

ECONOMIC IMPACT CONSIDERATIONS OF AN EXPANDED BILLY BISHOP TORONTO CITY AIRPORT

Prepared for the City of Toronto
June 2013 (Update August 26, 2013)

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1. INTRODUCTION

BACKGROUND AND OBJECTIVES

Introduction

Toronto-based Porter Airlines has requested that the City of Toronto ("City") agree to amendments of the 1983 Tripartite Agreement between the City, Toronto Port Authority and Transport Canada in order to permit jet aircraft to take off and land at Billy Bishop Toronto City Airport ("BBTCA"). At the May 7, 2013 City Council meeting, the City Manager was instructed to report back to Council addressing (bullet points shortened from May 7th Council Decision):

- the approval process required to amend the Tripartite Agreement;
- how to remove the exclusion of jet aircraft from the airport while maintaining the current noise limitations;
- the potential economic impact/opportunity associated with amending the Tripartite Agreement;
- whether recent or anticipated changes to Runway End Safety Areas may require changes to runway lengths at BBTCA;
- the potential noise, environmental and traffic/congestion impacts as well as any impacts on the City's waterfront work; and
- other factors that should be considered by Committee and Council.

Various consultants and external advisors have been engaged to address these requirements. This report, prepared by HLT Advisory, focuses solely on the economic impact/opportunity associated with increased activity at BBTCA.

Objectives

Given a three week time period, the consultant was expected to make best efforts to collect and analyze data to indicate the type and magnitude of impacts expected to result from the introduction of jet aircraft to BBTCA, including commercial impacts related to scheduled aviation, Waterfront development, potential impacts on key sectors such as film and media industries operating in the Port Lands, potential benefit for the manufacturing of aircraft in Toronto, tourism and other business development.

The following report documents the findings and conclusions from this analysis.

SCOPE AND LIMITATIONS OF WORK

HLT undertook the following steps to complete this assignment.

- Met and consulted with City staff and Waterfront Secretariat representatives and others as necessary to fully understand the project, gather background and insight and to confirm deliverables.
- Reviewed and commented on the Billy Bishop Toronto City Airport (YTZ) Economic Impact Study, InterVISTAS Consulting Group, October 25, 2012 and the Waterfront Toronto Economic Impact Analysis (April 2001 – March 2013), UrbanMetrics Inc., April 26, 2013.
- Reviewed a wide range of background documents on BBTCA and/or other downtown/regional airports within Canada or internationally. A list of documents reviewed is included in the Appendix
- Interviewed a cross-section of stakeholders. A list of interviewees is included in the Appendix.
- Analyzed Porter Airlines data to determine incremental arrivals following introduction of Porter service to existing destinations.
- Researched North American destinations where city centre/regional airports coexist with major international. In these examples we will identify relevant operating and usage information.
- Analyzed historical city-pair information between Toronto and a finite number of North American cities not currently served from BBTCA (to include Miami, Los Angeles, Vancouver and Calgary).
- Identified other North American cities with airport/rail link connections to the downtown core and analyze usage.
- Interviewed representative of selected industry sectors (e.g., film and media) active in the central waterfront to identify potential usage patterns of air service to BBTCA from North American origins outside of the current 500 km range.
- Interviewed selected tourism industry representatives to identify potential benefits of air service to BBTCA from North American origins outside of the current 500 nautical mile range.
- Conducted a high-level market analysis focused on potential air activity between Toronto and other North American cities outside the current 500km Q400 range.
- Estimated economic impacts, both qualitative and quantitative, of introducing longer-haul aircraft into BBTCA.
- Drafted a scope of work for additional analysis (as well as identifying incomplete worksteps from the current analysis, given timeframes), should the City of Toronto wish to pursue expansion of the BBTCA.

SCOPE AND LIMITATIONS OF WORK (CONT'D.)

In completing this analysis, HLT focused on the:

- Potential increase in passenger loads through BBTCA without consideration of which airline(s) would handle this increased activity.
- Economic and business benefits/challenges derived solely from increased passenger activity. HLT was not engaged to consider stakeholder interests other than airport/airline stakeholders and airport/airline users.

After competing these steps we prepared the following report.

2. AN OVERVIEW: CITY CENTRE/ REGIONAL AIRPORTS

EVOLUTION OF CITY CENTRE/ REGIONAL AIRPORTS

Many of North America's and Europe's existing city centre and/or regional airports commenced operation as the principal airport serving the host community (e.g., Edmonton Municipal, George Best Belfast City Airport) and have evolved into a supporting airport to a newer, larger, international airport. In a select number of other cases, either general aviation needs (e.g., BBTCA) or a need for specialized commercial air service (e.g., London City Centre Airport) has spurred airport development and ongoing operation. A brief summary of four airports city centre/regional airports is provided below to provide context for current BBTCA operations.

Edmonton City Centre Airport (ECCA)

Opened: 1929
 Location: Less than 5km to city centre
 Owned/Operated by: Edmonton Airports (also operator of Edmonton International Airport)
 Passengers: scheduled services ceased in 2009
 Economic output (1995): \$388 million direct, indirect and induced economic output (source: InterVISTAS)

ECCA and Edmonton International Airport (EIA) were consolidated under Edmonton Airports in 1995. Among other reasons for consolidation was a belief that ECCA inhibited Edmonton from non-stop service to more destinations (as passengers used ECCA to transfer through Calgary International).

