

Noise Management Action Plan

2020 Year-End Update

2020 was a year of incredible change. As we reflect on this year, we want to thank our airport colleagues, community partners, and neighbours for your continued innovation and support as we adapt to the challenges of 2020.

In 2019, Toronto Pearson served more than 50 million passengers, making it Canada's busiest airport. Prior to COVID-19, it was the sixth most connected airport in the world, facilitating 50.5 million passengers and over 450,000 aircraft movements in 2019, directly employing 49,000 people and enabling \$42 billion of Ontario's GDP. In Q3 2020, operations were down 76% compared to Q3 2019 due to the continued impacts of COVID-19.

Toronto Pearson's Noise Management Program works to strike a balance in operating a growing airport and regional economic engine with the impact on surrounding communities.

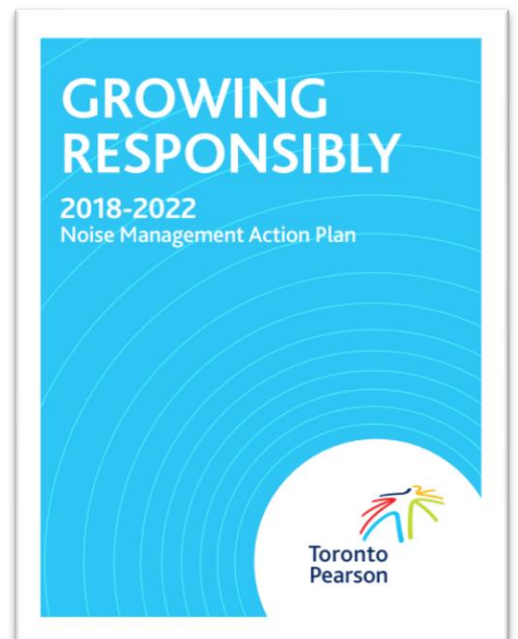
The Program is based on the International Civil Aviation Organization's (ICAO) Balanced Approach to Aircraft Noise Management, which includes four principles:

1. Reduction of noise at source
2. Land use planning and management
3. Noise abatement procedures
4. Operating restrictions

In 2018, Toronto Pearson released an ambitious five-year plan, titled, **Growing Responsibly: 2018-2022 Noise Management Action Plan**, which includes a series of programs and policies designed to enhance the airport's existing Noise Management Program.

This Noise Management Action Plan Update shares the progress on the initiatives that are currently underway.

Learn more about how the plan was created, and read the Growing Responsibly: 2018-2022 Noise Management Action Plan on our website at torontopearson.com/NMAP



Questions?

To learn more about the Noise Management Program or the Noise Management Action Plan, contact the Noise Management Office at 416-247-7682 or visit torontopearson.com/noisemanagement

Noise statistics are available on our website at torontopearson.com/noise-publications or visit our interactive noise portal [InsightFull](#), to learn more about airport operations specific to your area.

To stay up to date on upcoming meetings, events and noise initiatives, sign up for the Checking In Newsletter at torontopearson.com/checkingin

Communications, Outreach and Noise Committees

Noise Management Forums

The Commitment

A strong relationship with our surrounding community is vital to ensure that our Noise Management Program is adapting as the airport evolves. We will provide residents with new avenues to share feedback so that we can have more meaningful dialogues and resolve future challenges together.

Launched in 2019, the Noise Management Forums offer a more inclusive approach to discussions with our neighbours, stakeholders and partners. Learn more about the Noise Management Forums on our website at torontopearson.com/en/community/noise-management/noise-forums. In 2020, due to the global pandemic, we hosted the Noise Management Forums virtually while trying to provide an experience similar to the in-person meetings by providing access to virtual interactive sessions in lieu of the drop-in sessions and videos of the Public Meetings.

