

**BILLY
BISHOP** 
TORONTO CITY AIRPORT

2021 ANNUAL NOISE MANAGEMENT REPORT



Message on Operations and Noise Management at Billy Bishop Toronto City Airport

The year 2021 was another challenging one for the aviation industry as airports and airlines around the world continued to respond to the ebbs and flows of the COVID-19 pandemic, and interpret and navigate the complicated government travel restrictions put in place which continued to suppress travel.

Billy Bishop Toronto City Airport began the year with the continuation of a suspension of commercial service as Porter Airlines and Air Canada monitored the evolution of the virus and the government restrictions imposed to identify the best opportunity to resume operations. That day came on September 8, 2021, when commercial service restarted and a celebration was held to recognize a return to the skies.

Non-commercial operations had continued unabated through 2021 with the notable activity coming from our partners at Ornge. In addition to undertaking critical medevac operations throughout the pandemic, in 2021 Ornge based its Operation Remote Immunity out of Billy Bishop Airport which ensured that vital vaccines could be delivered to remote northern communities. As a result of the increased need for medevac, Ornge flew 5,091 flights in 2021 (up from 4,749 in 2020) and played a critical role in the pandemic response. The airport also remained open for General Aviation (GA) clients, the flight schools, as well as smaller carriers such as Cameron Air and FlyGTA.

From a noise management perspective, it was a different kind of year – with more of some activity and less of other activity – which makes it challenging to compare year-over-year data. With commercial operations suspended in March 2020, and restarted in September 2021, this report is representing data based on four months of commercial service in 2021. Where comparisons are made to the year prior, this comparison is based on three months of commercial service in 2020. This is all in addition to reporting on other sources of noise including the ferry, general aviation and medevac activity. Due to the unique nature of 2021, and 2020, a direct comparison to pre-pandemic operations is challenging.

With this in mind, the data for 2021 confirms that the overall noise complaints were down from the year prior. The Noise Management Office received 257 complaints in 2021, which is down from 333 complaints in 2020. Broadly speaking, complaints related to aircraft activity were up, construction noise complaints were down, and complaints specific to the ferry were significantly down in 2021.

This is understandable since construction activity ceased in 2021 given the successful completion of the first phase of the Bathurst Quay Neighbourhood Plan in late 2020.

With regard to the ferry, it should be noted that although commercial service was suspended for much of the year, ferry operations continued on a regular schedule to service other operators such as Ornge, to ensure City of Toronto service vehicles could access the Toronto Islands, and for staff and other service vehicles. As such, we are pleased that there was a reduction in complaints specific to the ferry given it maintained near-normal operations in 2021.

I anticipate that complaints related to the ferry will continue to decrease in the months to come as we were pleased to welcome the retrofitted Marilyn Bell electric ferry back into service on December 15, 2021.

Powered entirely by electricity from clean wind and solar sources provided by Bullfrog Power, the retrofitted Marilyn Bell ferry will eliminate greenhouse gas emissions from the ferry operation, reducing the airport's direct emissions by approximately 530 tonnes per year. In addition to operating more efficiently and eliminating related air emissions, the retrofitted vessel operates far more quietly, dramatically reducing related noise in the surrounding community.

In terms of where the complaints originated, our Noise Management Office logged a decrease in complaints in Toronto Island neighbourhoods. Wards Island registered 21 complaints in 2021, down from 41 complaints in 2020. Algonquin Island logged 135 complaints in 2021, down from 204 complaints in 2020. There was an increase in complaints in the YQNA neighbourhood up to 60 complaints in 2021, from 35 complaints in 2020. BQNA had an increase of 1 complaint going from 20 in 2020, to 21 in 2021.

We are pleased to see a decrease in complaints for Wards Island and Algonquin Island as we have been working with our individual general aviation pilots and businesses to adhere to our good neighbour policies specific to the Toronto Islands and other community areas. The vast majority of pilots follow our published policy and are complying with this framework. We continue to work with all involved to ensure awareness of the expectations for the community on overflights and compliance for our operators.

It should be noted that we had two curfew violations in 2021, both of which were attributed to general aviation aircraft. Billy Bishop Airport adheres to a strict policy that prohibits aircraft activity between the hours of 11:00 p.m. and 6:45 a.m., except in the case of emergency or for medevac purposes. In a case where a pilot breaks this curfew, an investigation is conducted and, in most cases, a fine is levied. The proceeds of this fine are then invested back into the community at the community's discretion.