In the year prior to consolidation, EIA handled 1.9 million passengers while ECCA handled 900,000. In 1996, EIA handled 3.1 million passengers while ECCA handled 500,000 for a total of 3.6 million (some 800,000 more passengers than the last year of unconsolidated operation. EIA handled more than 6 million passengers in 2012

ECCA is currently used as a general aviation runway although complete closure is planned over the short term in order to create an "environmentally friendly community of 30,000 residents."

London City Airport ("LCA")`

Opened: 1987
 Location: Less than 7 km to Canary Wharf/12 km to City of London
 Owned/Operated by: Private joint venture
 Passengers: 3 million + (2012) including 360,000 inbound business visitors and 313,000 leisure visitors to London*
 Economic output (2009): £100 million gross value added*
 *London City Airport, *Integral to Growth—The Economic Significance of London City Airport, February 2011*

LCA operates with a single runway on a very constrained land parcel in East London. A master plan through 2030 has recently been prepared showing potential growth in passenger volume to 8 million passengers/annum. LCA is connected to the London Underground via Docklands Light Railway.

Since inception, LCA has been positioned as a business airport serving Canary Wharf and the City of London in addition to nearby meetings/convention and sports infrastructure (i.e. Excel Centre, Olympic Stadium). The majority of flight activity is centered on major European financial capitals (e.g., Zurich, Frankfurt, Amsterdam). Significant commercial relocation has taken place from the City and west London to Canary Wharf (e.g. Barclays, Citigroup, KPMG, Thomson Reuters) with access to LCA repeatedly cited as a differentiating factor.

CITY CENTRE/ REGIONAL AIRPORT EXAMPLES (CONT'D.)

William P. Hobby Airport Houston ("Hobby")

Opened: 1927
 Location: about 10 km from city centre
 Owned/Operated by: Houston Airport System (also operates George Bush Intercontinental Houston Airport)
 Passengers (2012): 10.2 million
 Economic output (2011): US\$4.5 billion (source: GRA, Incorporated)

Hobby served as Houston's primary airport until 1969 when George Bush Intercontinental Houston Airport opened. Since that time, Hobby has operated solely as a domestic airport with Southwest Airlines the dominant player among six scheduled carriers.

In 2012, Southwest Airlines initiated a process to have Hobby handle international flights (with a focus on Mexico as well as Central and South America destinations/origins). United, the principal carrier at Bush Intercontinental, vigorously opposed such a measure on the basis that two international airports serving the same geographic market would result in flat-line passenger growth. United also contended that Southwest's pricing structure was non-economic and that converting Hobby to an international airport would result in 3,700 lost jobs.

Following extensive debate, with both "sides" offering a range of analyses supporting their positions, Houston City Council approved the introduction of international flights to Hobby commencing in 2015. Southwest has commenced construction of a US\$150 million+ terminal to handle an anticipated 1.5 million additional passengers.

George Best Belfast City Airport ("Belfast")

Opened: 1938 (sustained commercial operation since 1983)
 Location: 5 km from city centre
 Owned/Operated by: Eiser Infrastructure Fund (separately owned/operated from Belfast International Airport)
 Passengers (2012): 2.5 million (65% business passengers)
 Economic output : n/a
 Source: <http://www.belfastcityairport.com/> and York Aviation

Belfast airport originally started as a base of operations for aircraft manufacture, operated as a passenger and military airport through the 1970's and became a commercial airport in 1983. Similar to BBTCA, Belfast is governed by a 1997 "Planning Agreement" that limits the number of flights (48,000/annum), number of seats available for sale (4 million), hours of operation (6:30 am – 9:30pm) and a proposed noise cap.

The threat of a noise cap has spurred analysis of various growth options for Belfast including a "low" scenario (close UK cities), "medium" (several European cities) and "high" (UK and European cities as well as outbound Mediterranean destinations). A study completed by York Aviation quantifies the economic outputs of the various options and suggest the "medium" growth scenario strikes the appropriate balance between increased inbound/outbound traffic. The York Aviation study also speaks to the attractiveness of multiple airports operating within a given location from a cost competitiveness, business location/support/retention, and improved air connectivity.

BUSINESS/ ECONOMIC ARGUMENTS FOR CITY CENTRE/ REGIONAL AIRPORTS

The business and economic arguments in favour of, or opposed to, regional/downtown airports can broadly be grouped as follows:

- Demand—regional/downtown airports ultimately survive or fail based on demand...and exist to serve both residents and local businesses. Many of these airports have focused on the business traveller (e.g. London City Airport) where proximity to the business core is seen as a distinct advantage resulting from efficiency and time savings. Such demand is not necessarily incremental to the market however, as a portion of pre-existing demand could be transferred from the primary or other nearby airport.
- Connectivity—the benefits of efficient air connections (and follow-on connections via other transportation modes) is beneficial from a business location, business support and business retention basis...a benefit that continues through to employees in a highly mobile operating environment.
- Convenience—location factors of the airport (proximity to office or residential concentrations, transit access) can appeal to traveller segments (e.g., BBTCA and Edmonton Municipal). This can be seen on a smaller level with heliports and similar air service operations (e.g., Helijet and Burrard Air operations from Vancouver harbour to Victoria are examples).
- Price competitiveness—competition among multiple carriers is most often cited as a benefit to consumers. While arguments have been made that competitive airports can drive fares below the profitability threshold (e.g., United versus Southwest regarding Hobby Airport), independent research confirmed that competitive airlines do not operate below profitability.
- Consolidation versus fragmentation—depending on the location, demand patterns and alternate services, arguments can be made to consolidate airport operations (e.g., Edmonton Airports decision to combine Edmonton Municipal with Edmonton International resulted in substantial incremental passengers from many more points of origin) or permit a degree of fragmentation (e.g. Houston Airports permitting international flights to operate from Hobby):
- Economic output, job creation and revenues to government—commercial airport operations generate substantial economic activity given the labour intensiveness of the industry, significant tax burden on purchases (i.e., airfares) and significant local value added potential (limited import substitution). Not all economic output will be incremental to the destination however.

