

ANNUAL NOISE MANAGEMENT REPORT 2017



Making Investments that Matter

**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 not the largest airport in Canada, but it is the ninth busiest, and served approximately 2.8 million business and leisure travellers last year. We pride ourselves on making connections and creating gateways and our location in the heart of downtown Toronto means that connectivity is one of the things we do best.

Built in 1939, the airport is located in what is now a thriving, mixed-use urban waterfront. For our part, we strive to achieve balance by adhering to a managed growth approach and working to mitigate the impacts associated with running an airport. As such we work with the community and our airport partners to implement policies, and develop new infrastructure as part of our commitment to the noise mitigation at Billy Bishop Airport.

In 2017 overall noise complaints increased from 236 complaints to 271 complaints. This increase can be attributed in part to the increased number of flights over Algonquin Island as a result of new regional routes at the airport. Additionally, we saw an increase in complaints associated with mainland and ferry operations and construction which were related to terminal upgrade activities being completed by Nieuport Aviation. We also experienced a 78 per cent decrease year over year in complaints related to scheduled engine-run ups which is attributable to the new Ground Run-Up Enclosure (GRE) that went into operation in April 2017. In fact, since the GRE opened, noise complaints related to engine run-ups decreased by 97 per cent over the same time period in 2016.

Although we have seen an overall increase in noise complaints, we have seen a decrease within several area neighbourhoods. The Bathurst/Queen's Quay neighbourhood had a decrease from 103 complaints in 2016 to 71 in 2017. The neighbourhoods north of Queen Street submitted only 19 noise complaints in 2017, as opposed to 29 in 2016, and the Eastern Beaches neighbourhood had a 25 per cent reduction in complaints from 2016 to 2017. With aircraft take off and landings up

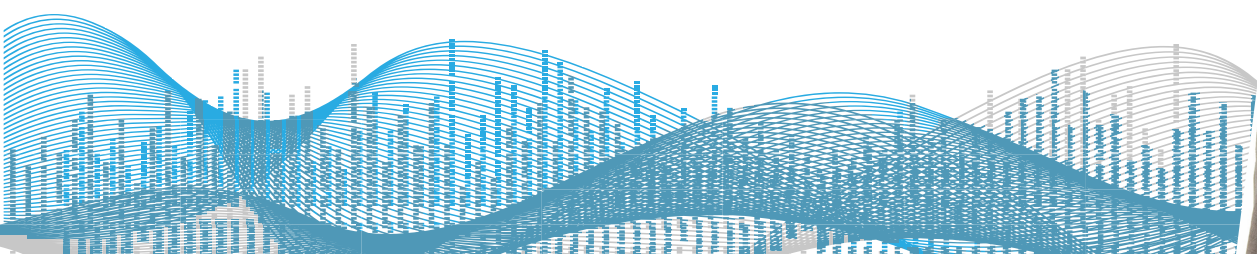
in 2017 by more than 5,100 movements, these declining numbers are indicative of how our noise program is keeping pace with our growth.

2017 was a unique year that came with greater-than-usual noise complaints generated by greater-than-usual noise. The construction undertaken by Nieuport Aviation in association with the terminal upgrade generated increased noise and lighting concerns at night and more ferry movements. The construction also meant a reduction in the number of functioning aircraft gates which resulted in more idling aircraft. This noise was unfortunate and we apologize for any disruption this may have caused the community. Fortunately, the terminal upgrade construction will be completed later this year. The enhanced terminal will be completed by late summer and with it the end of construction and the introduction of greater efficiencies that should result in fewer aircraft holds/idling and less noise. Measures were put in place at the end of 2017 and will continue during the construction period in 2018 with modifications to flight schedules and greater buffer times for aircraft to minimize the impacts we experienced last summer. We sincerely appreciate the community's patience over the last 12 months and are more committed than ever to implementing processes and adopting practices that reduce all noise at the airport.

