

# 2019 ANNUAL NOISE MANAGEMENT REPORT

**BILLY  
BISHOP**   
TORONTO CITY AIRPORT



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

Billy Bishop Toronto City Airport, owned and operated by PortsToronto, is Canada's ninth busiest airport and served 2.8 million business and leisure travellers in 2019. Located just steps from downtown Toronto, Billy Bishop Airport is a modern, urban airport and plays an integral role in servicing Canada's largest city. Billy Bishop Airport is widely recognized as a source of unbeatable convenience and efficiency for both business and leisure travellers, as it provides swift and seamless connectivity directly into the heart of downtown Toronto.

While the airport's location less than three kilometres from the city core is certainly a factor in its success, it is also the driving force behind what continually pushes our team to innovate, improve and invest in order to mitigate the impacts associated with airport operations, such as noise, on the surrounding community.

As part of our commitment to the community, the airport adheres to a managed growth approach and runs a comprehensive, multi-faceted Noise Management Program. Many elements of this Noise Management Program are detailed in this report as well as new initiatives implemented in 2019 that will help us both monitor and reduce noise associated with operations.

There is still work to be done. Last year, we did see an increase in noise complaints, with 542 noise complaints submitted in 2019, versus 228 in 2018. This increase in noise complaints is mostly driven by flight training, general aviation and

non-terminal scheduled operator flights over the Toronto Islands.

There were 254 community noise complaints related to flights over Algonquin Island last year, and noise complaints over Ward's Island also increased with 35 complaints submitted in 2019, versus 17 submitted in 2018. The majority of these complaints were related to flight training, general aviation activity and non-terminal scheduled operator activity, and not Q400 scheduled commercial aircraft service. To address these concerns, PortsToronto has met directly with island residents and will continue to work with its aviation community to alter flight paths and minimize flights over the islands.

While we saw an increase in noise complaints over the Toronto Islands, we also saw a slight increase in ground noise complaints associated with our scheduled Q400 operations.

Once again, as a result of the Ground Run-Up Enclosure (GRE) facility that went into service in April 2017, there were minimal noise complaints related to scheduled engine testing. In total, there were seven complaints related to engine testing in 2019—all of which occurred as a result of engine runs that were conducted outside of the GRE facility due to unfavourable wind conditions.

As recommended in the 2018 Airport Master Plan released in November, we will complete a Ground Noise Study in close collaboration with the community 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. With five productive meetings held in 2019 and six meetings scheduled for the year ahead, the Noise Management Sub-Committee of the Community Liaison Committee (CLC) will play an important role in this study.

We are also excited to complete the conversion of the *Marilyn Bell I* passenger/vehicle ferry to electric power at the end of this year. This conversion will eliminate related air emissions and will significantly reduce related noise impacts.

