

2018 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 2,807,208 business and leisure travellers in 2018. Celebrating a rich 80-year history, Billy Bishop Airport has established itself as a world-class airport connecting passengers with convenient access into and out of the heart of Canada's largest city.

The airport's location within a thriving mixed-use urban waterfront in downtown Toronto means that connectivity is one of the things we do best. It is also behind what motivates us 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. As you will read in this report, whether it's the positive results achieved through the development of new infrastructure or working together with the community and our airport partners to implement new policies, noise mitigation at Billy Bishop Airport is woven into everything we do.

I am pleased to report that overall noise complaints decreased by 19 per cent in 2018, with 228 complaints submitted in 2018, versus 271 in 2017. Further, as a direct result of the Ground Run-Up Enclosure (GRE) facility that went into service in April 2017, there were no complaints related to scheduled engine-runs.

Community noise complaints related to flights over Algonquin Island decreased by 36 per cent, with only 17 complaints in 2018, down from 47 complaints in 2017. As these complaints in 2017 were mostly related to new regional routes at the airport, PortsToronto worked with regional carriers to alter flight paths and minimize flights over the islands. Similarly, noise complaints over Ward's Island decreased by 53 percent, with 17 complaints submitted in 2018 versus 32 submitted in 2017. In addition, noise complaints decreased in the neighbourhoods north of Queen Street with 12 noise complaints submitted in 2018, down from 19 in 2017.

Although we saw a decrease in noise complaints in many of the surrounding airport neighbourhoods, we have seen an increase in noise complaints in the Bathurst Quay neighbourhood. The communities in closest proximity to the airport have cited ground noise disturbances generated by aircraft maneuvering on taxiways and apron areas. With this in mind, we will begin work on a Ground

Noise Assessment study in 2019 and continue to work in collaboration with the newly formed Noise Sub-Committee of the Community Liaison Committee (CLC) to identify solutions to mitigate noise in these communities.

While noise complaints related to general aviation declined by nearly half, we did see an increase in noise complaints related to scheduled aircraft service, with 37 complaints submitted in 2018 up from 32 in 2017. General noise complaints have also increased from 114 in 2017 to 129 in 2018. These complaints are consistent with the feedback in our consultation about overall general noise from the airport and not specific to one event.

In terms of construction related noise, there were no noise complaints related to the Billy Bishop Airport Airfield Rehabilitation Program in 2018. Further, noise complaints related to the terminal upgrade at Billy Bishop Airport undertaken by our partners at Nieuport Aviation were down. This decrease in construction-related noise can be attributed to measures that were implemented at the airport to minimize noise associated with idling aircraft, including modifying flight schedules and adding greater buffer times. With the airfield rehabilitation and terminal upgrade now complete, it is expected that construction-related complaints should be eliminated in 2019.

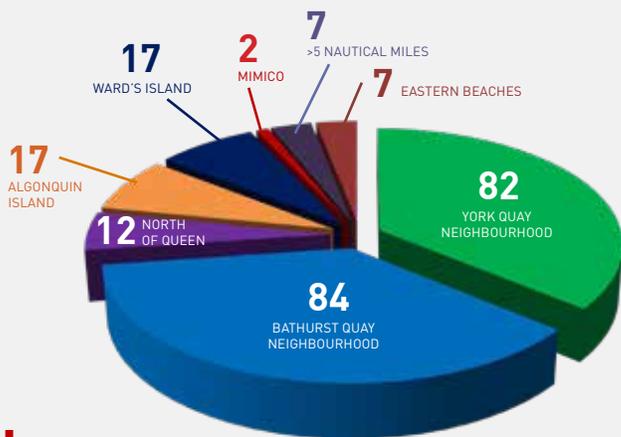
From the creation of our Noise Sub-Committee to innovative noise-mitigating infrastructure to enhancing our good neighbour policy to beginning a ground noise study, we are committed to making our noise management program the best that it can be. In the year ahead, we will release our Master Plan and we will continue to strengthen our positive relationship with the community by listening to feedback, being responsive and working to identify solutions to enhance the airport's noise management program.