Message on Operations and Noise Management at Billy Bishop Toronto City Airport

The community plays a significant role in the policies and procedures that guide our operations at Billy Bishop Airport, and we are pleased with the work and collaboration that has been undertaken this year with our community groups. The Community Liaison Committee (CLC) met four times in 2021 via an online platform, and the Noise Sub-Committee met online three times over the last year. The Billy Bishop Airport team also attended community meetings at the request of community members and maintained an open dialogue to ensure a consistent flow of information.

Progress was also made on the Noise Monitoring Study to identify sources of ground noise at the airport and, through analytical noise modelling techniques, assess opportunities to reduce the impact of ground-sourced noise on the community. The study was somewhat delayed due to the pandemic impacts however will be completed in 2022.

Much had changed at Billy Bishop Airport in 2021, but much also has remained the same. What remains is our commitment to working with the community to maintain balance in our operations and conduct our business in a way that reflects a commitment to sustainability, an emphasis on community initiatives, and an imperative to communicate and report with transparency.

In an example of the latter, the 2021 Noise Report is now before you to report on our efforts to manage noise and introduce improvements to mitigate operational impacts.

Although we are always pleased when we can report a decrease in noise complaints, the circumstances that brought about this reduction in 2021 were likely driven by a reduction in commercial aircraft activity linked to the pandemic. With the restart of commercial service in September of last year, we have begun to rebuild our business at Billy Bishop Airport and welcome passengers back. The launch of our accredited Safe Travels Program is just one way that we are working to restore passenger confidence and bring Billy Bishop Airport back to 2019-levels.

As we closed out 2021, we did see passenger volumes at Billy Bishop Airport reach almost 40 per cent of December 2019 volumes, while aircraft movements reached 78 per cent of 2019 levels. Looking forward to 2022, we do anticipate an increase in activity overall, including passengers, however a full return to pre-pandemic passenger and aircraft movements will likely not be achieved until 2024.

However, as we return the airport to “more normal” operations in the year ahead, we will continue to work towards our vision to be a leader in how a modern airport operates in an urban environment, and work collaboratively towards our goal to be among the cleanest, greenest and quietest airports in the world.



Gene Cabral
*Executive Vice President,
PortsToronto and Billy Bishop
Toronto City Airport*



Noise Management Office

Part of our commitment to our noise management program includes dedicated staff in our Noise Management Office who collect, analyze and respond to noise complaints and monitor daily operations. Staff at the office use Vortex, a customizable tracking and logging software platform, designed specifically for the needs of an airport environment, to track, document and respond to noise complaints.

A response time policy has been in place at the Noise Management Office since 2011, and mandates a response time of five business days. In 2021, 98% per cent of all noise complaints were responded to within five business days.

Community Liaison Committee

PortsToronto established a Community Liaison Committee (CLC) in 2010 to further expand engagement with the residents and businesses

surrounding Billy Bishop Airport. The CLC gives neighbours a forum to discuss issues and concerns related to airport development, activities and operations. The committee also enables airport management to communicate operational activities and information with stakeholders and the broader community.

Key representatives from neighbourhood community groups, local businesses and stakeholders, as well as local city councillors and members of provincial and federal parliaments, make up the membership of the CLC. The committee follows best practices of community engagement, meeting regularly and addressing matters such as airport noise management, air quality and transportation access. The CLC's quarterly meetings are open to the public and minutes taken by third-party consultant Lura Consulting are posted to the PortsToronto website. In 2021, four meetings of the CLC were held through an online platform given the restrictions around gathering specific to the pandemic.

