

An aerial photograph of the Billy Bishop Toronto City Airport (BBTCA) is shown. The airport is situated on a small island in the water, with a runway and taxiway visible. Several aircraft are parked at the terminal, and a large terminal building is on the right side. The water is blue, and there are green trees on the left side of the airport. A semi-transparent white box with a black border is overlaid on the top half of the image, containing the title text.

# **Public Consultation for Request for Exemption to Permit Jets at Billy Bishop Toronto City Airport (BBTCA)**

- **Monday September 9, 2013**



# Background

- On May 7, 8, 9 and 10, 2013, City Council directed staff to undertake a review of the request from Porter Airlines for an exemption to operate jet-powered aircraft at BBTCA.
- The City Council decision included the following directions:
  1. Review the necessary approval process to amend the Tripartite Agreement; conformity with the terms of the Tripartite Agreement, and the passenger and airport capacity that can be achieved in conformity with the Tripartite Agreement.
  2. Review Transport Canada regulations for the proposed runway.
  3. Review the physical and operational requirements associated with Porter Airlines' proposal, including City infrastructure, compatibility with NEF contours, changes in take-off and landing approach, protected airspaces and the Marine Exclusion Zone.



# Background

4. Determine the airside and landside constraints and related infrastructure requirements relevant to expansion of aeronautical and non-aeronautical operations at BBTCA.
5. Propose an overall methodology for evaluating the airport with the broader planning framework to understand effects on waterfront revitalization and examine other examples of urban jet use in waterfront cities.
6. Analyze potential economic impacts and opportunities associated with this request, including maritime, aviation, and other uses and users that could be affected by physical and operational expansion at BBTCA.
7. Coordinate public consultation and discussions with the Toronto District School Board, Waterfront Toronto, TRCA, GTAA, NAV Canada and other aviation stakeholders.



# Background

8. Evaluate the impact on to emergency services navigating to and from the harbour through the Western Channel to Lake Ontario.
9. Evaluate the implications of the proposal on the Open Skies Agreement and other international agreements.
10. Examine the noise, environmental and traffic/congestion impacts associated with the Porter Airlines' request.



# Background

Additional direction provided by City Council:

- Exclude an expansion into the Toronto Island Park system south of the current southern boundary of the airport.
- Exclude any consideration of either a runway or an extension of the Marine Exclusion Zone (MEZ).
- Exclude any changes to the existing noise guidelines for individual airplanes or amendments to the provisions and guidelines that set the NEF contours currently in place.



