



PORTSTORONTO

BILLY BISHOP TORONTO CITY AIRPORT

**COMMUNITY LIAISON COMMITTEE
MEETING #25**

MEETING MINUTES

Wednesday January 25, 2017
Waterfront Neighbourhood Center
Toronto, Ontario

Minutes prepared by:





These meeting minutes were prepared by Lura Consulting. Lura is providing neutral third-party consultation services for the PortsToronto Community Liaison Committee (CLC). These minutes are not intended to provide verbatim accounts of committee discussions. Rather, they summarize and document the key points made during the discussions, as well as the outcomes and actions arising from the committee meetings. If you have any questions or comments regarding the Meeting Minutes, please contact either:

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PORTSTORONTO COMMUNITY LIAISON COMMITTEE MEETING #25
Minutes – Wednesday January 25, 2017, 6:30 p.m. – 8:30 p.m.

Summary of Action Items from Meeting #25

| Action Item # | Action Item Task | Who is Responsible for Action Item |
|----------------------|---------------------------------------------------------------------------------------------------------|-------------------------------------------|
| M#25-A1 | Revise CLC meeting #24 minutes and circulate final version to CLC members/post on PortsToronto website. | Lura/PortsToronto |

Appendices

- Appendix A1-1: GTAA: Growing Canada with a Mega Hub Airport (Presentation)
 - Appendix A1-2: Toronto Pearson: Growing Canada with a Mega Hub Airport (Discussion Paper)
 - Appendix A1-3: NAV Canada: Updating Instrument Procedures for YTZ (Presentation)
 - Appendix A1-4: 2012 Airport Master Plan (Presentation)
 - Appendix A1-5: BBTCA Terminal Upgrade Project Update (Presentation)
 - Appendix A1-6: Airfield Rehabilitation Program Update (Presentation)
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PORTSTORONTO COMMUNITY LIAISON COMMITTEE MEETING #25
Minutes – Wednesday January 25, 2017, 6:30 p.m. – 8:30 p.m.

List of Attendees

| Name | Organization (if any) | Attendance |
|-------------------------------------------|--------------------------------------------------|-------------------|
| COMMITTEE MEMBERS | | |
| Councillor Joe Cressy | City of Toronto, Ward 20 | Regrets |
| Lia Brewer | Councillor Joe Cressy's Office | Regrets |
| Councillor Pam McConnell | City of Toronto, Ward 28 | Regrets |
| Sean McIntyre | Councillor Pam McConnell's Office | Present |
| Bryan Bowen | City of Toronto – Waterfront Secretariat | Present |
| David Stonehouse | City of Toronto – Waterfront Secretariat | Absent |
| Michael Perry | Air Canada | Present |
| Matthew Kofsky | Board of Trade | Absent |
| Robert Kearns | Ireland Park | Absent |
| Brad Cicero | Porter Airlines | Present |
| David Whitaker | Tourism Toronto | Absent |
| Mira Shenker | Waterfront Toronto (alternate) | Present |
| Andrew Hilton | Waterfront Toronto | Regrets |
| Chris Glaisek | Waterfront Toronto | Regrets |
| Joan Prowse | Bathurst Quay Neighbourhood Association (BQNA) | Present |
| Hal Beck | York Quay Neighbourhood Association (YQNA) | Present |
| Sarah Miller | Toronto Island Community Association (alternate) | Present |
| GUEST SPEAKERS AND SUBJECT EXPERTS | | |
| Mike Brown | GTAA | Present |
| Lorrie McKee | GTAA | Present |
| Cheryl Stone | GTAA | Present |
| Duncan Campbell | NAV Canada | Present |
| Jonathan Bagg | NAV Canada | Present |
| Michael Lettner | Nieuport Aviation | Present |
| Bojan Drakul | WSP | Present |
| Greg Ballantyne | WSP | Present |
| PORTSTORONTO REPRESENTATIVES | | |
| Angela Homewood | PortsToronto | Present |
| Deborah Wilson | PortsToronto | Present |
| Gary Colwell | PortsToronto | Present |
| Gene Cabral – Chair | PortsToronto | Present |
| Ken Lundy | PortsToronto | Present |
| Mike Karseboom | PortsToronto | Present |
| FACILITATION AND SECRETARIAT | | |
| Jim Fought | Lura Consulting | Present |
| Leah Winter | Lura Consulting | Present |

1. WELCOME AND INTRODUCTIONS

Mr. Jim Faught, Lura Consulting, welcomed members of the Billy Bishop Airport Community Liaison Committee (BBTCA - CLC) to the twenty-fifth committee meeting. Mr. Faught facilitated a round of introductions and reviewed the meeting agenda. He noted that dates for the 2017 CLC meetings were circulated to CLC members and requested that he be notified if there are any major conflicts.

2. REVIEW OF PREVIOUS MEETING MINUTES

Mr. Faught noted that draft meeting minutes from meeting #24 were distributed via email to committee members for review. The BQNA representative stated that the photograph included in the presentation by Nieuport Aviation on the Terminal Updates was taken on April 3rd, 2015 which was the Friday of a long weekend. She requested that the minutes be revised to include this information. Mr. Faught agreed that this change could be made and the final minutes will be posted on the PortsToronto website and circulated to CLC members.

Action:

M#25-A1. Revise CLC meeting #24 minutes and circulate final version to CLC members/post on PortsToronto website.

3. TORONTO PEARSON INTERNATIONAL AIRPORT – BRIEFING ON GROWING CANADA WITH A MEGA HUB AIRPORT

Ms. Lorrie McKee, Greater Toronto Airports Authority (GTAA), provided an overview presentation on growing Canada with a mega hub airport. Key points from the presentation include:

- Toronto Pearson International Airport is Canada's largest airport and has a long history of growth. There were 44 million passengers in 2016, an increase of 3 million passengers from 2015.
 - Toronto Pearson has the largest 2-hour flight catchment area in North America. On an average day, there are approximately 120,000 passengers travelling through the airport.
 - The reach of the airport is spurring a lot of investment with daily, non-stop flights to 67% of the world's growing economy.
 - The most recent economic impact study has indicated that there are 49,000 jobs at Toronto Pearson, 300,000 jobs in the Airport Economic Zone, and \$42 billion generated in economic activity.
 - There is an opportunity for Toronto Pearson to grow to become a Mega Hub Airport which would help to support trade and economic growth.
 - Southern Ontario will be defined by growth over the next 30 years, with the air travel demand at approximately 90 million passengers by 2043.
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- Today, Pearson Airport continues to have many small aircraft. These 19 or 48 seat aircraft keep our communities linked, but they also take up a valuable runway slot. If some of these small flights were accommodated at regional airports, slots at Pearson would be open for larger aircraft and long-haul, international flights.
- Southern Ontario has airport infrastructure that can support growth at Toronto Pearson. Specialization allows for the “highest and best use” of airport infrastructure.
- The Neptis Study (December 2016) references the congestion impacts related to Pearson Airport. By 2043 there will be a 25-35% increase in driving time to the airport. As a result, improved transit connections to Pearson will become even more important.

Below is a summary of the comments and questions raised by committee members regarding the presentation:

- *The YQNA representative remarked that many international airports shut down overnight, which would affect international connections and potential runway landing and takeoff capacity assumptions at Pearson Airport.*
 - *The YQNA representative asked what the share of cargo is on the international and domestic flights.* Ms. McKee responded that Pearson Airport has a number of all cargo operators, but most of the cargo (75-80%) comes in the underbelly of passenger aircraft. Michael Perry, Air Canada, added that at Pearson Airport, Air Canada has no dedicated aircraft for cargo and that all Air Canada cargo arrives in passenger aircraft.
 - *The BQNA representative asked how the numbers presented on the slide referencing better transit (slide 16) were derived and whether they take into consideration the social and environmental impact of an airport increasing to that number.* Ms. McKee responded that the numbers came from the Master Plans of each individual airport and the impacts of growth on each community is a local discussion.
 - *The BQNA representative asked whether the existing mega hub airports have regional airports located close to communities of people.* Ms. McKee responded that the mega hub airports are located in large urban centres however she cannot speak to the number of people living around those regional airports. Pearson Airport was not located close to neighbours when it was first built. As the region grows residential development is happening around the airport. Gene Cabral, PortsToronto, added that Waterloo Airport is working with municipal departments to look at transit connectivity options (e.g. extending the GO line to the airport). Across the region airports are looking at creating better connectivity to reduce road traffic and congestion. BBTCA has 40% of passengers travelling to the airport by transit, walking or cycling whereas Pearson Airport is at 10%.
 - *The Waterfront Secretariat representative inquired about the next steps in the process and whether more concrete recommendations will be made.* Ms. McKee responded that the Mega Hub paper talks about some of the key ingredients for growth (e.g. ground side connectivity, potential for high speed rail and LRT connections) as well as the challenges within the terminal building (e.g. security screening, customs services) and the regional system of airports. Those are the building blocks that are important to help Pearson continue to grow. Mr. Cabral added that BBTCA is currently full from a commercial slot perspective however it is the airlines that
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dictate where they put their assets. [Following the CLC meeting, the Toronto Pearson discussion paper on Growing Canada with a Mega Hub Airport was emailed to CLC members and is attached in Appendix A1-2]

4. NAV CANADA UPDATE ON INSTRUMENT PROCEDURES

Mr. Jonathan Bagg, NAV Canada, provided a presentation on updates to the instrument procedures for BBTCA. Key points from the presentation include:

- NAV Canada is the second largest air navigation provider in the world with 12 million aircraft movements per year and over 18 million square kilometres of airspace.
- The services provided by NAV Canada include air traffic control, flight information, weather briefings, aeronautical information, flight inspection, airport advisory services, and electronic navigation aids.
- As part of the cyclical 4-year review process, NAV Canada is planning improvements to flight paths to and from BBTCA. Improvements are being planned for arrival and departure procedures for runway 08/26. These procedures are typically used in cloudy or poor weather conditions. The changes are largely over water, with some flight paths adjustments that better avoid residential areas.
- Updates are planned for both ground-based and satellite-based approach procedures that are used in cloudy weather conditions. Updates to instrument departure procedures will better align where departures fly in clear and cloudy weather conditions.
- The changes to runway 08/26 arrival and departure procedures were described in detail.
- The impacts of the changes include: shifting some traffic away from residentially populated areas; improved access in poor weather conditions (less delays, holding patterns, diversions); and reducing the interval required between departures (less idling of aircraft ready to depart on the ground).
- NAV Canada is committed to providing information to the community in advance of the changes being planned for April 27, 2017. A PDF notice summarizing the changes will be posted online by February 15, 2017.

Below is a summary of the comments and questions raised by committee members regarding the updates to instrument procedures for BBTCA:

- *The TICA representative noted that on Saturday January 21st when the Airport was providing bus service through the airport for the Island residents during the City Ferry outage she observed vehicles parked near the runway. She inquired if this was related to the fog and to assist planes on arrival to the airport. Mr. Bagg responded that the vehicles would not be there to assist in lighting for aircraft approaches. There are strict Transport Canada lighting standards in place. (Following the CLC meeting, Mr. Cabral determined that the vehicles were PortsToronto staff vehicles and they are often parked in safe areas away from the runway typically monitoring wildlife activity and doing inspections.)*
 - *The Waterfront Secretariat representative inquired about the relationship of the 3.5° descent angle to the marine exclusion zone (MEZ). Mr. Bagg responded that in terms of obstacle*
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clearance, the highest obstacle (i.e. the Hearn Generating Station, 440 Unwin Ave) is what NAV Canada designs to. Mr. Cabral added that the descent angle could be reduced to 2.8° without conflicting with the MEZ.

- *The YQNA representative asked if there are any changes to the climb rates for departures.* Duncan Campbell, NAV Canada, responded that aircraft will reach about 800-1000 feet before turning. Mr. Bagg added that take offs will have a similar climb rate as the approaches. (Following the CLC meeting, Mr. Bagg confirmed the take offs will have a similar climb rate as they currently do.)
- *The BQNA representative noted that the new flight paths appear to be closer to land.* Mr. Bagg responded that they are not necessarily closer to land as the aircraft will be climbing over the water similar to what is seen today in visual flight conditions. He doesn't anticipate the changes as being the source of significant concerns based on existing departure traffic operating in similar places not being a significant source of noise complaints. In terms of community impact, it will be the same as today. Mr. Cabral also confirmed that no additional noise impact on residents is expected by a flatter flight path permitted by instrument flight rules.
- *The Waterfront Secretariat representative inquired if there will be a more frequent occurrence of arrivals to runway 26 over the Port Lands.* Mr. Bagg responded that while there won't be an increase in arrivals to runway 26 overall, a small portion (estimated at 10% of arrivals) of existing arrivals to 26 will use the approach over the Port Lands (since the RNAV A (Area Navigation A) will no longer be available, see slides 11-13 and 22 for RNAV A path visual).
- *The representative from Councillor McConnell's office asked if the RNAV A approach will no longer be available to pilots during Instrument Landing System (ILS) conditions once the approach it is revoked.* Mr. Bagg responded that he is correct. Once the approach is revoked it is removed from the aircraft and cannot be used during ILS conditions. He also noted that circuit traffic over the islands will still occur on visual flight days. (See slides 11, 17 and 18 for ILS path visual.)
- *The Waterfront Secretariat representative added that it is important for island residents to understand that on a visual flight day, there will be no change to the flight paths.* Mr. Cabral added that Porter and Air Canada pilots will direct planes to the Hearn and eastern soccer fields on visual flight days.
- *The representative from Councillor McConnell's office asked if the gradient change of the new approach is possible because of technological improvements.* Mr. Bagg responded that it is the technology as well as the criteria that apply to the technology that allows for the new approach paths.

5. 2012 AIRPORT MASTER PLAN REVIEW

Mr. Greg Ballantyne, WSP, provided an overview presentation on the 2012 Airport Master Plan. Key points from the presentation include:

- The 2012 Airport Master Plan for BBTCA was released in 2014. An Airport Master Plan is not a Regulation; it is a long-term planning tool. BBTCA is not required to have a Master Plan through its lease agreement but considers it a best practice.
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- The objectives of the Master Plan include: growth of the airport through efficiency; implementing a rational development concept; create a long-term development plan for airport infrastructure; and ensure long-term airport operational objectives are met.
- The Master Plan adheres to the conditions of the Tripartite Agreement and reflects the overall objectives of PortsToronto with respect to environmental responsibility, sustainability, and social responsibility.
- The economic impact was assessed and included as part of the 2012 Master Plan and has subsequently been updated in 2014.
- The 2012 Master Plan aircraft traffic forecast indicates the capacity at 140,000 aircraft movements per year and recognizes the need for a managed growth strategy for movements. The forecast assumes no increase in the commercial carrier slot program (202 slots per day).
- The 2012 Master Plan passenger traffic forecast indicated 1.5M passengers at the time of the report. Based on the capacity of 202 slots per day, passenger growth is assumed to occur through increased aircraft load factor and slot utilization. As a result, the practical capacity is 3.6M passengers. The Master Plan looked at two passenger growth activity forecasts: (1) continued high growth; and (2) regional air transport growth.
- The 2012 Master Plan included a number of airside, groundside, airport support, and commercial development recommendations, many of which have been completed to date.

