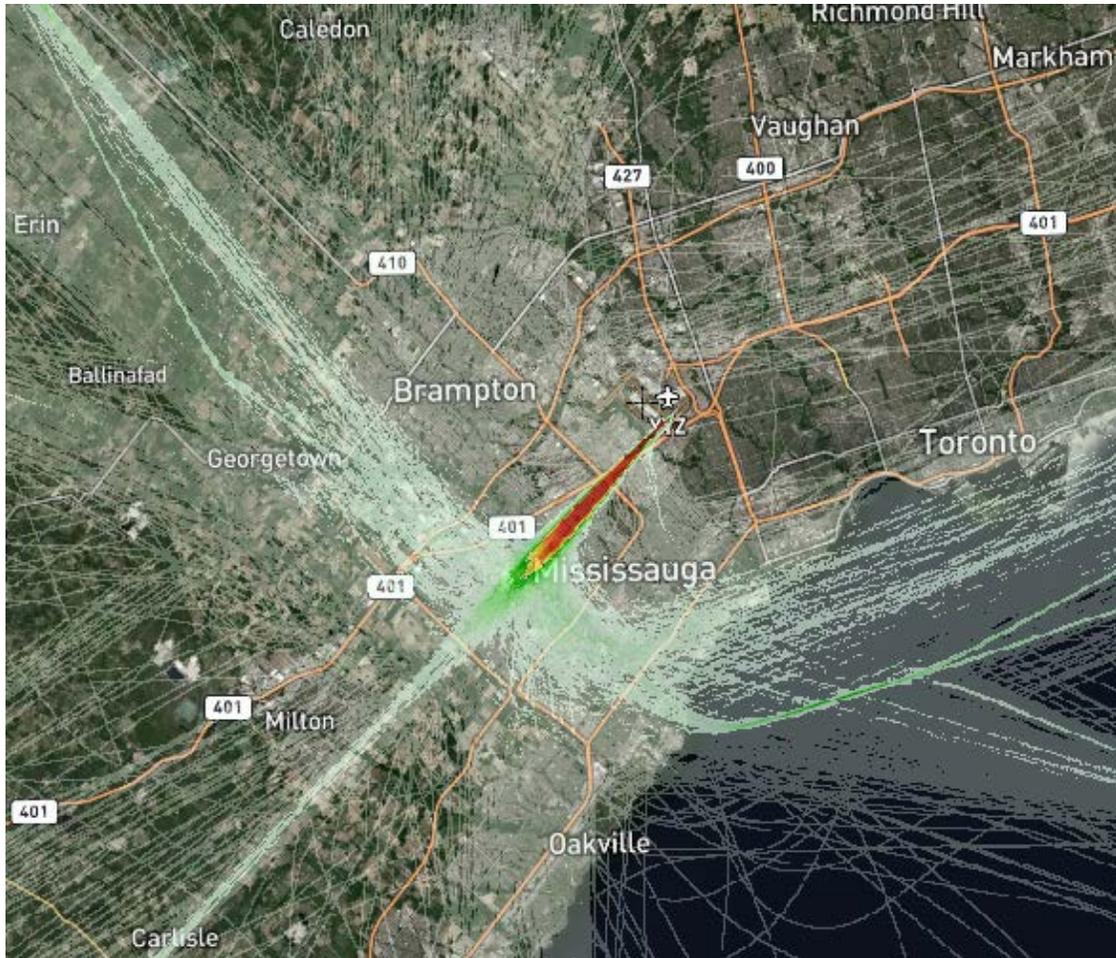


Ops: 10,891

Departures

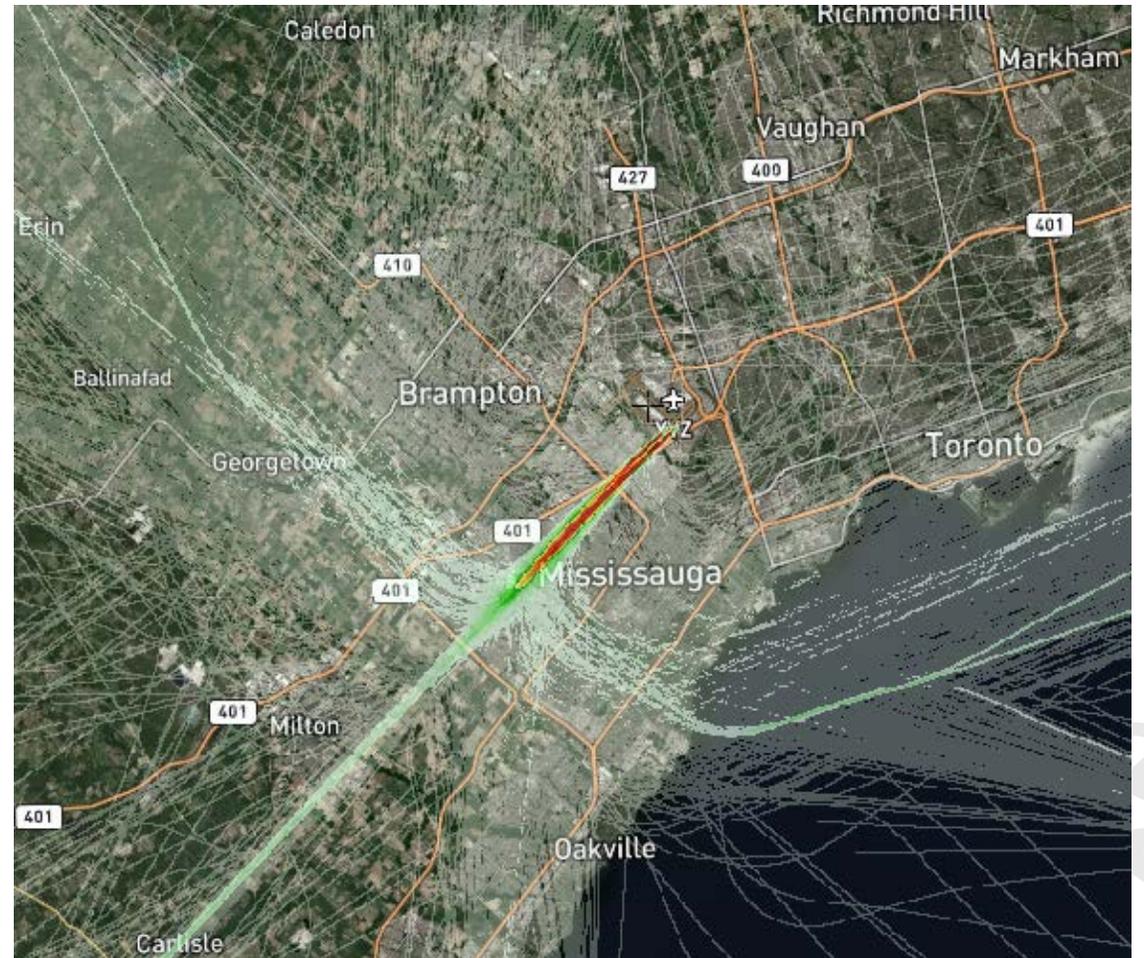
Track Density – Runways 24L/R

Q3 2020



Ops: 2,300

Q3 2021



Ops: 1,794

Complaints At-a-Glance

Q3 2019

34,296 complaints
from **566** individuals
281 complaints per 1000
movements
4.6 individuals per 1000
movements

Q3 2020

4,788 complaints
from **152** individuals
160 complaints per 1000
movements
5 individuals per 1000 movements

Q3 2021

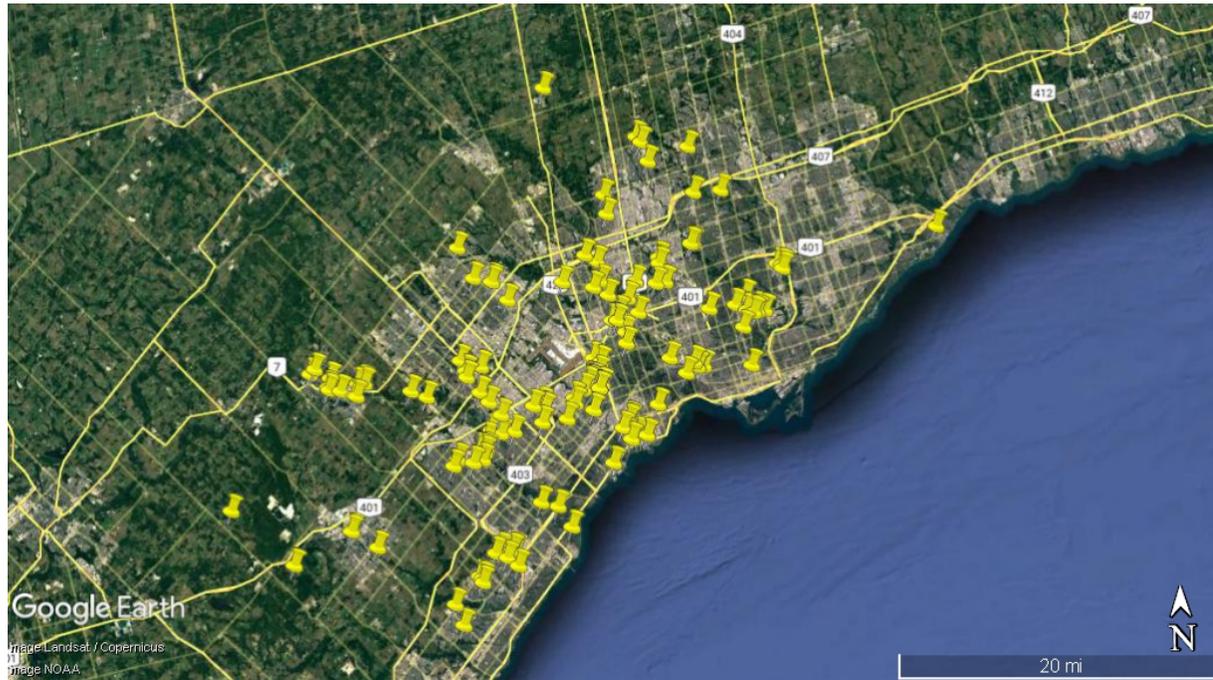
27,292 complaints
from **571** individuals
498 complaints per 1000
movements
10 individuals per 1000
movements