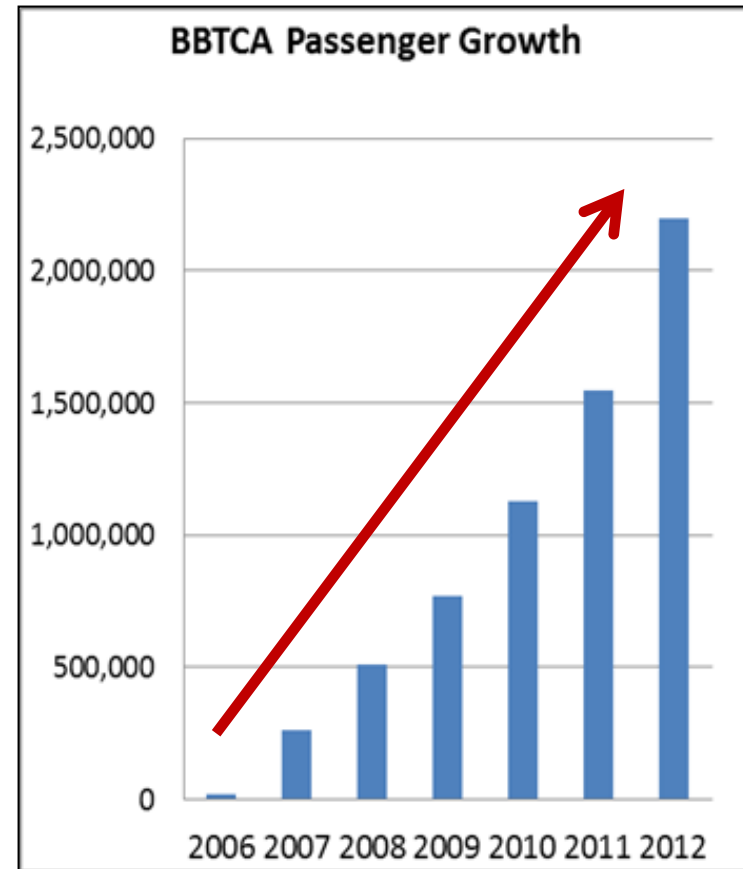
# Background

	June		July		August		Sept.	Oct.	Nov.	Dec.			
Preliminary Analysis (Environment, Transportation, Navigation, other)		◆	◆	◆	◆	◆		<div>We Are Here</div>					
Information Report #1 to Executive Committee			◆										
Public Consultation							◆						
Town Hall Meeting							◆						
Information Report #2 to Executive Committee								◆					
Evaluation by City Staff and follow-up analysis from consultants								◆	◆	◆	◆		
Final Report to Executive Committee												◆	
Final Report to City Council for Decision													◆



# Background

- The City has been asked to consider permitting jet-powered aircraft at BBTCA.
- This could have negative and positive effects on the Waterfront, nearby communities, the natural environment and our local economy.
- Porter Airlines and Air Canada currently operate out of BBTCA.
- Passenger volumes at the BBTCA have increased significantly since 2006.





# Background

- Increased passenger volumes have impacted groundside facilities causing conflicts between the airport and the adjacent community.
- The airport currently permits 202 commercial slots per day (take-off and landing).
- Flights are restricted to between 6:45 a.m. and 11 p.m.
- Jet aircraft are currently not permitted except for Medivac flights.
- The City is reviewing the role and function of the airport and how its operations impact the waterfront and adjacent community.





# What Have We Heard

- 200+ people have attended public and stakeholder meetings on the issue.
- 300+ items of correspondence submitted to date.
- Detailed submissions from individuals, stakeholders, recreational users, airlines and manufacturers on topics ranging from waterfront revitalization, competition at the airport, health impacts of aircraft and airports, impacts on the boating community, etc.
- Online survey is ongoing, concludes on October 11, 2013.



# What Have We Heard

- How does an expanded airport fit into the waterfront revitalization?
- Does this open the door for further airport expansion?
- Is this consistent with the spirit of the Tripartite Agreement?
- What is the effect on birds and aquatic life?
- How can the City make a decision if the CS-100 hasn't had its first test flight?
- Runway expansion will bring planes closer to existing residential areas.
- Safety of airport operations within a busy urban environment.
- Health effects of noise, air pollution and flights frequency.
- Increase in groundside traffic and impact on Queen's Quay.
- Impact on Waterfront School and Harbourfront Community Centre.
- Impacts extend beyond immediate vicinity.
- Airport is conveniently located close to downtown.



# What Have We Heard

- Toronto Islands is a city-wide recreational and natural amenity, it should be enhanced for all residents.
- How will this affect the Union-Pearson Rail Link?
- What is the long term role of this airport within a regional system of airports?
- The pace of the review is too fast given the complexity of the issue and long term impact.
- How will Runway End Safety Area (RESA) requirements affect this proposal?
- What is the potential impact of noise from maintenance, particularly engine-run ups.
- Potential impact on adjacent land values.
- Will noise, pollution (air and water) affect marine life around the airport?
- What is the impact on non-commercial operators at the airport?



# Technical Studies

- A series of Technical Studies have been initiated by the City to examine topics related to:
  - Aviation (noise, safety and infrastructure)
  - Economic Impacts
  - Land Use and Community Impacts
  - Marine Navigation, Coastal and Habitat Assessments
  - Transportation Impacts
  - Health Impact Assessment (Human Health, Noise, Air Emissions)
- Consultants were asked to review the original proposal and identify potential impacts.
- A Fairness Monitor was retained to monitor the procurement process and ensure that consultants did not have a conflict of interest with airport stakeholders.