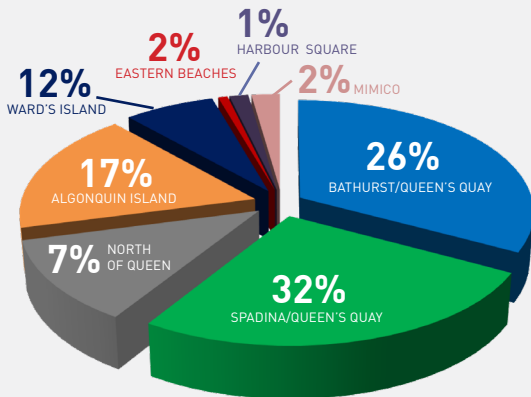
PortsToronto is committed to strengthening our positive relationships with the community and reducing the impact of noise generated by the airport. In 2018 we will continue to focus on listening to feedback, being responsive and identifying and implementing solutions to continue to enhance our noise mitigation program and good-neighbour policy.



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

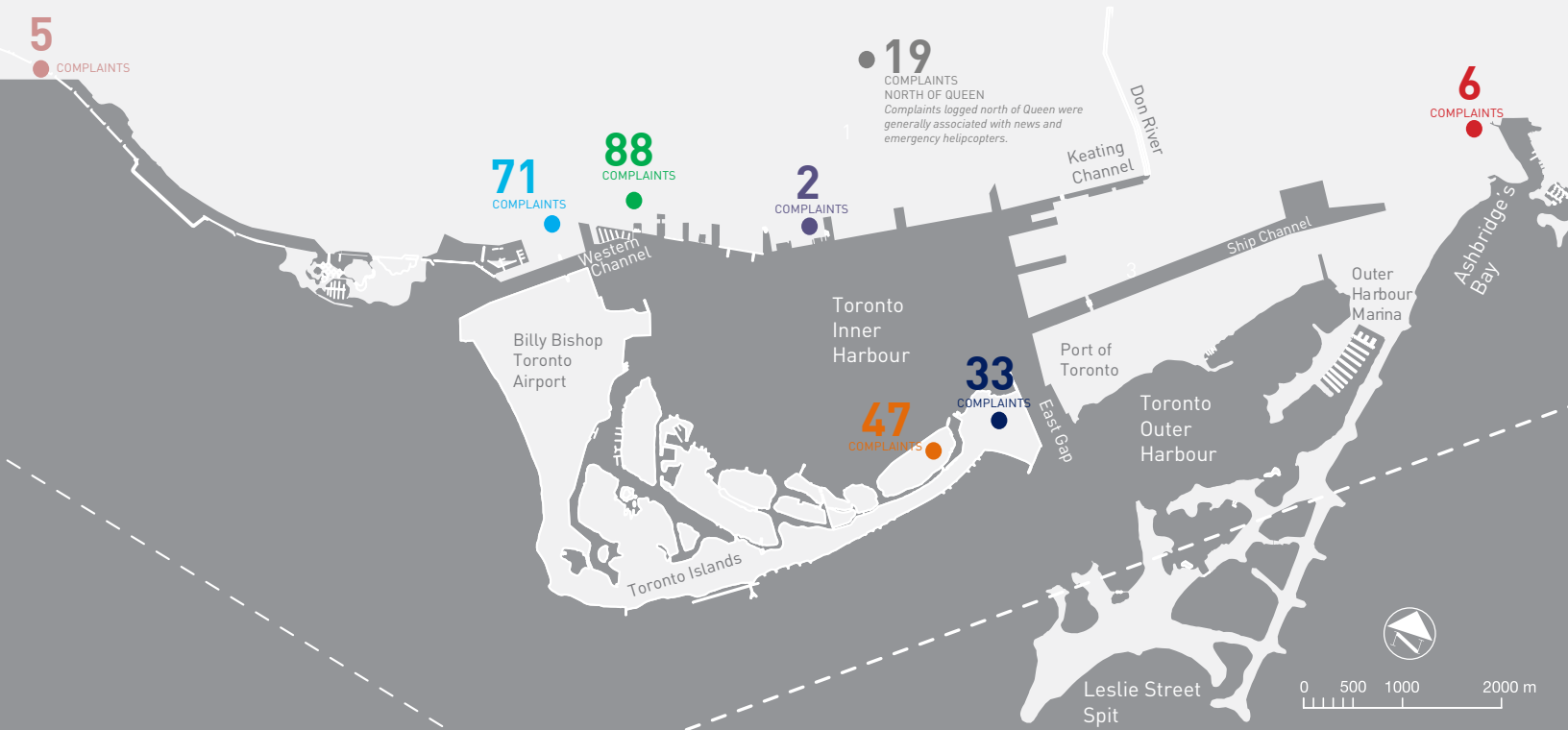


NEIGHBOURHOODS FILING COMPLAINTS 2017

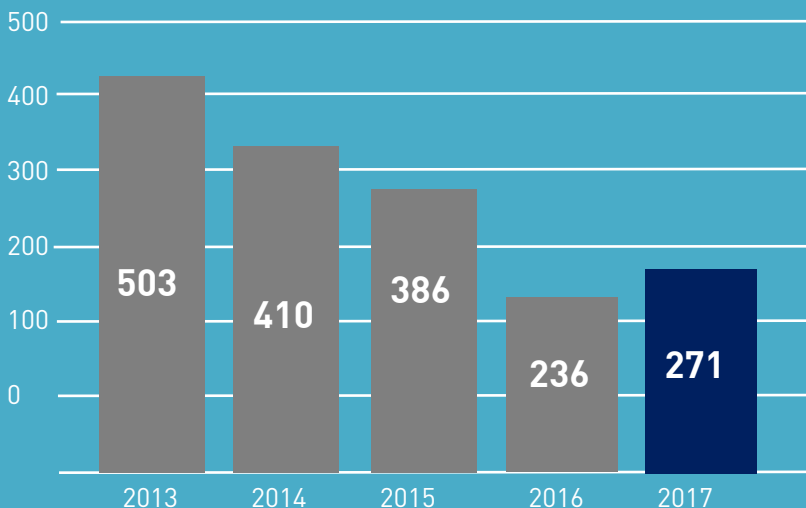


31%

THE BATHURST/QUEEN'S QUAY NEIGHBOURHOOD EXPERIENCED A DECREASE FROM 103 COMPLAINTS IN 2016 TO 71 IN 2017.



FIVE YEAR ANNUAL COMPARISON OF NOISE COMPLAINTS

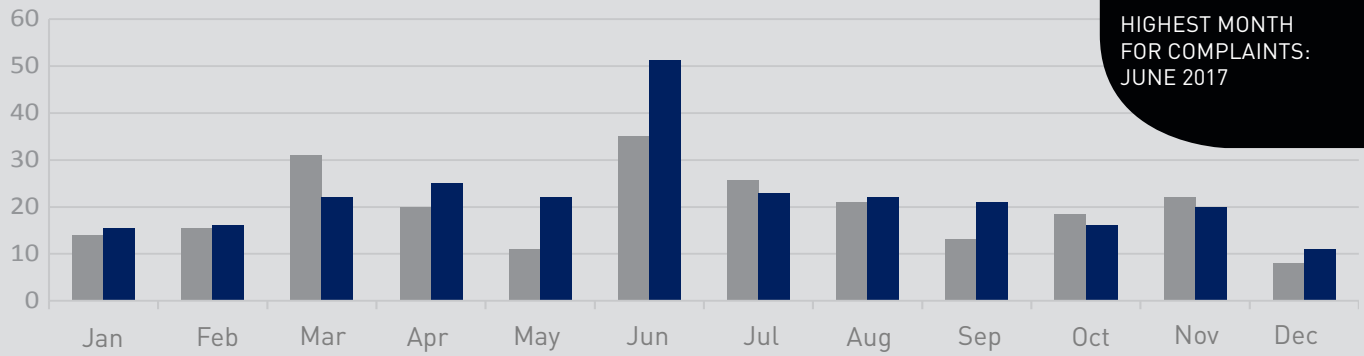


46%

REDUCTION OF OVERALL NOISE COMPLAINTS SINCE 2013.