The increase in complaints - Q3 2020 vs Q3 2021 reflects increasing traffic levels and construction related impacts:

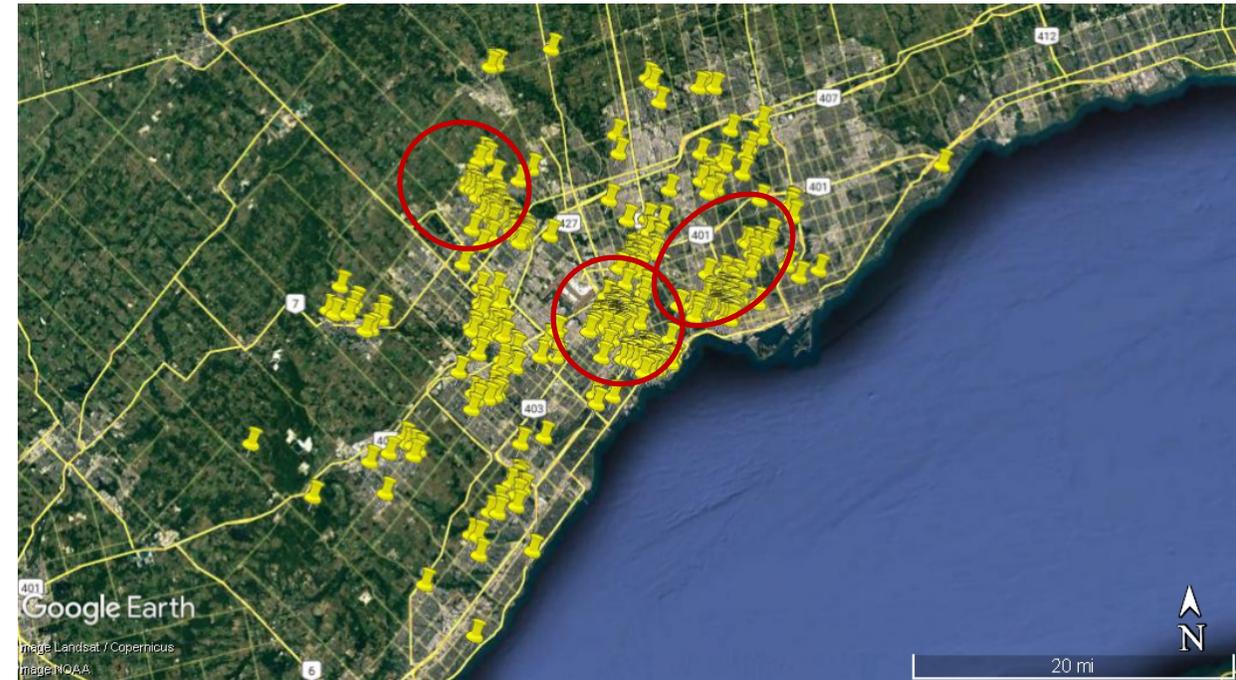
- Complaints and individuals submitting complaints are up significantly over Q3 2020, and is similar to Q3 2019
- North/South operations caused by airfield construction in late summer/early Fall 2021 prompted a rise in complaints
- The increase in complaints is more pronounced than the increase in individuals for this period in 2020 and 2019. This difference could be due to a small number of individuals submitting many complaints

Complaint Distribution

Q3 2020: 4,788 complaints from 152 individuals



Q3 2021: 27,292 complaints from 571 individuals



More residents submitting complaints. Most evident in areas to the north and south of the airport and the east. This is likely related to the airfield construction program, the use of the north/south runways, departures off Runway 06R, and return of traffic leading to increased use of the downwind

Member Raised Updates

Item Raised

Inquiry about use of non-Preferential Runway, 24R for arrivals during the Preferential Runway Hours

- Use of the south downwind to land on 24R during preferential hours. Flights from western Canada used the south approach when the north approach was open and available to land on 24R.

Response

- The wind dictated runway for westerly winds is Runway 23. If this runway is not available, the alternate wind dictated runway is Runway 24R.

Use of southern downwind when arriving on 24L/24R:

- Pilots and controllers use prescribed procedures (STARs - Standard Terminal Arrival Routes) in order to guide the aircraft from the Terminal Area entry point to the assigned runway in a repeatable, predictable and safe manner.
- The STAR procedure includes the downwind to be used based on the specific entry point and assigned runway combination
- For example:
 - flights from the West to 24L/24R use the S downwind
 - flights from the West to 23 use the N downwind
 - flights from the North to 23/24L/24R use the N downwind
 - flights from the South to 23/24L/24R use the S downwind

Item Raised	Response
<p>Member requested data related to the Quieter Fleet Incentive Program</p> <ul style="list-style-type: none"> • DC10 and MD11 operations for the nighttime for 2019, 2020, 2021: • Total complaints in restricted hours, compared to complaints against DC10/MD11 Operations for 2019, 2020, 2021 • Noise Level Comparison arrival noise levels in a NMT in residential area 	<ul style="list-style-type: none"> • Data provided to member and included with October Neighbourhood Table monthly update for all members.
<ul style="list-style-type: none"> • Member commented about concentrated flight paths over the Don Mills area and inquired about what is being done to address impacts in this area. • Requirement for consultation when changing flight paths 	<ul style="list-style-type: none"> • Document prepared previously on operations affecting Don Mills and noise management measures benefitting the area • Benefits of RNP-AR for residents affected by south downwind • Link to Airspace Change Communications and Consultation protocol - followed for the Six Ideas and now for proposed RNP-AR procedures

NAV CANADA Update



December 2021

NAV CANADA UPDATE

Serving a world in motion
navcanada.ca



OVERVIEW



Currently focused on public consultation



Majority of briefings to elected officials are complete



Collecting feedback through online survey form



Consultation concludes December 17



Industry Noise Management Board Updates

WHY IS THIS CHANGE BEING INITIATED?

- › The industry is committed to continuous improvement and working toward minimizing and mitigating environmental impacts – noise and emissions – where possible.
- › The pandemic had a devastating impact on the entire travel and tourism ecosystem, directly impacting the millions of people who rely on the aviation sector for safe travel, tourism, trade, and employment.
- › The aviation sector's successful recovery depends on continuing to find innovative ways to operate in an efficient and environmentally sustainable way, and support a competitive sector with affordable air travel.
- › These procedures support environmental sustainability efforts by significantly reducing greenhouse gas emissions and delivering noise mitigation to many communities, while reducing flight times and improving operations to meet future demand for air travel

WHAT IT MEANS FOR COMMUNITIES

RNP AR supports environmental sustainability efforts by delivering noise mitigation to many communities and reducing greenhouse gas emissions.

- › Delivers noise benefits when compared to an existing approach procedure
 - Up to 142,000 fewer residents will be overflowed at noise levels above 60 dB(A)
- › Allows more efficient manoeuvring of aircraft over certain areas
 - RNP AR on the northern runway (05/23) has a beneficial effect on the south runways
 - This allows them to stay higher and quieter resulting in an additional 46,000 fewer residents overflowed at noise levels above 60 dB(A)
- › Prevents release of 178,000,000 kg (178,000 Tons) of CO₂ over 10 years
 - That's about the same as removing 43,475 vehicles from the road ¹

¹ This assumes the average vehicle on the road has a fuel economy of 9L/100km, drives 20,000km per year, and that every litre of gasoline burned creates about 2.34kg of CO₂.

APPROACH TO RUNWAY 05 (TODAY & FUTURE)