# Public Consultation

- The purpose of tonight's meeting is to present our consultant's findings (both negative, positive and unknown) and provide an opportunity for the public to ask questions and provide comments.
- All questions and comments will be recorded and reviewed by staff as part of the staff-led evaluation process.
- We are still gathering information, public feedback at this stage is vital to ensure that the City's review is comprehensive. If we have missed an important issue or have not adequately addressed your concerns, please advise us.
- The work of the consultants is not complete, there will be follow-up reports based on public consultation feedback.
- The review of Porter Airlines' revised proposal for 200m runway extensions is ongoing.



# Next Steps

- **Next steps:**
  - Town Hall meeting on September 19<sup>th</sup> at Direct Energy Convention Centre, Exhibition Place, Salon 105.
  - Update Report to September 24, 2013 Executive Committee.
  - Additional Town Hall meeting in November (TBD).
  - Final Report to Executive Committee (December 5, 2013) and City Council (December 16, 2013).



# Contact

Please send any questions, comments, or submissions to:

- Christopher Dunn, Project Manager  
Waterfront Secretariat, City of Toronto  
Tel: (416) 395-1211  
E-mail: [cdunn@toronto.ca](mailto:cdunn@toronto.ca)
- To submit comments, please e-mail: [wps@toronto.ca](mailto:wps@toronto.ca)



# GUIDANCE

- We will follow the order of presentation as per the agenda
- We will stick to the timeline
- Please only ask questions that deal with the topic of presentation
- In order to accommodate as many participants as possible – we will call on those who have yet to ask a question first
- If you still have a question or require clarification join the consultant in the discussion room
- Please be respectful – forms of intimidation will not be tolerated




DATE: Monday, September 9, 2013  
 TIME: 6:00 - 7:00 p.m. Drop-In; 7 – 9 p.m.  
 Presentations and Q&A  
 LOCATION: Metro Hall

# Agenda

TIME	AGENDA ITEM	TOPIC	PRESENTER AND AFFILIATION	ROOM
6:00 – 7:00 pm	Drop-In	Review of Display Boards		308-309
PRESENTATION AND QUESTIONS/ANSWER				
7:00 – 7:20 pm	Presentation 1	Process Update	Chris Dunn, City of Toronto	308
7:20 – 7:40 pm	Presentation 2	Aviation	Martin Leprohon AirBiz Aviation Strategies Ltd.	TBD
7:40 – 8:00 pm	Presentation 3	Land Use and Community Impacts	Josh Neubauer Urban Strategies Inc.	TBD
8:00 – 8:20 pm	Presentation 4	Transportation Impacts	Ralph Bond BA Group	TBD
8:20 – 8:40 pm	Presentation 5	Economic Impacts	Ken Lambert HLT Advisory Inc.	TBD
8:40 – 9:00 pm	Presentation 6	Marine Navigation, Coastal and Habitat Assessments	Leah Weller CH2M Hill	TBD
9:00 pm	Wrap-up		City Staff	308-309





# BILLY BISHOP TORONTO CITY AIRPORT PORTER AIRLINES PROPOSAL REVIEW

PUBLIC WORKSHOP

9 SEPTEMBER 2013





# OUTLINE

- **Scope Overview**
- **Methods Used**
- **Key Findings**
- **Further Work**
- **Exclusions**



## SCOPE OVERVIEW

- Determine airport ultimate capacity based upon Jets operating at the airport, within the remaining restrictions of the Tripartite Agreement.
- Examination of preliminary information for the Bombardier CS-100 aircraft, including specifications and identification of comparable aircraft.
- Review of the infrastructure requirements within the proposal.
- Review of the preliminary information on aircraft noise and emissions associated with the CS-100 operations.