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



NEIGHBOURHOODS FILING COMPLAINTS 2018

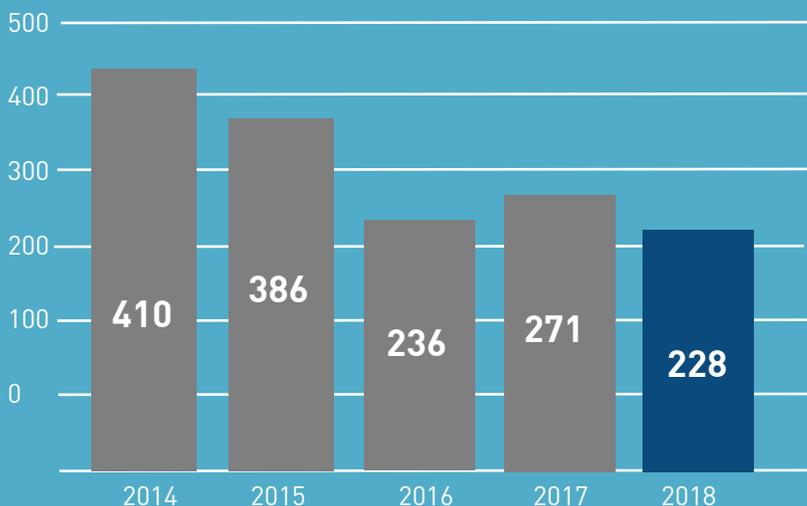


53%
WARD'S ISLAND EXPERIENCED DECREASE FROM 32 COMPLAINTS IN 2017 TO 17 IN 2018.

20%
BATHURST QUAY NEIGHBOURHOOD EXPERIENCED AN INCREASE FROM 70 COMPLAINTS IN 2017 TO 84 IN 2018.



FIVE YEAR ANNUAL COMPARISON OF NOISE COMPLAINTS



19%
OVERALL NOISE COMPLAINTS DECREASED BY 19% IN 2018, WITH 228 COMPLAINTS IN 2018, VERSUS 271 IN 2017.

GROUND RUN-UP ENCLOSURE AIRFIELD REHABILITATION PROJECT

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 PortsToronto and not taxpayers.

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 facility opened in April 2017, we have received only one complaint related to engine run-ups. In 2018, there were no complaints related to engine testing.

In September 2018, Billy Bishop Airport completed the 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.

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 including an award-winning barging operation. This initiative not only eliminated noise and traffic in the surrounding airport community but removed the equivalent of approximately 6,000 trucks off the surrounding airport roads, reducing emissions and air pollution in the neighbourhood.

PortsToronto also required the contractor to implement operating procedures that reduced the need for reversing construction equipment to decrease the noise generated by vehicle back-up alarms and construction lighting was cast downward and away from the city to avoid disturbing those in residential buildings.

Additionally, the overall project plan incorporated multiple individual project elements into a single construction contract that would otherwise have been completed over a longer period and by multiple contractors, thus reducing the overall impacts of construction related disturbances on the local community.



BY THE NUMBERS



Removing approximately 6,000 trucks carrying asphalt or granular material from the airport's neighbourhood streets



2,000 tri-axle trucks carrying asphalt



80 new LED runway inset lighting



Replaced 70 old incandescent airfield signs with new LED signage

450 actual working days on site



Over 3000 hours of night-time hours worked (11pm-6am)



1 Barge



800 total barge trips



Replaced approximately 345 old incandescent with new energy efficient LED elevated airfield lights.