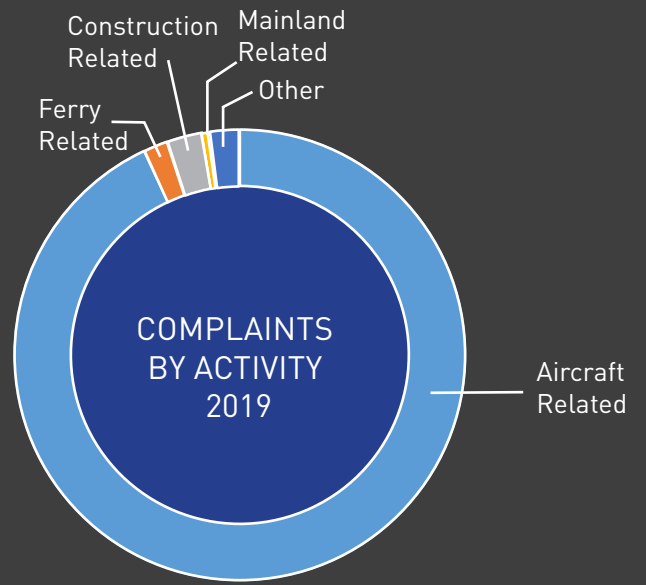
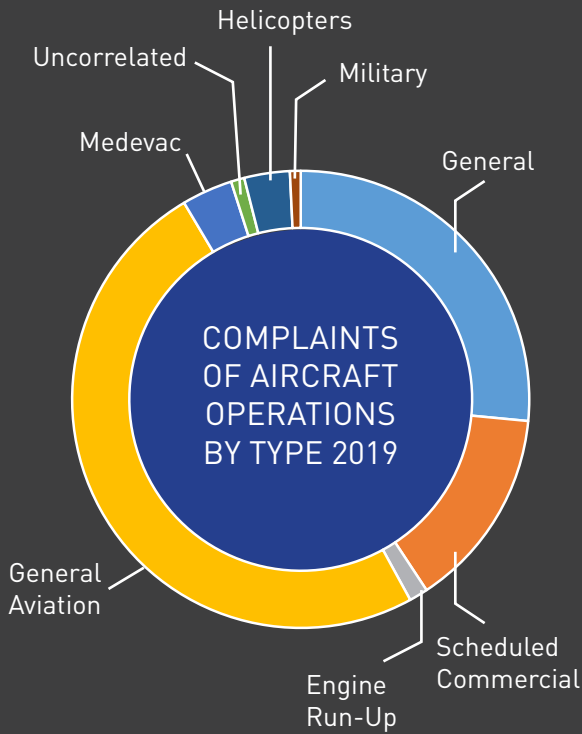
We will continue to explore initiatives to further reduce ground-noise, including the increased use of electric powered ground transportation vehicles and the implementation of additional operational procedures such as managing aircraft operations during noise-sensitive periods. Most importantly, we will continue to work in tandem with the community by listening, being responsive and working together to identify solutions to enhance the airport's noise management program.



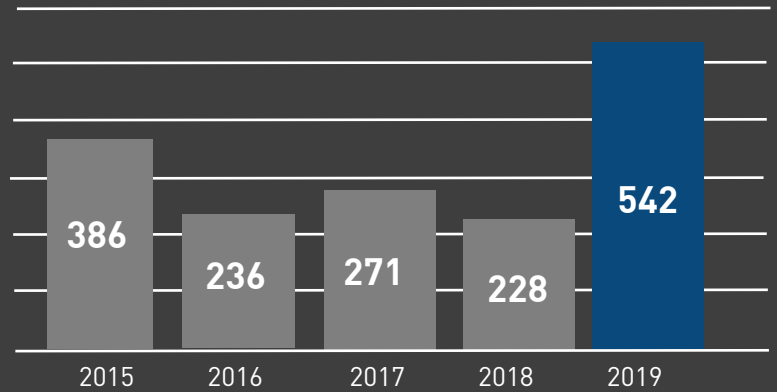
**Gene Cabral**  
*Executive Vice President,  
PortsToronto and Billy Bishop  
Toronto City Airport*