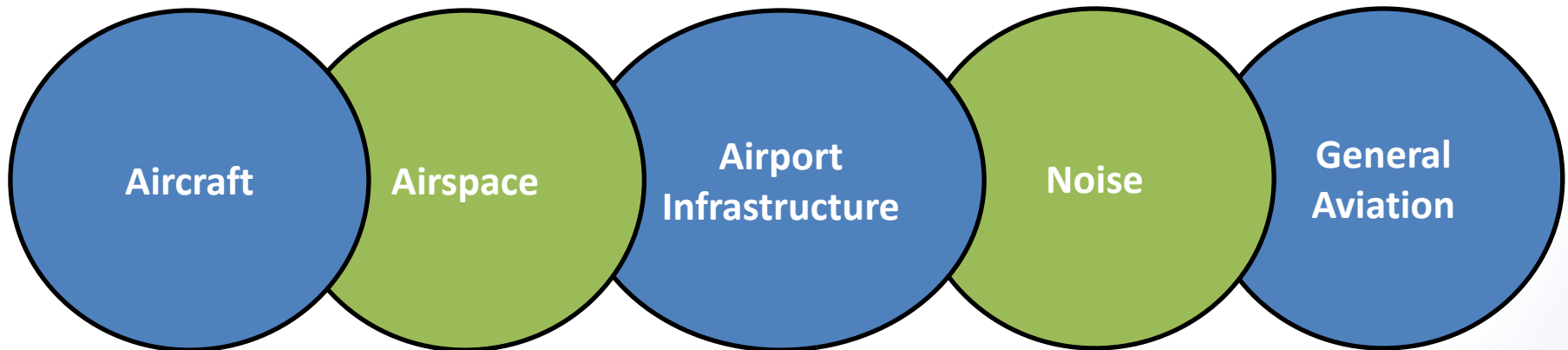
## SCOPE OVERVIEW

- Review impact of the proposed Runway End Safety Area (RESA) regulation .
- Review impact on General Aviation (GA) activities.
- Examine impact on airspace operations.
- Estimate order of magnitude cost and comment on financial feasibility of the extended runway requirements within the proposal.
- Benchmark other waterfront airports, located within urban areas, to provide comparative analysis and precedents to City staff.



## METHODS

- Review of the Proposal and associated reference material
- Review of International and National Regulations, Guidelines and Best Practices
- Review of the Tripartite Agreement
- Review of Publicly Available Reference Material





## ASSUMPTIONS

- Existing 202 commercial movement cap is assumed to remain; this constraint sets the annual capacity at the airport.
- Runway-End Safety Areas (RESA) are expected to become a requirement at BBTCA.
- RESA requirements themselves will not impact current Marine Exclusion Zones (MEZ).



## KEY FINDINGS

- Bombardier CS100 is the first of several **comparable “next generation”** aircraft expected to enter the market before the end of the decade.
- **Transport Canada** must be engaged to review the current operational exemptions and define how the CS100 (or comparable aircraft) will impact these exemptions, especially in regards to the need to maintain the integrity of the **Marine Exclusion Zone (MEZ)**.
- The Pearson Airport and Billy Bishop Airport airspace is co-dependant. The ability of both airports to operate in the general Toronto airspace will not be negatively affected by the proposal.
- CS100 is proposed to meet **cumulative** noise certification levels set within the Tripartite Agreement. However it is too early to confirm either the **cumulative** or **individual** (Approach, Take-Off and Flyover) compliance as certification measurement has not been completed.



## KEY FINDINGS

- The use of jets at the airport permits General Aviation (GA) activities.
- A lift of the ban on jet movements could allow **Very Light Jet (VLJ)** aircraft to operate on the existing airport infrastructure. GA activities could include VLJ operations.
- The proposal requires expansion of the terminal and apron areas which will impact adjacent functions and operations.
- CS100 operations will have a limited impact on **annual** passenger capacity (+15%), but will have a sizeable impact on **busy hour** capacity (+40%).
- Order of magnitude cost of the proposed runway extension is **\$80 million**, excluding any pavement or terminal upgrade works.
- Other **waterfront or urban airports** were reviewed and found to have a variety of operating restrictions imposed.