Ground Run-up Enclosure



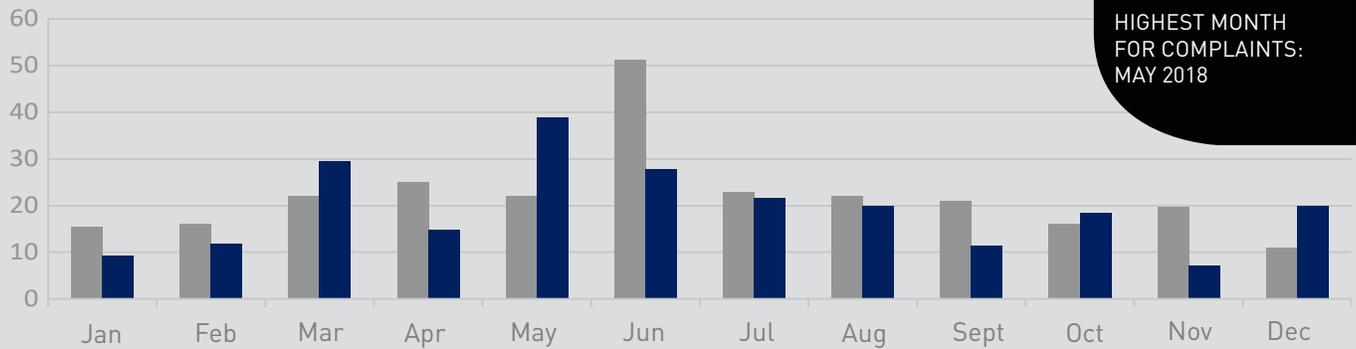
45,000 tonnes of asphalt



20,000 tonnes of recycled asphalt millings were reused

MONTHLY COMPARISON OF NOISE COMPLAINTS 2017 AND 2018

■ NOISE COMPLAINT TOTAL 2017
 ■ NOISE COMPLAINT TOTAL 2018



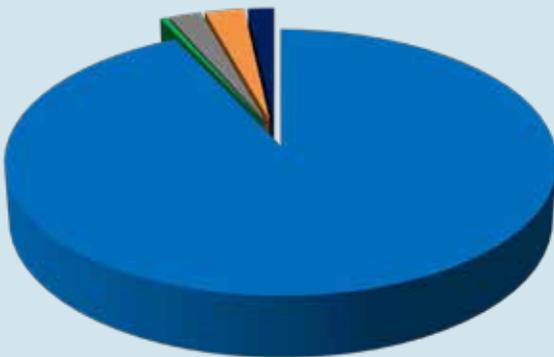
LOWEST MONTH FOR COMPLAINTS:
 NOVEMBER 2018
 HIGHEST MONTH FOR COMPLAINTS:
 MAY 2018



DID YOU KNOW?

As a direct result of the Ground Run-Up Enclosure (GRE) facility that went into service in April 2017, there were no complaints related to scheduled engine-run ups in 2018.

COMPLAINTS BY ACTIVITY 2018

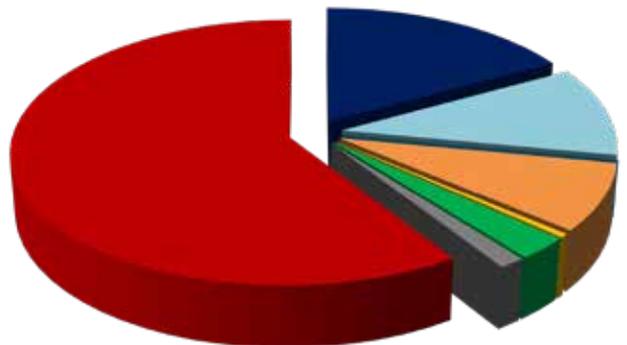


- AIRCRAFT RELATED (93%)
- FERRY RELATED (2%)
- CONSTRUCTION RELATED (3%)
- MAINLAND OPS RELATED (0%)
- OTHER (2%)

COMPLAINTS OF AIRCRAFT OPERATIONS BY TYPE 2018

The key areas generating complaints were as follows:

- GENERAL (58%)
- MEDEVAC (9%)
- SCHEDULED COMMERCIAL SERVICE (17%)
- UNCORRELATED (0%)
- ENGINE RUN-UP (0%)
- HELICOPTERS (3%)
- GENERAL AVIATION (11%)
- MILITARY (2%)





TRAFFIC MANAGEMENT

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. Now 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 further decrease traffic related noise, Billy Bishop Airport offers anyone wishing to access the airport a 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.