Below is a summary of the comments and questions raised by committee members regarding the 2012 Master Plan review presentation:

- *The YQNA representative asked for clarification on how the slots during the night time hours are considered (before 7:00am, after 10:00pm).* Mr. Cabral responded that there is a noise penalty on all aircraft during night time hours, which is equivalent to 16.67 movements. From a planning perspective, BBTCA has 7 approved slots from 6:45am-7:00am and 10:00pm-11:00pm for planning purposes. Currently Porter Airlines is using 3 departures in the morning and 4 arrivals at night within those hours. PortsToronto also has a landing fee to create a disincentive for aircraft movements during those times for non-terminal carriers and operators. Brad Cicero, Porter Airlines, added that their schedule has recently been revised to reduce the number of arrivals after 9:00pm.
 - *The YQNA representative stated that noise penalties don't matter from a resident's perspective. If someone is woken up once, that is the problem.*
 - *The YQNA representative requested clarification on airside versus groundside areas.* Mr. Ballantyne responded that airside refers to the areas associated with the maneuvering and safety of aircraft (taxiways, runways) and groundside refers to areas that are generally non-secure where the public has access (access roads, parking). The ferry terminal is considered groundside.
 - *The TICA representative inquired if the ferry was considered in the master planning process.* Mr. Ballantyne responded that the master planning process looked at the ferry. The tunnel was still under construction at the time of the Master Plan but the study looked at the capacity of the ferry and the requirement to keep it operational when the tunnel was complete.
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- *The TICA representative inquired about why the ferry is required to continue to operate. Mr. Cabral responded that part of the requirement is to bring vehicles across to the island (employee vehicles, critical deliveries, fuel, commercial vehicles, passenger parking). In addition, 5-10% of passengers continue to use the ferry.*

6. BILLY BISHOP AIRPORT TERMINAL UPGRADES - UPDATE

Mr. Michael Lettner, Nieuport Aviation, provided an update presentation on the BBTCA terminal upgrades. Key points from the presentation include:

- Nieuport Aviation is undertaking updates to the BBTCA terminal. The presentation provides an update on construction activities.
- A recap was provided on the rationale for the upgrades, the project guiding principles, and construction mitigation measures.
- Upcoming work throughout February 2017 includes: installation and commissioning of temporary boarding gates 8A and 8B; and demolition of boarding gate 3. Work throughout March 2017 will focus on site services work (water and sewer lines) and installation and commissioning of temporary boarding gates 3A, B, & C.
- Exterior work will be finalized during spring/summer 2017 with new gates 3, 8 and 9.
- Community outreach will continue to be ongoing with quarterly updates to the CLC, direct briefings to YQNA and BQNA at their request, and outreach via PortsToronto website for notification on any material changes that may impact the community.

Below is a summary of the comments and questions raised by committee members regarding the BBTCA terminal upgrades:

- *The YQNA representative noted that at the previous CLC meeting he requested a sketch overlaying the terminal upgrades and the old terminal area. Mr. Lettner noted that slide 6 was updated to show this. The YQNA representative also requested that there be a figure which more clearly shows the ultimate additional terminal expansion superimposed onto a screened background of the current terminal building/ gates.*

7. AIRFIELD REHABILITATION PROGRAM - UPDATE

Mr. Gene Cabral, PortsToronto, provided an update on the BBTCA Airfield Rehabilitation Program. Key points from the presentation include:

- Construction work over the next couple of months is focused on the Ground Run Up Enclosure (GRE) facility. The status of the program was reviewed and a time lapse video showing the construction progress to date was shown including the erection of the steel frame.
 - Over the winter months from January 9 - March 31, the working days will generally be concentrated Monday to Friday from 7:00am to 5:00pm. Occasional weekend and night activities may be conducted if/when necessary.
 - The project is on schedule for substantial completion by March 31, 2017.
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- The planned ground run-up enclosure testing and commissioning is anticipated to take place at the end of the first quarter of 2017.

Below is a summary of the comments and questions raised by committee members regarding the Airfield Rehabilitation Update:

- *The YQNA representative noted that he put together a substantial submission to the City in July 2016 as part of the GRE approval process and he will be walking through those points in more detail. Many points in that submission speak to the airport capacity which is tied back to the 2012 Master Plan. From the community perspective, the GRE is part of airport expansion. Mr. Cabral responded that the GRE was recommended from the previous noise study and 2012 Master Plan. It is not about expansion; it is about improving on current airport operations by better managing noise for run ups that occur today. PortsToronto is not anticipating increasing the number of run ups or the times of run ups based on the facility being in place.*
- *The YQNA representative requested that an update be provided regarding provincial noise standards as a follow up to the presentation by Angela Homewood, PortsToronto, at CLC #23. He added that there are glaring errors that need to be addressed. The YQNA representative also noted that final slides of presentation demonstrated confusion on the part of PortsToronto with respect to both the Stationary Source Noise criteria and the Fly-by Noise criteria to which the surrounding residential and community land uses were approved for construction. Ms. Homewood noted that her presentation was on the provincial planning framework and confirmation from the Ministry of the Environment and Climate Change that there is no provincial approval required for the GRE facility. Mr. Faught added that the draft minutes from the subcommittee meeting regarding noise concerns on November 14, 2016 were circulated. Once the minutes are finalized the group can move forward in addressing those concerns and schedule a meeting with MOECC.*

8. BUSINESS ARISING

Future BBTCA – CLC meeting Dates: 2017

- May 3, 2017
- September 13, 2017
- November 22, 2017

Future Site Visits

- Proposed dates will be shared with CLC members for the Firehall and Maintenance facility tour. The month of March is the target timing for this tour.

Other Business

- The BQNA representative stated that she was hoping to have a discussion at this meeting about the health impacts of the airport. She spoke to Councillor Cressy and he is going to try to find the best person at the City to talk about this. The Councillor liked the idea of presenting to the CLC rather than at a subcommittee meeting.
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- The representative from Councillor McConnell's office offered to follow up with Councillor Cressy's office.
- Ms. Homewood, PortsToronto, added that she reached out to Barb LaChapelle, Toronto Public Health, who was the contact involved in the EA proposal. She was going to look into who should be a representative to attend the CLC meeting.
- *The YQNA representative noted that pdf files of recent minutes appear to have all the presentation attachments consolidated into one large pdf file. However, in years past, CLC Minutes were emailed with separate attachments. YQNA asked whether the pdf files of all past CLC meeting minutes have been similarly consolidated. Mr. Faught noted that the PDF files can also be shared via dropbox if the email attachment limit must be exceeded, and that the minutes and presentation materials have been consolidated for each meeting.*

9. WRAP UP

Mr. Faught thanked CLC members for attending the meeting and reminded everyone that the next meeting is scheduled for May 3, 2017.

ADJOURN

Presentation to the Billy Bishop Toronto City Airport Community Liaison Committee

Toronto, Ontario

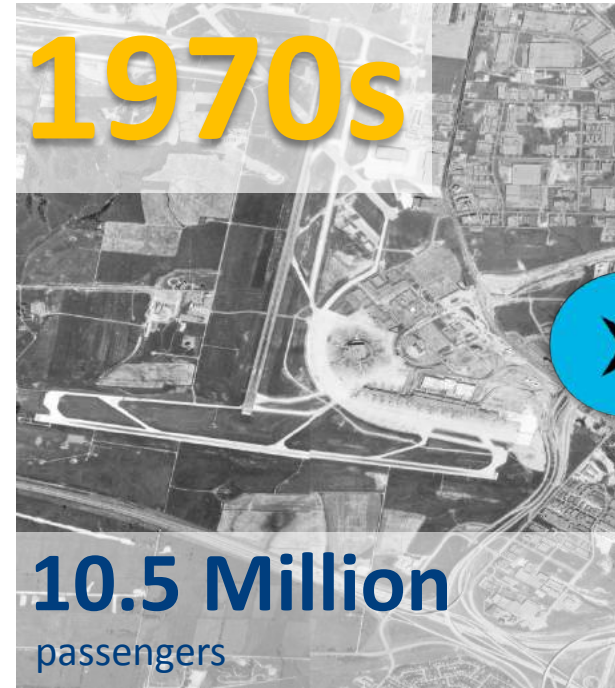


Lorrie McKee, Director, Public Affairs and Stakeholder Relations
Mike Brown, Senior Planning Advisor



Toronto Pearson
International Airport | Aéroport International

Toronto Pearson's story has always been one of growth



North America's:
14th busiest airport for total passengers
2nd busiest airport for international passengers

Toronto Pearson is Canada's natural gateway to the world

- Unprecedented levels of growth in the last 3 years – 3M more pax 2016
- We have the largest 2-hour flight catchment area in North America
- 120,000 passengers per day - 150K on peak days
- Daily, non-stop flights to 67% of the world's economy and growing



Airports are crucial to any economy; Pearson is no different



- **Global connectivity is a key driver of business location decisions, investment, trade, tourism and jobs for Ontario.**
- **The Airport Economic Zone is the anchor of an export-oriented business cluster with \$760 million in goods on roads each day.**

Overview of Pearson International Airport



Area Employment

300,000 jobs in the airport zone. 2nd largest in Canada



Direct Employment

49,000 jobs at Pearson



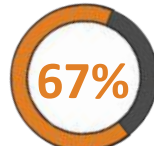
Economic Activity

\$42 billion (6.3% of Ontario GDP)

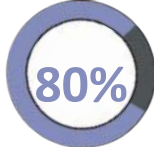
Mega Hub

Mega Hub means Toronto and Canada can support greater connections than could be supported naturally

- Toronto is currently one of 40 Global Hub Airports worldwide.
- Of the 11 international Mega Hubs, LAX and JFK only two in North America.
- Exports drive Canada's economy. A Mega Hub connects our exporters to the world.
- The increased demand from international passengers transiting through a Mega Hub opens up opportunity for more long-haul direct flights to more emerging markets.



Currently connected to 67% of Global Economy



Mega hubs connects to 80%+

A Pearson mega hub will create even more growth and jobs

Frontier Economics study shows that by 2030:

- GDP from \$42b to \$63b, growth of 67%.
- Jobs from 332,000 to 542,000, growth of 61%.
- Total passengers from 41m to 68m, growth of 60%.

This is the current trajectory; Mega Hub status would generate even more growth and jobs.



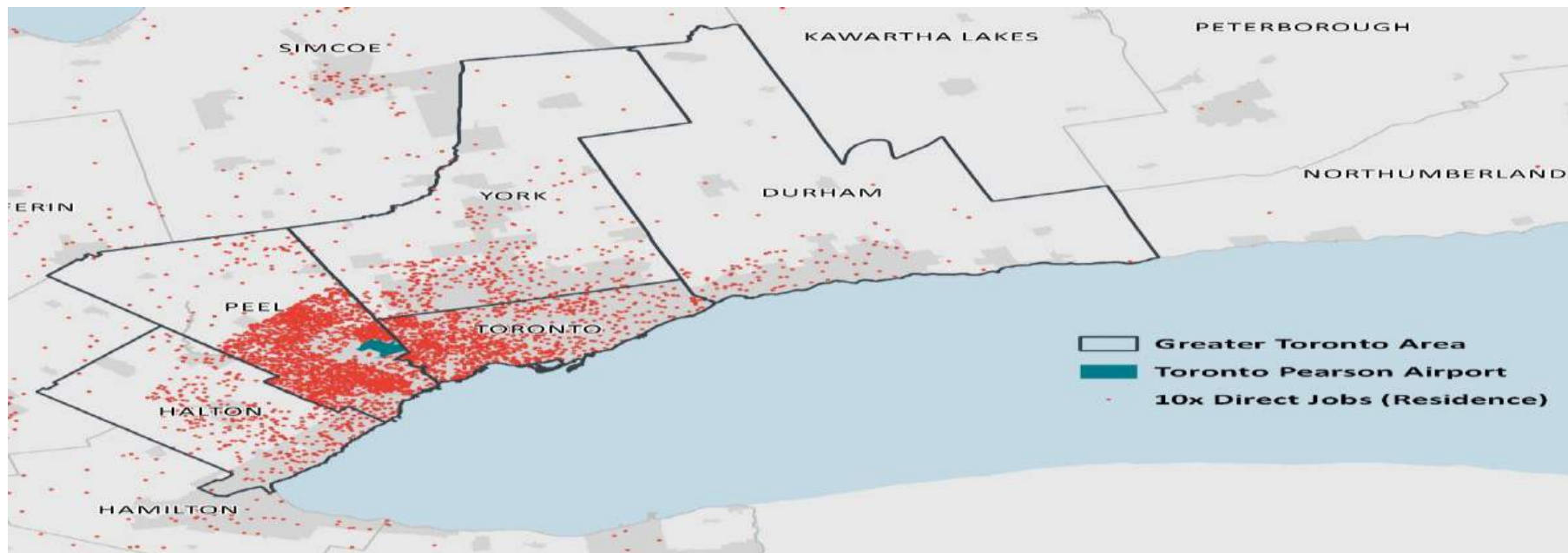
By 2030, Pearson as a Global Hub would support \$63B in GDP and 542,000 jobs.