## FURTHER WORK

- Review of the revised the Proposal
- Airside and airspace capacity considerations
- Review of new information from Bombardier as it becomes available



## EXCLUSIONS

- Impact of the proposal on the existing daily movement cap
- Cost of improvements other than the runway extension associated with the introduction of jet aircraft

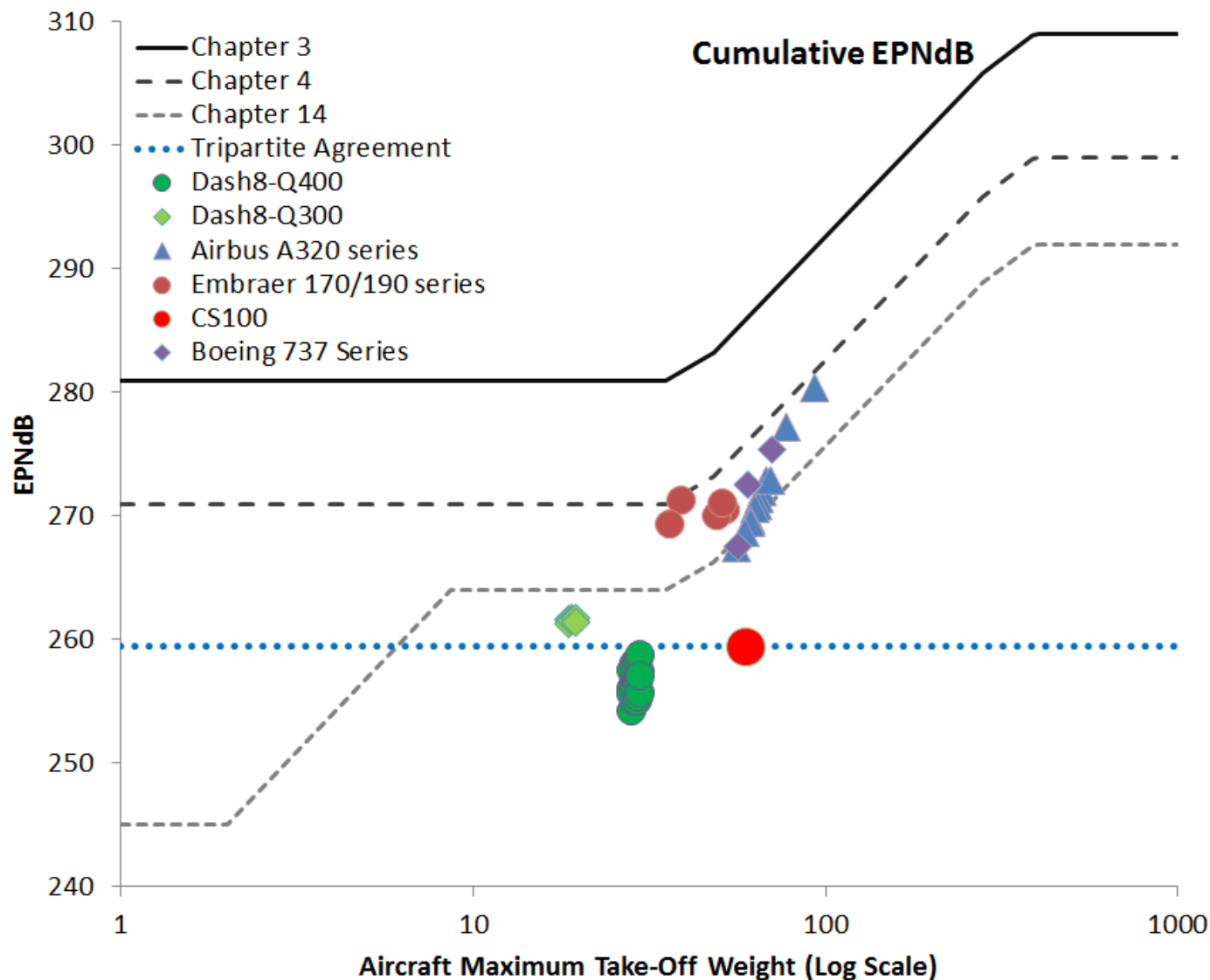


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Image Source: Google  
2011 DigitalGlobe  
2011 TerraMetrics