**RNP Approach and Historical Tracks -
Approche RNP avec des routes
historiques**

Runway 05 - Piste 05

Overview - Aperçu

Map / Carte

Region of Interest / Région d'intérêt

Runways / Pistes

RNP planned altitude above sea level ●

Altitude planifié au-dessus du niveau de la mer

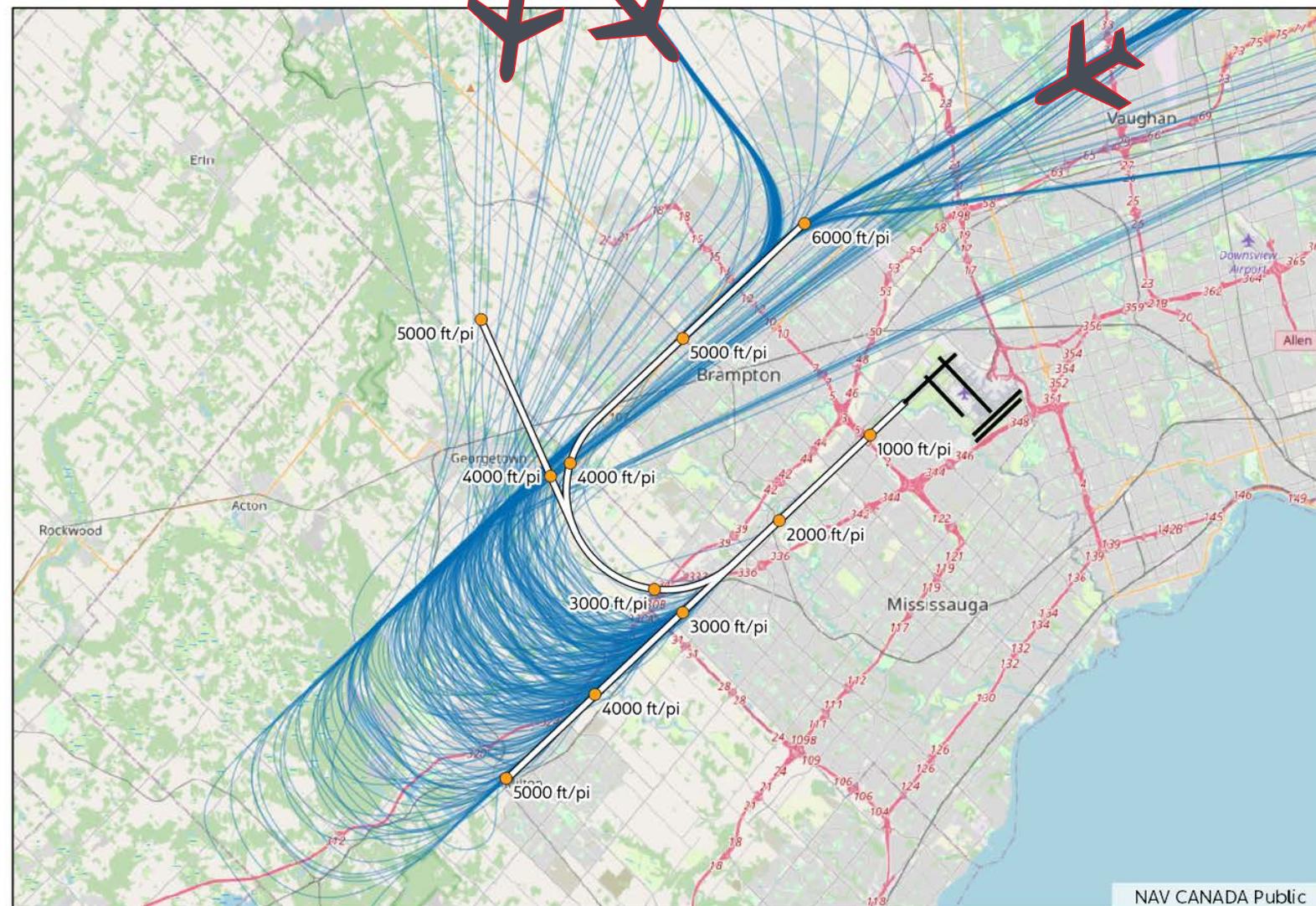
RNP Approach path centre line

Axe de la trajectoire d'approche RNP

Historical Tracks / Routes historiques —

●

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For additional information, visit
www.navcanada.ca/YZRNP
 pour information supplémentaire

Updated November 2021
 Mis à jour en novembre 2021

APPROACH TO RUNWAY 23 (TODAY & FUTURE)



**RNP Approach and Historical Tracks -
Approche RNP avec des routes
historiques**

Runway 23 - Piste 23

Overview - Aperçu

Map / Carte

Region of Interest / Région d'intérêt ▭

Runways / Pistes ▬

RNP planned altitude above sea level ●

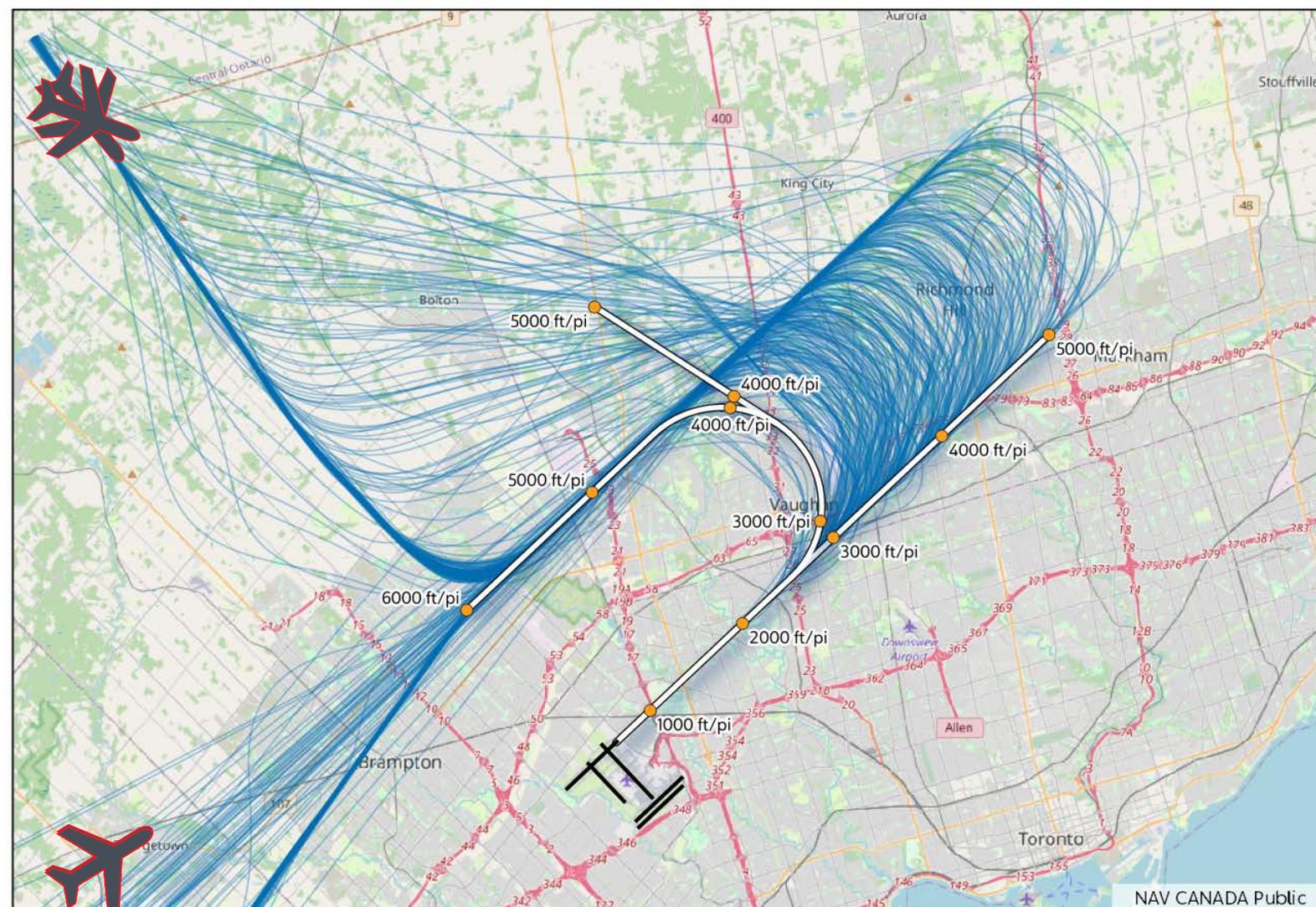
Altitude planifié au-dessus du niveau de la mer ●

RNP Approach path centre line ▬

Axe de la trajectoire d'approche RNP ▬

Historical Tracks / Routes historiques ▬

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 pour information supplémentaire

Updated November 2021
 Mis à jour en novembre 2021

CONSULTATION GOALS

- › Accurately communicate information about expected changes and benefits to communities, as per the Airspace Change Communications and Consultation Protocol.

- › Ensure that residents and businesses have the opportunity to learn about the proposed changes and provide their input.



Airspace Change
Communications and Consultation Protocol

A voluntary protocol of the aviation industry
June 2015

CONSULTATION MILESTONES



Pre-Consultation

Oct 18 – Oct 31

- › Advanced briefing to elected officials
- › Other Pre-Consultation Briefings

Official Consultation Period

Nov 1 – Dec 17

- › Eight Online Consultation Events
- › Online Information Package, including noise modeling
- › Promotion
- › Feedback Survey