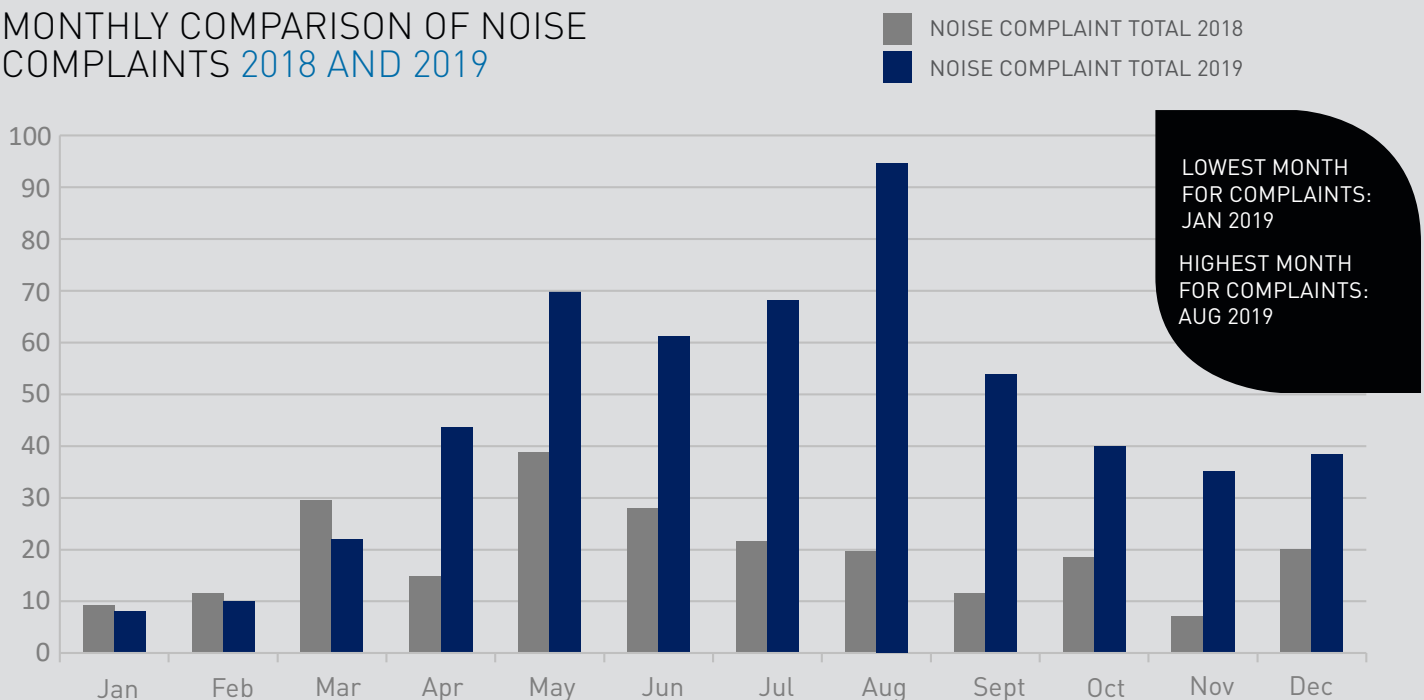
# By the numbers



FIVE YEAR ANNUAL COMPARISON OF NOISE COMPLAINTS



MONTHLY COMPARISON OF NOISE COMPLAINTS 2018 AND 2019



# 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. In 2019, all complaints received were handled within the five-day response window that the airport adheres to as part of our commitment to the community.

## Noise-Sub Committee

In late 2017, a Noise Sub-Committee of the Community Liaison Committee (CLC) was formed to further research, understand and address noise impacts from airport operations. The Noise Sub-Committee consists of

four 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 five times in 2019 and has committed to meeting six times in 2020.