Update

- Held Noise Accountability Board meetings in March, June and November
- Noise Management Forums (Neighbourhood Tables, Political Briefings and Public Meetings) held in September and December
- Ad-hoc meetings with the Neighbourhood Table in March and April, to share updates on the Noise Management Action Plan, the 2020 Capital Construction and operational impacts of COVID-19
- Information sessions for the Neighbourhood Table in May and June on Airport Operations 101 and Healthy Airport Campaign/Airport Cargo
- Meeting materials or summaries are available on our website at torontopearson.com/en/community/noise-management/noise-forums/meeting-materials

Next Steps

- Launch the new Community Proposal Review Process (CPRP)
 - The process is a formalized way to have community-submitted noise management proposals reviewed by an independent panel of internationally recognized aviation experts
 - Review criteria and process with Neighbourhood Table in Q1 2021 and launch program
- Determine what External Process Audit looks like given financial constraints
 - A third-party review of Toronto Pearson's activities and progress towards the Noise Management Action Plan
 - On pause due to financial constraints
 - Consider undertaking review as part of next Best Practices study in preparation of next Noise Management Action Plan

Communications, Outreach and Noise Committees

InsightFull

The Commitment

We will launch a new noise management website so residents can better understand our operations.

In May 2019, we held a workshop with the Neighbourhood Table to gather their input on the content and structure for the InsightFull web-portal. This new interactive and self-serve noise information web portal provides residents with localized and personalized information and statistics about airport operations and impacts.

Update

- Toronto Pearson became the first airport in North America to launch InsightFull in March 2020
- Residents can access InsightFull from our website at torontopearson.com/en/community/noise-management

Next Steps

- This initiative is now complete. We will continue to gather feedback on improving the site and update the web portal on an ongoing basis to ensure the information continues to be meaningful for the community.

Noise Reporting and Metrics

Noise Reports

The Commitment

The GTAA committed to developing noise reports from our 25 Noise Monitoring Terminals that will be valuable for the community.

Update

- Worked with the Neighbourhood Table throughout 2019 to develop the reports, including a demonstration of prototypes and a workshop to gain input from the members
- Added an interactive dashboard of reports on [InsightFull](#) with aircraft, community, and ambient noise levels for community members to perform their own analysis on noise information for their neighbourhood. Reports can be viewed on the Statistics tab on [InsightFull at airportnoise.torontopearson.com](https://insightfull.airportnoise.torontopearson.com).

Next Steps

- This initiative is now complete. We will continue to update the noise reports on a quarterly basis.

Land Use Planning

Pilot: School Air Conditioning Program

The Commitment

The GTAA committed to exploring a pilot program to provide funding for HVAC systems for a school within the most noise impacted communities. Similar programs offered by leading international airports.

Update

- Based on criteria matrix, selected Marvin Heights Public School was selected, and work is currently underway
- When operational in Spring 2021, system will have an added benefit of improving the air quality at the school

Next Steps

- 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 will look like is on hold.

Quieter Fleet Incentive Program

A320 Family Retrofit Program

The Commitment

Many airports incentivize airlines to use the quietest aircraft in their fleets or expedite purchase of quieter aircraft. The GTAA will implement a new Quieter Fleet Incentive Program, starting with the A320 family retrofit program.

What is the A320 retrofit program?

The Airbus A320 family aircraft produce a high-pitch whining sound on approach caused by small vents on the aircraft's wings designed to help equalize and mitigate over-pressurization (Fuel tank Over Pressure equalization Ports – FOPP). The A320 family includes the A318, A319, A320 and A321 aircraft. Retrofit kits can be installed to eliminate the high-pitch sound and reduce noise by up to 9dB, resulting in a significant noise reduction for communities.

Update

- We are monitoring usage of the A320 family operations at Toronto Pearson against the audit conducted in 2019
- A320 Usage Reports for January to September 2020 show that:
 - 31% of A320 family aircraft operating at Pearson are retrofitted
 - 50% of A320 family movements are performed by retrofitted aircraft
 - This means that airlines are using proportionally more of their retrofitted aircraft at Pearson
 - Based on retrofit schedules provided by the airlines, we anticipate that more than 90% of A320 movements will be performed by retrofitted aircraft by the end of 2021. However, this timing could be changed due to impacts of COVID-19
- Reports on the usage are shared through the Noise Management Forums and in the Noise Management Action Plan updates on our website at torontopearson.com/nmap

Next Steps

- Continue to provide usage reports of retrofitted A320 family aircraft against the 2019 audit
- Determine timing for the next A320 family audit
- GTAA is also exploring “impact charge” for airlines that operate non-retrofitted A320 family aircraft after 2022

Quieter Fleet Incentive Program

Phase 2

The Commitment

The intent of a Quieter Fleet Incentive program is to encourage operators to use quieter aircraft. The first phase of this program was to introduce the A320 Family Retrofit Program. The GTAA is now exploring 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.