# CUMULATIVE CERTIFICATION NOISE LEVELS





# COMPARABLE AIRPORTS

	Billy Bishop Toronto City Airport	London City Airport	Bromma-Stockholm Airport	George Best Belfast City Airport
<b>IATA Code</b>	YTZ	LCY	BMA	BHD
<b>Country</b>	Canada	United Kingdom	Sweden	United Kingdom
<b>Major Airport</b>	Toronto-Pearson	London Heathrow	Arlanda-Stockholm	Belfast Airport
<b>Distance from City</b>	-	11km	8km	5km
<b>Passengers (2012)</b>	1.9 million	3.0 million	2.2 million	2.3 million
<b>Aircraft (2012)</b>	111,000 (2011)	71,000	47,000	42,000
<b>Jets Allowed</b>	No	Yes	Yes	Yes
<b>Hours of Operation (Weekdays)</b>	6:45-23:00	6:30-22:30	6:00-21:00	6:30-21:30
<b>Approach Slope</b>	3.9°-4.8°	5.5°	3.5°	3.0°
<b>Movement Cap</b>	Noise-Based Quotas Currently 202 daily commercial slots	120,000 annual movements and daily restrictions.  Noise-based quotas  Partial weekend curfew	80,000 Annual (including 20,000 aircraft with more than 60 seats and EPNdB 86-89)	48,000 annual movements  4 million seats for sale per year
<b>Rail Link</b>	Off-Airport Light Rail	On-Airport Rail Station	Off-Airport Light Rail	Off-Airport Rail Station



## ELEVATION VIEW

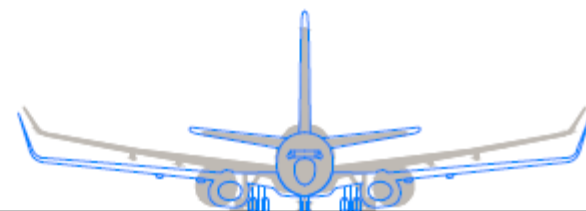
CS100



Dash8-400



B737





# Our Role in the Study

Urban Strategies was retained to:

- Review existing, planned, and proposed land uses
- Summarize the planning policy framework
- Review and analyze examples of waterfront/urban airports
- Develop an evaluation tool to understand the impacts of proposed Airport expansion
- “Fill in” the evaluation tool to help inform staff’s recommendations to City Council



# **Evaluation Tool:**

## **Identifying Existing and Potential Impacts**

Identified a wide range of existing and potential impacts based on:

- Community concerns
- Discussions with City staff
- Discussions with other consultants
- Internal workshop among planners at Urban Strategies
- Site visits
- Review of past Airport-related reports
- Review of other urban/waterfront airports around the world



# Evaluation Tool:

## Preliminary List of Impacts

The list is a work in progress, and will be refined with community and consultant input.

<b>Character of area</b>
Sense of enjoyment
Perception of area's primary function
<b>Development potential</b>
Height
Land use compatibility
Demand
Land availability
<b>Economic development</b>
Existing business
Potential business
Local employment
<b>Environment</b>
Air
Noise
Water
Sensitive areas/habitat/birds
<b>Parks and open spaces</b>
Use of parks/open spaces
Open space connectivity

<b>Recreation</b>
Water-based activities
Recreation trails
Waterfront-related leisure and events
<b>Safety</b>
Aircraft emergencies
Fuel storage
<b>Social justice</b>
Impacts on vulnerable populations
<b>Transportation</b>
Taxi/automobile
Bicycle
Pedestrian
Transit
Ferry
General Aviation (private aircraft)
Shipping (surface/water)



# Evaluation Tool: Scenarios

We developed 3 scenarios to isolate expansion-related impacts:

## **Scenario 1: 2012 baseline**

- Only propeller aircraft (within current limitations)
- No runway extensions or expansions
- 2.3 million passengers/year

## **Scenario 2: Maximizing capacity of existing aircraft and facilities**

- Only propeller aircraft (within current limitations)
- No runway extensions or expansions
- Potential increase in capacity to 3.8 million passengers per/year

## **Scenario 3: Proposed Airport expansion**

- Mix of propeller and jet powered aircraft (likely 75% propeller, 25% jet)
- Extension of Runway 08/26
- Potential increase in capacity to 4.3 million passengers/year