## Noise Monitor 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.

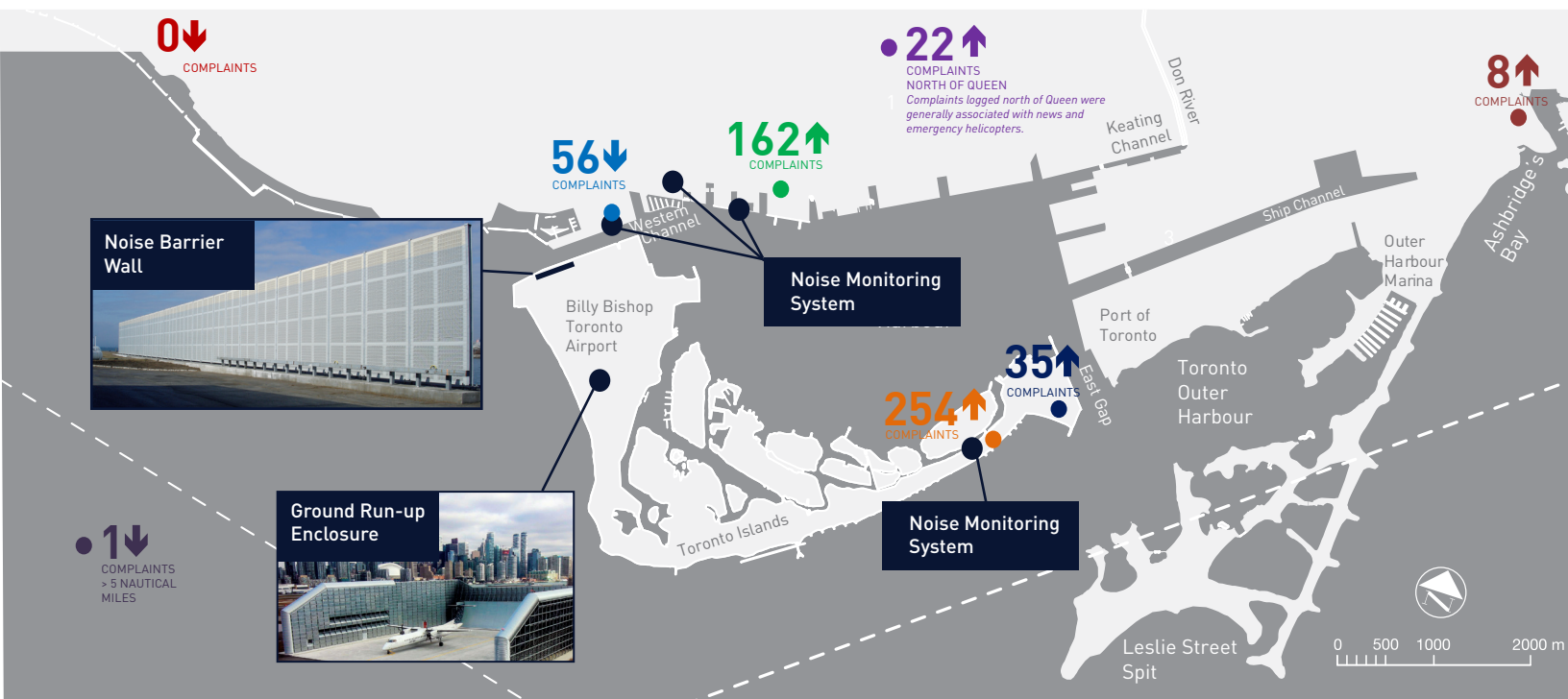
The airport's Noise Management Program features four permanent Noise Monitoring Terminals, with one located on the Toronto Police Marine Unit building and one located on the airport's on-island Fire Hall, both of which were upgraded in 2016, and one installed on the mainland ferry terminal building in 2016.

The 2018 Billy Bishop Toronto City Airport Master Plan included the

recommendation to implement two additional permanent NMTs to enhance the airport's noise monitoring system. With consultation and input from the Noise Management Sub-Committee, PortsToronto installed a new Noise Monitoring Terminal (NMT) at 480 Queens Quay at the Kings Landing condominium building in January 2020. This NMT is being facilitated by community representatives and is fully integrated into the airport's existing noise management system and back-end equipment. A location for the second NMT is being coordinated by the Noise Management Sub-Committee and the airport's Noise Management Office.

## 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.



# 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 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.

# NAV CANADA Airspace Enhancements at YTZ

In collaboration with PortsToronto, NAV CANADA implemented enhanced arrival procedures for aircraft operators at Billy Bishop Airport in early December 2019. By leveraging satellite-based navigation capabilities, these new arrival procedures keep more aircraft over the water on approach to Billy Bishop Airport, reducing noise exposure to residentially populated areas. Further, aircraft operators save as much as five minutes of flying time, which is estimated to add up to an annual reduction of 970 metric tonnes of greenhouse gas emissions. Enhanced arrivals procedures also serve to improve ground positioning for departures at the airport, reducing ground idling and associated emissions, and noise from aircraft waiting to depart.

# Calm Wind Trial

Following a successful one-year trial period in summer 2019, Billy Bishop Airport implemented a Calm Wind Runway procedure in collaboration with NAV CANADA. For this procedure, aircraft take off and land at the airport from west to east during periods when wind speeds are below five knots. During the trial period, public feedback indicated that the new practice aided in the reduction of noise on the surrounding community.



**15 min.**

Billy Bishop Airport has a complimentary shuttle —departing every 15 minutes to Union Station.