A Mega Hub, would generate even greater benefits



Toronto Pearson has a great impact right here in The City of Toronto

Residents with direct jobs at Toronto Pearson



**Of 49,000 workers at Toronto Pearson, 25% in Toronto
Of 195,000 job supported; > 60,000 in Toronto**

Southern Ontario will be defined by growth over the next 30 years

\$1.0 Trillion Ontario GDP in 2043

~15.5 Million Population in 2043

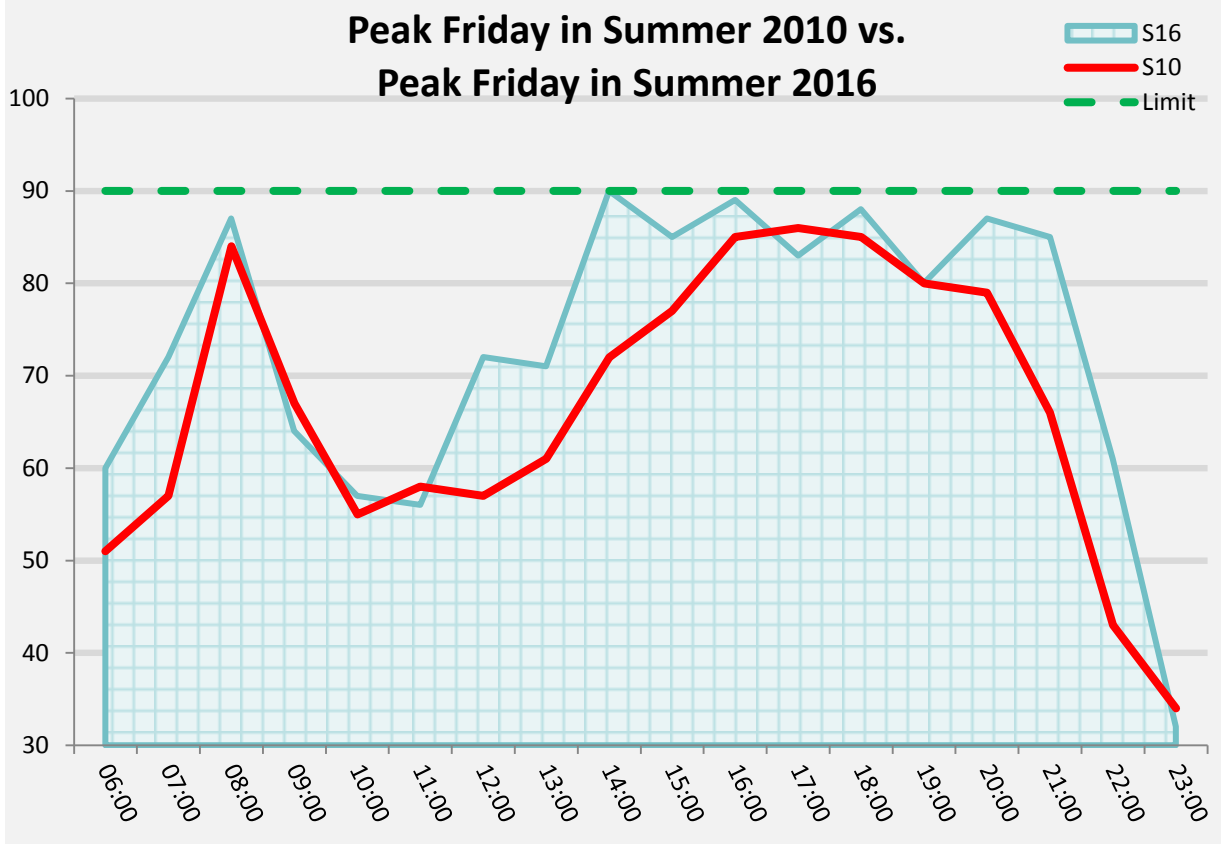
~90 Million passengers - Air travel demand in 2043

Substantially increased ground transportation time



Toronto Pearson Role: Canada's Long-Haul International Airport

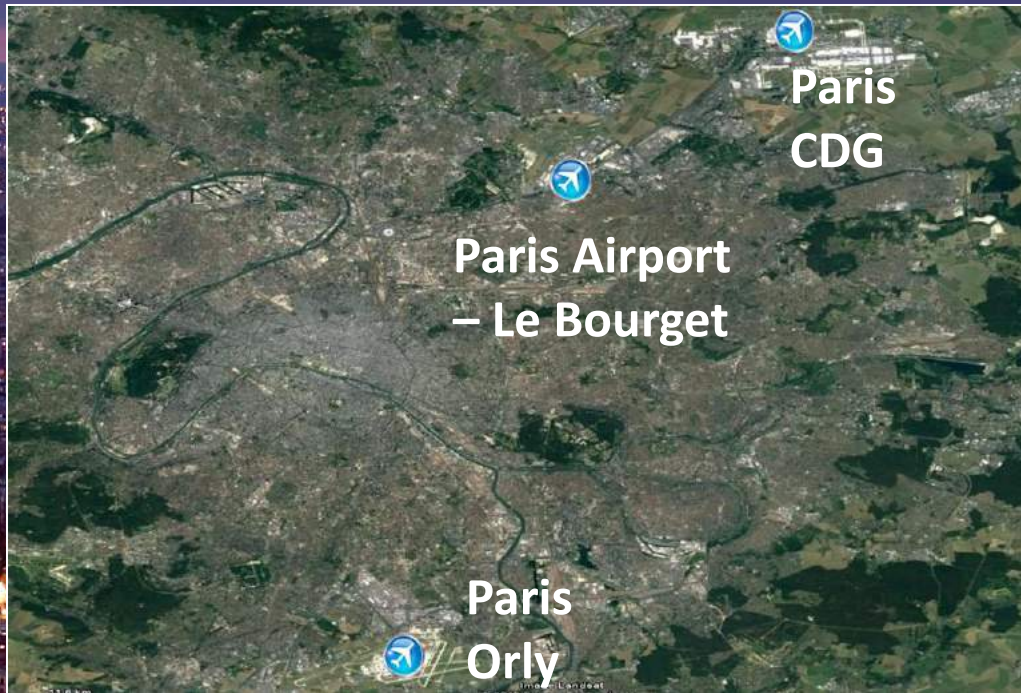
Peak Friday in Summer 2010 vs.
Peak Friday in Summer 2016



- Pearson today, continues to have many small aircraft.
- These 19 or 48 seat aircraft keep our communities linked., but they also take up a valuable runway slot.
- If some of these small flights were accommodated at regional airports slots at Pearson would be open for long-haul, international flights.

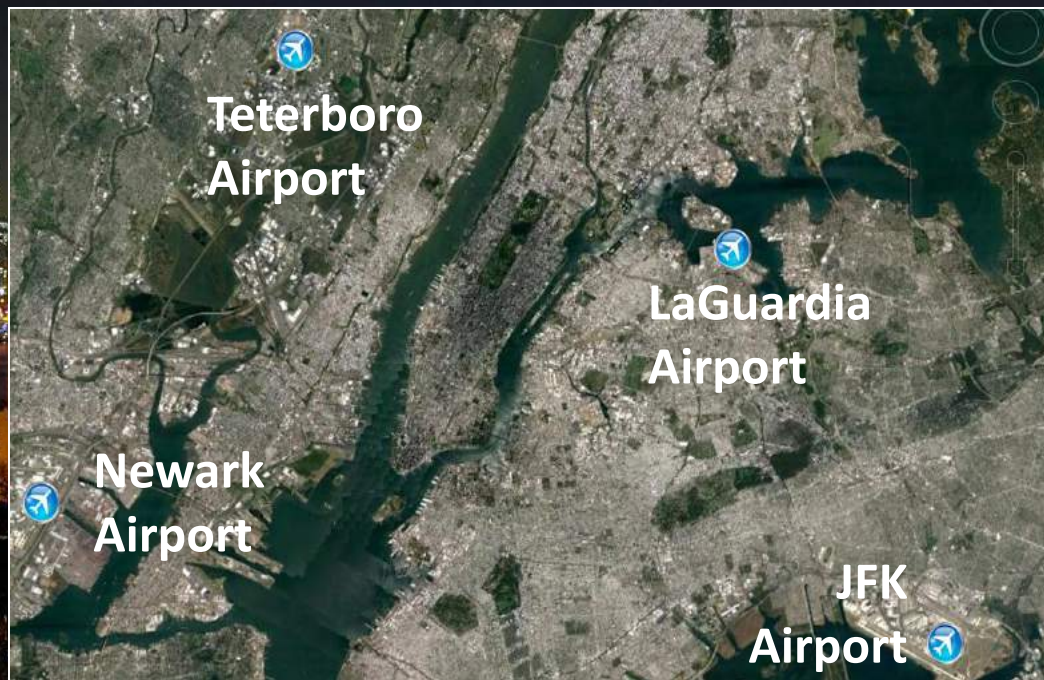
Mega hubs supported by a regional airport network: Paris

Population
12.3 million



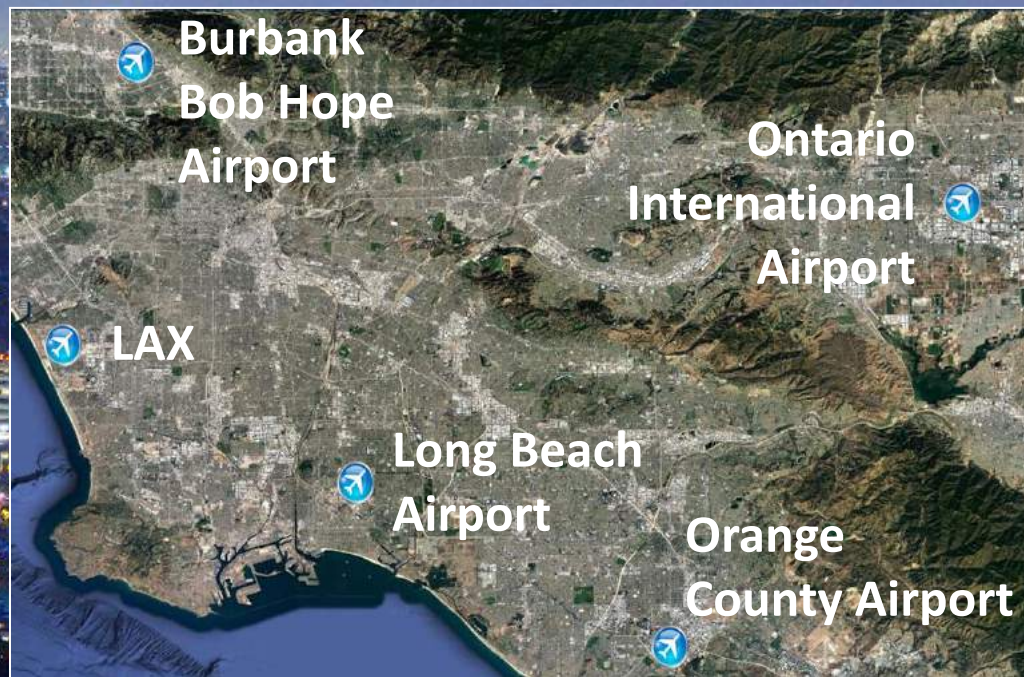
Mega hubs supported by a regional airport network: New York

Population
20.2 million

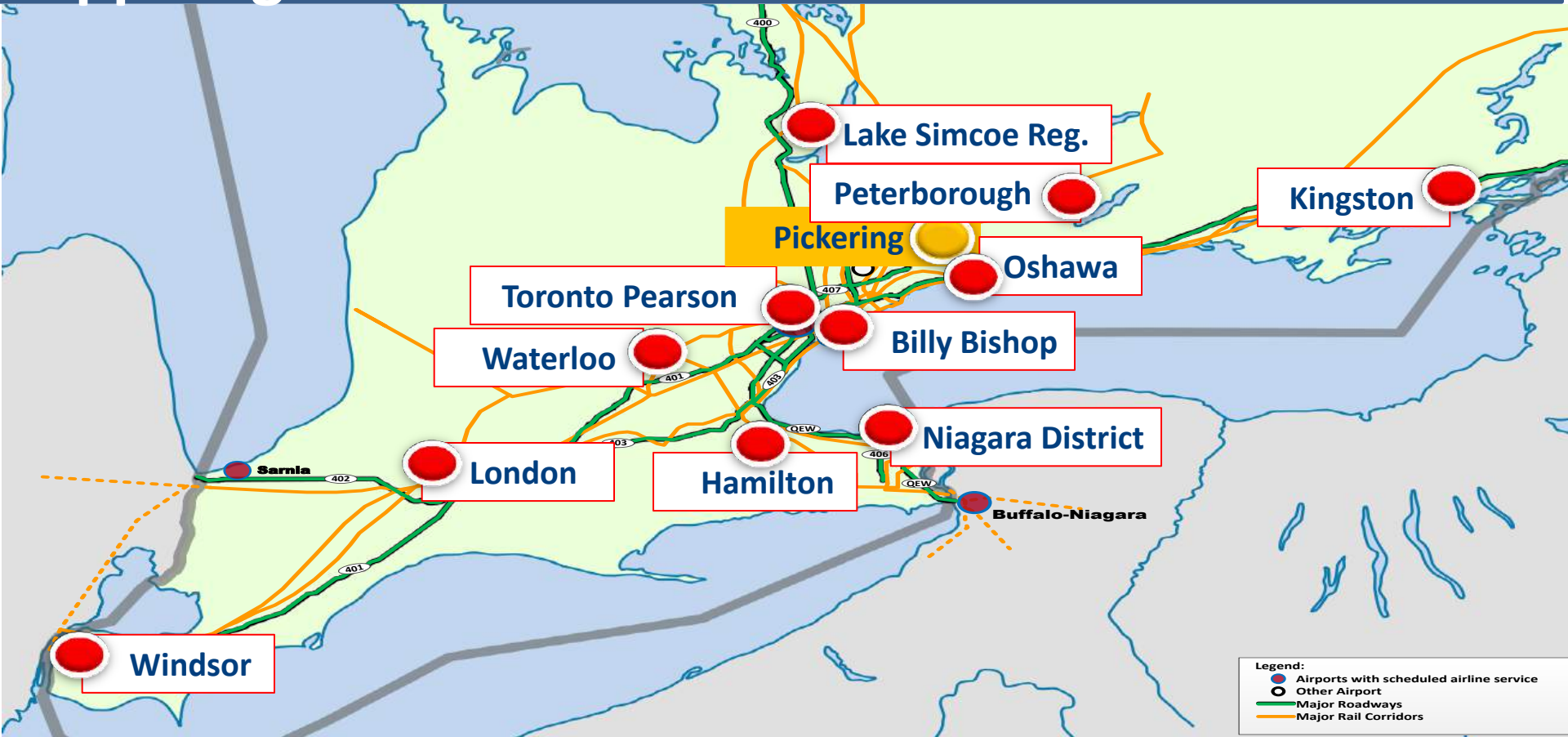


Mega hubs supported by a regional airport network: Los Angeles

Population
18.7 million



Southern Ontario has airport infrastructure that can support growth



How an airports system can support growth in Southern Ontario

- More non-stop service from regional airports
- Specialization allows for the “highest and best use” of airport infrastructure

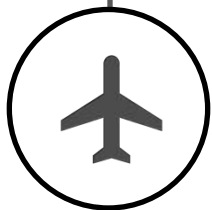


Neptis Study: 1 million car trips every day



By 2043, there will be a 25-35% increase in driving time to Toronto Pearson

Better transit reduces congestion on roads



Regional airports can provide short haul, general aviation cargo and charter flights and reserve Pearson runways for long-haul wide-body flights.