# Official Plan

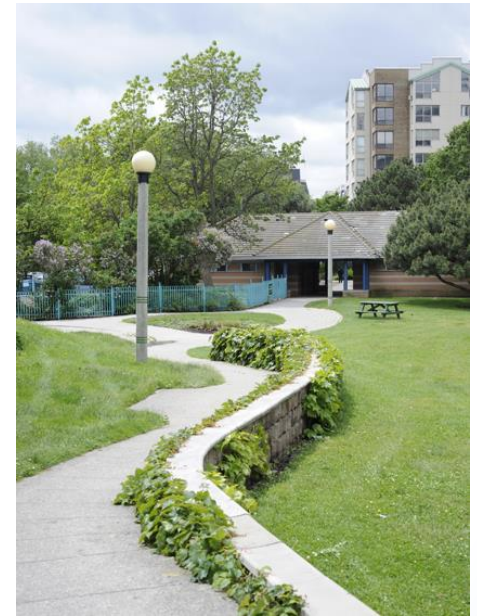
- Site and Area Specific Policy No. 194 permits the airport provided that the use is in accordance with the lease.
- The policy allows the lease to be revised provided that the City is satisfied that there are no adverse impacts on the surrounding residential and recreational environment.
- Central Waterfront Plan envisions a revitalized waterfront based on principles of making connections, building parks, promoting a green environment and creating diverse communities.



# Potential Areas of Concern

At this stage, it is difficult to separate existing concerns from expansion-related concerns.

- Absence of planning framework specifically related to Airport
- Fragmentation of parks and open space network
- Inconsistency of traffic with local planning goals
- Development heights and Federal Airport Zoning
- Impacts on schools, Community Centre, residents, especially near Airport access points
- Impact on redevelopment of Canada Malting site
- Role of the Airport within a revitalized, public space-oriented waterfront





# Potential Benefits

- Asset to city in terms of providing business and leisure travel service at central location, accessible by several modes of transport





# Unknowns to Date

- Most technical findings not yet fully available (e.g. noise, environment, health, traffic)
- Detailed plans for Canada Malting site and Ontario Place not yet available
- The potential conditions associated with proposed expansion (and the degree to which they are acceptable)



An aerial photograph of the Billy Bishop Toronto City Airport (BBTCA). The image shows the airport's layout, including the runway, taxiway, and terminal building. The airport is situated on a peninsula, with water on the left and right sides. The terminal building is a large, modern structure with a glass facade. Several aircraft are visible on the tarmac, and a few cars are parked near the terminal. The surrounding area is green with trees and grass.

# **Public Consultation on the Use of Jets at Billy Bishop Toronto City Airport (BBTCA)**

**Transportation Slides**  
**Monday, September 9, 2013**



# Transportation



## Purpose of Analysis

- Review the traffic impact of airport expansion on land side (e.g. Eireann Quay, Bathurst Street, Queens Quay, etc.)

## Methodology

- Traffic forecasting model based on airport passenger volumes, traffic conditions, passenger behaviour
- Pedestrian & vehicle simulation model
- Site observations





# Transportation

## Preliminary Findings

- Transportation impacts depend on the number of flights coming & going in an hour
- Currently there are approximately 16 flights in the busiest hour
- If jets are permitted, but the number of flights stays the same, traffic volumes could increase by 20%
- A portion of the impact on local traffic of introducing jets could be off-set by increases in shuttle and transit use



# Transportation

## Preliminary Findings

- BBTCA could potentially increase the number of flights in an hour, regardless of whether jets are permitted or not
- Increasing the number of flights in an hour could have a bigger impact than the introduction of jets
- If the number of flights increases (for example) to an upper-limit of 30 per hour, the number of vehicles per hour could increase significantly



# Transportation

## Preliminary Findings

	Existing No Jets	Existing With Jets	Max Potential Capacity* No Jets	Max Potential Capacity* With Jets
<b>Number of Flights</b> (Per Hour)	16	16	30	30
<b>Traffic Volumes on Eireann Quay</b> (Cars Per Hour)	750	900	1250	1715

\* Max potential capacity to be confirmed



# Transportation

## Preliminary Findings

- Improvements are required to address the existing situation, for example:
- Temporary taxi/shuttle area improvements
- Private vehicle pick-up & drop-off system improvements
- Shuttle & transit use improvements
- Pedestrian/vehicular conflict improvements
- Other options as identified during the review process



