

GROWING RESPONSIBLY

2018-2022

Noise Management Action Plan



Toronto
Pearson

A MESSAGE FROM THE

Greater Toronto Airports Authority

Toronto Pearson is Canada's busiest airport. In fact, its international passenger traffic ranks second in North America.

Each day, more than **120,000 passengers** travel to or through our doors. Over the past decade, Toronto Pearson has expanded its operations to serve the region's residents and businesses. In the decade to come, we will continue to grow.

Growth, however, can have an impact—especially on surrounding communities. With our new Noise Management Action Plan, the culmination of two years of extensive study and consultation, we intend to make Toronto Pearson an international leader in aviation noise management.

As an anchor institution supporting more than **300,000 jobs across Ontario**, Toronto Pearson will continue to be a leading economic champion for the region and country. But we also know we need to raise our sights and be accountable for the impact of our operations.

The result is a new set of standards and commitments designed to reduce the aviation noise currently experienced by residents. We believe this plan will help us to deliver on our vision of being the best airport in the world — starting with our neighbours.



Hillary Marshall

Vice President, Stakeholder Relations and Communications



How we manage noise

Airports are noisy. When taking off and landing, and sometimes when flying overhead, aircraft can be a nuisance. This is why, even as modern engineering continues to make aircraft quieter, all major airports run specialized noise management programs to offset and reduce the noise created by their routine operations.

At Toronto Pearson, this program is reviewed every five years, and a new Noise Management Action Plan is issued. This plan describes changes to the airport's Noise Management Program.

The Greater Toronto Airports Authority's Noise Management Program is based on the International Civil Aviation Organization's (ICAO) Balanced Approach to Aircraft Noise Management, which includes four principles: reduction of noise at source, land use planning and management, noise abatement operational procedures and operating restrictions.

The 2018-2022 Noise Management Action Plan explains how our Noise Management Program will evolve. We believe it represents a significant improvement in how we will manage the impact of our operations.

Who does what in noise management?

The success of a Noise Management Program hinges on the airport working collaboratively with all its stakeholders. At Toronto Pearson, the Greater Toronto Airports Authority (GTAA), NAV CANADA, Transport Canada and airlines all have a part to play in mitigating and managing our operational impacts.

Greater Toronto Airports Authority

The Greater Toronto Airports Authority (GTAA) is a not-for-profit private business that has managed and operated the airport since 1996. The GTAA develops and manages a Noise Management Program and explores new opportunities for noise mitigation.

NAV CANADA

NAV CANADA is the air navigation provider in Canada, responsible for safe and efficient movement of aircraft. NAV CANADA designs and publishes a network of air routes to design criteria set by Transport Canada and ICAO. NAV CANADA also assigns runways at Toronto Pearson considering winds, weather, capacity and preferential runway system.

Transport Canada

Transport Canada is the regulator for aviation in Canada. It ensures Canadian aircraft are compliant with the international noise standards through the aircraft certification process and establishes flight path design criteria and land-use guidelines based on noise exposure. Transport Canada enforces Noise Abatement Procedures and Noise Operating Restrictions. It also approves proposed changes to Noise Abatement Procedures and Noise Operating Restrictions put forward by the GTAA, as well as audits the airport's Night Flight Program.

Airlines

Airlines are responsible for conducting operations in accordance with the Transport Canada regulations and the airport's Noise Abatement Procedures and Noise Operating Restrictions.

Creating our plan

To create our plan, we asked industry experts to look at best practices in noise management at airports around the world and advise us on new and promising initiatives. We looked at the increasing demand for air travel in the region and factored that in too. We held workshops in communities surrounding the airport that attracted participants from across the Greater Toronto Area, and we convened a panel of randomly selected residents to provide guidance on the principles and policies we should incorporate in our plan. Finally, we evaluated our existing 2013-2017 Plan and noted where we could improve.

2013-2017 Noise Management Action Plan



We worked closely with our Community Environment and Noise Advisory Committee (CENAC) to deliver on initiatives from the 2013-2017 Noise Management Action Plan. This includes the Noise Management Program Best Practices Report, installation of eight new Noise Monitoring Terminals (NMTs), removal of any geographical barriers to submitting noise complaints, and a standardized enforcement auditing process so 100% of aircraft movements are monitored for potential non-compliance to our noise abatement procedures.

The 2018-2022 Noise Management Action Plan builds on these outcomes and introduces more ambitious measures to manage and mitigate the impacts of aircraft noise.

Residents' Reference Panel on Airport Growth and Noise Fairness



We assembled the Residents' Reference Panel (RRP) to provide us with community views on the next phase of our growth. The Panel was comprised of 36-residents selected randomly from across the Greater Toronto Area, including neighbourhoods impacted by airport operations. The Panel members used input from residents, information from industry experts, and their own experiences to make their recommendations. The Panel's proposed principles, values and recommendations are a foundational piece of the 2018-2022 Noise Management Action Plan.