**YTZ**

**less than 3 km**

Billy Bishop Airport is located less than 3 kilometers from downtown Toronto.



**Top 10 busiest Bike Share Stations**

The popularity of biking to the airport has made the Bike Share station located at the Bathurst Street and Eireann Quay intersection one of 10 busiest in the city's network.

**TORONTO**



**UNION STATION**

**12 min.**

TTC departing every 7 minutes to Union Station.\*



# Billy Bishop Airport Converting Marilyn Bell I Airport Ferry to Electric-Power

In November 2019, PortsToronto announced that the airport's *Marilyn Bell I* passenger/vehicle ferry will be converted to electric-power. In addition to operating more efficiently and eliminating related air emissions, the retrofitted vessel will build on the airport's Noise Management Program, as it will operate far more quietly, dramatically reducing related noise in the surrounding community.

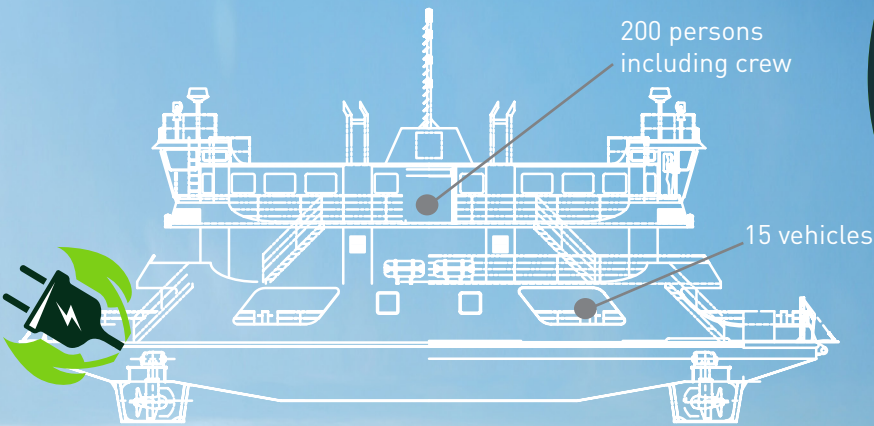
The airport's ferry operation not only transports passengers, airport staff and essential supplies to and from Billy Bishop Airport, but serves as a vital link for City of Toronto service vehicles to gain access to the Toronto Islands as well as for critical Air Ornge emergency services and backup emergency support for Toronto Island residents. With an anticipated completion date of end of 2020, this innovative retrofit represents a unique technological advancement in the airport's fleet as the vessel will be the first 100 per cent electric lithium-ion powered ferry in service in Canada.



MV MARILYN BELL I

200 persons including crew

15 vehicles



The electric ferry will reduce >530 tonnes of GHG emissions.



Since 2010, PortsToronto has reduced their CO<sub>2</sub> emissions by 12,361 tonnes.

That's equivalent to taking more than 2,600 cars off the road for a year.

PortsToronto's goal is a 35% carbon reduction between 2015 and 2030.





## 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. In 2013, 161 noise complaints related to engine run-ups were received, which made up 32% of all noise complaints for that year. In order to mitigate the noise associated with engine run-ups on the community, a GRE was constructed at Billy Bishop Airport in April 2017. The facility was built at a cost of \$9 million which was paid for by passengers 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 immediate and significant. Since the GRE opened nearly three years ago, the Noise Management Office has received eight complaints related to engine run-ups—all of which occurred as a result of engine runs that were conducted outside of the facility due to extremely high wind conditions.

# Traffic Management

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The pedestrian tunnel, which opened in 2015, continues to be a strong contributor to the airport's noise mitigation program. Prior to the tunnel's opening, 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.

# Bike to YTZ

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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. In 2019, PortsToronto implemented a new Bicycle Maintenance Station for cyclist convenience. A valuable addition to cycling infrastructure at the airport, the maintenance station features a full complement of commonly required tools and two bike hangers able to accommodate any style of bicycle.