Next Steps

- Develop a database of aircraft operating at Toronto Pearson by Noise certification ‘chapter’ to have an up-to-date inventory of what is currently, and planned to, operate to identify potential opportunities for phase 2 of this program
 - The [International Civil Aviation Organization \(ICAO\) define noise standards known as Chapters](#), for aircraft manufacturers. Over the years, the standards have become increasingly more stringent.
- Prepare proposals for Phase 2 of the Quieter Fleet Incentive Program looking at a potential phase out of noisier aircraft or possible noise charges

Runway Usage

The Six Ideas – A Quieter Operations Roadmap

Background

The Six Ideas: A Quieter Operations Roadmap was a joint initiative between the GTAA and NAV CANADA to explore noise mitigation ideas that would reduce noise impacts for the surrounding communities. Ideas 1 to 4 focused on how aircraft approach and depart Toronto Pearson and were led by NAV CANADA. Idea 5 and 6, which are being led by the GTAA, explore the way the runways are used by aircraft arriving to and departing from Toronto Pearson.

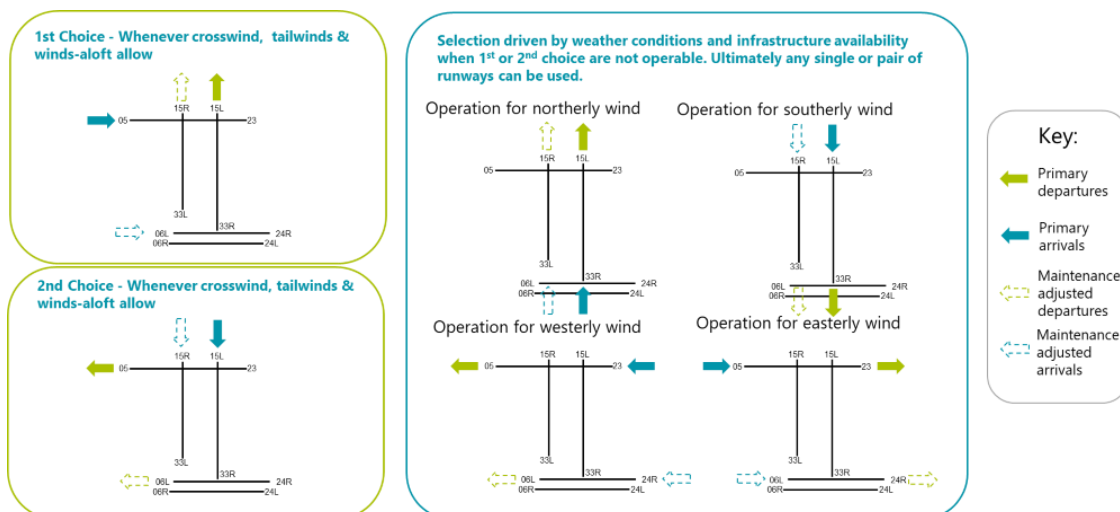
Idea	Status
Idea 1: New Nighttime Approaches (12:30 – 6:30 am)	Implemented November 8, 2018
Idea 2: New Nighttime Departures (12:30 – 6:30 am)	Implemented November 8, 2018
Idea 3: Increase Downwind Speed	Implemented April 27, 2017
Idea 4: Increased use of Continuous Descent	Implemented February 28, 2019
Idea 5: Summer Weekend Runway Alternation Program	Tested Summer 2018 Tried Summer 2019 <i>Initiative unsuccessful based on trial results & community feedback</i>
Idea 6: Review of the Preferential Runway System	Trial Underway February 27, 2020 to February 26, 2021

Idea 6 – Nighttime Preferential Runway System Review

Toronto Pearson operates 24 hours a day, seven days a week. We know that nighttime noise can be particularly bothersome for some. Between midnight and 6:30 a.m. each night, the airport prioritizes the use of runways so that planes fly over the fewest people. This is called the Nighttime Preferential Runway System. A review of Toronto Pearson’s Preferential Runway system was included as part of the Six Ideas for noise mitigation.