Noise Management Program Best Practices Report



In 2016, the GTAA hired UK aviation consultant Helios to undertake a study on best practices in noise management.

The study looked at 11 areas of noise management at 26 comparator airports around the world. The report identified 30 potential new noise management initiatives for Toronto Pearson. We shared the report with the community in September 2017. As an immediate step, we pledged to implement a Quieter Fleet Incentive Program in the next 18 to 24 months, which will require airlines to retrofit the A320 aircraft or face a financial penalty. While this program will become an important cornerstone of our Noise Management Program, other recommendations from the report have also been incorporated into this five-year Plan.

Survey on Noise Fairness and Airport Growth



This survey helped us understand what our neighbours think is fair when making decisions about mitigating aircraft noise.

To gather a broad, regional perspective from the community, the survey was sent to 20,000 randomly selected homes across the Greater Toronto Area (closed-call sample) and also was available online for any resident to complete (open-call sample). More than 2,500 individuals completed the survey. We shared the survey results with the community in September 2017.

2017-2037 Toronto Pearson Master Plan



Every ten years, the GTAA updates its Master Plan. The Master Plan assesses demand over a 20-year period and outlines how the growth can be accommodated while working with local stakeholders to address impacts. Through a comprehensive community consultation program, more than 10,000 residents provided feedback on our growth plans and shared ideas for mitigating the impacts of airport operations.

Additional Considerations

Toronto Noise Mitigation Initiatives – 6 Ideas

In June 2015, we began working with NAV CANADA to study ideas that have the potential to reduce noise impact. Technical analysis on the Ideas is still underway, and we anticipate public consultations will begin in Winter 2018. Following the consultation, we will report back to the community on how any new initiatives will be incorporated into the Action Plan.

NAV CANADA Independent Toronto Airspace Noise Review

In September 2017, NAV CANADA received the independent review of the Toronto area airspace from Helios, with recommendations on additional noise mitigation opportunities. We will continue to work closely with NAV CANADA on any recommendations they pursue.

Values + Guiding Principles

Co-created with the community, these values and principles will guide our decisions and ensure that their voice is reflected in the choices we make.

SAFETY:

Safety always come first. This includes the safety and security of passengers, airlines, surrounding communities, and airport employees.

GOVERNANCE:

Airports operate with high public trust. Their governance and decision-making processes must be transparent and exemplify the highest standards.

TRANSFORMATIVE INVESTMENTS:

Toronto Pearson can be a leader. The GTAA should aspire to set new industry standards and make investments that make Toronto Pearson a model for efficient, safe, and innovative operations.

ENVIRONMENT:

We want responsible growth that creates prosperity, but not at the expense of community health. This means adopting a triple bottom line when measuring Toronto Pearson's environmental, social, and economic impact.

HUMAN-CENTRED:

Millions of passengers and tens of thousands of workers rely on Toronto Pearson. How the airport treats passengers, employees, and communities matters.

CONNECTIVITY:

Airports connect people and places. Toronto Pearson should be a champion for mobility — making it easier to travel to the airport employment zone, as well as to the world.

LEADERSHIP

Adopting best practices and investing in new technology while being an economic catalyst for the region.

ACCOUNTABILITY

Improving transparency, collaborating with stakeholders and considering health and environmental impacts.

CLEAR COMMUNICATION

Sharing information proactively and closing the loop on issues and conversations.

What's inside our 2018-2022 Noise Management Action Plan?

Our new plan is based on ten commitments. These commitments will be fulfilled by working with the nine tools available to the GTAA to manage noise and communicate effectively.

- 1. Quieter Fleet Incentive Program:** A program that encourages airlines to use quieter aircraft and/or pursue measures to minimize known airframe noise issues such as those that occur with some aircraft in the A320 family.
- 2. Night Flight Restrictions:** Operational limitations and restrictions during the night-time hours, currently defined at Toronto Pearson as 0030 to 0629.
- 3. Runway Usage:** Programmed use of runways to provide periods of respite or relief from aircraft noise.
- 4. Noise Abatement Procedures:** Procedures to reduce noise on landing and take-off.
- 5. Land Use Planning:** Management of land use near the airport, including noise insulation programs.
- 6. Noise Complaints:** Process around which complaints are submitted, handled, analyzed and reported upon.
- 7. Communications, Outreach and Noise Committees:** Processes of community engagement, including community and industry noise committees.
- 8. Noise Reporting and Metrics:** How noise information and data from noise monitors is presented to the public.
- 9. Fly Quiet Program:** A voluntary initiative designed to encourage airlines to adopt newer (quieter) aircraft or fly existing aircraft in a manner which minimizes their noise impact on communities.