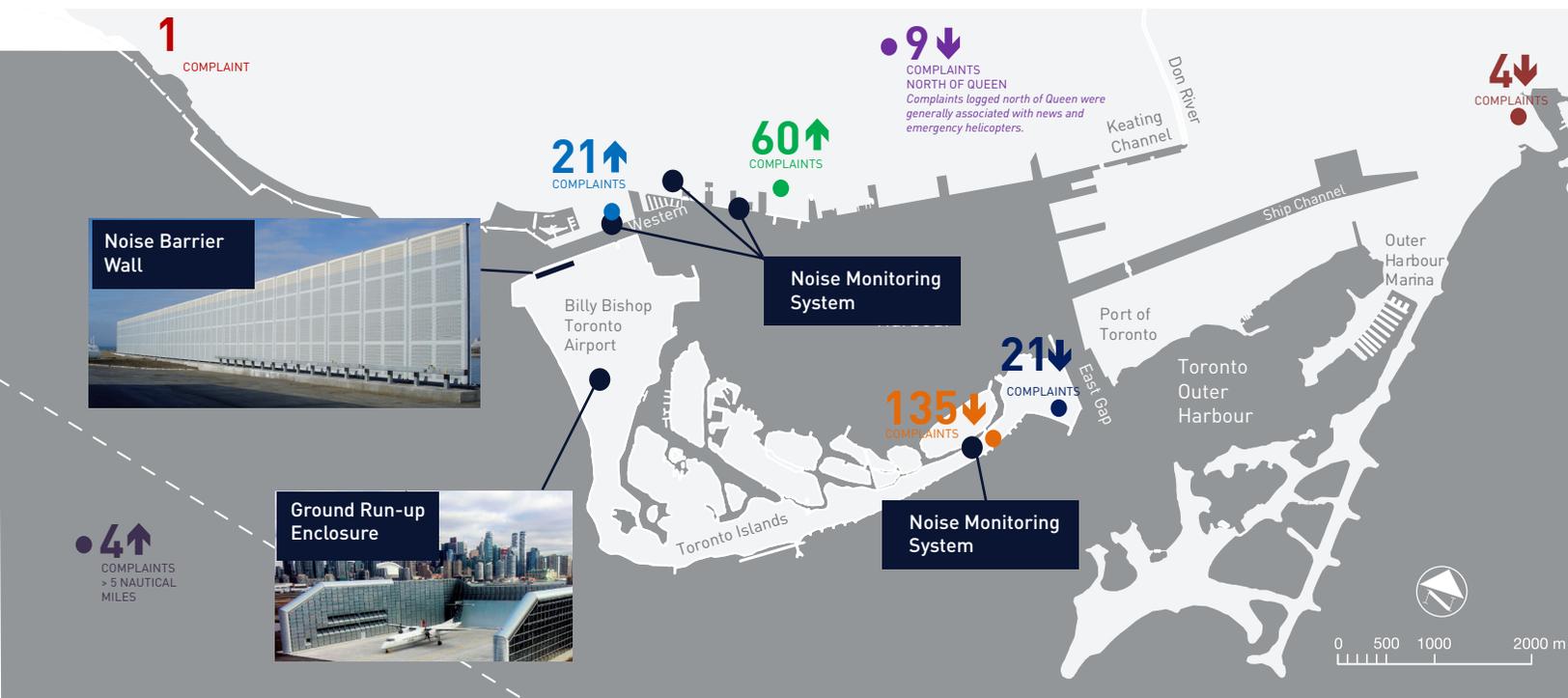
operations. The Noise Sub-Committee consists of three community members, two staff members from PortsToronto, one staff member from the City of Toronto and a facilitator from Lura Consulting. The committee has two co-chairs, one from the community and one from PortsToronto. The committee met three times in 2021 through an online meeting platform.

WebTrak

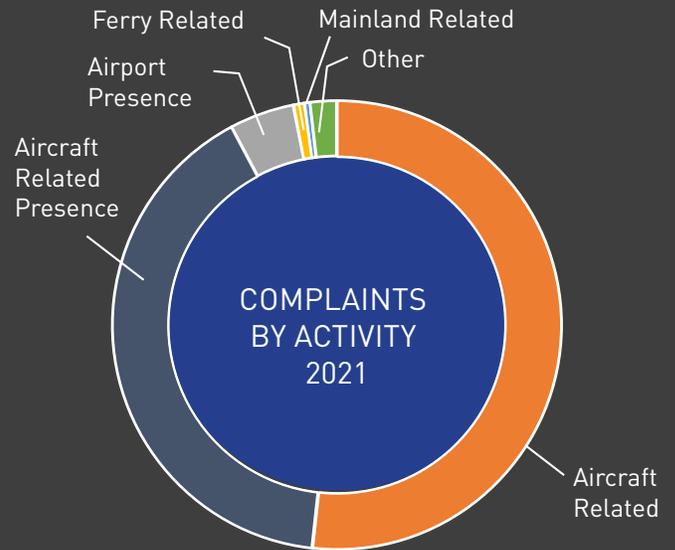
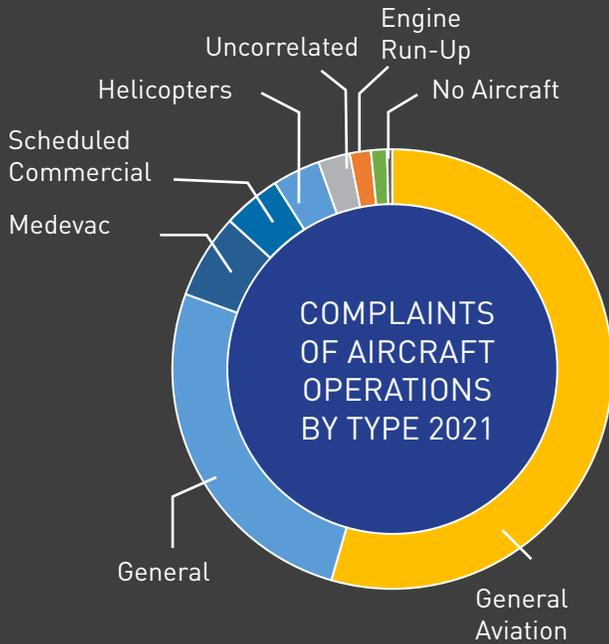
We continue to offer free access to Webtrak, which enables anyone with a computer, smartphone or tablet to gather information on any aircraft activity they may hear overhead. This service combined with our four Noise Monitoring Terminals (NMTs) provide ongoing noise-level data to the airport's Noise Management Office. This data is used in long-term noise mitigation planning and to aid in responding to noise complaints from the surrounding community. The noise data transmitted by the NMTs is also viewable through the WebTrak website.