Only a very limited number of negative business and economic arguments are routinely made about regional/downtown airports. Most of these centre on noise and traffic congestion or on the commercial aspects of multi-airport operation within a single market (e.g., predatory pricing, consolidation of traffic to build critical mass of passengers).

3. AIR ACCESS AND ACTIVITY TO/ FROM TORONTO

CANADIAN AIR PASSENGER ACTIVITY

BBTCA and Pearson airports are among the ten busiest airports in Canada when measured by total enplaned and deplaned passengers. Passenger volume through Pearson has grown 17.5% since 2006 increasing from 29.7 million passengers to 34.9 million passengers in 2012.

Top 15 Canadian Airports by Passenger (Enplaned+Deplaned) Totals

	2006	2007	2008	2009	2010	2011	2012
1 Toronto Pearson International Airport	29,688,029	29,673,319	30,531,483	28,937,765	30,856,749	32,278,458	34,912,029
2 Vancouver International Airport	16,253,477	16,951,591	17,108,871	15,503,645	16,255,724	16,394,986	17,596,901
3 Montréal-Pierre Elliott Trudeau International Airport	11,476,528	12,308,792	12,163,987	11,706,936	12,609,493	13,228,564	13,798,821
4 Calgary International Airport	11,186,340	11,884,221	12,210,006	11,255,833	11,775,287	12,073,264	13,641,246
5 Edmonton International Airport	5,302,239	5,817,558	6,230,818	5,787,512	5,981,256	6,156,730	6,676,445
6 Ottawa Macdonald-Cartier International Airport	3,688,499	3,962,579	4,156,884	4,089,624	4,239,168	4,359,055	4,685,956
7 Halifax Stanfield International Airport	3,330,941	3,346,526	3,463,249	3,318,498	3,427,865	3,482,421	3,605,701
8 Winnipeg James Armstrong Richardson International Airport	3,574,679	3,554,969	3,551,751	3,305,085	3,384,991	3,383,882	3,538,175
9 Billy Bishop Toronto City Airport	22,859	264,454	508,641	770,681	1,130,625	1,548,376	1,909,364
10 Victoria International Airport	1,343,819	1,438,707	1,501,189	1,449,966	1,464,349	1,456,782	1,506,578
11 St. John's International Airport	1,157,152	1,163,778	1,184,655	1,166,849	1,305,924	1,329,239	1,450,000
12 Kelowna International Airport	1,267,518	1,327,252	1,359,619	1,280,197	1,364,496	1,355,975	1,440,952
13 Québec City Jean Lesage International Airport	802,263	899,612	1,099,915	1,154,012	1,252,119	1,343,021	1,342,840
14 Saskatoon John G. Diefenbaker International Airport	1,003,613	1,012,221	1,110,861	1,115,397	1,195,685	1,214,704	1,326,838
15 Regina International Airport	889,951	928,391	990,170	997,310	1,101,152	1,107,427	1,185,715

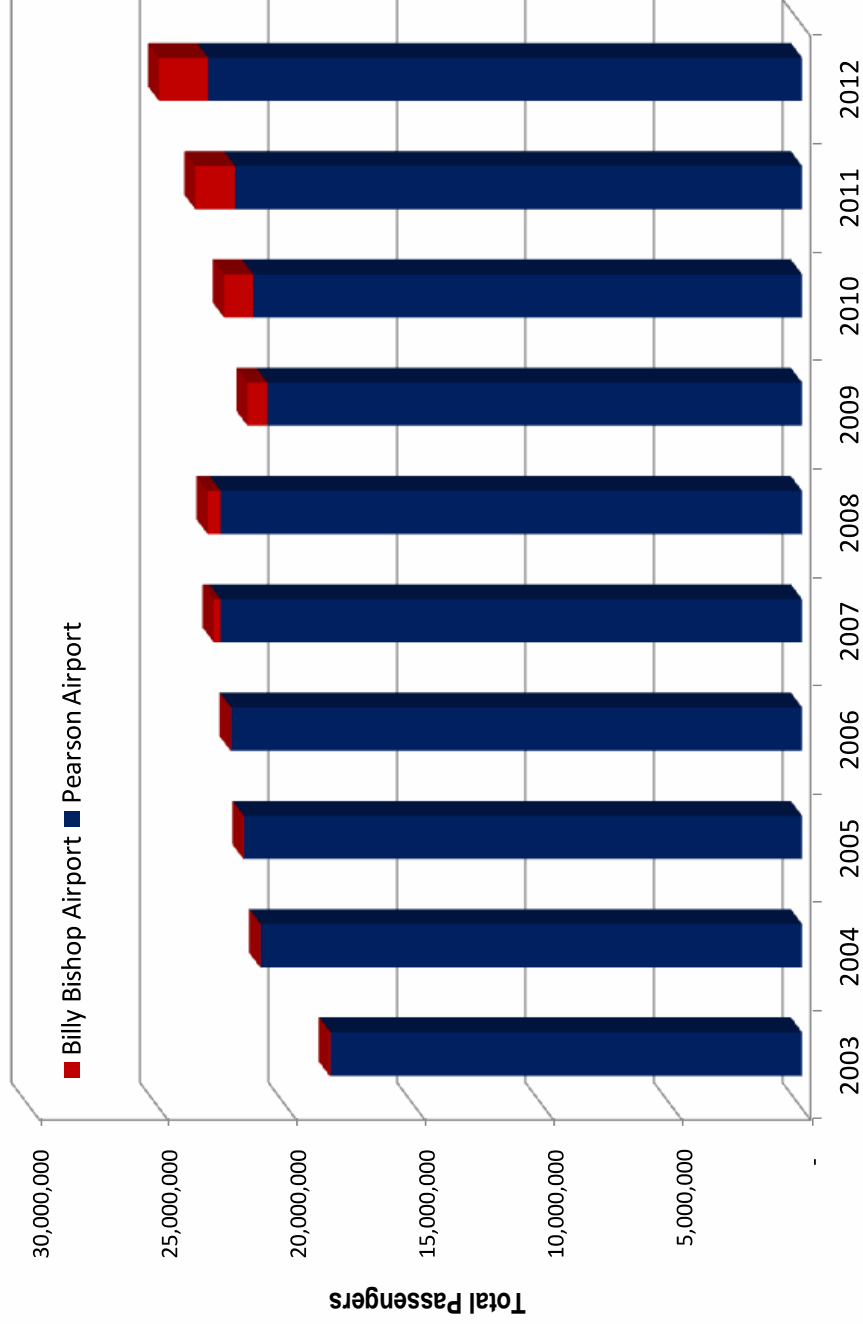
Source: Statistics Canada (2006-2011) and individual airport websites (2012). BBTCA passenger totals based on Toronto Port Authority data.