# Transportation

## Preliminary Findings

- Substantial infrastructure additions are required to accommodate a significant increase in planes per hour (with or without jets).
- Options under review include:
  - Providing a pedestrian/cyclist grade separation of Eireann Quay south of Queens Quay
  - Extending Streetcar down Eireann Quay
  - Extending moving sidewalk up to Queens Quay Streetcar
  - Grade separating Streetcar through key intersections
  - Tunneling Bathurst St. under Queens Quay
  - Extending Dan Leckie Way south and through Canada Malting site



# Transportation

## Preliminary Findings

- The possible concepts(to date) for improving traffic conditions at the BBTCA are outlined on the presentation boards
- An evaluation matrix is being developed to help determine which improvements have the greatest benefit to all stakeholders and are consistent with Waterfront objectives



# Transportation

## Work To Be Completed

- Confirm the impact of jets (if permitted) and the impact if the number of flights is increased
- Complete simulation analysis of the various improvements to confirm their impacts
- Provide high level cost estimates of the recommended improvements
- Evaluate improvement options and provide preliminary recommendations
- Recommend improvements to improve existing operations and to accommodate potential traffic growth from BBTCA
- Provide a report summarizing findings to City Staff



# Economic Development - Process

- Collect and analyze data indicating the type and magnitude of economic impacts expected to result if jet aircraft are introduced to BBTCA
- Focus on commercial impacts related to:
  - scheduled aviation
  - Waterfront development
  - potential impacts on key sectors such as film studios operating in the Port Lands
  - Tourism spending
  - Aircraft manufacturing within GTA
- HLT interviewed Pearson Airport staff as well as national carriers (Can/USA) with respect to BBTCA airport usage and impact on Pearson Airport



# Areas of Concern

- Other air carriers voiced concerns with respect to access and slot allocation at BBTCA
- Film Studios voiced noise concerns with the potential of increased activity on flight paths along the waterfront
- Canadian Owners Pilot Association expressed concerns of private flight operators being moved out of BBTCA after having access for many years



# Areas of Opportunity

- Businesses see BBTCA as an advantage for their employees who make use of its convenience to downtown core
- Tourism authorities view existence of BBTCA as supportive in attracting conferences/events to Toronto
- Economic impact of increased leisure visitor spending
- Residential developers cite value of BBTCA as a percentage of condo residents view access to airport an advantage.



# Unknown factors

- The impact of US long haul flights introduced at BBTCA on future growth at Pearson Airport has not been specifically quantified; however interviews with Pearson management suggest that passenger growth will continue as it adds more global carriers.
- BBTCA airline decisions :
  - Scheduling
  - Aircraft type
- BBTCA airport decisions:
  - Ground capacity
  - Terminal capacity



# Marine Navigation, Coastal & Habitat Assessment

## Scope:

- sediment transport
- bathymetry (underwater topography)
- water circulation and water quality
- marine navigation impacts

## Methods

- Review and analysis of existing literature, legislation, studies and data
- Review of TRCA, City of Toronto, Waterfront Toronto and other maps and reports
- Site visit





# Marine Navigation, Coastal & Habitat Assessment

## Key Findings

- Aquatic habitat currently needs improvement
- If the extension is permitted, there are opportunities to improve fish habitat; may attract more birds
- Minor impacts to sediment transport and dune environment
- Minor reduction in wave energy entering Western Gap
- Minimal to no change to overall currents, shoreline, wind or ice formation
- Boats/vessels must continue to travel around existing marine exclusion zone





# Marine Navigation

## Coastal & Habitat Assessment

### Impact Mitigation Measures

- Sediment and Erosion Control
- Habitat Design
- Construction Timing Windows (for example, avoiding bird breeding or migration periods)
- Structure Design

### Regulatory Framework

- Canadian Environmental Protection Act
- Migratory Birds Convention Act
- Fisheries Act
- Navigable Waters Protection Act
- Endangered Species Act



# Marine Navigation Coastal & Habitat Assessment

## Recommended Further Study

- Bird Strike Study
- Jet Blast Study (navigation)
- Detailed numerical modelling of currents, sediment transport, ice formation
- Detailed habitat survey