Noise-Sub Committee

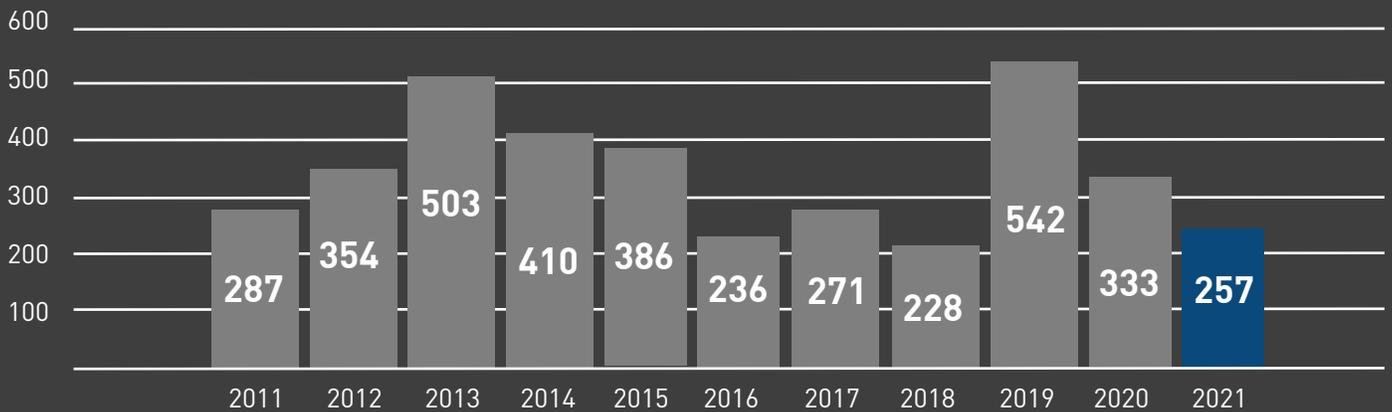
A Noise Management Sub-Committee of the CLC was formed in late 2017 to further research, understand and address noise impacts from airport