Amended Preferential Runway System Trial

The GTAA began a one-year trial of an updated system on February 27, 2020 to assess its effectiveness in multiple conditions - weather, runway construction and winter operations.



Update

- [Reports](#) on the usage of the updated Nighttime Preferential Runway System during the trial are published on our website every three months
- Overall, from the beginning of the trial on February 27, 2020 to November 30, 2020 the preferential runway system adherence is 94.1%, compared to 58.5% under the old system for the same period in 2019.
- To submit feedback or view the reports, visit torontopearson.com/preferentialrunways

Next Steps

- Gathering feedback through our survey and report on trial usage for December 2020-February 2021
- Report back to community and industry stakeholders with full trial results in Q1 2020
- Request permission from Transport Canada in Q1 2020 to make amended Preferential Runway System permanent through their 11-step process (Advisory Circular 302-002). Working to extend trial until such time as Transport Canada provides their decision on this application
- Once finalized, publish the amended Preferential Runway System

Night Flight Restriction Program

The Commitment

The GTAA committed to exploring changes to the Night Flight Restriction Program uses a budget to limit the number of operations permitted between 12:30 a.m. and 6:29 a.m. The budget year runs from November 1 to October 31.

Update

- The night flight budget for 2019/2020 was 20,889 operations, however only 10,023 night flights operated (48% of budget). In the previous budget year (2018-2019), 81% of the budget was used with 16,532 operations and a budget of 20,433
- Based on the current system, the night flight budget remains at its current level until there is passenger growth beyond 2019 levels. Passenger traffic is not expected to exceed 2019 levels for 3 to 4 years
- Night flights for the 2020/2021 budget year are not expected to exceed 10,000 movements
- Due to the devastation the industry is experiencing, the priority is industry recovery and updates to the Night Flight Restriction Program will not be pursued at this time

Fly Quieter & Greener Program

The Commitment

The GTAA committed to developing a Fly Quieter and Greener Program that compares the performance of airlines operating at Toronto Pearson using a variety of noise and environmental related metrics.

Update

- Met with airlines and Nav Canada at the October 2020 Industry Noise Management Board meeting and discussed proposed program structure and initial set of draft metrics.
- Consultation will continue in 2021 to finalize first phase metrics and development of reporting.

Next Steps

- Continue consultation with industry and community stakeholders around this program
- Testing phase – use actual data to test the effectiveness of the selected metrics and associated weightings to develop report.
- Release first public quarterly Fly Quieter and Greener report in 2022

2021 NMAP Workplan at a Glance

- Idea 6: Review of the Preferential Runway System Trial and next steps
- Work with Neighbourhood Table on Community-Proposal Review Process criteria and launch program
- Continue to engage with stakeholders and finalize metrics for the Fly Quieter and Greener Reporting Program
- Complete database of aircraft operating at Toronto Pearson by Noise certification 'chapter' and determine Phase 2 of Quieter Fleet Incentive Program
- Continue to publish noise data and enhance content on InsightFull
- Continue to track usage of A320 family aircraft operating at Toronto Pearson

NMAP Accomplishments to Date

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

Community Engagement

Pearson Airport Explorers Club won the ACI-NA Award for the Best Educational and Outreach Program

Launched in April 2020, our Explorers Club was created to teach children in grades 3 through 8 about all things aviation and give them a behind-the-scenes look at Toronto Pearson through fun activities and virtual camps. Learn more about the camps and join the club today at airportexplorers.club.

Pearson Partners Week

During the week of November 30 to December 4, we celebrated our great partners and employees who bring the Toronto Pearson community to life. Included were a series of special virtual events with Propeller Project partners during which our employees shared their experience and knowledge with over 1,100 community participants. Learn more about the [week on our website](#) and check out the many ways our employees give back!

2021 Noise Management Forums

The dates for the 2021 Noise Management Forums are now available at [TorontoPearson.com/NMF](https://torontopearson.com/NMF). Presentations and other relevant information from all meetings can be accessed by anyone at torontopearson.com/en/community/noise-management/noise-forums/meeting-materials