Post-Consultation

Dec 18 – Jan 31

- › Consultation Report

Implementation

• Subject to consultation

Beginning Spring 2022

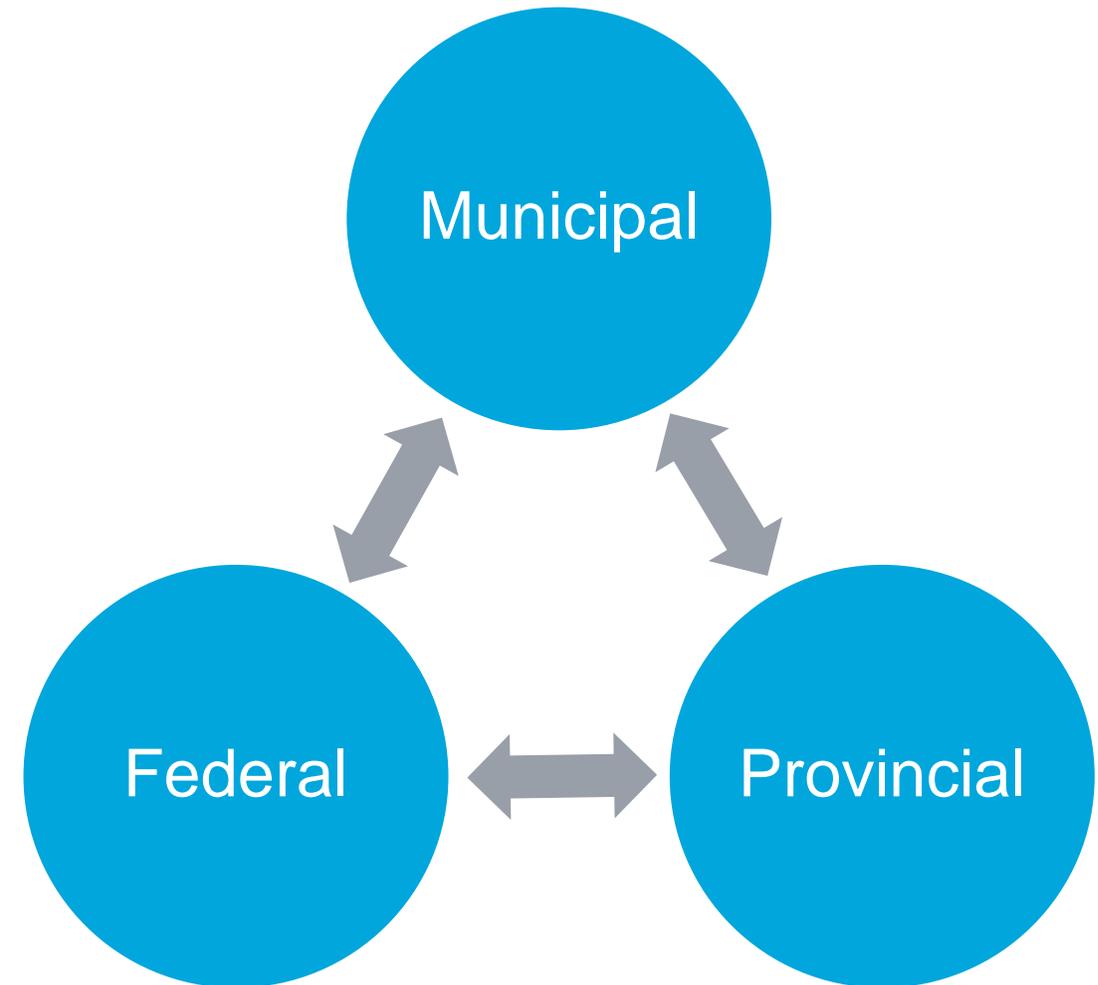
- › 180-day post-implementation Community Impact Assessment later in implementation period (fall 2022)

CONSULTATION EVENT SCHEDULE

Event	Date	Registration Link
✓ General Information Session #1	November 22, 5:00 p.m.	https://www.eventbrite.ca/e/197843072957/
✓ Community-Specific (Halton Hills)	November 23, 5:00 p.m.	https://www.eventbrite.ca/e/197886573067/
✓ Community-Specific (Brampton)	November 24, 5:00 p.m.	https://www.eventbrite.ca/e/197890123687/
✓ Community-Specific (Caledon & King)	November 25, 5:00 p.m.	https://www.eventbrite.ca/e/197891006327/
✓ Community-Specific (Vaughan)	November 29, 5:00 p.m.	https://www.eventbrite.ca/e/197894015327/
✓ Community-Specific (Oakville)	November 30, 5:00 p.m.	https://www.eventbrite.ca/e/197895519827/
Community-Specific (High Park, Parkdale, Mid-Town Toronto, Leaside, Don Mills)	December 6, 5:00 p.m.	https://www.eventbrite.ca/e/197897746487/
General Information Session #2	December 7, 5:00 p.m.	https://www.eventbrite.ca/e/197898819697/

BRIEFINGS TO ELECTED OFFICIALS

- › Reached out to over one hundred elected officials all three levels of government to raise awareness about the public consultation
- › Almost twenty briefings conducted to-date providing detailed information on the proposal as it relates to communities



ONLINE FEEDBACK SURVEY

- › Feedback received through the online survey form will be reviewed and considered as part of consultation report
- › To ensure comments are included for consideration as part of the consultation, they must be submitted via the online feedback survey



Link to online feedback survey

<https://www.research.net/r/VBRBSQ7>

2021 Q3

CONTINUOUS DESCENT OPERATIONS MONITORING

At Toronto Pearson International Airport

Serving a world in motion
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Continuous Descent Operations



ANALYSIS CONSIDERATIONS

- 
-  **What's considered a CDO operation?**
A Continuous Descent approach is achieved when the aircraft descends with no segment of level flight greater than 2.0 nautical miles.
 -  **What areas are we capturing?**
Our analysis begins at the downwind entry points defined in the RNAV arrival routes in the Canada Air Pilot (CAP) aeronautical publication and extend approximately 25 nautical miles. (Aircraft on the final approach, when they are lined up with the runway, already achieve CDO due to ILS guidance.)
 -  **Which runways are being monitored for CDO use?**
Performance was monitored on the downwind portion of final descent to the East/West runways (05/23, 06L/24R, 06R/24L) at Toronto International Airport.

RUNWAY OPERATIONS

A number of factors are considered in determining which runways will be used at a given time, including:

- meteorological conditions such as wind direction, wind speed and weather
- runway conditions and availability (e.g. construction, maintenance, snow removal)
- operational efficiency and capacity
- aircraft type
- time of day

During calm winds, any of the five runways at Toronto Pearson can be used, and so factors such as capacity needs or runway availability come into play.

As the prevailing winds in the area are from the west, the most common runway configuration at Toronto Pearson supports a westerly flow, which means arrivals from the east and departures to the west using Runways 23, 24 Left, and 24 Right.

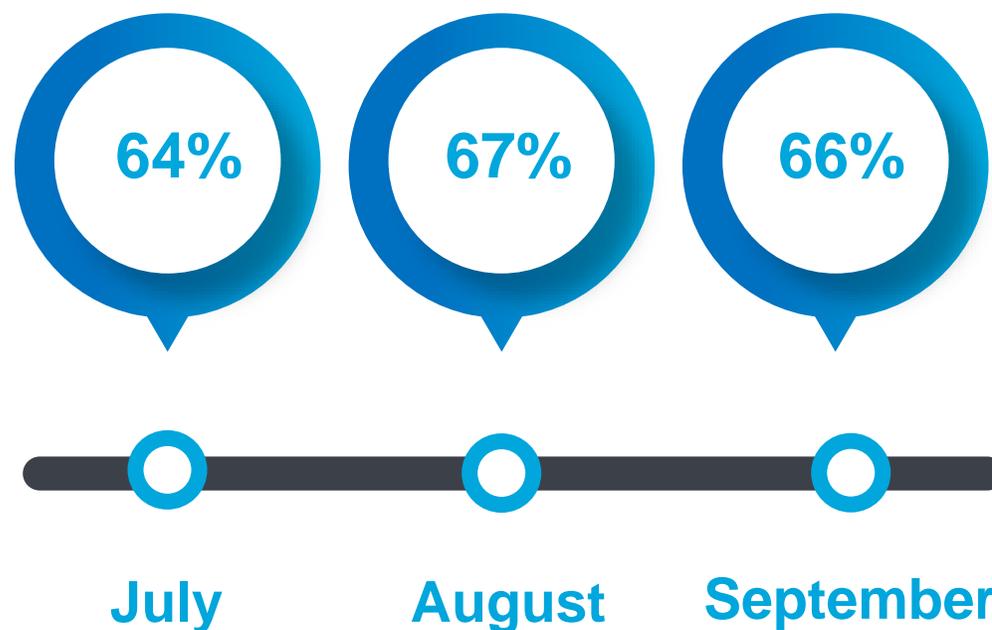
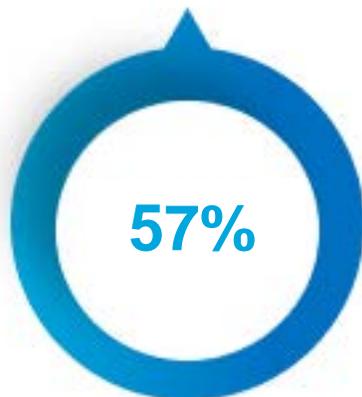
The second most common configuration supports an easterly flow, with arrivals from the west and departures to the east using Runways 05, 06 Left and 06 Right. The three east/west runways also provide the most capacity.



PERCENTAGE OF AIRCRAFT USING CDO PROCEDURES

New CDO arrival procedures for the downwind segments were implemented February 28, 2019.
Current traffic levels and seasonality may influence usage of CDO.