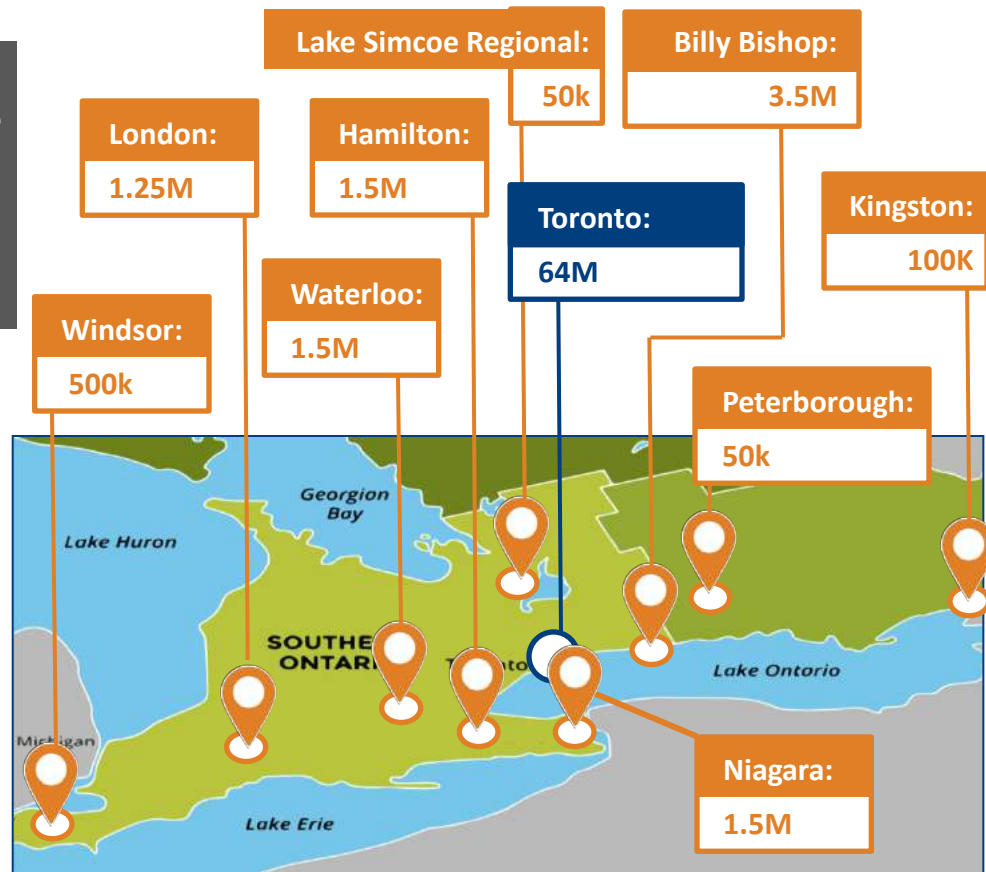


Improved transit connections will:

- reduce road congestion keeping goods and people moving,
- reduce emissions
- increased connectivity to link priority neighbourhoods to jobs in Airport Zone

Runway

Road



Southern Ontario's Airport System

Prudent to plan ahead
for future growth

By working together, we
can better understand
the role each airport is
willing to play - given
their strengths,
capabilities, capacity and
local community



Thank you Any Questions?



Toronto Pearson
International Airport | Aéroport International

Updating instrument procedures for YTZ



Briefing for Community Liaison Committee

January 25, 2017

NAV CANADA

Outline

- A little about NAV CANADA
- Overview of changes
- Maps
- Outreach



Who We Are

- 2nd largest air navigation service provider in the world
- 12 million aircraft movements/year
- Over 18 million square km of airspace
- 4,600 employees across the country
- Safety is our 1st priority

NAV CANADA

Our Services

- Air Traffic Control
- Flight Information
- Weather Briefings
- Aeronautical Information
- Flight Inspection
- Airport Advisory Services
- Electronic Navigation Aids



Instrument Procedure Review

- The airspace surrounding Toronto and including the Billy Bishop Toronto City Airport is amongst the busiest in Canada.
- As part of the cyclical review process, NAV CANADA is planning improvements to flight paths to and from Billy Bishop Toronto City Airport.
- Improvements are being planned for arrival and departure procedures for runway 08/26. The changes are largely over water, with some flight paths adjustments that better avoid residential areas.
- These updates will help ensure the airspace structure best meets operational safety and efficiency requirements while improving airport access in poor weather and shifting some flight paths away from residential areas.

Instrument Procedure Review

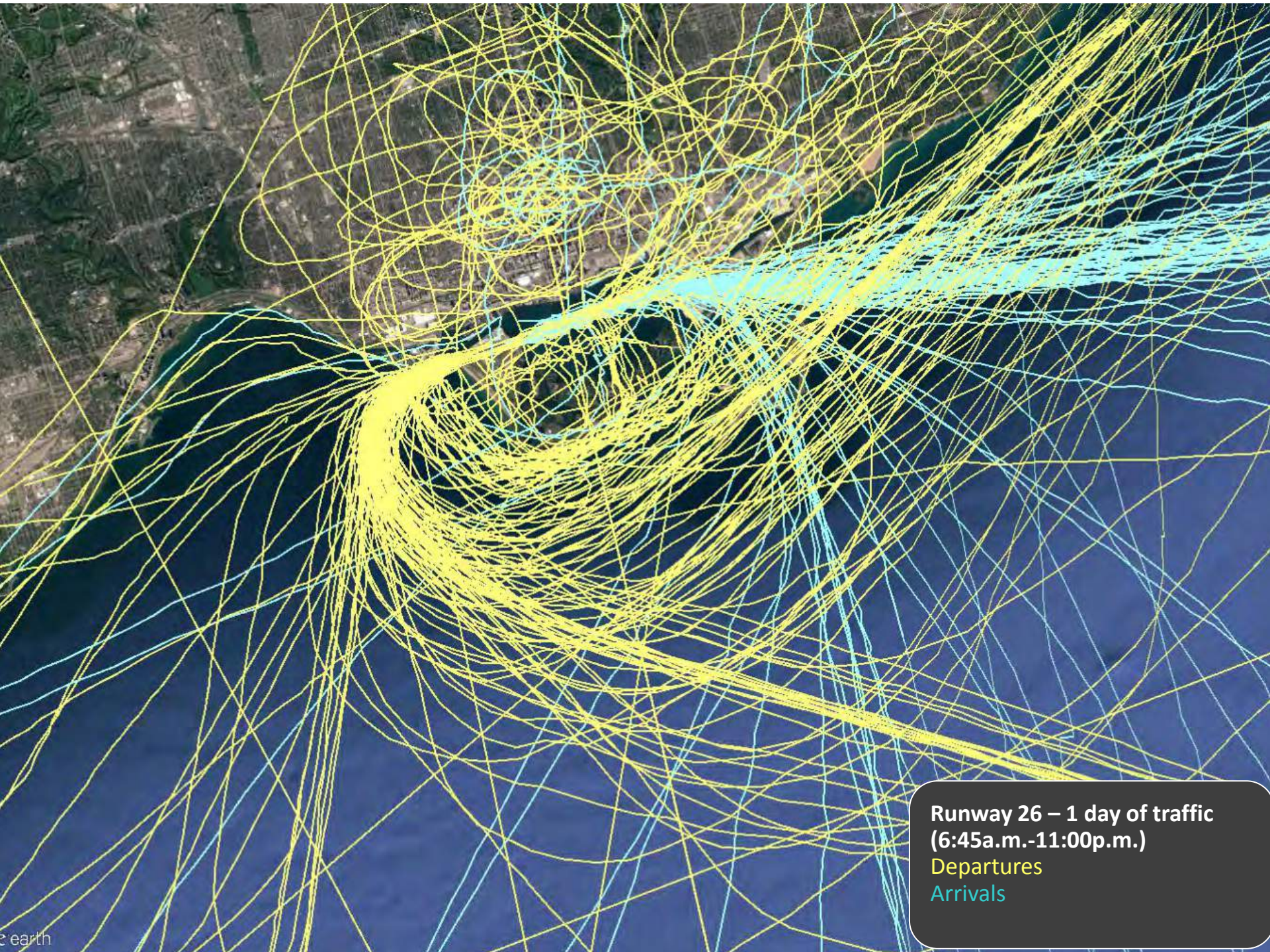
- Updates are planned for both ground-based and satellite-based approach procedures that are used in cloudy weather conditions.
- Updates to instrument departure procedures will better align where departures fly in clear and cloudy weather conditions.
- Committed to providing information to the community in advance of the changes being planned for April.

Instrument Procedure Review

- **Updates do NOT affect:**
 - Volume of traffic operating at the airport
 - Aircraft types operating at the airport
 - Noise abatement procedures
 - NEF contours
 - Development plans for the Port Lands
 - VFR or Local traffic patterns (e.g. flight training operations) which account for 48% of aircraft movements
 - Runways 06/24

Runway 26 Instrument Approach Summary

- Runway 26 received approximately 64% of IFR traffic – or about 21,000 arrivals – at the airport in 2016
- These procedures are all used in cloudy conditions, no changes have been planned to Visual Approach Procedures



Runway 26 – 1 day of traffic
(6:45a.m.-11:00p.m.)
Departures
Arrivals



Runway 26 – 1 day of traffic
(6:45a.m.-11:00p.m.)
Q400's
Departures
Arrivals

Runway 26



- ✓ A new approach (LOC/DME) will follow the same late lateral path as the ILS, but provide aircraft with a 3.5° constant descent angle (vs. ILS 4.8°). The 3.5° descent angle doesn't have the limitations of the 4.8° approach slope. This still provides necessary clearance from the Hearn Stack.
- ✓ The ILS approach will remain available to certified aircraft.
- ✓ The new RNAV Y satellite based approach follows the same lateral paths, but provides lower approach minima than the ILS and LOC/DME approaches. Improving these approaches will result in fewer delays, holding patterns and diversions in poor weather.

Runway 26



RNAV Z
for publication

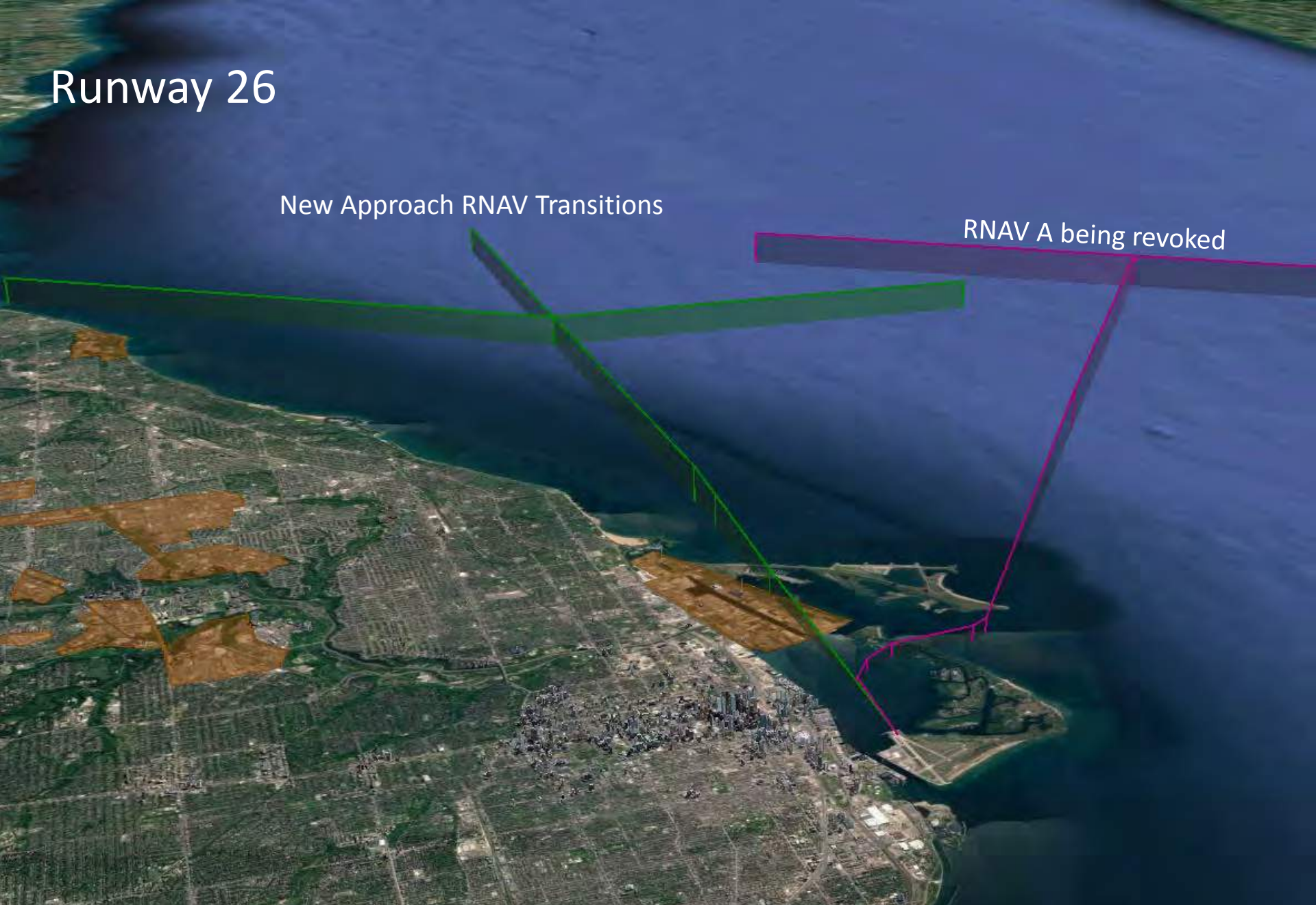
RNAV A
being revoked

- ✓ The current RNAV A approach is being revoked. Aircraft that flew this approach crossed over or near the Eastern edge of Toronto Island
- ✓ The RNAV Z approach replaces the RNAV A. It will move traffic further away from residentially populated areas on Toronto Island. Note this approach will be secondary to the LOC/DME and RNAV Y procedures (above)