A NOTE ON

Noise Sharing

Many top-tier international airports provide respite from noise by operating runway programs that are designed around the premise of noise sharing. This practice is most common at night when traffic levels are lower and the runways can be operated flexibly.

The Survey on Airport Growth and Noise Fairness took the pulse for the community's interest in Toronto Pearson pursuing such a program. We received responses from both randomly selected residents from across the Greater Toronto Area (closed-call), and residents who completed the online survey that was made available for all residents (open-call).

- Most respondents from the closed-call sample were willing to accept slightly more frequent noise over their own houses in order to offer respite.
- In contrast, more than half of the respondents from the open-call were not at all willing to accept more noise over their own houses in order to offer respite to neighbourhoods with very frequent or very loud noise.

Taking the survey inputs along with other community feedback into consideration, the Residents' Reference Panel recommended the GTAA explore all other options to mitigate noise on the ground before implementing a noise sharing program and should only be pursued if respite afforded to communities is meaningful and predictable.

**We have taken this feedback into consideration
for the Action Plan.**

Ten Commitments to our Community

Our plan names ten commitments to our community and explains how they will be achieved. The icons indicate the feedback tool that has shaped the commitment. The coloured box indicates whether this is a short, medium or long-term goal. A high-level timeline is provided towards the end of this document.

LEGEND: ■ **SHORT TERM** (0 – 18 MONTHS) ■ **MEDIUM TERM** (18 MONTHS – 3 YEARS) ■ **LONG TERM** (3 – 5 YEARS)

1. We will collaborate better as an Industry

Noise management is a responsibility we share with our aviation partners, and one that we all take seriously. Over the next five years, we will work closely with NAV CANADA, Transport Canada, and our airline partners to reduce noise.

How we will achieve this:

- We will work to establish an industry forum focused on aircraft noise that brings us together with NAV CANADA, Transport Canada, airlines and other stakeholders. In their response to the Independent Toronto Airspace Noise Review, NAV CANADA has also accepted a similar recommendation.
- We will provide residents with more clarity about roles, responsibilities and accountabilities of the GTAA and our various partners.

2. We will work smarter with our communities

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

How we will achieve this:

- We will identify new ways for residents to provide their input and ensure wider community involvement.
- We will review the governance, membership and role of the Community Noise and Environment Advisory Committee (CENAC) and make necessary changes to ensure it meets our neighbours' needs and expectations.

3. We will protect our neighbours

We believe that we have a role to play to make our surrounding communities more livable. In five years, our neighbours will benefit from better land use planning and noise management measures.

How we will achieve this:

 We will explore options for a new voluntary Noise Insulation Program. By the end of the term of this Action Plan, a pilot program will provide funding to residents for soundproofing their homes.

 We will investigate a pilot program to provide funding to nearby schools for air conditioning systems.

 We will work with municipalities to review and adopt more stringent zoning requirements, and expand the noise warning clause in real estate agreements. We also will work with real estate agents to promote better understanding and awareness of our operational impacts.

4. We will help our neighbours sleep better

We know that noise at night is particularly bothersome. In five years, enhancements to our existing Night Flight Restriction Program will have made the skies around Toronto Pearson quieter at night.

How we will achieve this:

 We will immediately explore changes to our Night Flight Restriction Program. Toronto Pearson's program includes a night flight budget that limits the number of arrivals and departures permitted between 0030 and 0629. We understand that both the currently defined night-time hours, and the formula to determine the movement budget are not in line with international best practice.

 Our current night-time Preferential Runway Program is under review as part of the Toronto Noise Mitigation Initiatives (6 Ideas). The review will ensure that it still meets its objective to fly over the least number of people possible. We will consult with the community on the results of this study in Winter 2018.

 We will publish a report outlining why night flights are necessary for the economy, and will look at changes to the landing fee airlines pay specifically for night flight slots as we develop the Quieter Fleet Incentive Program.

5. We will have Canada's quietest fleet

Many airports around the world have measures in place to encourage airlines to use the quietest aircraft in their fleets, or expedite purchase of quieter aircraft. Within five years, our new noise management initiatives will encourage airlines to bring their quietest fleet to Toronto Pearson.

How we will achieve this:

 In September 2017, we announced that a new Quieter Fleet Incentive Program will be in place in the next 18 to 24 months. This program will encourage airlines to bring their quietest aircraft to Toronto Pearson.

 The Quieter Fleet Incentive Program will start by offering incentives to airlines who retrofit the A320 aircraft by 2020.

- We will establish a Fly Quiet Program that will publish an annual report comparing airline performance across several noise metrics. In the next 18 to 24 months, we will investigate possible criteria for this program. Once launched, this program will work with the Quieter Fleet Incentive Program to make Toronto Pearson quieter.

- We will work with NAV CANADA and our airline partners on new initiatives for more efficient flight paths that reduce noise exposure for some communities. This includes the Independent Toronto Airspace Noise Review and the Toronto Noise Mitigation Initiatives (6 Ideas).