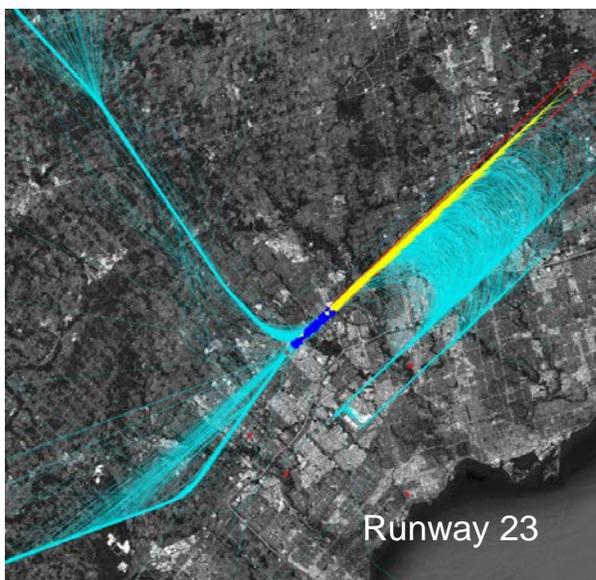
Prior to implementation
of Idea #2



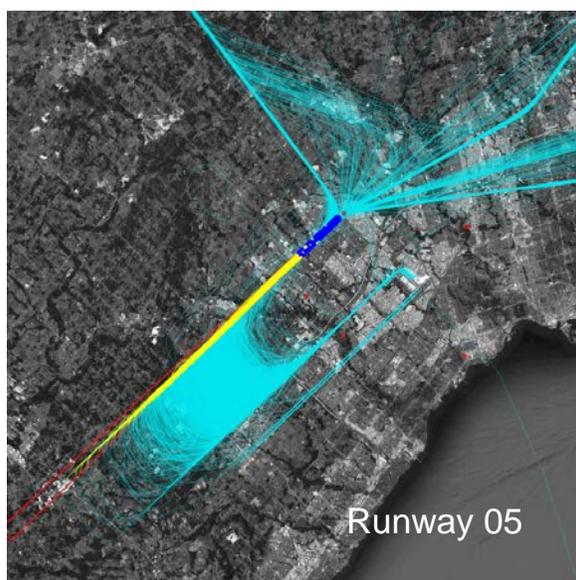
● Percentage of aircraft using CDO procedures **post-implementation**

CONTINUOUS DESCENT MONITORING

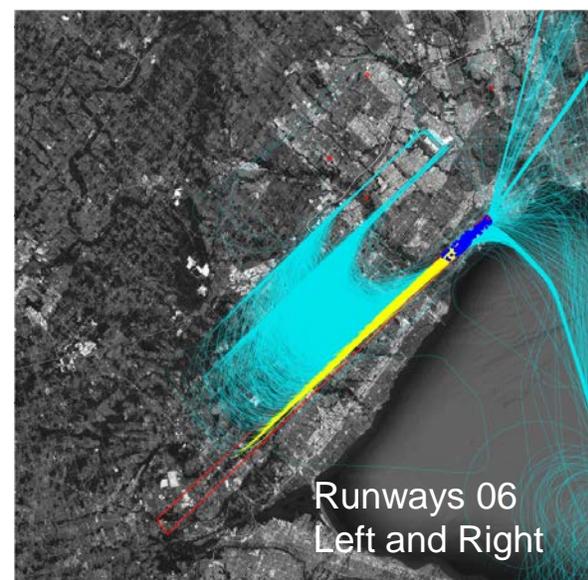
Downwind flight profile



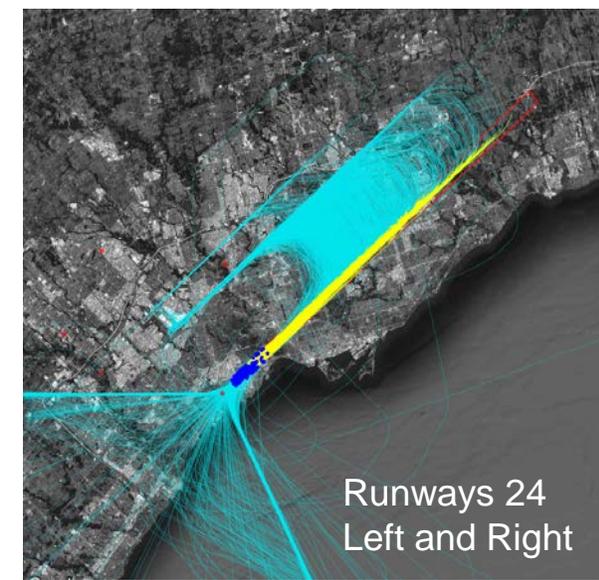
CDO usage on this downwind for July averaged 70%; for August averaged 72% and for September averaged 69%.



CDO usage on this downwind for July averaged 70%; for August averaged 70% and for September averaged 68%.



CDO usage on this downwind for July averaged 62%; for August averaged 66% and for September averaged 70%.



CDO usage on this downwind for July averaged 54%; for August averaged 61% and for September averaged 62%.

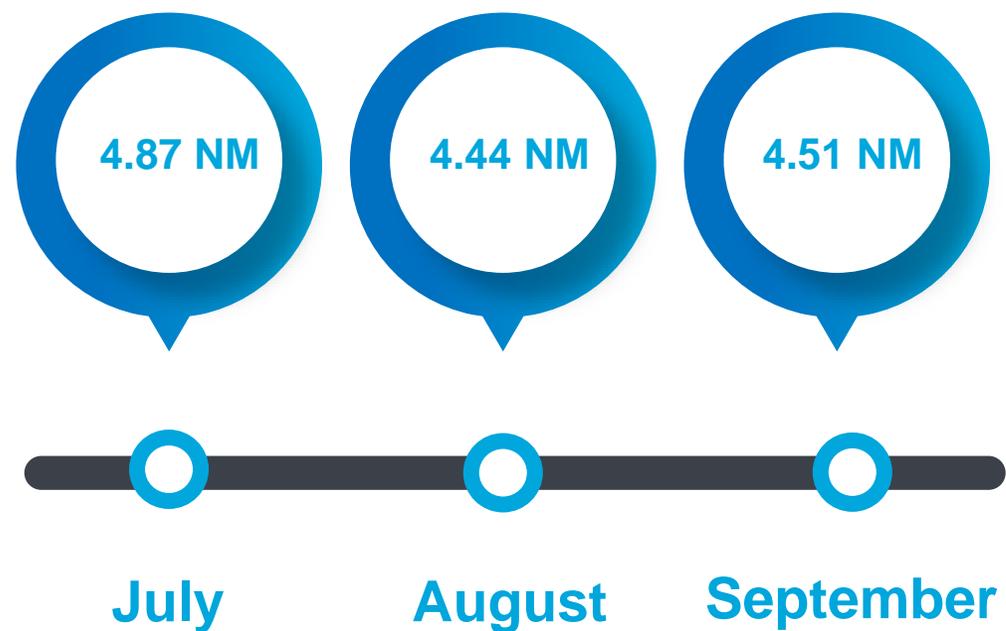
Flights highlighted in light blue represent data over a month long period in 2019.

Aircraft not employing the downwind have been filtered out for the purpose of this analysis.

-  Radar Tracks
-  Downwind Capture Area
-  Capture Area Radar Tracks
-  Capture Area Entry Points

AVERAGE LEVEL SEGMENT DISTANCE*

*For aircraft not achieving CDO



● Average level segment distance **post-implementation**

NAV CANADA



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INDUSTRY NOISE MANAGEMENT BOARD

- › INMB meeting held on Monday, October 25
- › Meeting highlights include:
 - Discussion on improving use and adoption of continuous descent operations both from air traffic control and airline operations standpoint
 - Updated the board on upcoming Toronto RNP public consultations
 - Briefing from GTAA on submissions received through the Community Proposal Review Process
 - › Submission was reviewed by the board who agreed the idea shows merit and potential for noise mitigation. It will therefore be incorporated into the INMB's workplan for further study.