Runway 26

New Approach RNAV Transitions

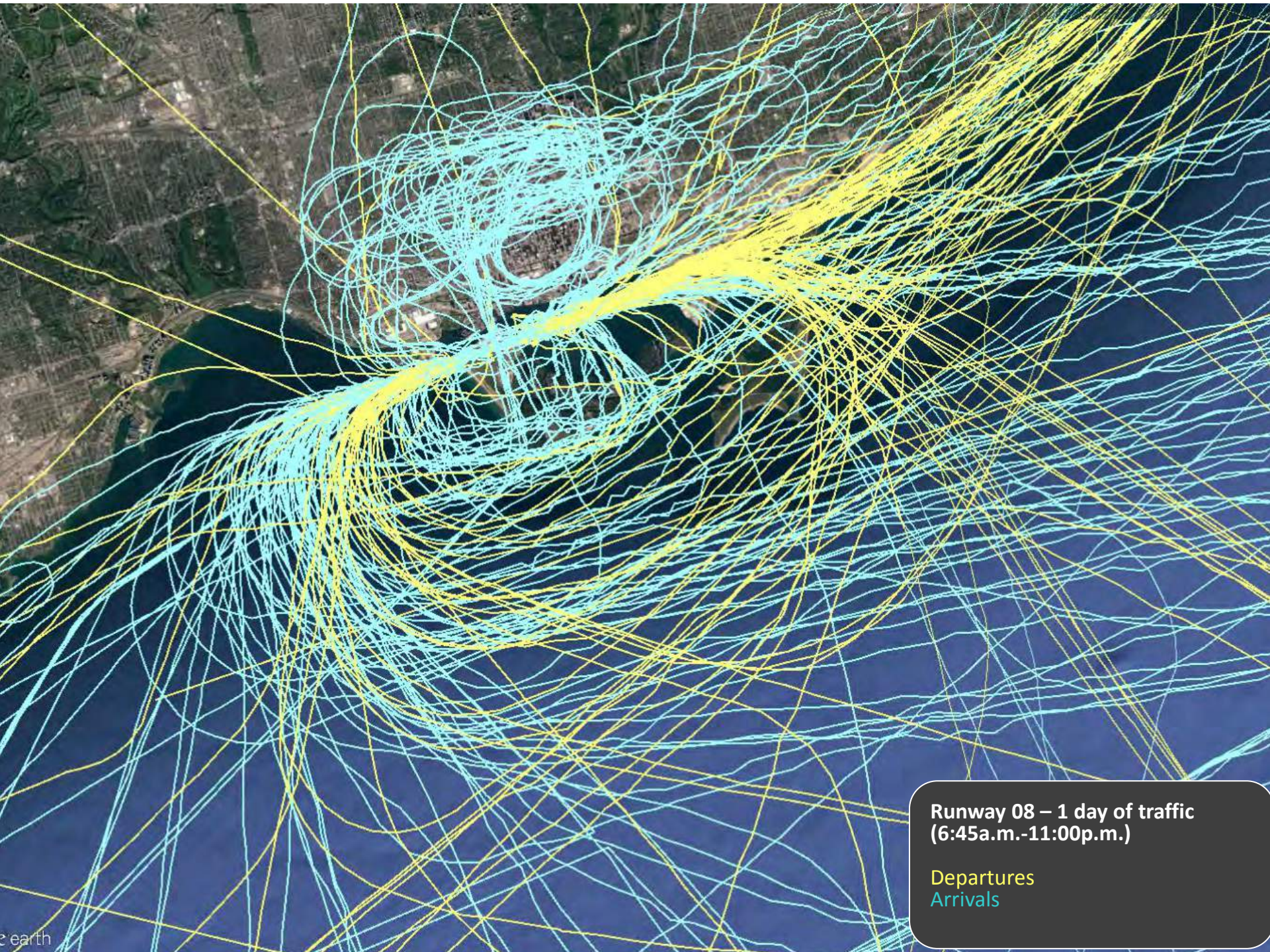
RNAV A being revoked



- ✓ There are two new RNAV transitions over the lake that are available as an alternative to aircraft being vectored for the Instrument Approach

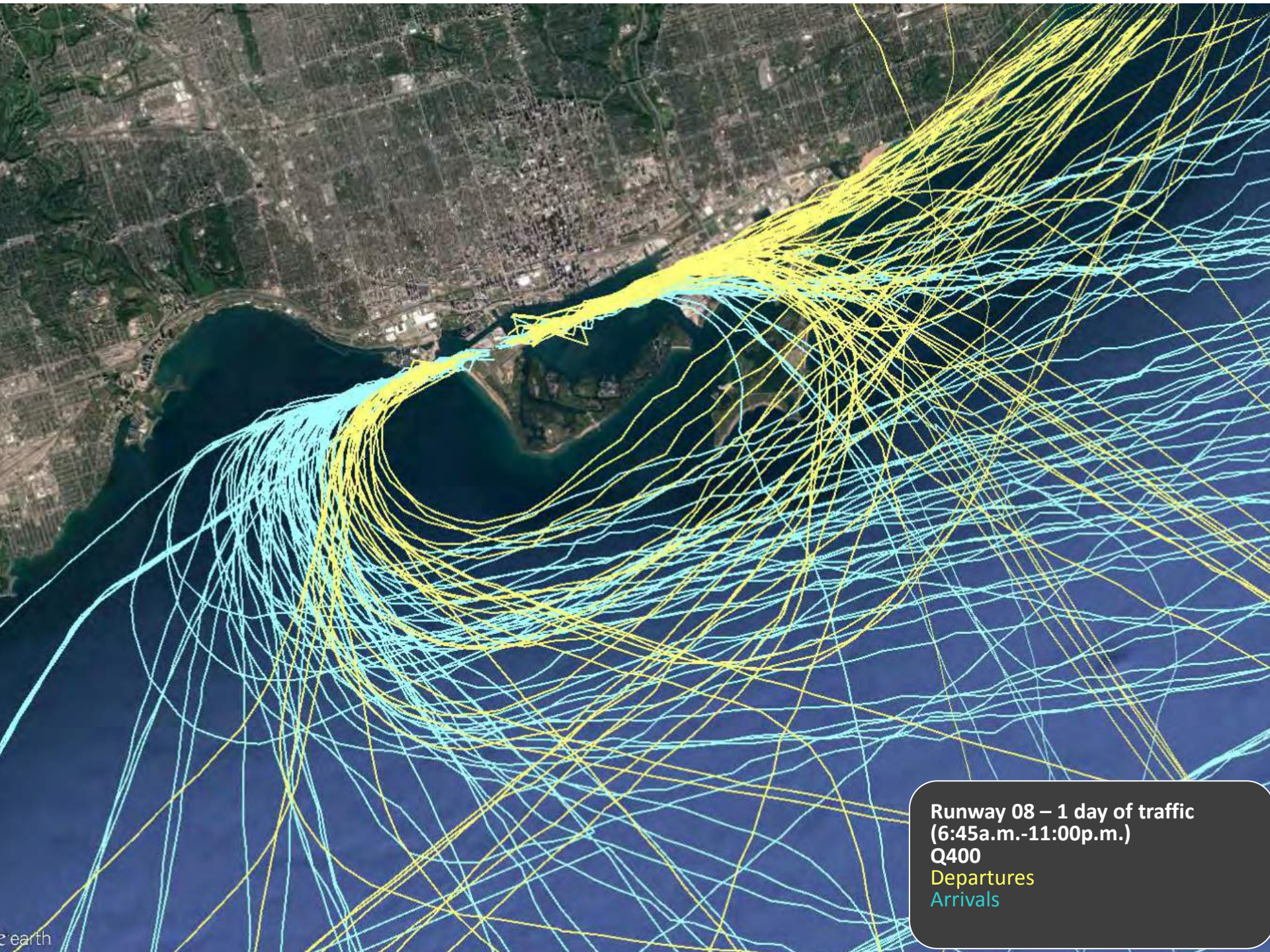
Runway 08 Instrument Approach Summary

- Runway 08 received approximately 35% of IFR traffic – or about 11,500 arrivals – at the airport in 2016.
- These procedures are all used in cloudy conditions, no changes have been planned to Visual Approach Procedures



**Runway 08 – 1 day of traffic
(6:45a.m.-11:00p.m.)**

Departures
Arrivals



Runway 08 – 1 day of traffic
(6:45a.m.-11:00p.m.)
Q400
Departures
Arrivals



ILS 08

RNAV C
to
RNAV Z 08

RNAV 08 (LPV)
to
RNAV Y 08

Runway 08

- ✓ ILS 08 Approach – same track on final
- ✓ RNAV 08 (LPV) being renamed RNAV Y 08 – No change to ground track
- ✓ RNAV C being renamed RNAV Z 08 – No change to ground track (lower weather minima)



RNAV Z 08

Revised ILS/RNAV Y flight path

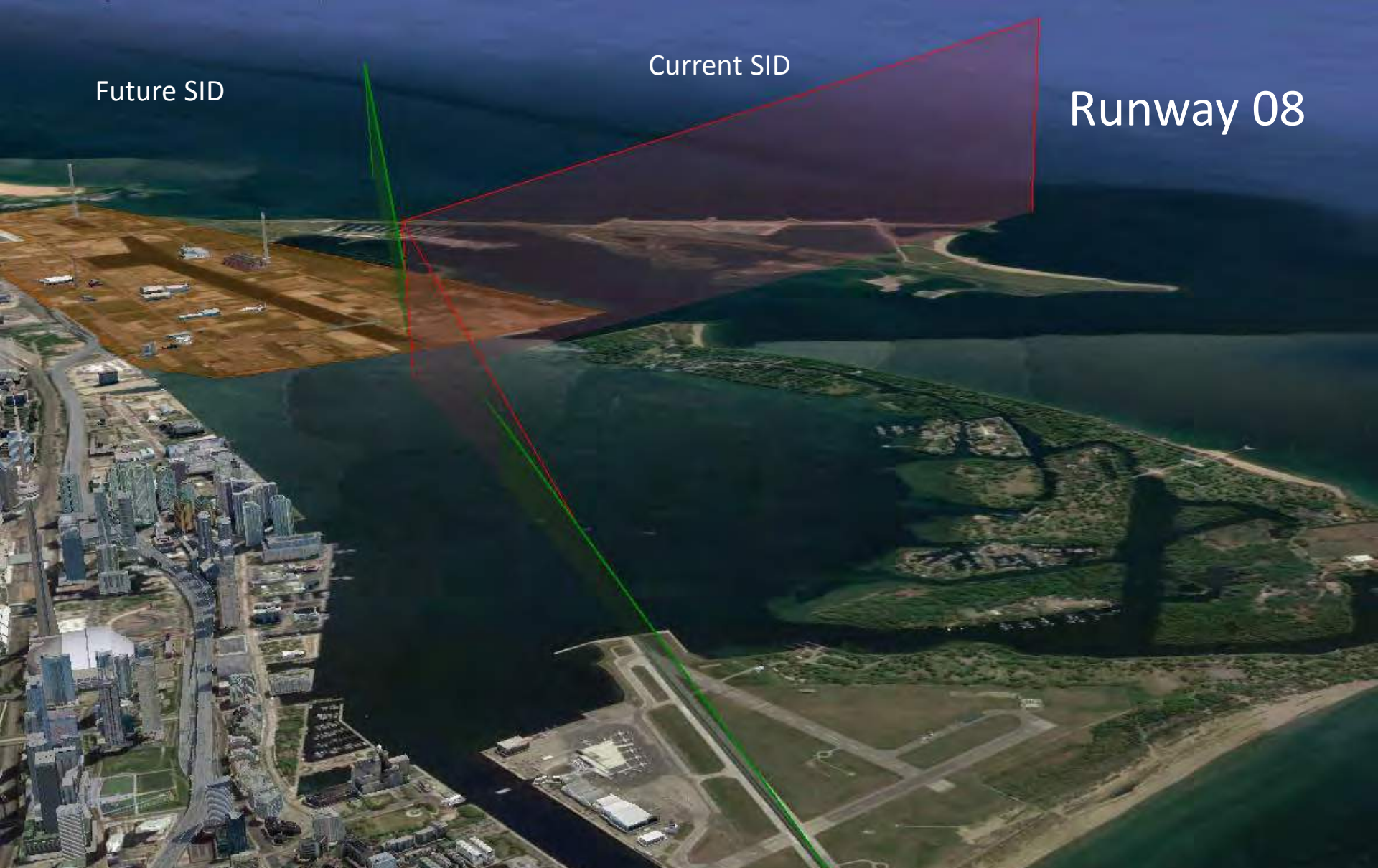
Current ILS/LPV flight path

Runway 08

Image Landsat
Image © 2016 TerraMetrics
Image NOAA

Instrument Departure Procedure Review

- Departure Routes used in cloudy conditions being aligned with those used in good weather
- **Updates do NOT affect:**
 - Noise abatement procedures
 - NEF contours
 - VFR or Local traffic patterns (e.g. flight training operations) which account for 48% of aircraft movements
 - Runways 06/24



Future SID

Current SID

Runway 08

- ✓ Currently, in cloudy conditions, aircraft reach the eastern gap and turn to the southeast
- ✓ Updates will permit aircraft to fly straight-out in cloudy conditions
- ✓ In addition to straight-out departure, headings will be assigned on departure in cloudy conditions as they currently are in clear weather



Runway 26

Current SID

Updated SID

- ✓ Currently, in cloudy conditions, aircraft on departure turn to the southwest
- ✓ Updates will permit aircraft to fly to the southeast in cloudy conditions
- ✓ In addition to the new SID, headings will be assigned on departure in cloudy conditions as they currently are in clear weather

Impact of changes

- Flight paths similar overall.
- Shift some traffic away from residentially populated areas (RNAV A revoked, Transition to 08)
- Improved access in poor weather conditions.
 - Less delays, holding patterns, diversions in periods
- Reduces interval required between departures
 - Less idling of aircraft ready to depart.