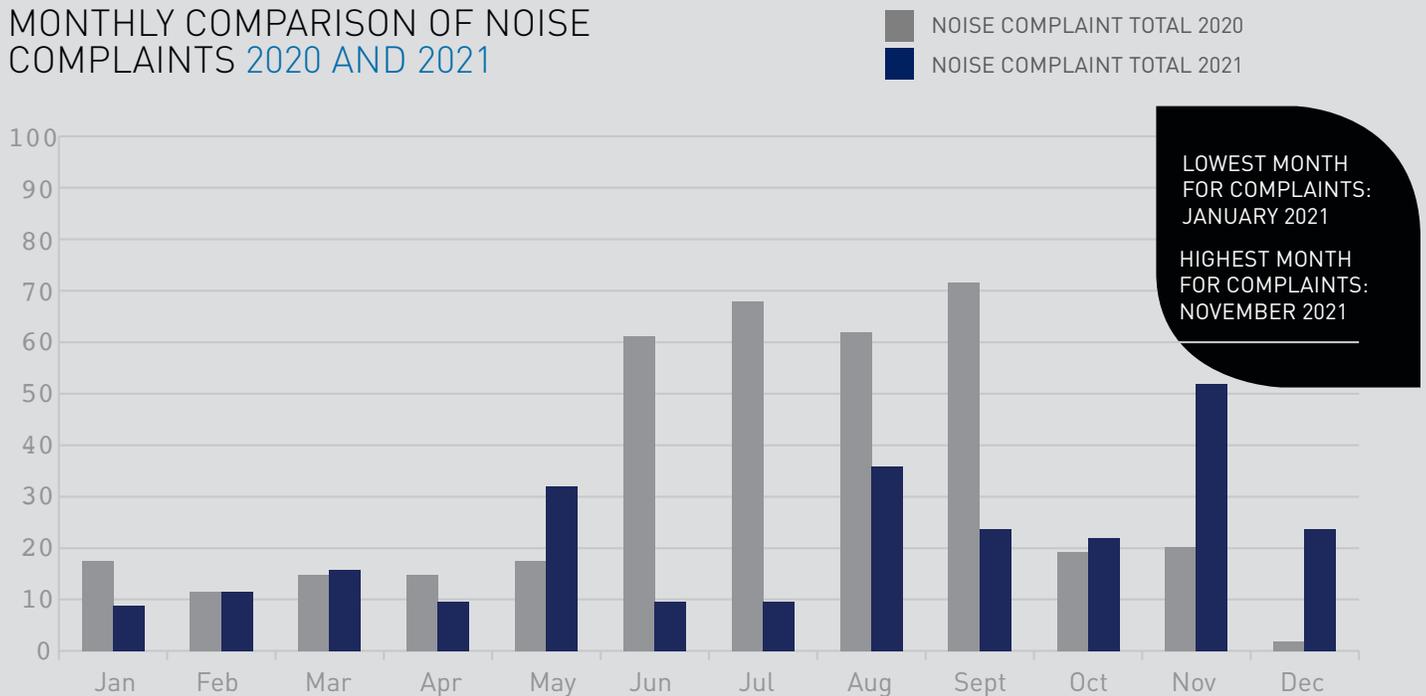
By the numbers



TEN YEAR ANNUAL COMPARISON OF NOISE COMPLAINTS



MONTHLY COMPARISON OF NOISE COMPLAINTS 2020 AND 2021



Noise Monitoring Terminals

Noise Monitoring Terminals (NMTs) are the foundation of the airport's noise monitoring system and provide ongoing noise-level data to the airport's Noise Management Office. This data is then used in long-term noise mitigation planning and in responding to noise complaints from the surrounding community.

As part of our continuing efforts to ensure improvements between operations at Billy Bishop Toronto City Airport and the surrounding community, PortsToronto currently operates four NMTs:

- One located on the Toronto Police Marine Unit building;
- One located at Toronto Fire Station 335 on the Toronto Islands;
- One currently installed on the mainland ferry terminal to be relocated to a building in the community in 2022; and
- One at 480 Queens Quay in the Kings Landing condominium building.

Through consultation and input from the Noise Management Sub-Committee, Ontario Place was selected as the ideal location for the fifth NMT; however, its installation was delayed due to the pandemic. In 2022, PortsToronto will continue to work closely with Ontario Place to secure the installation of this NMT.

Ground Noise Study

The 2018 Airport Master Plan included the recommendation to conduct a Ground Noise Study, which is currently being undertaken by Billy Bishop Airport management in consultation with the Noise Management Sub-Committee. This study seeks to identify sources of ground noise at the airport, and through analytical noise modelling techniques, assess opportunities to reduce the impact of ground-sourced noise on the community.

As part of this study, temporary noise terminals will be installed in the community for a short period in order to gather data on sources of non-airport background noise in the community. This information will assist in best informing airport management with regard to the implementation of future mitigation measures aimed at reducing the impacts of airport ground operations on the surrounding residential community.

PortsToronto is researching initiatives to further reduce ground-sourced noise, including the increased use of electric powered ground transportation vehicles such as the airport shuttle buses, and the implementation of additional operational procedures such as managing aircraft operations during noise-sensitive periods.

Traffic Management

The pedestrian tunnel continues to be a strong contributor to the airport's noise mitigation program. Prior to the tunnel's opening in 2015, passengers would arrive and depart in large groups according to the ferry's schedule, which caused vehicle congestion and increased traffic noise at the mainland terminal and along Eireann Quay. With more than 90 per cent of travellers using the tunnel, passengers come and go on their own schedule, which smooths out the flow of traffic and eliminates surges corresponding to the ferry arriving and departing to/from the mainland.