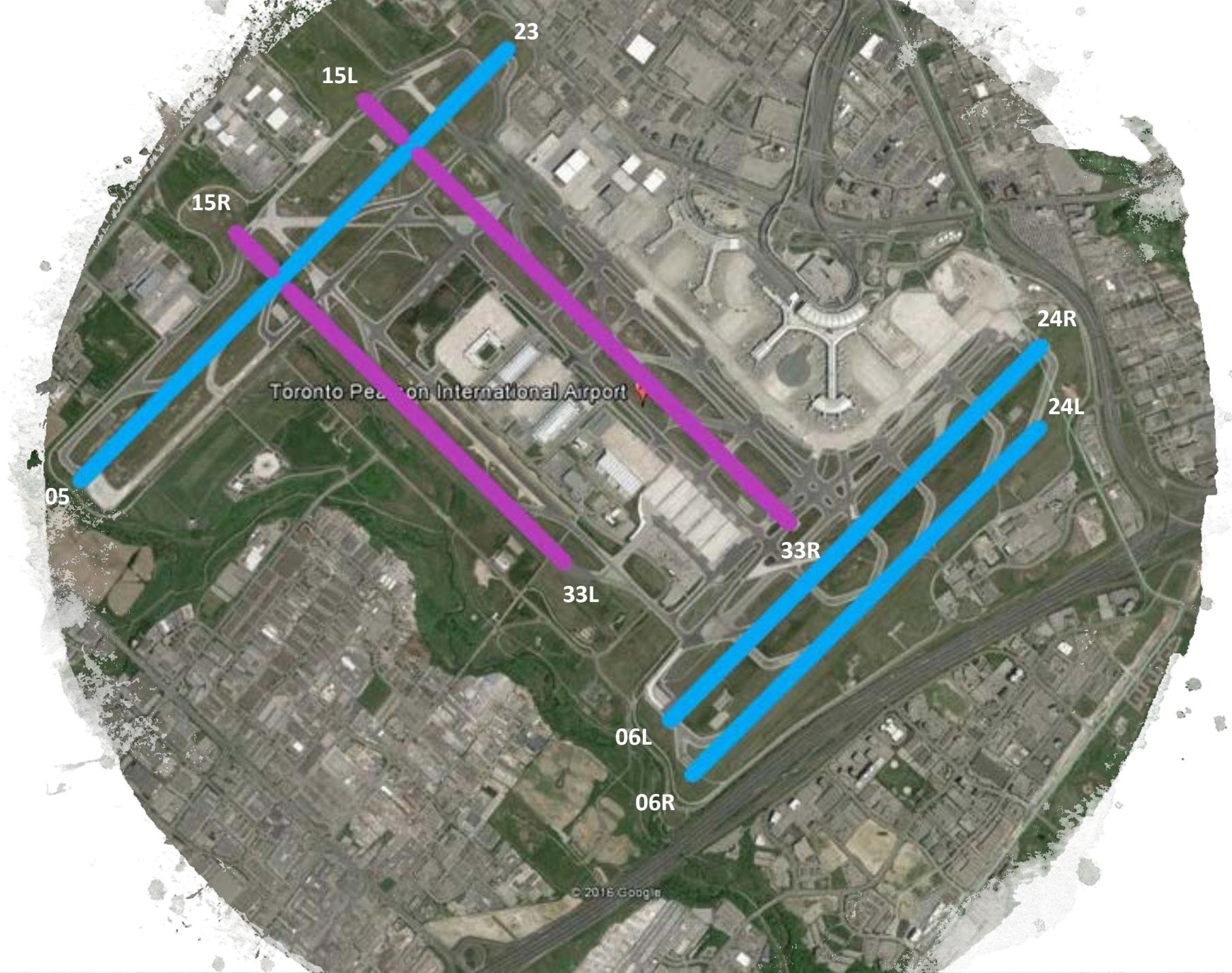
THANK YOU



GTAA Noise Management Program Updates

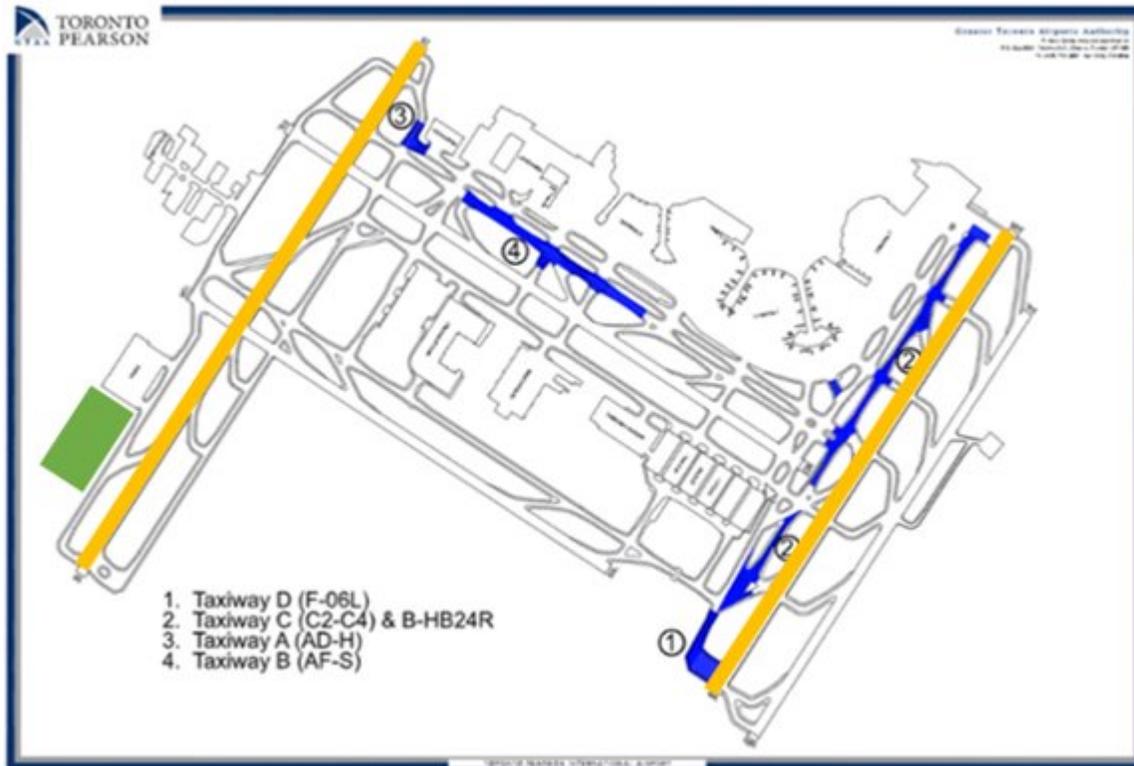
Airside Maintenance Updates





East-West
North-South

2021 Airside Maintenance Work



1. Work on the airfield:

- Threshold work on Runway 05/23
 - Phase 1 completed in October 2021
 - Phase 2 scheduled for early 2022
- Closure of Runway 06L/24R
 - Completed in October 2021

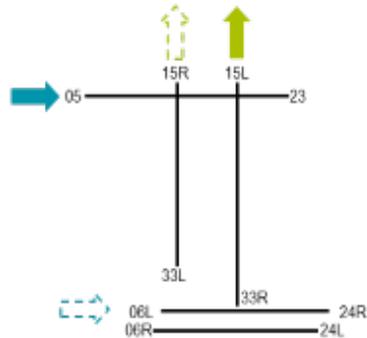
2. Bombardier constructing a new facility:

- Work continues affecting availability of Runway 05/23 at night
- December 2021 to March 2022

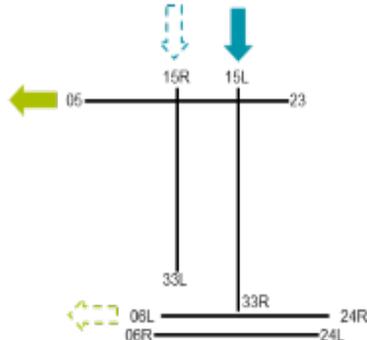
Nighttime Impact

Maintenance Preferential runways 06L/24R may be used during preferential hours (12:00am – 6:30am)

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

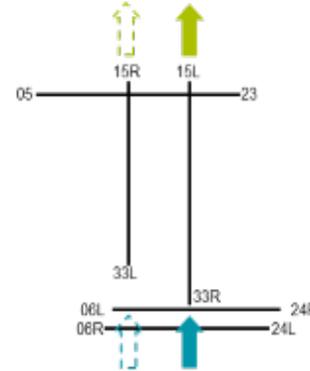


2nd Choice - Whenever crosswind, tailwinds & winds-aloft allow



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.

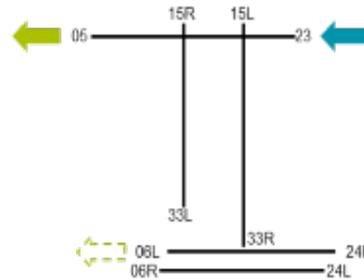
Operation for northerly wind



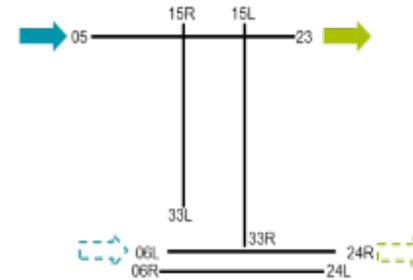
Operation for southerly wind



Operation for westerly wind



Operation for easterly wind



Key:

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

2022 Airside Maintenance Project

Reconstruction of Runway 06L/24R

Condition of Runway 06L/24R

- Despite regular maintenance on runways, surfaces eventually degrade due to wear, weather (freezing and thawing) and time.
- Runway 06L/24R is approximately sixty years old. Its surface has degraded to the stage that it requires a full reconstruction to enable continued safe operations.
- This reconstruction is slated for 2022, significant community impacts expected.

Next Steps

- Details such as duration and timelines will be confirmed once contract is awarded in early 2022
- Communications will begin in Q1 2022 including briefings on the work, timelines and community impacts



Night Flights



Night Flight Restriction Program

Night flights operate between 12:30 am and 6:30 am (Restricted Hours)

Night Flight Restriction Program

- Night Flight budget was established by Transport Canada in 1997
- Limits the number of night flights that operate annually; only Canadian airport with a budget, or cap
- Budget year runs from November 1 – October 31;
- 80% is scheduled flights, 20% is day-of extensions (eg. delays, Medevac)

Formula: Night Flight Budget

- Previous year's budget (aircraft movements) + % passenger growth
- As of 2013, also eligible for three 10% "bump ups" in years when the previous year's budget reached 95%
 - Have not yet activated a 10% bump up
- Budget growth is not capped/limited - can grow in perpetuity
- Budget does not increase in years when there has been no passenger growth.
- Starts to grow again only after the Passenger traffic level surpasses the levels from the year before the decrease (i.e. surpass 2019 PAX levels in this case)

2021/2021 Night Flights

- Due to the impacts of COVID-19, night flight traffic was lower this past budget year than it was when the night flight budget was established in 1997 (~9,600)

Budget Year	Budget	Actual	% of Budget
2018/2019	20,433	16,532	81%
2019/2020	20,889	10,023	48%
2020/2021	20,889	6,403	30.7%

- Based on the current system, the night flight budget remains at its current level until there is passenger growth beyond 2019 levels.
- Traffic is now increasing as travel restrictions are lifted. As a result, there will likely be more night flights in the 2021/2022 budget year than there were in the past two budget years.

Noise Management Action Plan



Preferential Runway System Trial: What Next?