MONTHLY COMPARISON OF NOISE COMPLAINTS 2016 AND 2017

■ NOISE COMPLAINT TOTAL 2016
■ NOISE COMPLAINT TOTAL 2017



LOWEST MONTH FOR COMPLAINTS:
DECEMBER 2017

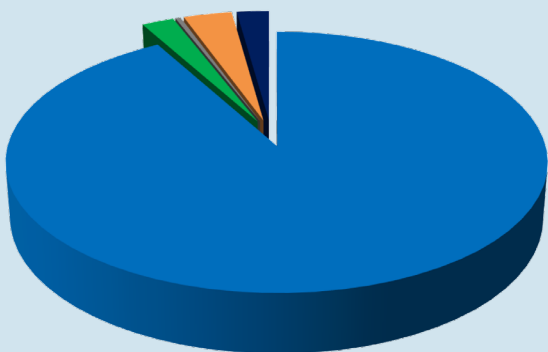
HIGHEST MONTH FOR COMPLAINTS:
JUNE 2017



Did you know?

Billy Bishop Airport is mandated to service General Aviation as part of the Tripartite Agreement.

COMPLAINTS BY ACTIVITY 2017

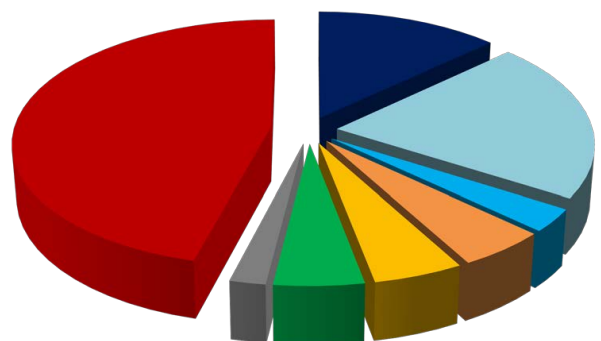


- AIRCRAFT RELATED (92%)
- FERRY RELATED (2%)
- CONSTRUCTION RELATED (3%)
- MAINLAND OPS RELATED (2%)
- OTHER (1%)

COMPLAINTS OF AIRCRAFT OPERATIONS BY TYPE 2017

The key areas generating complaints were as follows:

- SCHEDULED COMMERCIAL SERVICE (13%)
- MEDEVAC (5%)
- GENERAL (46%)
- UNCORRELATED (5%)
- ENGINE RUN-UP (3%)
- HELICOPTERS (5%)
- GENERAL AVIATION (21%)
- MILITARY (2%)



GROUND RUN-UP ENCLOSURE

Engine run-ups, which are required and regulated by Transport Canada as part of standard aircraft maintenance, have been cited by the community as a primary source of noise. 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 effects of engine testing on the community, a GRE was opened at Billy Bishop Airport in April 2017. The GRE was constructed at a cost of \$9 million which was paid for by PortsToronto and not taxpayers.

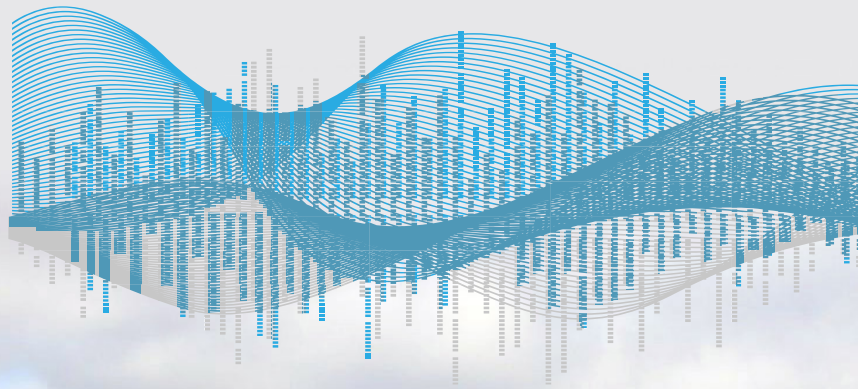
Located on the south-west side of the airfield, the three-sided, open-top facility accommodates commercial aircraft at the airport and is designed to dampen the noise associated with high-power aircraft engine ground run-up operations. It is only the second of its kind in Canada.

The GRE has made a significant and positive impact to our noise mitigation program. In 2016, Billy Bishop Airport received more than 36 complaints related to engine run-ups, however since the facility opened in April 2017, only one noise complaint related to engine run-ups has been received.