In order to encourage alternative means of access to the airport to further decrease traffic related noise, Billy Bishop Airport offers anyone wishing to access the airport with complimentary regular shuttle service between the airport and downtown Toronto. According to a 2018 Dillon Consulting study, nearly 30 per cent of passengers departing the airport take the shuttle to Union Station, which highlights the important role the airport plays in not only connecting people to the heart of downtown Toronto but in providing convenient access to the region's broader transportation network.



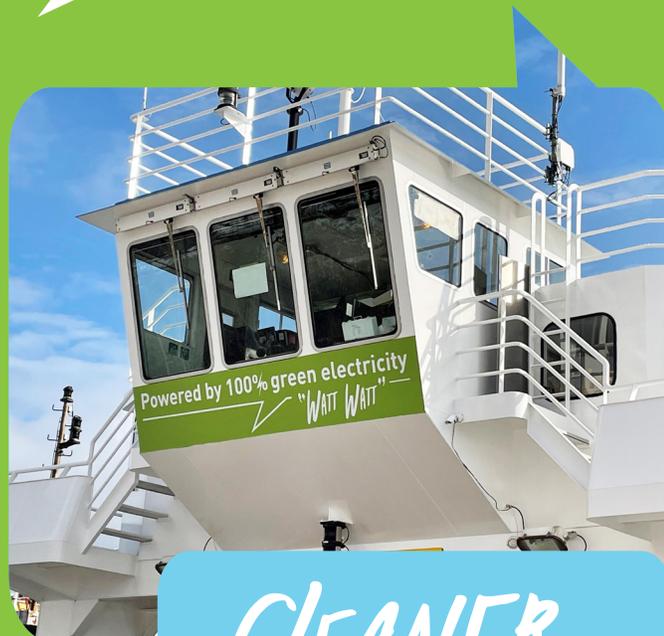
Cleaner, Greener, Quieter: *Marilyn Bell I* Canada's First Truly Zero-Emission, Lithium-Ion Ferry

In December 2021, Billy Bishop Airport celebrated the return to service of the *Marilyn Bell I* ferry following its conversion to 100 per cent lithium-ion power. The *Marilyn Bell I*, which connects passengers, vehicles and supplies to Billy Bishop Airport, is the first ferry service in Canada powered by a zero-emission power and propulsion system containing no diesel components.

In operation since 2010, and upgraded to bio-diesel fuel in 2018, the vessel's diesel generator and motor were removed in 2021 to make way for a new electric propulsion system and a suite of batteries fueled by 100 per cent Bullfrog Power renewable electricity.

Powered entirely by electricity from clean wind and solar sources provided by Bullfrog Power, the retrofitted *Marilyn Bell I* has eliminated greenhouse gas emissions from the ferry operation, reducing the airport's direct emissions by approximately 530 tonnes per year. In addition to operating more efficiently and eliminating related air emissions, the retrofitted vessel builds on the airport's award-winning Noise Management Program, as it operates far more quietly, dramatically reducing related noise in the surrounding community.

The airport's ferry operation not only transports passengers, airport staff and essential supplies to and from Billy Bishop Airport – including emergency vehicles supporting Ornge's medevac operations – but also serves as a vital link for City of Toronto service vehicles to gain access to the Toronto Islands. In 2021, the airport's ferry service enabled Toronto Island residents to access supplies during the pandemic, and students to attend school when ice cover on the harbour restricted regular access.



CLEANER
GREENER
QUIETER

Powered by **100%** green
electricity

"WATT WATT"