Where we were in April

- One year Trial in its 14th month
- *Extensive travel restrictions were in place* – non-essential travel was restricted
- Traffic Levels – 7,250 movements in April
- Adherence – 98.8%
- Traffic levels are not expected to return to 2019 levels for years

Where we are in November

- One year Trial in its 21st month
- *Travel restrictions reduced*– in Canada and elsewhere
- Traffic Levels – 23,060 movements in November
- Adherence – 89.4% for November
- Traffic levels are not expected to return to 2019 levels for years

Discussion:

- Is it time to conclude the Trial given our current circumstances – travel restrictions reduced, traffic levels higher, adherence levels remain high (borders open/restrictions removed/timeframe)?
- Usage reports can be found under Nighttime Preferential Runway Usage reports [here](#)

NT Check-in and Feedback

- We are now in the 3rd year of the Noise Management Forums
- Over this time, we have had changes in attendance, meeting format and communications
- The check-ins were an opportunity to have a conversation about what is and isn't working and how to improve engagement.
- We met with 11 members in May and June to discuss what members thought what is and isn't working
- Captured some common themes and recommendations to improve the Neighbourhood Table

Neighbourhood Table Check In: Feedback

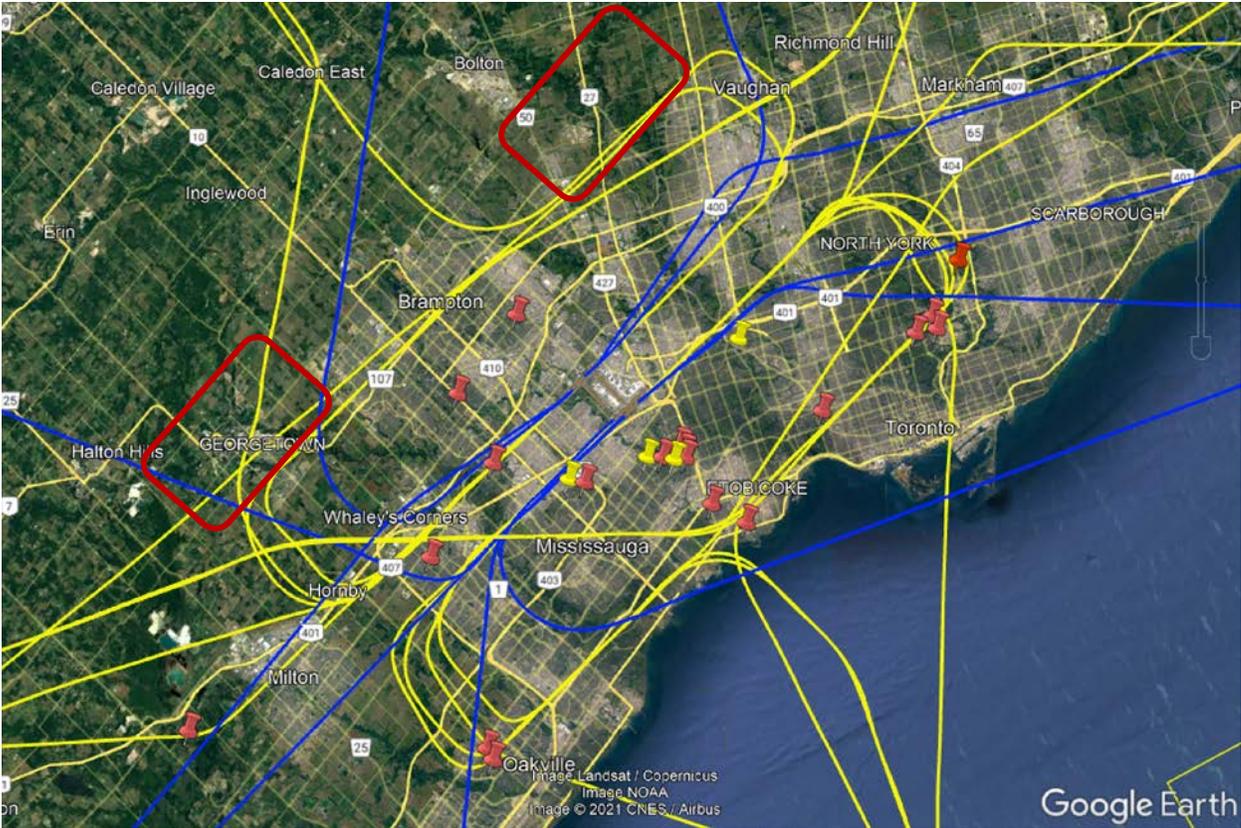
Item	Feedback	Recommended Actions
<p>Meetings: Format Frequency Content</p>	<p>Format</p> <ul style="list-style-type: none"> Virtual meetings convenient, no need to travel. Miss some of the advantages of in person meetings ie face time, easier to determine opportunity to speak, cookies. <p>Frequency</p> <ul style="list-style-type: none"> Some felt that there should be more meetings and/or more evenly spaced across the year; others felt that 3x per year is adequate Ad hoc, working group, education sessions appreciated by those that attended. <p>Content</p> <ul style="list-style-type: none"> Can be too much content. Some content too resident specific - need to balance time spent on one person or issue Request for previous meeting recap, earlier Agenda <p>Topics of interest</p> <ul style="list-style-type: none"> fleet, more operational information ie procedures, greater analysis of complaints, more detail from NAV CANADA, how the GTAA works with other associations like Airports Council International, best practices 	<p>Format</p> <ul style="list-style-type: none"> Virtual meetings will continue <p>Frequency</p> <ul style="list-style-type: none"> Continue with existing schedule – and schedule ad hoc as required. <p>Content</p> <ul style="list-style-type: none"> Content challenge can be addressed in part by providing more information using the monthly updates or emails Provide stats in advance of meeting for review Monthly updates include meeting recaps and agenda <p>Topics of Interest</p> <ul style="list-style-type: none"> Will incorporate topics of interest put forward into future meeting materials and/or monthly updates

Neighbourhood Table Check In: Feedback

Item	Feedback	Recommended Actions
Monthly Updates	<ul style="list-style-type: none"> Appreciation for the monthly updates, particularly the news items 	<ul style="list-style-type: none"> Continue to expand content of monthly updates.
Knowledge Level	<ul style="list-style-type: none"> Most members commented on the varying levels of airport/operational knowledge within the group 	<ul style="list-style-type: none"> Some understanding necessary –how runways are used, GTA flightpaths, Noise Management Program, Action Plan, noise studies, familiarity with online materials such as InsightFull and Noise Management webpages. <p>Discussion</p> <ul style="list-style-type: none"> How we can we help reduce the gap?
Membership Composition	<ul style="list-style-type: none"> Concern that the membership could become too large if more people are added but recognize that geographical representation is important. See maps for membership distribution versus operations. 	<p>Discussion</p> <ul style="list-style-type: none"> Recruitment for underrepresented areas without current representation. Potential new members will be subject to the Terms of Reference Gaps in areas of Halton Hills and Vaughan Possible criteria for new members ie support of their elected officials and/or community, will liaise between the community and NT
Noise Management committees	<ul style="list-style-type: none"> Members would like more information on other noise forum committees and the INMB 	<ul style="list-style-type: none"> Continue to provide updates from the INMB and add updates on the NAB
Other	<ul style="list-style-type: none"> Communication with Members - Members want to be kept in loop on Noise forum related communication 	<ul style="list-style-type: none"> Continue to provide items raised by members in Member Raised Updates

Representation vs Operations

East and West Flows



North and South Flows



CPRP Process & Criteria



Phase 1: Resident

- Residents submitting ideas are responsible to complete the application questions
- Residents may be required to present on, or answer questions related to idea
- Must be a new concept and meet guidelines set by the Resident Reference Panel for noise mitigation



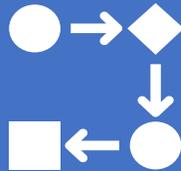
Phase 2: GTAA and NAV CANADA

- GTAA is responsible to administer the process and communicate with residents
- GTAA conducts first review of submissions and reviews those that pass with NAV CANADA
- NAV CANADA conducts second review. If in agreement, submission goes forward to phase 3



Phase 3: Noise Accountability Board & Neighbourhood Table

- The GTAA will advise NAB and NT of submissions proceeding to phase 4
- Members may request additional information



Phase 4: INMB Assessment

- INMB has technical expertise to assess procedural or other technical ideas
- High level feasibility assessment - operational, safety, financial, potential effectiveness
- Incorporation into workplan of ideas passing the assessment above for further consideration
- NOTE – a pass in this phase does not necessarily mean implementation



Phase 5: Report Back

- The GTAA will report back to the proponent with the decision and details
- Included in INMB update at NAB & Neighbourhood Table meetings

CPRP Submission

Since the launch of the CPRP process, two community members have submitted proposals.

- One of the submissions proceeded to Phases 3 and 4.
- The other submissions did not meet the criteria as the ideas had either already been studied and/or responded to in previous communications and are not feasible..

Summary of Proposal	Criteria*	Status
<ul style="list-style-type: none"> • “Departing flights during the restricted hours should follow the routings as shown in Idea 2 until they are above 10,000 ft.” • “It is proposed that for nighttime departures, North-and West-bound departures off 23/24 be routed west of Georgetown. Departures travelling South and East should not be turned off the initial heading until west of the 403.” 	<ul style="list-style-type: none"> ✓ Noise management materials and previous studies reviewed ✓ New idea – has not already been considered (builds on existing procedure) ✓ Potential to reduce noise at or below 7000’ ✓ Goal is not to move noise from one community to another 	<ul style="list-style-type: none"> ✓ GTAA and NAV CANADA forward submission to Industry Noise Management Board (INMB) for further assessment (Phase 4). ✓ INMB has accepted the submission into its workplan for study

Quieter Fleet Incentive Program

- The GTAA committed to the implementation of a new Quieter Fleet Incentive Program

Phase 1 – A320 series retrofit program

Phase 2 – Explore further options for the Quieter Fleet Incentive Program

- Phase 2 expands to other aircraft types starting with an understanding of Toronto Pearson's fleet and associated noise implications
- At last meeting slides were presented comparing fleet composition for 2016-2021 YTD shown by operating hours and types of operation.