Providing Notice

- Committed to communicating in advance.
- Coordinated with PortsToronto.
- Meet with Waterfront Secretariat Officials.
- Message to councillors, MPs who represent waterfront wards/constituencies.
- Presentation to the Community Liaison Committee
- PDF notice summarizing changes
 - Description of changes
 - Some maps
 - Impacts
 - Contact information (service@navcanada.ca)
- Notice on PortsToronto website
- Posted under Environment section on NAV CANADA website

Timing

- Notice posted online by February 15, 2017
- Implementation on April 27, 2017

Billy Bishop Toronto City Airport 2012 Airport Master Plan

CLC Meeting Presentation – January 25, 2017

Airport Master Planning

Key Components of an Airport Master Plan:

- Inventory Existing Conditions
- Establish Short/Long-term Decisions
- Forecast Future Traffic
- Investigate Environmental & Socioeconomic Effects
- Identify Opportunities & Constraints
- Develop Ultimate Concept
- Typical 20 Year Planning Horizon
- Update Cycle (5yr review/10yr new)

An Airport Master Plan is not a Regulation; it is a long-term planning tool.

2012 Airport Master Plan

- Objectives of the Airport Master Plan
 - Growth of the airport through efficiency
 - Rational development concept
 - Long-term development plan for airport infrastructure
 - Ensure long-term operational airport objectives
 - Adheres to conditions of 1983 Tripartite Agreement
 - Reflects overall objectives of PortsToronto that includes environmental responsibility, sustainability and social responsibility

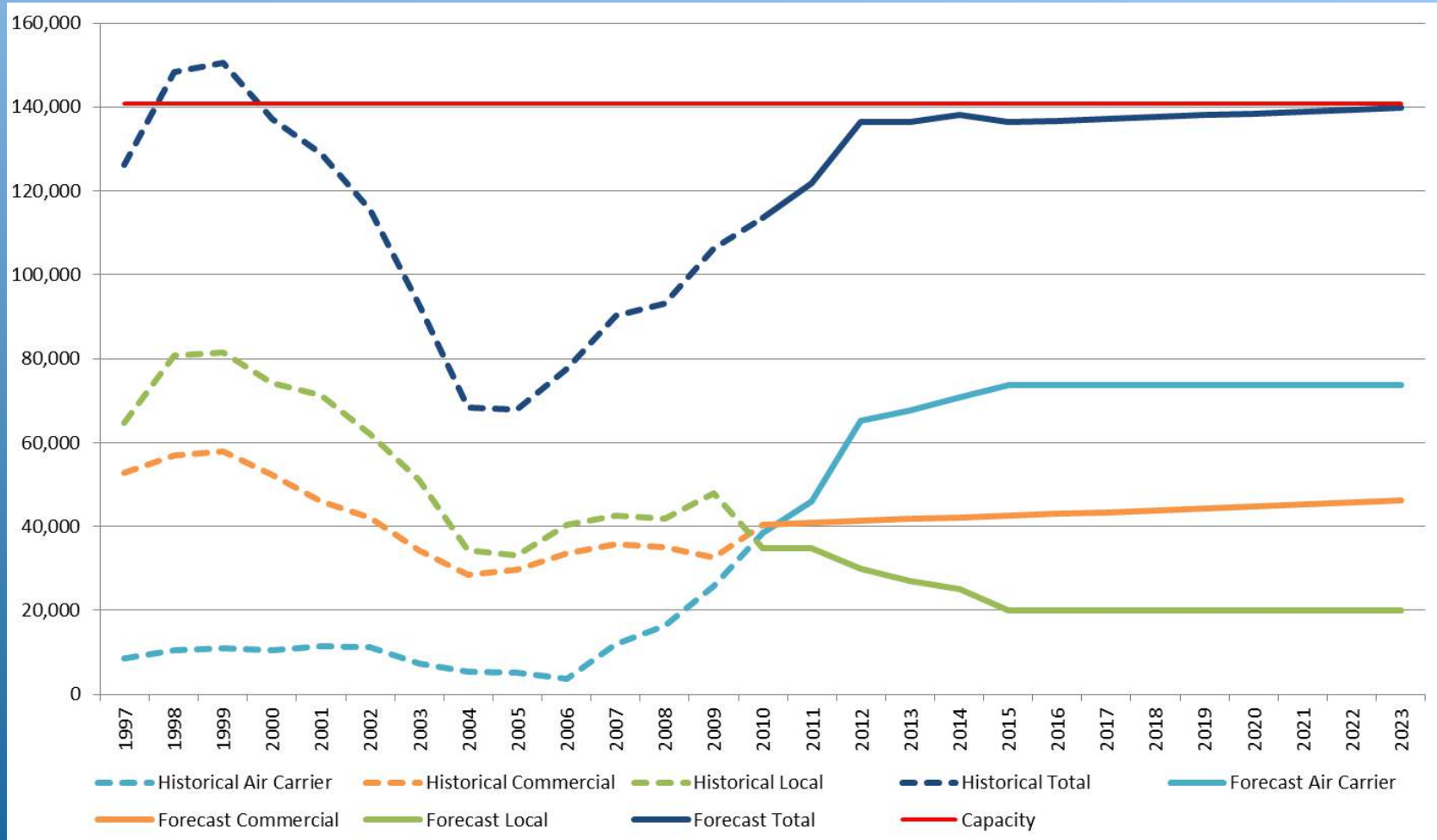
2012 Airport Master Plan

- Economic Impact
 - \$1.9 billion in economic output
 - 5,700 direct and indirect jobs
 - Base airport for a number of operators including:
 - Porter Airlines
 - Trans Capital Air
 - ORNGE
 - Island Air
 - Greater Toronto Airways
 - Eagle Aircraft
 - Cameron Air

2012 Airport Master Plan

- Aircraft traffic forecast
 - Transport Canada 2010 Noise Exposure Forecast report
 - Traffic environment for 2011
 - Traffic forecast for 2012 & beyond
 - Aircraft capacity estimated at 140,000 aircraft movements / year
 - Recognized need to implement managed growth strategy for aircraft movements
 - No increase in slot program (16/hr & 202/day)
 - Traffic growth stabilized following market maturity

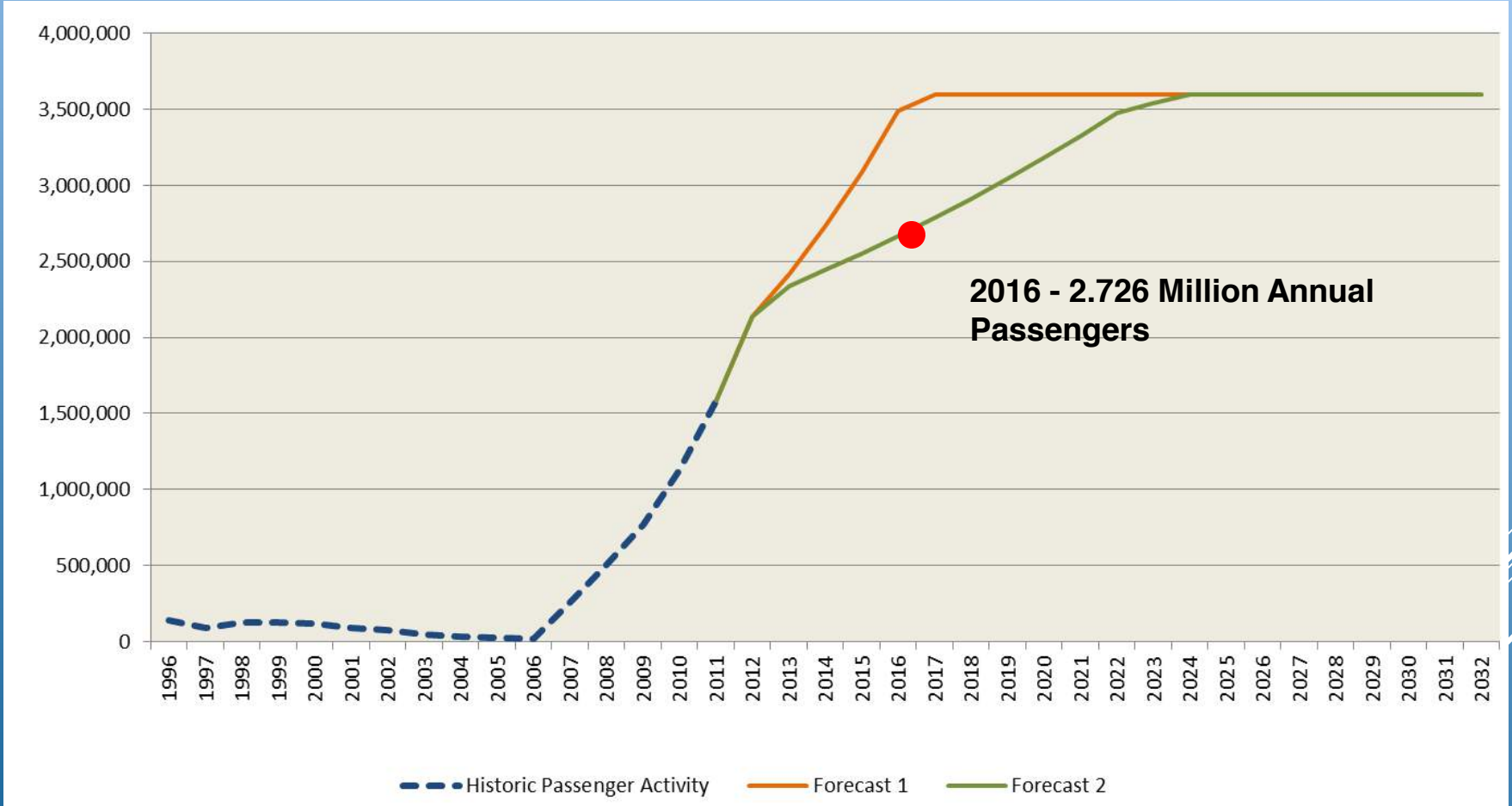
2012 Airport Master Plan



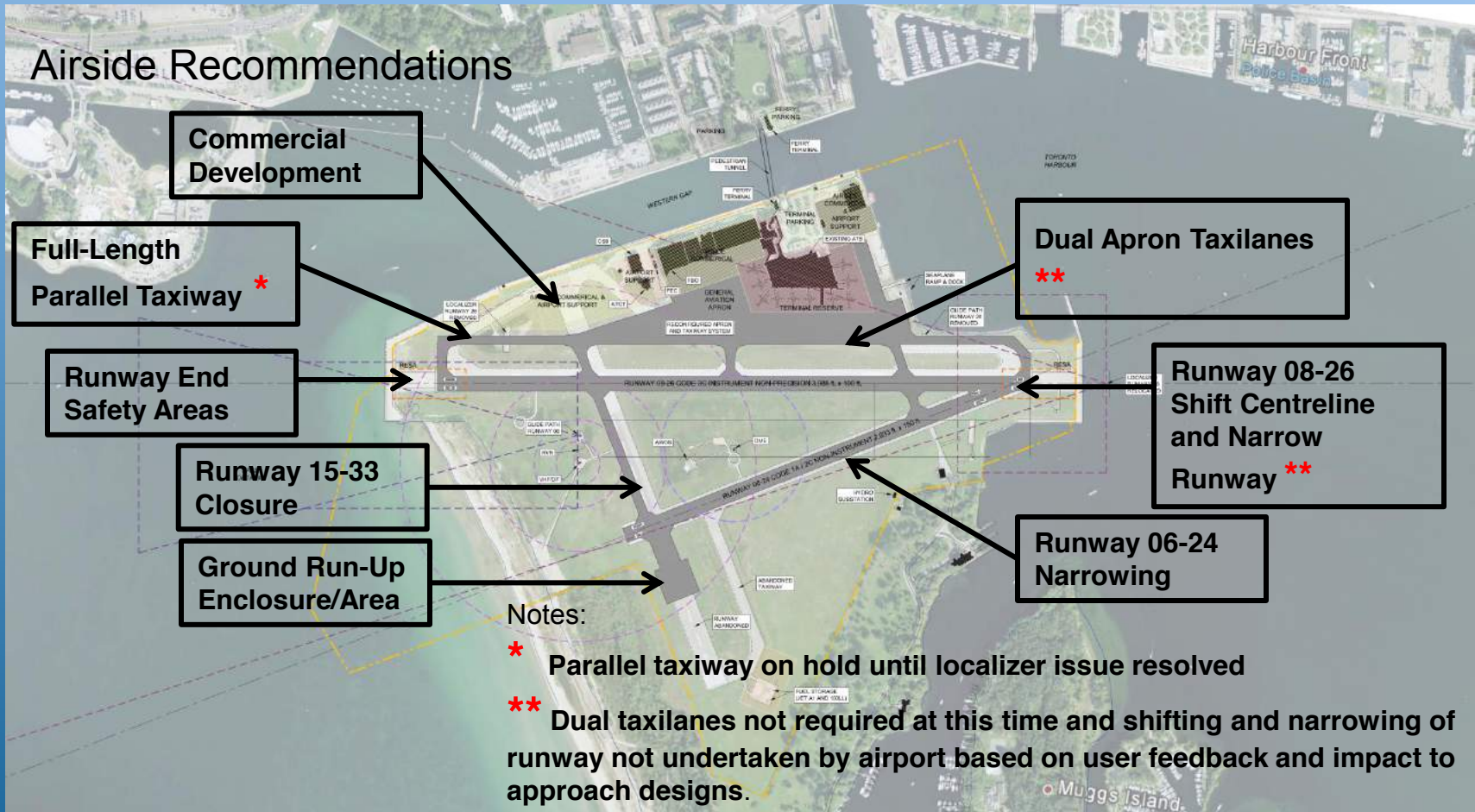
2012 Airport Master Plan

- Passenger traffic forecast
 - 2011 air carrier passenger activity 1.5 million passengers
 - Aircraft slots remains at 202/day
 - Passenger growth through increased aircraft load factor and slot utilization
 - Practical capacity 3.6 million passengers (3.0 million passengers O/D)
 - 88.7% slot utilization
 - 79% aircraft load factor
 - Two (2) passenger growth activity forecasts:
 - Continued high growth – Forecast 1 (13%)
 - Regional air transport growth – Forecast 2 (4.5%)