100%



100%

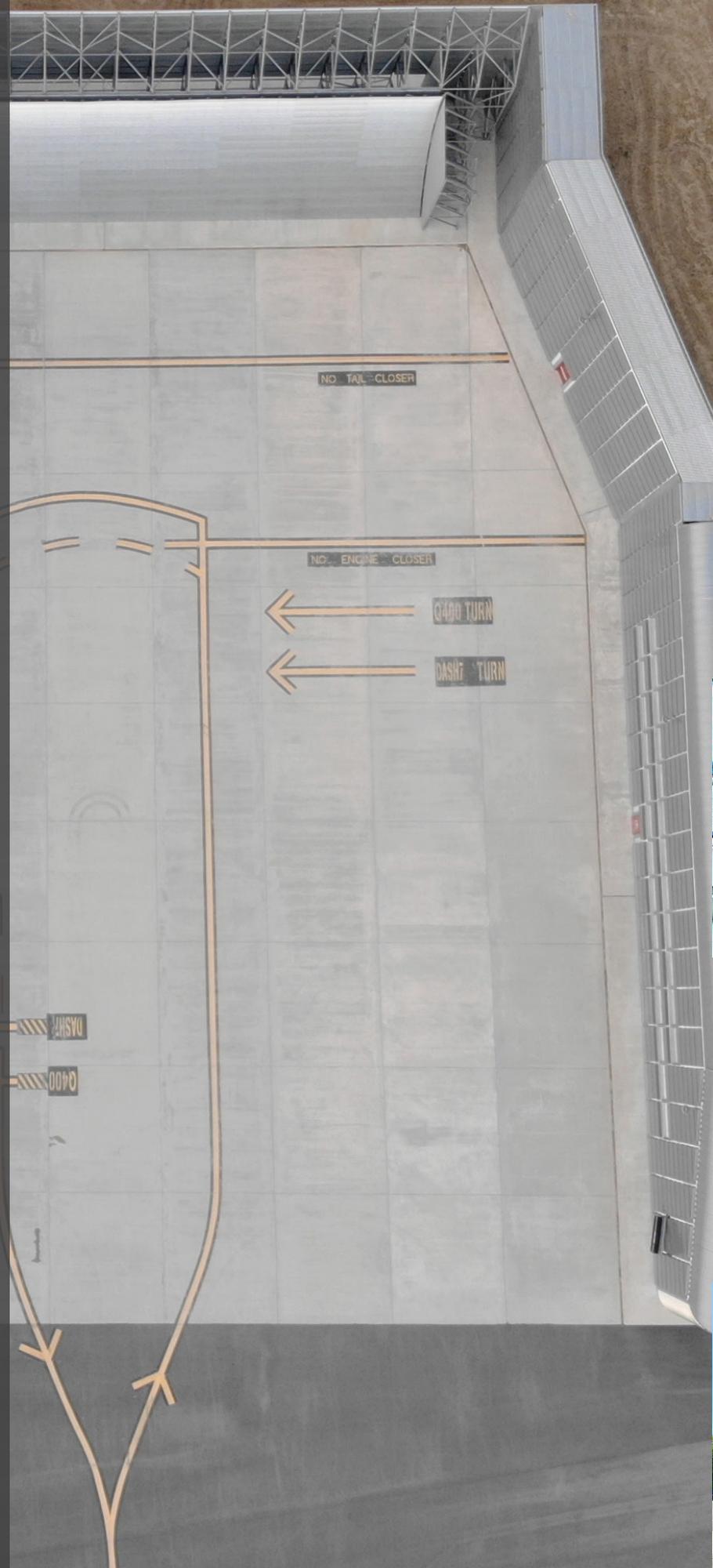


The Ground Run-up Enclosure

Engine run-ups are required and regulated by Transport Canada as part of standard aircraft maintenance. However, engine run-ups have been cited by the community as a primary source of noise given testing is often done at high power. The facility was built at a cost of \$9 million which was paid for by PortsToronto through the Airport Improvement Fee.

Standing 14 metres in height, the 63-by-66 metre enclosure is located on the southwest side of the airfield and is only the second of-its-kind in Canada. The enclosure effectively absorbs noise with specialized acoustic panels that line the interior of the three walls, which feature vents for optimal aerodynamic performance.

The positive impact of the GRE has been significant. In 2021, Billy Bishop Airport received four complaints connected to engine run-ups, all of which occurred outside the GRE facility. Three of these complaints were related to idle engine run-ups, which are permitted at the gate as per our Noise Management Policy, while one was received following an engine run-up performed on aircraft parked outside of the GRE during the suspension of commercial service at the airport.



Bike to YTZ

As part of continued efforts to reduce vehicle traffic associated with the airport, PortsToronto has incorporated bike racks that are conveniently located on both the island and mainland. The four covered racks on the island enable cyclists to leave their bikes for the duration of their trip, knowing they are secure and safe from the elements.

PortsToronto collaborated with the City of Toronto to install new bike racks near the mainland ferry terminal. Primarily used by employees at the airport, these bike racks encourage staff to choose more sustainable forms of transportation for their commute. A bicycle maintenance station is also in place for cyclist convenience, and features a full complement of commonly required tools and two bike hangers able to accommodate any style of bicycle.



Reconfigured Passenger and Vehicle Traffic Operations

As part of its Billy Bishop City-Side Modernization Project, PortsToronto implemented a reconfigured approach to airport traffic operations to better streamline passenger flow and improve pick up and drop off at the airport. In line with the City of Toronto's anti-idling bylaw, the design aims to decrease the amount of time each vehicle spends on site, reduce idling and noise and minimizing the number of vehicles entering onto community streets.