97%

REDUCTION OF COMPLAINTS RELATED TO ENGINE RUN-UPS YEAR-OVER-YEAR SINCE GRE OPENING.



GROUND RUN-UP ENCLOSURE

QUICK FACTS

- Billy Bishop Toronto City Airport's Ground Run-up Enclosure (GRE) is the first facility of its kind in eastern Canada, and only the second such facility in the country.
- The GRE is a 200 tonne, three-sided, open-roofed enclosure designed to reduce aircraft noise from engine run-ups by absorbing and dampening sound.
- The GRE is 63 metres wide by 66 metres deep.
- The enclosure's north wall stands 14 metres tall and the east and south walls are 11 metres tall.
- The three walls are lined with approximately 1,750 sound-absorbing panels supported by an external frame; all three walls are perforated by several louvered vents to allow proper air flow and aerodynamic purposes.
- Over 1,400 cubic metres of concrete were used to build the enclosure and adjoining apron.
- The primary users of the GRE are maintenance operators from Porter Airlines testing their turboprop aircraft the Bombardier Dash 8 Q400.
- The facility will be the primary location for high power engine run-ups performed by all operators at Billy Bishop Airport.
- An engine run-up refers to the testing of engines at various power settings to ensure all is in proper working order. Transport Canada mandates engine run-ups every time an aircraft engine undergoes certain maintenance procedures.





AIRFIELD REHABILITATION PROJECT

In 2017, Billy Bishop Airport entered its second year of its Airfield Rehabilitation Program—a significant three-year construction project to replace the existing aging civil and electrical infrastructure (pavement and lighting) for the airport’s runways, taxiways and apron. Additionally, Nieuport Aviation Infrastructure Partners, owner and operator of the airport’s passenger terminal, began upgrades and enhancements to the airport terminal.

With construction activities often occurring during nighttime hours when the airport is closed to air traffic, a number of measures were implemented to minimize the noise impact of construction activities on local residents. In order to reduce construction-related traffic noise through the Bathurst Quay Neighbourhood, the majority of equipment and material for the airfield project was transported to the site by barge from wharves located at PortsToronto’s Marine Terminal property in the Port Lands to a temporary dock on the east side of the airport. The floating barge was able to transport 900 tonnes of aggregate material from the Port Lands to the airport in one trip, eliminating the need for 64 dump trucks (32 each way) on the roads in the neighbourhood. This accounted for 4,125 fewer truck movements via the airport neighbourhood’s roadways during phase II of the airfield rehabilitation project.

Additionally, PortsToronto required the contractor to implement operating procedures that removed the need for reversing construction equipment to reduce the noise generated by the back-up alarms on the associated vehicles.

Did you know?



In March of 2017 Billy Bishop Airport was named the recipient of the Environmental Achievement Award for “Noise Mitigation Program” in North America as awarded by Airports Council International (ACI-NA). The ACI-NA Environmental Achievement Awards were established in 1997 to recognize airports that strive to protect and preserve the environment through their programs, initiatives and projects.

ACI-NA annually bestows up to four awards recognizing outstanding achievement in the categories of Environmental Management, Environmental Mitigation, Outreach, Education and Community Involvement, and Innovative/Special Projects. The winning airports must demonstrate the environmental benefit of their project and its innovative approach, effective implementation, applicability and cost-effectiveness.

Winning the award for our Noise Mitigation program was a result of our multi-faceted approach and long term commitment to the program. Our continued engagement with stakeholders combined with our innovative noise reduction efforts, commitment to implementing new policies and the creation of new infrastructure contributed to our selection for this award. It represents the years of hard work and dedication to our community relations, environmental strategy and reduction efforts.



TRAFFIC MANAGEMENT

The pedestrian tunnel, which opened in 2015, continues to be a strong contributor to our noise mitigation program. Prior to the tunnel's opening passengers would arrive and depart in large groups according to the ferry schedule which caused vehicle congestion and increased traffic noise at the mainland terminal and along Eireann Quay. Now with more than 90 per cent of passengers using the tunnel, passengers come and go on their own schedule which smooths out the flow and eliminates surges corresponding to the ferry arriving and departing to/from the mainland. A study by Dillon Consulting estimated that vehicle traffic in the area has gone down by as much as 75 per cent since the opening of the tunnel.