Over the same period, BBTCA has also grown from 23,000 passengers in 2006 to 1.9 million passengers in 2012, a significant growth curve given limits on size of aircraft (and associated restrictions on route options). Total enplanements and deplanements to Toronto have increased every year (over the previous year) except for 2009/2008.

TORONTO DOMESTIC AND TRANSBORDER AIR TRAFFIC

Only Pearson airport handles international air traffic to Toronto. Pearson and BBTCA handle both domestic and transborder (i.e., U.S) passengers. Combined domestic and U.S. passengers through both airports has increased 8% since 2008.

Toronto Domestic and Transborder Passengers



Source: Toronto Pearson International Airport and Billy Bishop Toronto City Airport.

AIR CAPACITY TO TORONTO

Data from the Diio Mi database permits comparison of airline seat capacity between Toronto (Pearson and BBTCA) and the ten highest-volume Canadian and U.S. cities (based on available airline seats to all airports in a specific city, for example New York includes Laguardia, JFK and Newark). Montreal is among the cities that have seen the greatest increase in annual inbound seats, with service to BBTCA added by Porter in 2007 and Air Canada in 2011.

Top 10 Canadian Cities to YTO: Annual Seats (Inbound only)											
Rank	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
1	Montreal	1,801,741	1,547,027	1,544,196	1,813,603	1,744,480	1,596,232	1,669,892	2,026,086	2,121,683	2,058,395
2	Vancouver	1,411,020	1,435,513	1,436,395	1,369,842	1,391,299	1,284,184	1,235,289	1,285,437	1,311,033	1,369,161
3	Ottawa	1,143,609	1,080,783	1,089,261	1,256,073	1,184,708	1,205,675	1,243,951	1,359,921	1,339,907	1,324,588
4	Calgary	943,632	960,167	970,694	985,587	996,178	925,456	911,662	951,628	972,193	1,058,490
5	Edmonton	490,544	505,335	539,426	593,050	627,516	607,880	632,185	642,966	660,087	721,510
6	Halifax	742,322	719,244	736,754	682,901	663,039	662,156	629,641	620,800	638,881	610,786
7	Winnipeg	575,887	592,817	561,795	570,698	555,143	542,024	537,391	544,759	534,499	529,093
8	Thunder Bay	242,323	223,820	270,855	263,813	263,269	286,979	311,395	340,217	370,444	366,984
9	St. John's	190,966	197,316	219,315	249,719	262,414	272,689	276,160	283,810	299,443	320,374
10	Quebec City	173,445	164,512	151,625	155,520	227,132	242,722	281,868	267,639	286,125	281,365

Source: Diio Mi database

Top 10 US Cities to YTO: Annual Seats (Inbound only)											
Rank	City	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1	New York ¹	1,113,006	1,124,928	979,619	962,601	1,131,200	1,181,229	1,236,824	1,330,408	1,604,537	1,727,032
2	Chicago ²	800,780	783,994	731,465	744,642	700,634	786,582	679,580	641,073	630,047	641,657
3	Boston	276,563	278,208	247,381	234,865	239,181	229,670	320,273	337,633	371,187	364,760
4	Los Angeles	362,456	380,316	323,126	281,983	309,904	241,522	284,816	326,736	342,090	351,785
5	Washington ³	260,750	248,419	269,396	249,758	228,824	214,189	224,577	213,600	310,452	341,304
6	Orlando	158,972	197,709	239,276	232,228	247,292	258,159	249,500	269,471	313,815	320,567
7	Miami	243,473	251,118	257,012	251,362	239,829	248,319	300,422	313,102	316,063	319,753
8	Las Vegas	155,306	178,565	210,815	241,188	248,014	252,822	219,920	240,379	261,770	275,399
9	Atlanta	276,050	256,679	251,518	244,996	250,717	209,886	240,825	248,492	255,957	272,112
10	Fort Lauderdale	113,651	175,407	169,633	185,022	182,338	185,951	216,792	230,142	257,730	257,469

Source: Diio Mi database

1- Includes LaGuardia Airport, Newark Liberty International Airport and John F. Kennedy International Airport.