6. We will do more to understand our impacts

Our neighbours have told us we need to understand our impacts so we can better mitigate them. In five years, residents will have greater confidence that we understand the impacts of our operations.

How we will achieve this:

- We will improve our noise complaint process to allow for a deeper analysis of individual complaints. We will also implement and publish a quarterly review so we can understand trends in noise complaints.

- Our 25 Noise Monitoring Terminals (NMTs) provide real-time noise data. We will create a standard noise report from this data that is understandable and focuses on identifying potential issues so that we can look for opportunities mitigate and manage them.

- We will support or be at the forefront of research that works to understand the link between operational impacts and community noise annoyance.

7. We will limit surprises

The airport is a dynamic space, and there are times when unexpected work, or a change to our runway operations is necessary. We will provide residents with as much notice as possible to limit surprises. In five years, residents will be more informed about what we're doing and how it impacts them.

How we will achieve this:

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

- We will provide advance notice of scheduled projects and operational/procedural changes, and potential impacts. As we build our Construction Communications Protocol, we will identify new channels to reach out to residents such as advertising on social media and traditional media, providing advanced notice to elected officials, creating a new page on our website.

8. We will continue to take care of the environment

We're committed to being environmental leader, and reducing and mitigating our impacts on both the local ecosystem and our neighbours. Our Environmental Services team focuses on three key areas: climate change, a healthy environment, and resource management. In five years, we will continue building our reputation with a best-in-class Environmental Management System.

How we will achieve this:

■ ■ ■ In 1999, Toronto Pearson became the first North American airport to achieve ISO 14001 certification. Through this system, we can mitigate our environmental impacts, ensure environmental compliance of the airport and our tenants, and be a responsible neighbour to the surrounding communities. We will intensify efforts to understand and mitigate our environmental impacts and seek opportunities for continuous improvement.

■ ■ We will always seek to understand the economic, social and environmental impacts of our decisions and report back to the community.

9. We will lift up our communities

We think as much about our community, as we do about our passengers. And we wish for the local community to realize more benefits from the economic growth opportunities facilitated by the airport. Over the next five years, our neighbours will continue to benefit from our investments in community programming, research and advocacy.

How we will achieve this:

■ ■ ■ As a worldwide connector of people and businesses, and a driver of economic prosperity in the region and the province, we will continue to support regional growth, including working with all levels of government to advance plans for the Regional Transit Centre and working with regional airports across Southern Ontario to collectively accommodate growth.

■ ■ ■ We will continue to invest in local communities to support their economic vitality into the future through our community investment program, the Propeller Project.

10. We will always look for opportunities to improve

Over the next five years, we will continue to connect regularly with local communities so we can understand our neighbours' concerns and share information regarding our operational choices and constraints, our noise mitigation efforts, and our role as a responsible neighbour.

How we will achieve this:

■ In Winter 2018, we will begin consultation with NAV CANADA on the Toronto Noise Mitigation Initiatives (6 Ideas). The feedback from this consultation and recommendations of the Residents' Reference Panel will determine our next steps.

■ ■ ■ We will provide our neighbours with an annual update on the Noise Management Action Plan.

■ At the end of five years, we will commission a new benchmarking and best practices review to determine areas where we have made significant improvements, and identify new initiatives to pursue in the next Action Plan.

High-level timeline

SHORT TERM (0 – 18 months)
<ul style="list-style-type: none"> • Explore potential changes to Night Flight Restriction Program • Begin work on Quieter Fleet Incentive Program • Explore a Voluntary Noise Insulation Program – start with pilot air conditioning program for nearby schools • Publish updated Complaint Policy • Review of CENAC • Consultation and start trials/ implementation of the 6 Ideas
MEDIUM TERM (18 months – 3 years)
<ul style="list-style-type: none"> • Publish standard noise reports and impact metrics • Launch Quieter Fleet Incentive Program – incentives for airlines with retrofitted A320s (starting with fines for non-retrofitted A320s) • Continue develop of the Noise Insulation Program
LONG TERM (3 years – 5 years)
<ul style="list-style-type: none"> • Launch Fly Quiet Program • Launch pilot Voluntary Noise Insulation Program • Continued evolution of Night Flight Restriction Program

Stay Involved

The 2018-2022 Noise Management Action Plan is meant to be a living document that will evolve to incorporate new initiatives that grow out of ongoing consultation with our neighbours. We will provide annual updates on what we have achieved and what we'll be doing next as we deliver on our commitments to our neighbours.

Sign up for Checking in at [TorontoPearson.com/CheckingIn](https://torontopearson.com/CheckingIn).

E-mail: community.engagement@gtaa.com

Phone: 416-247-7682

Web: torontopearson.com/noisemanagement



www.torontopearson.com