The popularity of biking to the airport has made the Bike Share station located at the Bathurst Street and Eireann Quay intersection one of 10 busiest in the city's network. During peak cycling season in 2019, approximately 250 rides per day were generated from this location, with an even split between rides starting at the station and ending at the station. Ridership continued in the winter months with 50 rides generated per day from this location. In 2019, two new stations were installed within 300m on the Bathurst/Eireann Quay intersection to accommodate the demand for bike share in this area; one in Little Norway Park, and one at the Fort York/Bathurst intersection.





# Reconfigured Passenger and Vehicle Traffic Operations

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In alignment with new traffic patterns at the airport as part of the 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, this design aims to decrease the amount of time each vehicle spends on site, reduce idling and noise and minimize the number of vehicles entering onto community streets. The project was part of a trial to assess improvements to passenger and vehicle traffic flow in the vicinity of Eireann Quay. With positive feedback submitted from the public, the new routing has been permanently implemented.

In 2020, PortsToronto commenced the second phase of this project as part of the City of Toronto-led Bathurst Quay Neighbourhood Plan (BQNP) which includes re-building portions of Eireann Quay to further complement this new approach to traffic operations as it will further reduce congestion and idling and better streamline passenger and traffic flow. The BQNP will also include 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

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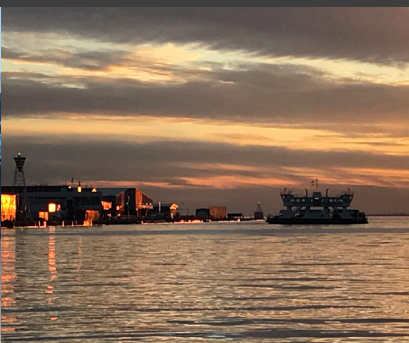
Billy Bishop Airport's management and regulations are regulated by a Tripartite Agreement among the federal government, as represented by the Minister of Transport, the City of Toronto and PortsToronto. As part of the Tripartite Agreement Billy Bishop Airport adheres to noise restrictions, a limit on 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.

We are fortunate to partner with two award-winning commercial air carriers, Porter Airlines and Air Canada, which connect our passengers to more than 20 destinations in Canada and North America. The ongoing cooperation from our carriers helps us to implement effective noise mitigation policies and practices. As part of this partnership, both carriers have put into effect a procedure that requires planes taxiing to and from the gates to operate on one engine to reduce noise as well as carbon impacts whenever possible.

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

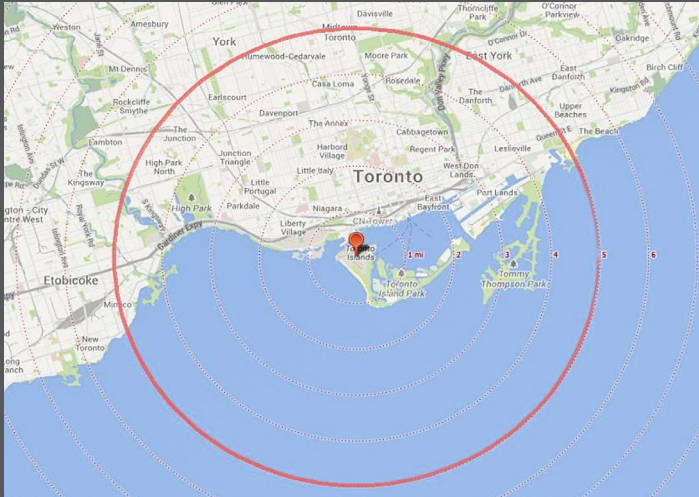
6:45 a.m. to 7:00 a.m. and 10:00 p.m. to 11:00 p.m. This curfew is strictly enforced, with significant penalties for any violations. In 2019, PortsToronto instituted an Airport Curfew Fine Policy that will redirect funds from curfew violation fines toward community organizations.

In December 2019, the airport experienced a curfew violation. The violation was 62 seconds beyond the nighttime curfew and the operator was Porter Airlines. This is the first violation under PortsToronto's new Curfew Fine Policy and the funds collected will be directed to an approved community group as per the policy.



# 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 2019, 99.9% 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**