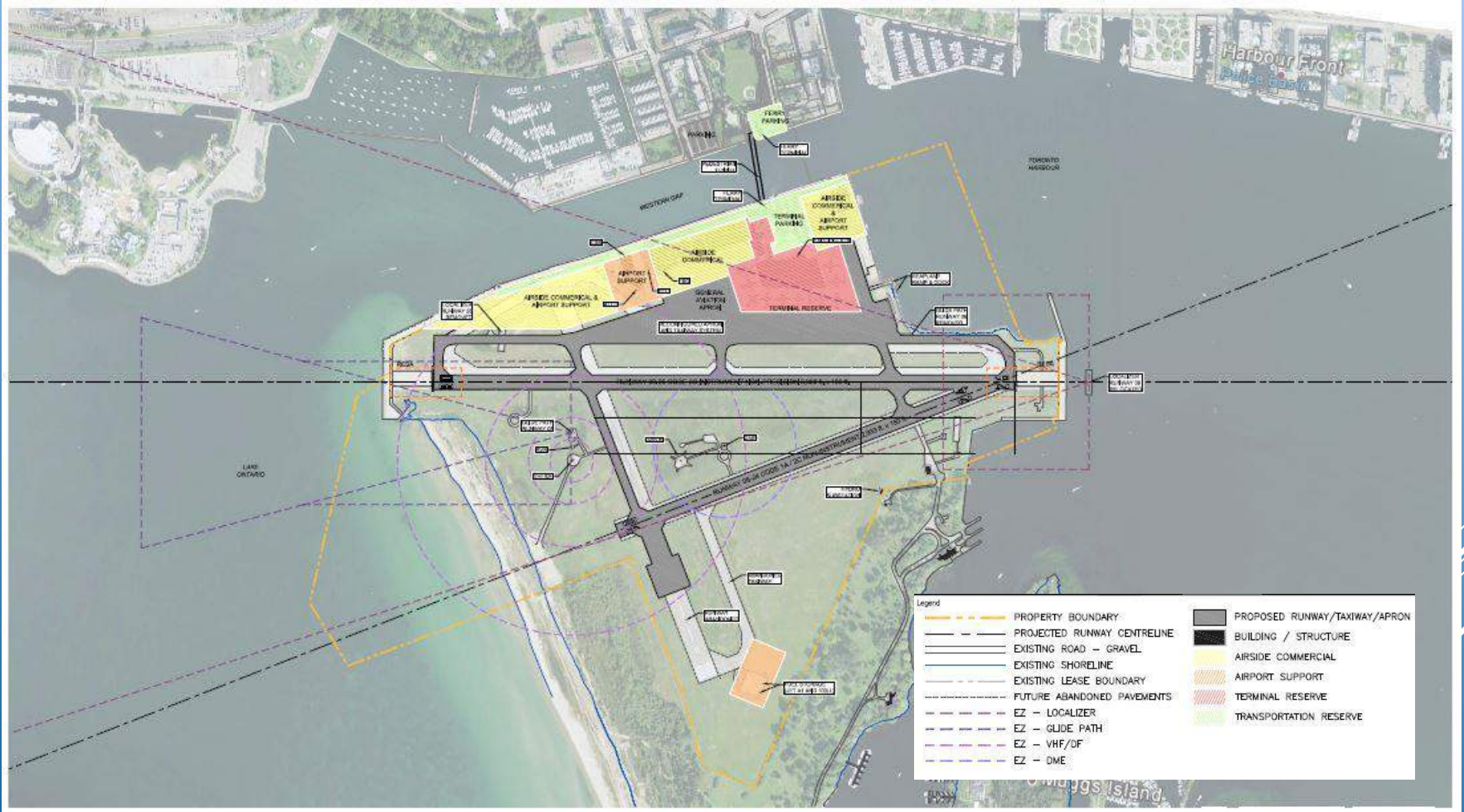
2012 Airport Master Plan



2012 Airport Master Plan



2012 Airport Master Plan



2012 Airport Master Plan

- Airside Recommendations Included:
 - Decommissioning of Runway 15-33
 - Full length parallel taxiway for Runway 08-26*
 - Shifting and narrowing of Runway 08-26 as part of reconstruction**
 - Runway 06-24 upgraded with edge lighting
 - Recognition that Runway End Safety Areas (RESAs) will be required when mandated by Transport Canada

* Parallel taxiway on hold until localizer issue resolved

** Dual taxilanes not required at this time and shifting and narrowing of runway not undertaken by airport based on user feedback and impact to approach designs

2012 Airport Master Plan

- Groundside Recommendations Included:
 - Improved traffic signalization and street parking controls
 - Separation of pedestrian and vehicular traffic along Queens Quay and Bathurst Quay
 - Increased capacity along Bathurst Quay through elevated/depressed roadway & parking structure
 - Parking land transfers opportunities
 - Improvements to the ferry terminal curb

2012 Airport Master Plan

- Airport Support Recommendations Included:
 - Expanded Facilities for airport maintenance and Aircraft Rescue and Fire Fighting (ARFF) service
 - Provision for a Ground Run-up Enclosure

2012 Airport Master Plan

- Commercial Development Recommendations Included:
 - Provision for expansion of general aviation development west of the existing hangar line
 - Provision for recreational aircraft tie-downs on south side of airport accessed from the south side
 - Commercial development on south side of airport was not recommended if vehicle traffic required to cross the runway

2012 Airport Master Plan

- Recommendations Implemented to-Date Include:
 - ✓ Airfield Rehabilitation Program (2016-2018) including
 - ✓ Rehabilitation of majority of airfield pavements
 - ✓ Upgrades to all of airfield electrical infrastructure, including new LED lighting fixtures, new signage
 - ✓ New Runway 08-26 centerline lighting
 - ✓ Closure of Runway 15-33 (converted to taxiway)
 - ✓ Upgrading of Runway 06-24 to include edge lighting & pavement narrowing (runway shortening added during design)
 - ✓ Development of Ground Run-up Enclosure

2012 Airport Master Plan

- Recommendations Implemented to Date Include:
 - ✓ Improvements to landside terminal curbs
 - ✓ Involvement with City/Community regarding landside access
 - ✓ Improvements to airport support facilities (additional Aircraft Rescue and Fire Fighting shelter)
 - ✓ Improved traffic flow with pedestrian tunnel
 - ✓ Improved groundside with CMS, finger lot and expanded curb

2012 Airport Master Plan

- Recommendations Implemented to Date Include:
 - ✓ New shuttle busses with GPS tracking resulting in increased shuttle bus schedule and reduced wait times
 - ✓ Buses positioned simultaneously at the airport and at Royal York stop with 2 additional buses on route
 - ✓ New floatplane dock added (ramp upgrades to be completed)

2012 Airport Master Plan

Questions





Billy Bishop Toronto City Airport Terminal Upgrade Project

Community Liaison Committee
January 2017



NIEUPORT AVIATION
INFRASTRUCTURE PARTNERS

Agenda

- **Recap on rationale for this Upgrade**
- **Recap on project guiding principles and layouts**
- **Construction mitigation plans**
- **Construction activity underway**
- **Upcoming construction activities**
- **Community Outreach**

Rationale for this Upgrade

Enhanced Passenger Experience

- Refurbishment of lounges to reflect changing passenger needs
- Increased processing capacity
- Additional food and beverage (F&B) and retail offerings

Increased Operational Efficiencies

- Undertake enabling works for U.S. Preclearance Facility
- Additional office space for Airport Stakeholders

Ability to respond to irregular operations

- Weather delays
- Peak travel periods

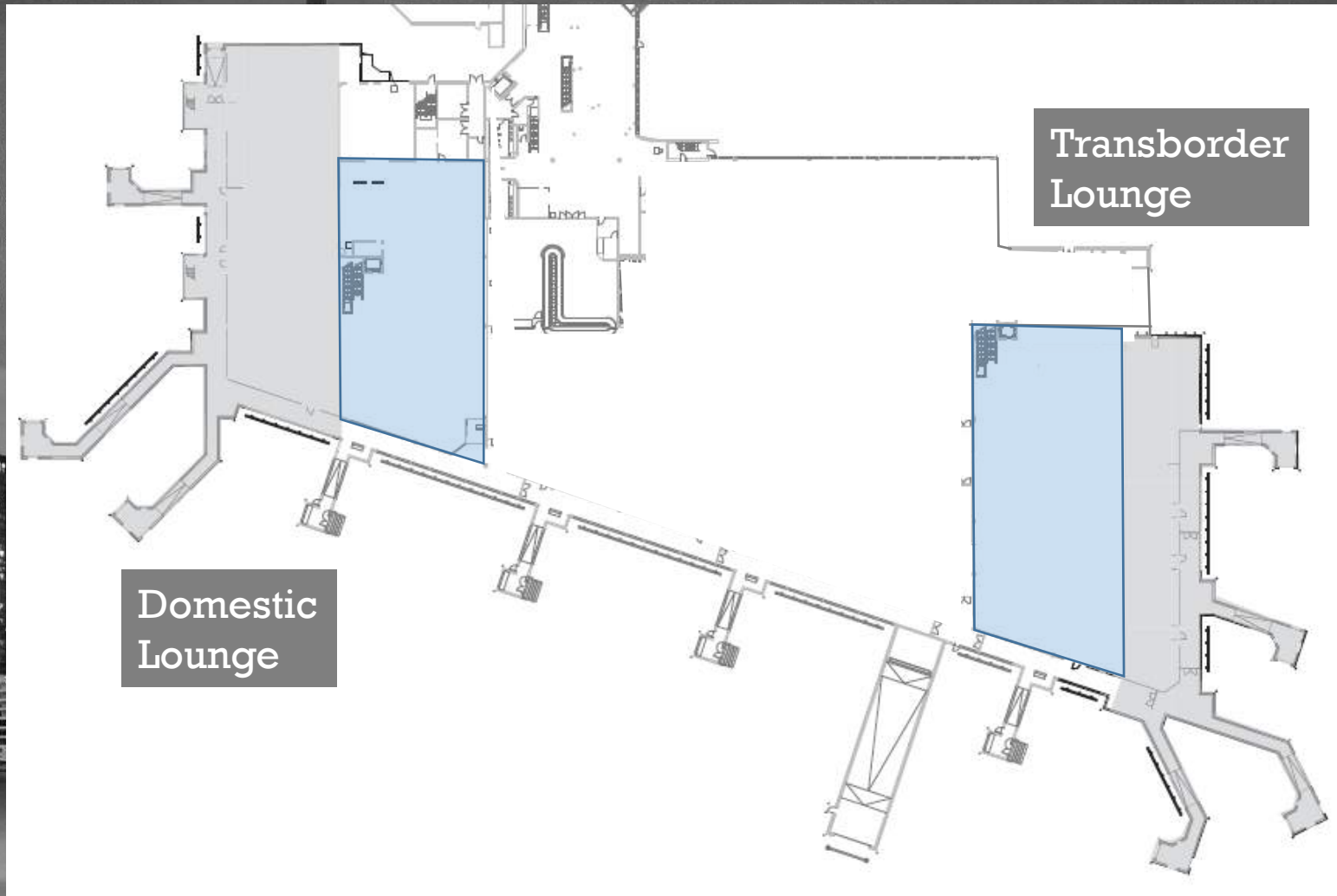
Project Guiding Principles

- **Maintain the safety and security** of the aerodrome and terminal for the passengers, aircraft, employees, area residents and construction workers.
- **Minimize operational impacts** through proactive, timely and regular planning and communication with operational stakeholders.
- **Minimize customer impact** through proactive planning and communication such that customer experience remains of a consistent high quality.
- **Mitigate local community concerns** based on implementing best practices for noise and construction related items.

The Upgrade Rendering



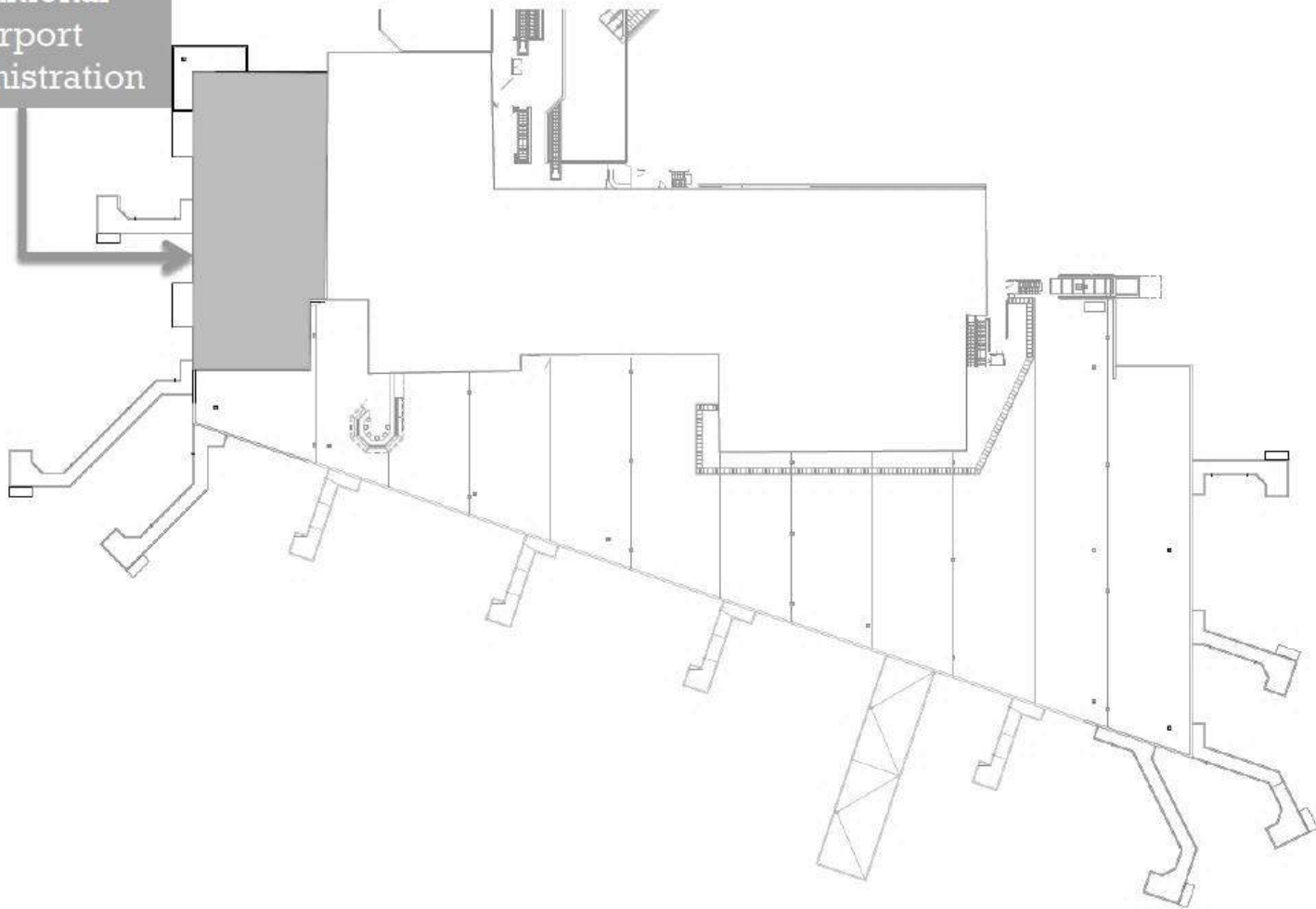
Drawing Layouts Level 1



Drawing Layouts

Level 2

Additional
Airport
Administration



Construction Mitigation Measures

- Lighting for external work areas will be directed away from the community/mainland;
- Truck and equipment deliveries will be minimized during school start and end times;
- Overnight operations seek to reduce vehicle movement to minimize back up beeper;
- PortsToronto's seasonal barge operation will be used when completing pavement work where possible