Key findings:

- ✓ Airline trends year-over-year have been toward retirement of older aircraft in the fleet and replacing them with newer, quieter, greener more technologically advanced aircraft
- ✓ Business Aviation fleet composition generally consistent

Underway:

- Undertaking further analysis of Toronto Pearson fleet by Noise Chapter certification

Noise Certification Database

- ✓ GTAA working directly with the airlines to gather Noise Certificate data
- ✓ At present have Noise Chapter coverage for over 70% of operations 2019-2021 YTD
- ✓ Continuing the efforts to make the database as robust as possible so that we can present rolling statistics with a high degree of accuracy
- ✓ In a good position to be able to start reporting on Noise Chapter early 2022
- ✓ Able to show the Noise Chapter distribution for operations from 2019 -2021 looking at yearly variations and slicing the data by operating hours, type and bound

2021 Noise Management Action Plan Workplan

2021 NMAP mid-year update available under Action Plan updates on the [NMAP webpage](#)

- Six Ideas - Trial extension continues for Idea 6: Review of the Preferential Runway System with quarterly reports. *Propose that process for concluding the Trial begins given the easing of travel restrictions.*
- School HVAC Pilot Program – *project complete Fall 2021, HVAC installed and functioning at Marvin Heights Public school in Malton.*
- Launch Community-Proposal Review Process – *launched, received first submissions, one accepted for further study by Industry Noise Management Board*
- Quieter Fleet Incentive Program
 - Phase 1 A320 series retrofit program. *Reports now indicate that 94% of A320 series aircraft are performed by retrofitted aircraft.* Reports available under [A320 Retrofit program usage reports](#).
 - Phase 2 –Explore further options for program. Identify aircraft operating at Toronto Pearson by Noise certification 'chapter' to inform Phase 2. - *By fleet type complete, by chapter underway*
- Develop metrics and engage with industry and community stakeholders for the Fly Quieter and Greener Reporting Program. - *underway*
- Continue to publish noise data and enhance content on InsightFull. [InsightFull reporting and enhancements continue.](#)

Discussion + Roundtable

Thank You

Next Meeting: to be determined

Member Raised Item

Response

1. Summary from email regarding night flights Night Flight Restriction Program and Quieter Fleet Incentive program.

- Request to proceed with review of Night Flight Restriction Program. COVID was given as the excuse not to proceed, but this is an ideal time to conduct the review
- Agreements between GTAA and FedEx are delaying this review until FedEx (the only operator of these marginally Chapter 3 aircraft) are retired from the Fedex fleet worldwide.
- Current night restrictions have not changed in over 20 years while many other US and European airports have more restricted night flights.
- Request a public commitment to freeze the night flight budget at its this year level until you have completed the review, public consultation and put new restrictions in place.

- Difficult to introduce new or enhanced restrictions in this climate of uncertainty around recovery but will pick up the review again in 2022 and the Neighbourhood Table members will be part of the process.
- No agreement between the GTAA and FedEx with regards to delaying this review. FedEx plans to retire the MD11 by no later than 2023.
- Will confirm plans as part of our Quieter Fleet Incentive Program (QFIP) outreach and request phase out in the nighttime hours sooner than 2023.
- QFIP will follow same process as with the A320 series retrofit program - start with assessment of the fleet and outreach to the operators of older/noisier aircraft outlining expectations
- Any successful program needs to be informed by data, research and consultation, so we thank you for your suggested data reports as they will provide valuable context in relation to other analyses on the Toronto Pearson fleet.

Item Raised

- Don Mills now lies under 4 concentrated arrival paths
- what is the GTAA and NAV Canada doing about excessive noise over Don Mills?
- New flight paths benefit those neighbourhoods south of Bloor Street and west of Bayview Avenue at the expense of Don Mills. The new concentrated flight paths over the airport and off the lake clearly miss these neighbourhoods where planes could be flying and turning back to Pearson earlier, but instead they fly over Don Mills before turning back to Pearson.
- No new concentrated flight paths are to be implemented without thorough consultation with neighbourhoods adversely affected. However, I have numerous examples of new concentrated flight paths over Don Mills which did not exist before. (sample flight tracks were provided)
- Told previously that concentrated flight paths had to be parallel to the runways, which this new concentrated flight path over the airport is not. If new concentrated flight paths do not have to be parallel to the runways, then why can't they travel over less populated areas rather than Don Mills.

Response

- Copy of document previously provided addressing similar questions included with response
- Sample provided is an example of a flight directed to the base turn as downwind was not needed for sequencing. It is not a new flight path. Downwind is not always required when low traffic levels
- Measures included in [Noise Management program](#) and the [Noise Management Action Plan](#) benefit GTA communities including Don Mills.
- RNP-AR comes from recommendation 3A in [Independent Toronto Airspace Noise Review](#) to reduce the need to separate arriving aircraft on parallel runways using minimum 1000' altitude, so both sides can be kept at a the same, higher altitude when RNP-AR in effect
- Noise benefits for the south downwind limited in the near term, but will increase over time as the number of RNP equipped aircraft operating at Toronto Pearson increases.
- [Airspace Change Communications and Consultation protocol](#) was followed for the Six Ideas and now for proposed RNP-AR procedures

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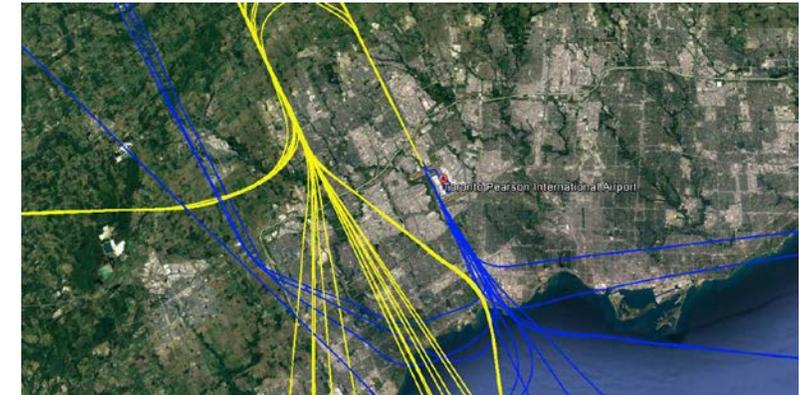
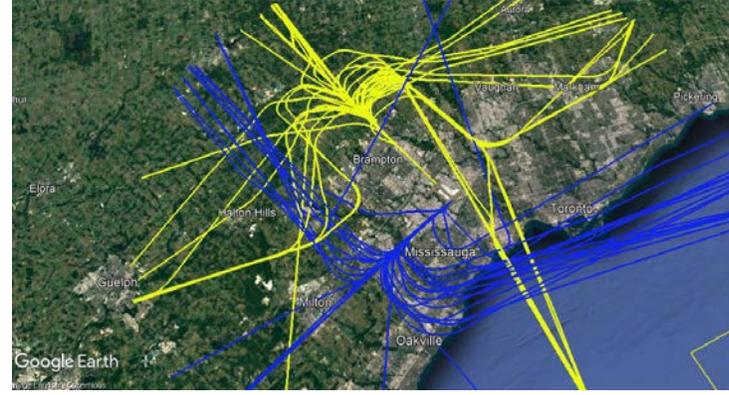
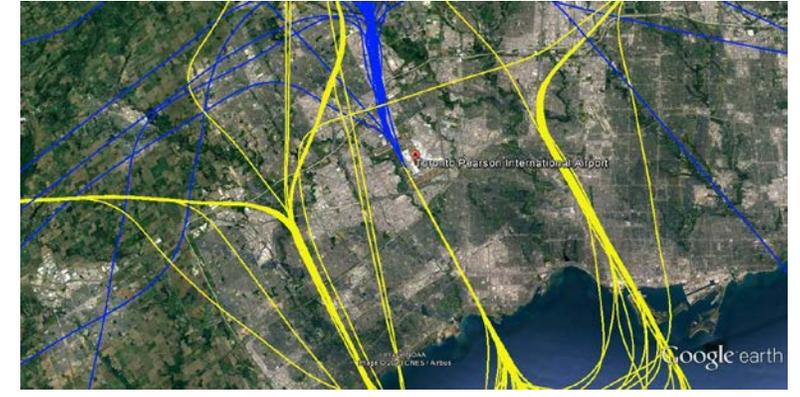
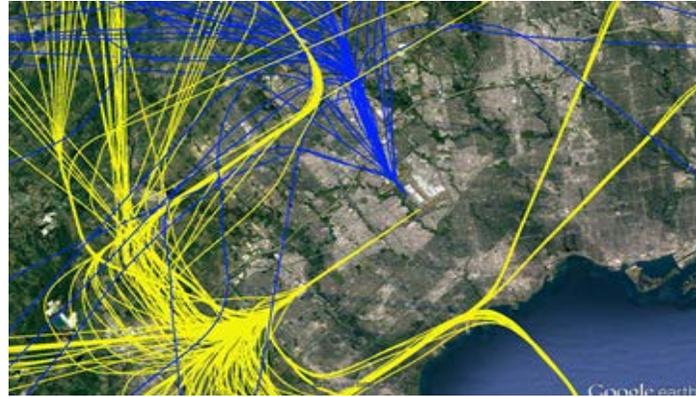
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Response

Community Impact



Runway 06L/24R or 06R/24L and in combination with arrivals on Runway 15L/R or departures on Runway 33R/L.

Some use of north/south operations - arrive Runway 33L/R and depart Runway 33R or arrive Runways 15L/R and depart Runway 15L/R to accommodate high traffic levels during the Runway 05/23 closure