2- Includes Chicago O'Hare International Airport and Chicago Midway International Airport.

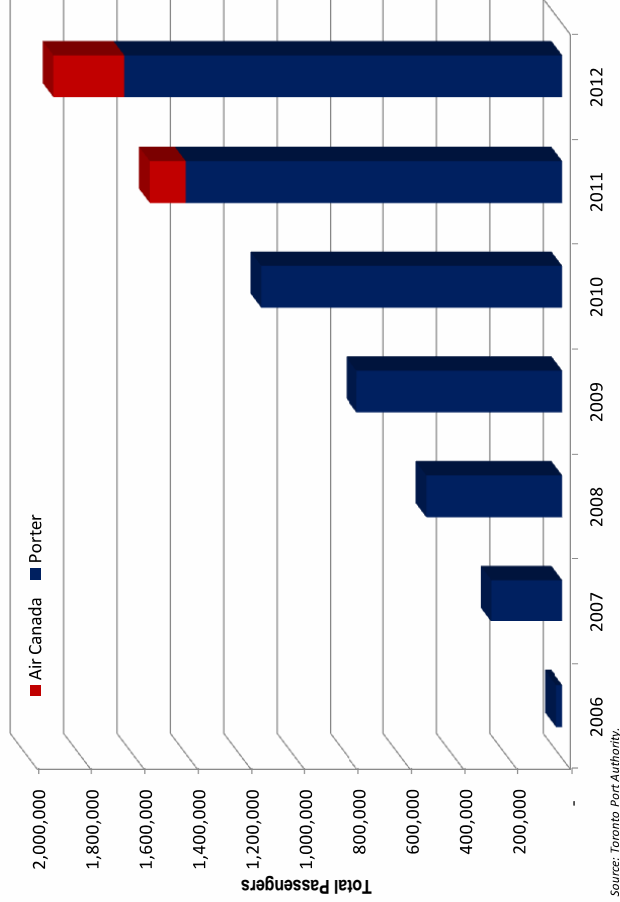
3- Includes Dulles International Airport and Ronald Reagan Washington National Airport.

BBTCA ACTIVITY AND CONTEXT

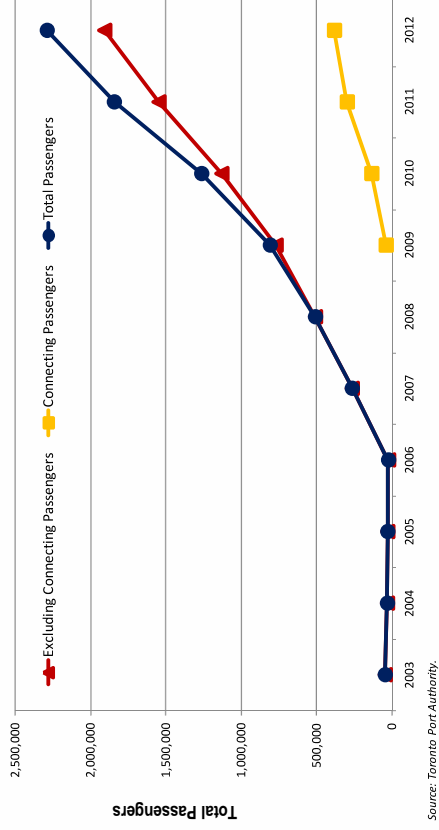
BBTCA's current position as ninth busiest Canadian airport has occurred over a relatively short time period (essentially the five years from 2006 through 2011).

Non-stop destinations to/from BBTCA include: Boston, Burlington (Vermont), Chicago, Mont Tremblant (seasonal), Montreal, Myrtle Beach (seasonal), Ottawa, Newark, Ottawa, Quebec City, Sault Ste. Marie, Sudbury, Thunder Bay, Timmins, Washington D.C. and Windsor. Connecting flights (on the same airline) are available to Halifax, Moncton and St. John's.

BBTCA Passengers (Enplaned + Deplaned) by Carrier



BBTCA Historic Passengers



Porter accounts for 86% of total passenger volume through BBTCA as well as controlling 85% of the available slots based on the 2013 schedule (172 slots out of the total 202 daily slots at BBTCA).