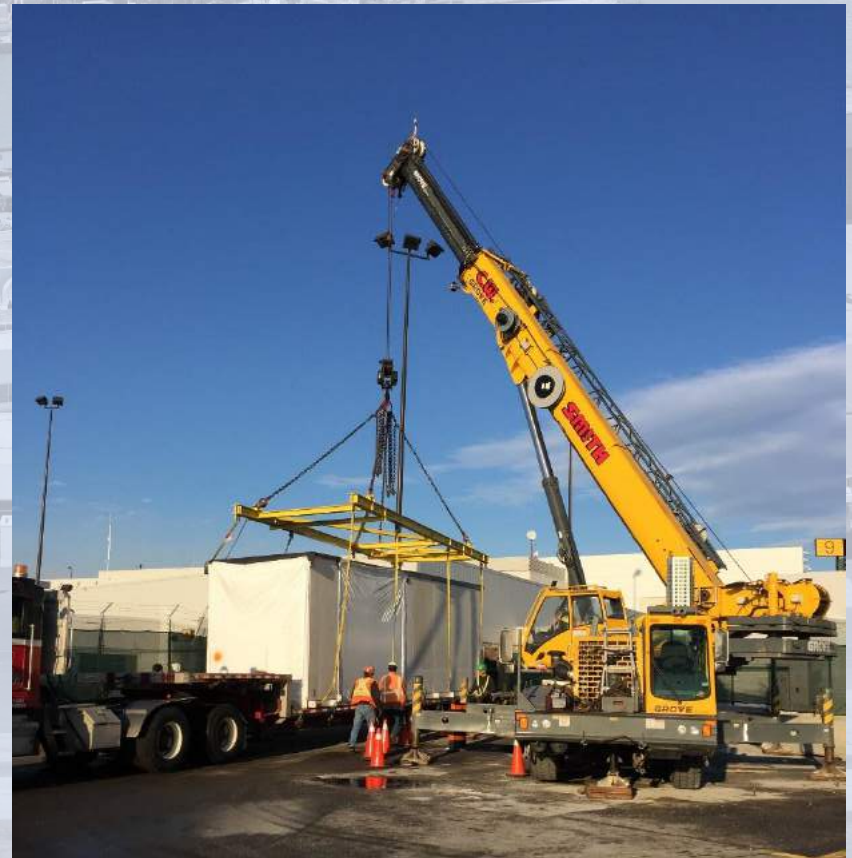
Current Work Area - Aerial



Current Work Area - Photos



Gate 8 Demolition



Module Temporary Gate 8A and 8B Installation

Current Work Area - Photos



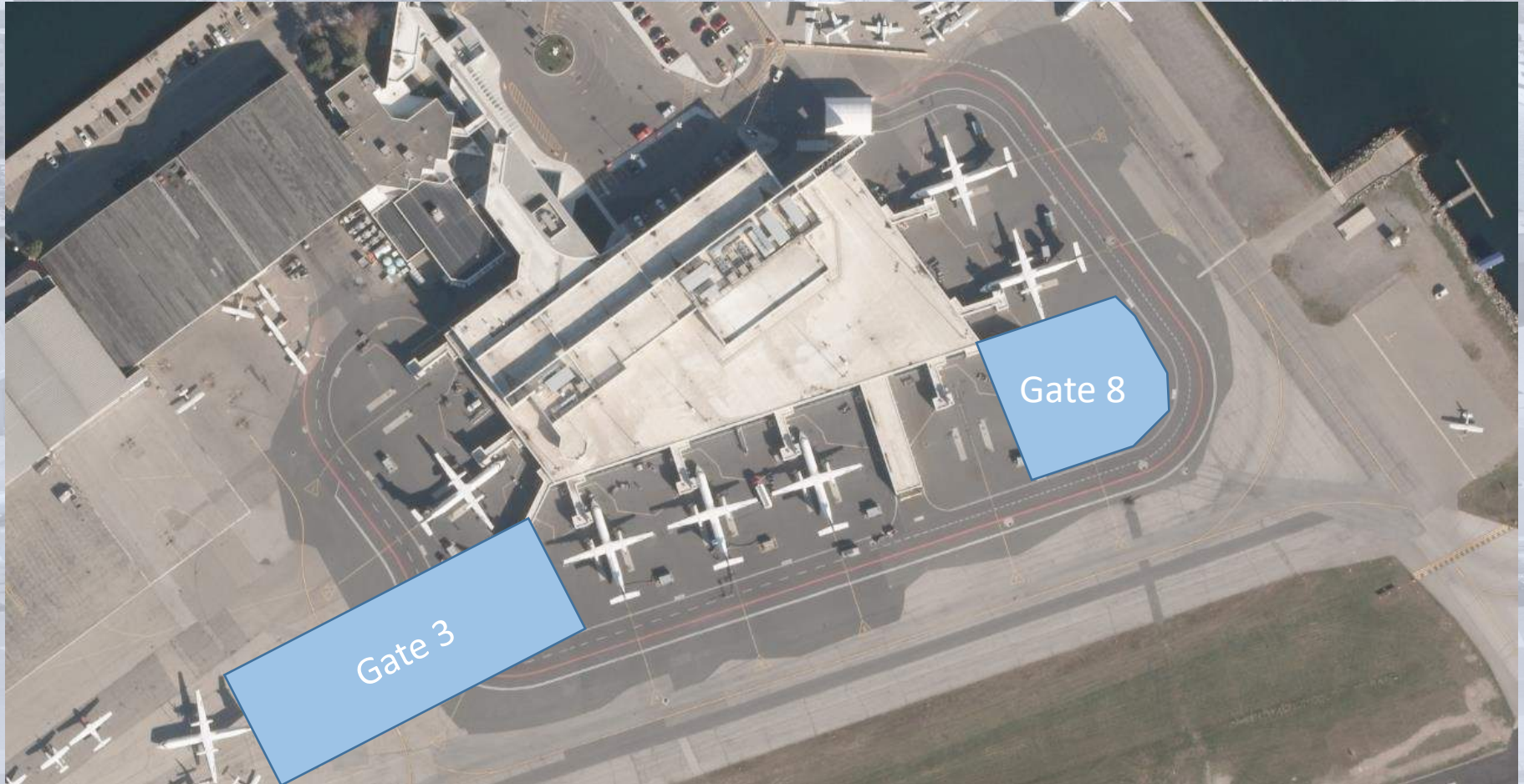
Module Temporary Gate in place



Interior of Module Temporary Gate

Upcoming Exterior Works Areas

February & March 2017

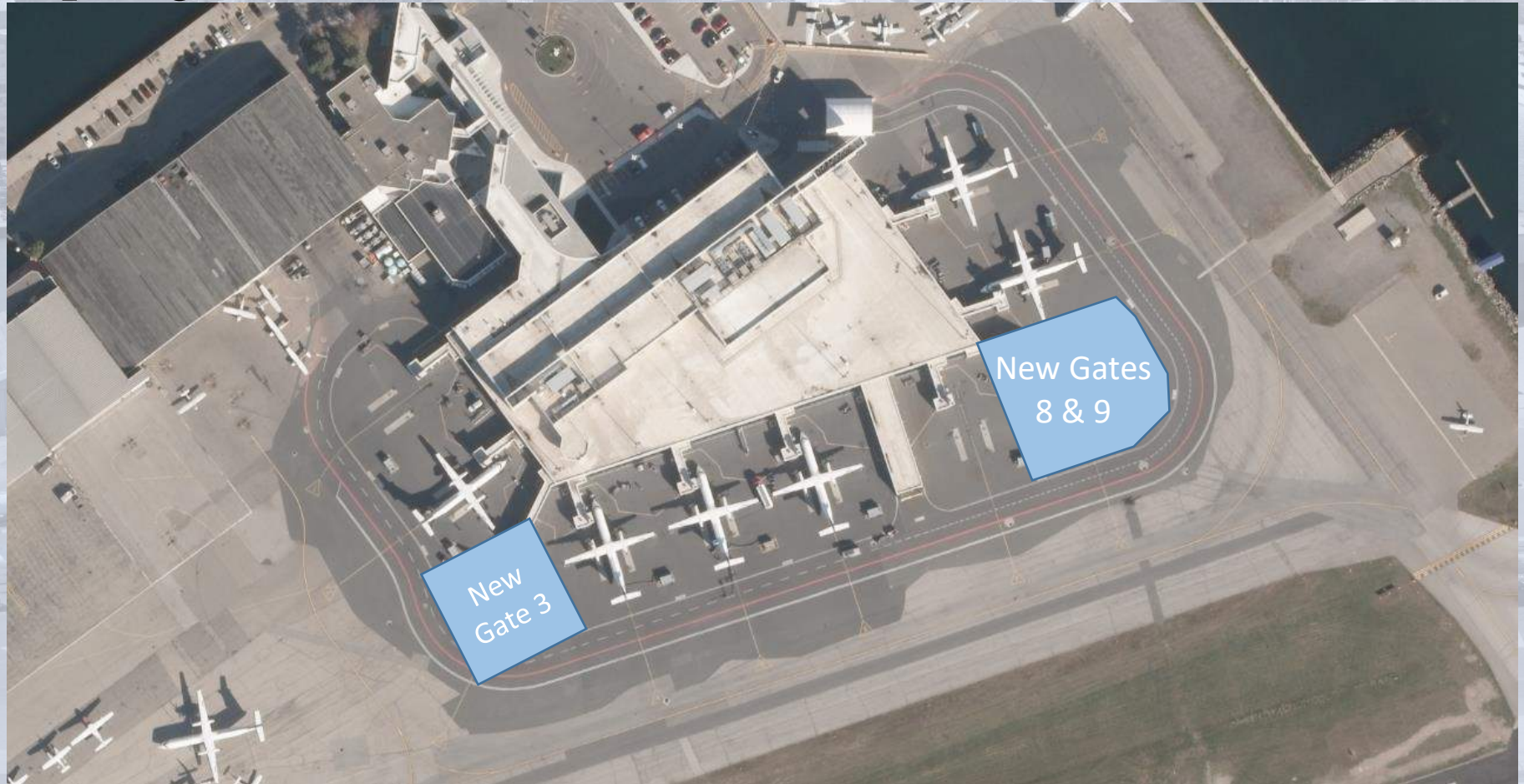


Upcoming Exterior Scope

- 2017
 - February
 - Installation and commissioning of temporary boarding gates 8A and 8B
 - Demolition of boarding gate 3
 - March
 - Site services work (water and sewer lines)
 - Installation and commissioning of temporary boarding gates 3A, B, & C

Final Exterior Works Areas

Spring – Summer 2017



Community Outreach

- Updates to be provided at quarterly Airport Community Liaison Committee
- Direct briefings are available to both the York Quay Neighbourhood Association and Bathurst Quay Neighbourhood Association
- Outreach via email to CLC for notification on any material changes that may have impact to the community.
- For any questions/concerns on this project contact Gary Colwell at BBTCA's Noise Management Office at 416-203-8490 or online at <https://www.porttoronto.com/porttoronto/contact-us/submit-a-noise-complaint.aspx>

January 25, 2017

Billy Bishop Toronto City Airport

Airfield Rehabilitation Program Update
Community Liaison Committee



Current Status of the Program

- Construction work over the next couple of months is focused on the Ground Run Up Enclosure (GRE) facility and is outlined as follows:
 - Concrete foundations for the facility commenced on October 24 and was complete on November 5.
 - Concrete apron construction commenced on November 15 and was complete on December 3.
 - All steel components for the facility's frame was delivered to the site in December.
 - Steel frame assembly on the ground commenced on January 9 and was complete on January 13.
 - Erection of steel frames commenced on January 16 and is expected to be completed on January 24.

Photos During Construction



Photos During Construction



Photos During Construction



Time Lapse Video



**BBTCA GRE Site
Phase 1: Site Prep & Concrete
August to December 2016**



Current Status of the Program

- Acoustic panels delivery will commence this week with an anticipated 1 truck/day.
- Acoustic panels assembly is anticipated to commence on / around January 31 and will take 8-10 days to complete.
- Installation of siding, trim, aerodynamic components, prop-wash deflector, control room, obstruction lighting and other electrical and communication installations will be ongoing through February and March with anticipated completion around March 31.
- Over the winter months from January 9 – March 3, the working days will generally be concentrated Monday to Friday from 7:00 a.m. to 5:00 p.m. Occasional weekend and night activities may be conducted if/when necessary.

Timelines and Next Steps

- The community can expect that over the next couple of months leading to completion of the GRE:
 - Minor deliveries such as acoustic panels and miscellaneous equipment, will require limited construction traffic using ferry
 - Daytime construction activities at the GRE site through March 2017
 - Quality assurance testing and performance measurements prior to facility coming into service
 - Live aircraft test as a part of facility commissioning / acceptance
 - Transition plan into service including training of staff that will be responsible for operations of the facility
- The planned ground run-up enclosure testing and commissioning is anticipated to take place at the end of the first quarter of 2017.

Other Concurrent Projects

- PortsToronto projects at the airport:
 - Airfield Rehabilitation Program
 - As of December 2016, the first year of this three year project achieved milestones and was the most intensive year of construction with 60% of the project complete.
 - In early spring, runway grooving which may cause noise disturbance will be required for runway safety considerations. Steps will be taken to mitigate as much noise as possible. Advance notice will be communicated to neighbours once the schedule is confirmed.
 - NPSV Work – April 2016 temporary facilities in place with permanent facilities to be constructed in 2017.
- Nieuport Terminal Upgrade project underway over the next 18 months.
- City of Toronto's Island Water Treatment Plant Maintenance
 - PortsToronto providing daily ferry service from 10am – 3pm for three to five tractor-trailers transporting materials to and from the island from the end of February, 2017.



Questions?