As part of the City of Toronto-led Bathurst Quay Neighbourhood Plan (BQNP), this project included re-building portions of Eireann Quay to complement the new approach to traffic operations by further reducing congestion and idling, and better streamlining passenger and traffic flow. The BQNP also included the reconfiguration and optimization of our uses on the Canada Malting site, including the airport taxi corral and increased curb space for pick up and drop off.



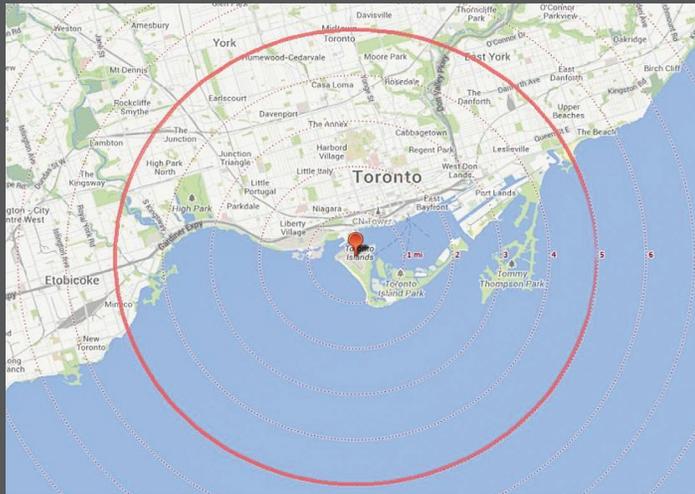
Regulations and Policies

Billy Bishop Airport's management and regulations are regulated by a Tripartite Agreement among the federal government, as represented by the Minister of Transport, the City of Toronto and PortsToronto. As part of the Tripartite Agreement Billy Bishop Airport adheres to noise restrictions, a limit on total daily flight activity and follows a strict curfew on hours of flight. Due to the regulations in place as a result of the Tripartite Agreement, Billy Bishop Airport is one of the most noise restricted airports in North America, operating within a Noise Exposure Forecast (NEF) of 25. Specific noise-parameters are also placed on the type of aircraft that can fly to and from the airport.

Billy Bishop Airport also operates within a curfew that prohibits any aircraft, other than emergency flights or Medevac aircraft, from taking off and landing between the hours of 11:00 p.m. and 6:45 a.m. We also further restrict operations with management policies between 6:45 a.m. to 7:00 a.m. and 10:00 p.m. to 11:00 p.m. This curfew is strictly enforced, with significant penalties for any violations. In 2019, PortsToronto instituted an Airport Curfew Fine Policy that will redirect funds from curfew violation fines toward community organizations.

In 2021, the airport experienced two curfew violations involving itinerant General Aviation aircraft. Following an investigation, it was determined that only one of these two occurrences merited a fine. In keeping with the Curfew Fine Policy, the penalty for this violation was \$250.00, and the funds will be directed to an approved community group.

**BILLY BISHOP TORONTO CITY AIRPORT
AREA OF RESPONSIBILITY**
5 Nautical Miles for Aircraft Arriving/Departing at Billy
Bishop Toronto City Airport



PortsToronto Noise Management Policy states that:

- *PortsToronto is responsible for reviewing and responding to the noise complaints received at Billy Bishop Airport.*
- *Complaints which are not associated with the operation of Billy Bishop Airport, are referred to Transport Canada or the related airport.*
- *Response time policy has been in place since 2011 and mandates a response time of five business days. In 2021, 98% per cent of all complaints were responded to within five business days.*



**BILLY
BISHOP**
TORONTO CITY AIRPORT

FOR FURTHER INFORMATION:

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OWNED AND OPERATED BY :
PROPRIÉTAIRE ET EXPLOITANT :

**PORTS
TORONTO**

Glossary of Terms

DEFINITIONS

General – A report with no identified/specified aircraft in relation to the complaint. (eg. “airport was very noisy this afternoon”)

No Aircraft – A report which refers to an aircraft that cannot be associated with the specific complaint.

Uncorrelated – A report with the source of noise unable to be confirmed as being associated with the airport or aircraft specific operations.

General Aviation – All civil aviation aircraft operations excluding any commercial air operations. Refers to light aircraft such as Cessna, Pipers, Twin Engine or aircraft for personal use.

Scheduled Commercial – Any commercial air operations, operated by an air carrier. (eg. Porter, Air Canada) excluding Charters.