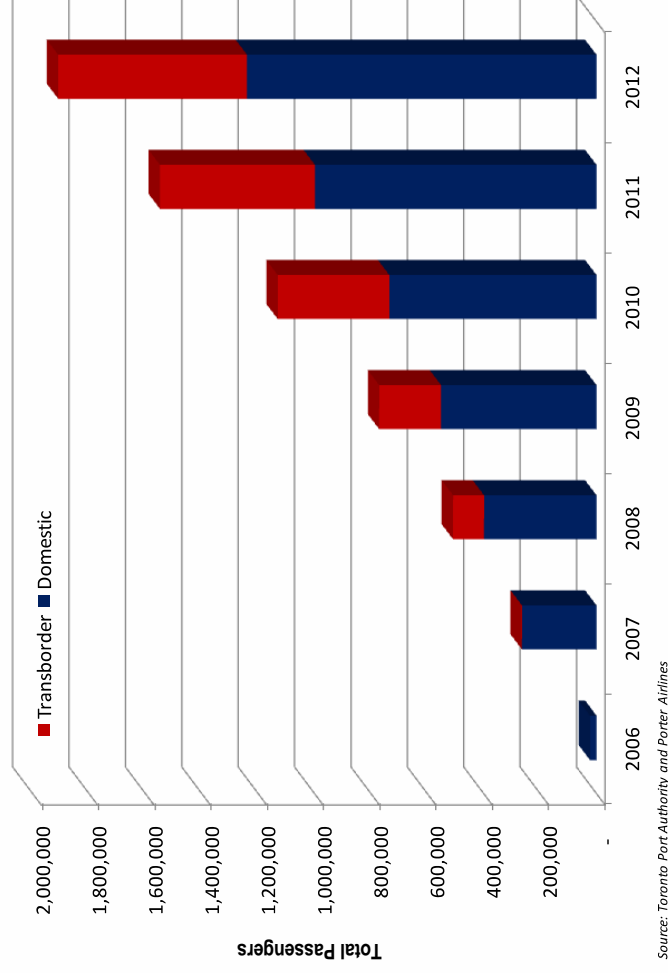
BBTCA PASSENGER CHARACTERISTICS

Of the 1,909,364 passengers handled at BBTCA in 2012, some 1.24 million passengers were traveling between Toronto and Canadian cities (domestic passengers) while 670,000 were travelling between Toronto and a U.S. city (transborder passengers). The proportion of transborder passengers to domestic passengers has grown from 22% to 35% over the 5-year period from 2008 to 2012.

As the carrier handling the majority of traffic through BBTCA, Porter's passenger characteristics are indicative of overall BBTCA operations. Key characteristics include:

- Directionality—According to Porter Airlines, overall directionality of the Porter passenger is roughly 50% inbound and 50% outbound (i.e., about half the passengers flying Porter through BBTCA originate in Toronto and are flying outbound with the remaining 50% originating elsewhere). A slightly greater proportion of transborder traffic originates in Toronto.
- Length of stay (trip duration) — BBTCA's role as a predominately business-oriented airport (but with a growing leisure base given the addition of new destinations/origins) is demonstrated through the 42% of domestic passengers staying no or one night (the majority are believed to be zero nights). Only 26% of trips last 4 days or more.

BBTCA Domestic and Transborder Passengers



Source: Toronto Port Authority and Porter Airlines

Existing Porter Customer Characteristics

	Directionality*		Trip Duration (Days)			
	Outbound	Inbound	0-1	2-3	4-6	7+
Domestic	46%	54%	42%	37%	14%	7%
Transborder	57%	43%	13%	51%	27%	8%
All	51%	49%	32%	43%	19%	7%

Source: Porter Airline Statistics

*Refers to outbound/inbound to Toronto.

4. PREVIOUS ECONOMIC IMPACT QUANTIFICATION

KEY FINDINGS OF RECENT ECONOMIC IMPACT STUDIES

Over the past year, two economic impact studies have been completed on BBTCA and Toronto waterfront development, specifically:

- InterVISTAS Consulting Inc., Billy Bishop Toronto City Airport Economic Impact Study, October 2012
- urbanMetrics Inc., Waterfront Toronto Economic Impact Analysis (2001-13), April 2013

These studies bring both a specific and broad perspective to the discussion of expanded operation at BBTCA.

Billy Bishop Toronto City Airport Economic Impact Study: InterVISTAS Consulting Inc., October 2012

Client: Toronto Port Authority

Objective: Economic impacts of employment at [BBTCA].

Findings and Conclusions:

A 2012 survey of 43 businesses (15 BBTCA employers, 17 offsite businesses supporting BBTCA, 11 hotels) found that BBTCA generates:

- \$900 million in direct economic output (\$1.9 billion total output when indirect and induced impacts are included)
- \$200 million in direct Gross Domestic Product /value added (\$640 million total GDP)
- \$70 million in direct wages (\$290 million total wages)
- 1,700 direct jobs (5,700 total jobs)
- \$57 million in tax revenue or payments in lieu of taxes

The study noted that forecasted increases in passenger volume will spur growth in these key impacts.

The study also noted, but did not include in the tally of economic benefits, the spending generated by non-local visitors to Toronto arriving via BBTCA which InterVISTAS estimated at \$123.6 million/annum.

Waterfront Toronto Economic Impact Analysis (2001-13) urbanMetrics Inc., April 2013

Client: Waterfront Toronto

Objective: Three phases including: 1) economic impact of Waterfront Toronto's investment between 2001 and 2013; 2) analysis of the impact of Waterfront Toronto's investment on real estate values; 3) benefits created by public and private sector real estate projects...stimulated by Waterfront Toronto's investment.

Findings and Conclusions:

The three-part analysis determined that since 2001:

- Waterfront Toronto's \$1.26 billion investment in revitalization projects (the majority of which were in construction-related projects) generated 16,200 full-time year of employment, \$3.2 billion of economic output and government revenue of \$348 million.
- Waterfront Toronto's land assembly, infrastructure development, planning (including flood protection and parkland) and remediation have stimulated investment and provided a basis for future development (with building permit pace exceeding that of other Toronto areas), increasing land (and building) values and addressing transit needs.
- Waterfront Toronto's actions will result in more than 10,000 residential units, one million square feet of office space, 937,000 square feet of institutional space and 230,000 square feet of retail space.

The findings and conclusions of each economic impact study are provided as context. We have not reviewed the terms of engagement or otherwise analyzed the scope or underlying objectives for commissioning the reports.

APPLICABILITY OF RECENT ECONOMIC IMPACT STUDIES

The relevancy and/or applicability of the recently-completed economic impact studies on the current deliberations over expansion of BBTCA activities is briefly summarized below.