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 also worked 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, a Bicycle Maintenance Station for cyclist convenience will be installed and will include tools for manual tire replacement and an air pump for on-the-go maintenance.

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 the ten busiest in the city's network. During peak cycling season in 2018, approximately 182 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 with 42 rides generated per day from this location. The station expanded in 2018 due to its popularity, and another station to accommodate the demand for increased bike sharing in this area is being considered.



RECONFIGURED PASSENGER AND VEHICLE TRAFFIC OPERATIONS

In December 2018, PortsToronto implemented the first phase of the Billy Bishop City Side Modernization Project, as part of the City-led Bathurst Quay Neighbourhood Plan to improve access to Eireann Quay and alleviate traffic and congestion at the airport. The project includes 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.

In December, PortsToronto implemented the 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 new design has the potential to decrease the amount of time each vehicle spends on site, reducing vehicle idling times and vehicle-related noise.

This project includes a trial period to assess improvements to passenger and vehicle traffic flow in the vicinity of Eireann Quay. The general public is encouraged to share their feedback with PortsToronto as it will be an important factor in the decision to permanently implement the project. In the spring, the impact and efficacy of the reconfiguration will be evaluated to assess improvements to vehicle and passenger traffic and potential full-time adoption.

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 2018, 99.9 per cent of the 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 twice in 2018 and has committed to meeting four times in 2019.



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. There are currently three NMTs in operation at the airport and PortsToronto is currently considering adding two additional NMTs to the airport's noise management program. PortsToronto will be engaging the Noise Sub-Committee to determine potential locations.

WEBTRAK

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.

CALM WIND TRIAL

In 2018, Billy Bishop Airport requested that NAV CANADA undertake a Calm Wind Runway trial to determine if the procedure, that prescribes aircraft taking off and landing from west to east, should be implemented at the airport to further complement its Noise Management Program.

The trial, which began in August 2018, occurs during the morning start-up routine and when traffic levels permit during periods of calm wind i.e.,— wind speed of less than five knots. Over the course of the trial which will run until June 2019, the public is encouraged to submit feedback to the Noise Management Office or through WebTrak, as it pertains to the efficacy of the procedure in mitigating aircraft noise. Once the feedback has been compiled and studied, the results of the trial will be presented to the community.



DID YOU KNOW?

PortsToronto will institute an Airport Curfew Fine Policy that will redirect funds from curfew violation fines toward community organizations.

ELECTRIC-POWER FERRY

PortsToronto is working to convert the biodiesel fuel-powered airport ferry to electric power. This electric-power ferry will be the first in operation in Canada and will significantly reduce emissions and noise in the surrounding airport community.

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

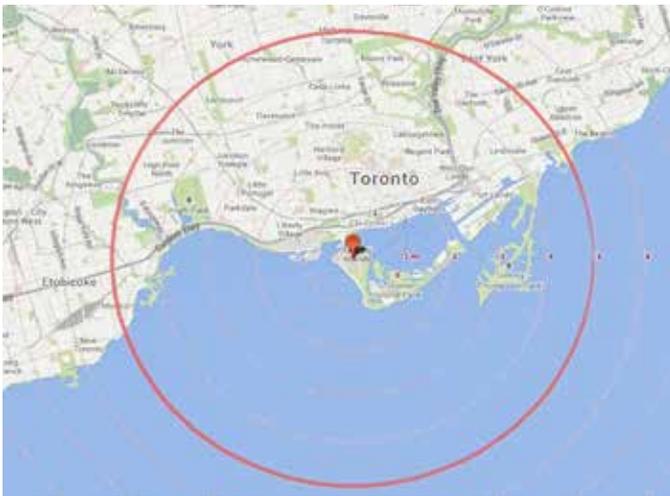
curfew is strictly enforced, with significant penalties for any violations. In 2018, there were no curfew violations at Billy Bishop Airport. In 2019, PortsToronto will institute an Airport Curfew Fine Policy that will redirect funds from curfew violation fines toward community organizations.

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 related 100 per cent reduction in complaints related to engine run-ups.

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 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 2018, 99.9% 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

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