In order to encourage alternative means of access and further decrease traffic related noise, Billy Bishop Airport offers a complimentary regular shuttle service between the airport and downtown Toronto. The service is available on weekdays, weekends and holidays, with enhanced non-stop shuttle service during peak hours. Due to the popularity of the shuttles, four new 32-foot shuttle buses were added in April 2016 equipped with free

on-board Wi-Fi and GPS tracking so riders can track the shuttle. Our efforts seem to be working as a study recently confirmed that, on average, 40 per cent of travellers choose to take the shuttle bus, public transit, walk or bike to and from the airport.

In 2017, PortsToronto also worked with the City of Toronto to install additional new bike racks near the mainland ferry terminal in addition to the four covered racks on the island which encourage passengers and employees to cycle to and from the airport to further reduce airport traffic. The increasing popularity of biking to the airport has made the Bike Share station located at the Bathurst Street and Eireann Quay intersection one of ten busiest in the city's network. During peak cycling season in 2017, approximately 91 rides per day were generated from this Bike Share location with an even split between rides starting at the station and ending at the station. Ridership continued in the winter with 25 rides generated per day from this location. Plans are currently being considered to expand the docking station due to its popularity.

Did you know?

Billy Bishop Airport is one of the only airports to report on all noise associated with operations, not just aircraft noise.

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 2017, 99.7 per cent of the complaints received were handled within the five-day window that the airport adheres to as part of our commitment to the community.

We also 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 three 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.



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.

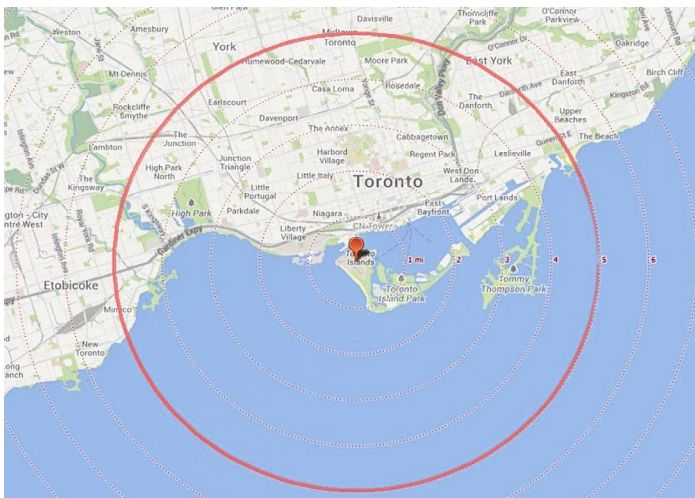
Billy Bishop Airport also operates within a curfew that prohibits any aircraft, other than emergency flights or Medevac aircraft, from taking off and landing between the hours of 11:00 p.m. and 6:45 a.m. We also further restrict operations with management policies between 6:45 a.m. to 7:00 a.m. and 10:00 p.m. to 11:00 p.m. This curfew is strictly enforced, with significant penalties for any violations. To further reduce noise disturbances experienced by residents on land, 90 per cent of commercial flights associated with Billy Bishop Airport follow flight paths over water.

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, Porter Airlines has 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. As well, both carriers have worked together with PortsToronto to ensure the success of the GRE and the 97 per cent reduction in complaints related to engine run-ups in 2017 since its opening.

BILLY BISHOP TORONTO CITY AIRPORT

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 within a distance of five nautical miles.*
- *Complaints which are not associated with the operation of Billy Bishop Airport, within five nautical miles, are referred to Transport Canada or the related airport.*
- *Response time policy has been in place since 2011 and mandated a response time of five business days. In 2017, 99.7% per cent of all complaints were responded to within five business days.*

OWNED AND OPERATED BY:
PROPRIÉTAIRE ET EXPLOITANT:

PORTS

TORONTO

**BILLY
BISHOP** 
TORONTO CITY AIRPORT

FOR FURTHER INFORMATION:

PortsToronto
Billy Bishop Toronto City Airport
1 Island Airport
Toronto, ON
M5V 1A1
Canada

Noise Management Office: 416 203 8490
Website: www.portstoronto.com