Billy Bishop Toronto City Airport Economic Impact Study:
InterVISTAS Consulting Inc., October 2012

Conclusions applicable to current assignment:

The economic impact of BBTCA operations is substantial. Increased passenger throughput, particularly throughout of passengers more likely to purchase goods and services while in Toronto (e.g. visitors to the city from more distant origins), will further enhance economic output.

Implications/Additional Information Required:

- The InterVISTAS report did not address incrementality (i.e., degree to which BBTCA activities could be accommodated at Pearson.
- Larger planes to/from points of origin greater distances from Toronto will create additional staffing needs (more gate agents, baggage handlers) to support operations.
- The InterVISTAS report included only employment-related impacts; spending by incremental visitors to Toronto and BBTCA annual capital expenditures were estimated but not factored into the final calculation of economic output.
- Some of the assumptions used by InterVISTAS (e.g., room rates in Toronto hotels) could be refined once parameters are determined for expanded operations.
- The catalytic impacts raised by InterVISTAS are relevant and valid but could be quantified to present a more complete picture of economic benefit of BBTCA.

Waterfront Toronto Economic Impact Analysis (2001-13)
urbanMetrics Inc., April 2013

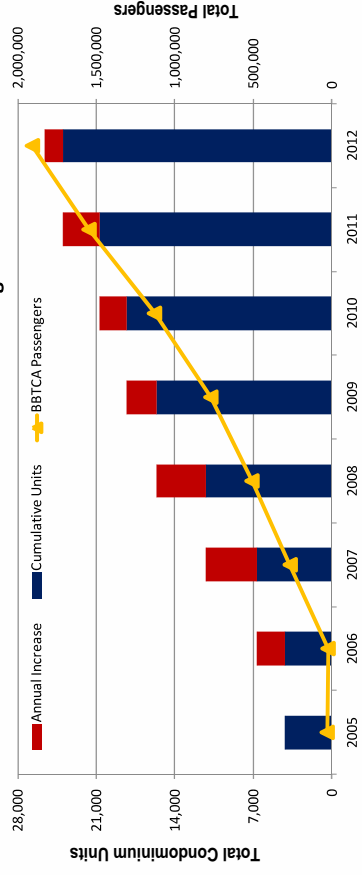
Conclusions applicable to current assignment:

The urbanMetrics report did not directly address the BBTCA with respect to actual or potential impacts of airport activity on residential, commercial or other waterfront development projects. Indirect references in the study include the need to ensure adequate transportation/transit and related access along the waterfront corridor.

Implications/Additional Information Required:

- The waterfront development precinct (and surrounding areas) is a high density, urban environment with infrastructure needs (e.g., transit) and constraints/challenges (e.g., noise, periodic congestion).
- The pace of residential and commercial growth in this precinct suggests market acceptance of constraints/challenges.

Condominium Sales and BBTCA Passenger Growth



Source: UrbanMetric Inc. and Billy Bishop Toronto City Airport.

5. CONSIDERATIONS AFFECTING POTENTIAL PASSENGER INCREASES

BACKGROUND

In evaluating the potential business and economic impacts from expanded BBTCA operations, we sought to gain insight from not only secondary data sources but also a variety of stakeholders of the BBTCA; airline industry participants within the GTA, as well as businesses related to Toronto's waterfront who may be affected by the existence of BBTCA.

A number of stakeholders and/or industry sectors were identified by the City of Toronto and/or through our research. Representatives of these stakeholders and/or industry sectors were contacted to elicit perspectives from all angles of the issue with respect to the expansion of BBTCA, specifically:

- BBTCA operators including commercial & private air service, airport servicing and airport authority
- BBTCA suppliers and servicers (e.g., Billy Bishop Taxi Association)
- Waterfront Toronto
- Metrolinx (Union Pearson Express)
- Toronto tourism industry
- Film industry
- Corporate customers of BBTCA (current and potential)
- Residential and commercial developers
- National Airlines (Air Canada /WestJet)
- United Airlines
- Greater Toronto Airports Authority
- Bombardier

The queries put to all stakeholders industry sectors during these sessions were:

- Does the current BBTCA operation have an impact on your business in a positive/ negative manner?
- How would an expanded BBTCA (including jet service to/from various major points in North America) impact your business?
- Do you believe that the proposed expansion would bring incremental passengers and associated spending to Toronto?
- Generally, do your stakeholders view the existence of BBTCA in a positive or negative manner?

The opinions, views and considerations gained from these interviews are summarized on the following pages and were used to inform our assumptions around future BBTCA volume projections.

RELATED ISSUES BY SECTOR

Tourism

Economic impacts from additional inbound passengers to Toronto will be affected by three key factors:

- whether the passenger is travelling for business or leisure;
- the mode of transportation; and
- length of stay of the visit of each individual.

For the most part, business travellers, travellers arriving by air and travellers staying multiple nights generate greater impacts (these characteristics are not mutually exclusive).

Expansion of BBTCA to provide for larger (jet) aircraft assumes the following.

- Growth of inbound passengers from major cities in western Canada, southwest USA and southeast USA.
- Expanded length of stay from the current commuter customer arriving from closer-in Canadian and USA markets.
- Significant opportunity for increased meeting and convention business (USA and western Canada) on small and large scale given convenience to downtown convention & hotel facilities.

Growing an incremental tourism base to the current volumes entering Pearson airport is assessed as follows:

- Response from corporate customers with respect to flying more often due to BBTCA long haul option is inconclusive. However, diversion from Pearson is likely (for convenience) and given potential for improved pricing options.
- Leisure activity from long haul markets are more likely to use a BBTCA option if price stimulation was a fundamental part of the airline strategy at BBTCA.

General Business Activity/ Support

The opinion of the downtown business community (as based on interviews for this study) view the existing BBTCA airport as:

- Convenient—proximity and ease of travel to prime downtown offices. Time savings from direct bus service or a short taxi ride is a common theme from the corporate customer
- Efficient (customs clearance)—Corporations cite a significant inbound USA usage of BBTCA as part of their ongoing business travel due to the relative ease of customs clearance.
- Passive infrastructure—Businesses situated on or near Toronto's waterfront are somewhat neutral as to the economic benefit of BBTCA seeing marginal economic impact on their businesses
- Potentially noisy—Businesses under the flight path coming over the East Bayfront, West Don Lands areas share similar concerns to film studios, although these business operations are less affected by aircraft noise.
- Less than ideally serviced—Businesses supporting the BBTCA operations such as aircraft servicing, taxi, parking and bus operators will benefit from the expansion of BB, although the primary goal of airport executives is to enhance mass transit access to the facility, reducing current congestion that somewhat hampers the current customer experience.

RELATED ISSUES BY SECTOR

Media and Entertainment

Film and media business sectors utilize Pearson airport for most productions that are sourced outside of the GTA, and do not see a significant benefit from the expansion of BBTCA. Air travel into GTA related to film production is a fairly minor expense in comparison to the large production budgets, and therefore are not viewed as an item that needs to find additional cost savings such as would accrue from a second option at BBTCA for flights from Los Angeles.

Film studios located on the eastern waterfront section of downtown Toronto (Port Lands) are concerned about the aircraft noise given proximity to flight paths into and out of BBTCA. Outdoor and back lot facilities are sensitive to any environmental disturbance during the filming process.

Film studio spokespeople who were located further north from the lakefront did not cite aircraft noise as a factor, and did believe that the access to air travel at BBTCA was a positive attribute.

Waterfront Real Estate Developers

Residential high-rise developers with existing, under construction and planned assets located south of the Gardiner Expressway generally agreed that the two primary advantages cited by condo buyers are:

- access to the central business core
- attraction of the waterfront lifestyle.

However all interviewees agreed that the typical demographic of the current condo resident in the waterfront community skews to a 30-40 year old active business person who accesses the Billy Bishop airport for both business commuting and getaway leisure purposes.

Developers were decidedly favourable to the existence of the airport as an attribute to support residential growth south of King Street, and believe that the advantages for the typical condo resident far outweigh any negatives.

Developer interviewees also noted that the soundproofing standards required in current high-rise construction in the waterfront area (given expressway, transit and the general congested urban environment) mitigate any potential issues from aircraft noise.

RELATED ISSUES BY SECTOR

Airline Sector

Consultation with Air Canada, United Airlines, and West Jet Airlines was conducted through this process in order to document their individual positions on the proposed runway expansion at BBTCA which would introduce access to jet aircraft.

All three carriers offered a similar opinion on the request by Porter Airlines to operate the CS-100 jet on extended runways at Billy Bishop Airport:

- The proposal to allow the CS-100 to fly out of BBTCA should also be extended to any jet which satisfies noise parameters outlined in the Tripartite Agreement
- The slot allotment should be altered to allow a competing air carrier to utilize BBTCA to more fully compete with Porter.
- Expansion at BBTCA will not negatively impact Pearson Airport as Pearson's growth trajectory is a factor of international city pair growth on wide body aircraft.

Aerospace Manufacturing

Discussions with Bombardier corporate executives were held to provide clarity on the current economic impact of the aerospace manufacturing in Toronto's Downsview facility; a plant that currently employs 4,000 people in the production of Q400 aircraft, used by Porter and other Canadian airlines.

Bombardier current manufacturing of Q400 and future Global 7000/8000 aircraft at Downsview which will result in a \$2.1 billion investment by Bombardier, creating approximately 12,000 direct, indirect, and induced jobs throughout Canada.

The manufacturing of the CS-100 aircraft in Montreal affects six GTA companies directly including Honeywell, while metal crafters throughout the GTA and aluminum production facilities such as Rio Tinto in Hamilton, will also benefit from the proposed programme which could reach \$14 million in business value (VoB) by 2020.

Bombardier's overall spend in Ontario including production, indirect goods and services totalled approximately \$600 million in 2012 when aerospace is combined with rail car production.

IMPACT OF UNION PEARSON LINKAGE

Metrolinx is working toward introducing a dedicated rail access between Pearson Airport and Union Station by 2015 (prior to the Pan American/Para Pan American Games. Key characteristics of the “Union Pearson Express” include:

- Designed specifically for the airport consumer as opposed to a “tie in” to existing municipal transit/suburban commuter rail.
- Continuous service operating every 15 minutes between 5:30am and midnight.
- Adult one way trip in the range of \$30; express train tickets will be marketed outside of Toronto as part of the airline ticket purchase to Pearson.
- Metrolinx predicts a 65:35 split between business and leisure visitors.
- Metrolinx passenger volume projections represent less than 10% of total Pearson enplanements/deplanements

The Appendix contains a comparison of major North American markets and transportation services from respective airports.

Metrolinx planners have considered the potential expansion of BBTCA in forecasting passenger volumes: Metrolinx believes that:

- Projected passenger volumes utilizing BBTCA will be a small percentage of overall air traffic into GTA.
- BBTCA will not significantly affect, or be significantly affected by, Union Pearson Express due to limited potential for expansion.
- Projected growth of air movements through Pearson from new international markets will fuel the Union Pearson Express projections through the first five years of service

Impact assessment;

- Dedicated airport-city centre rail links have proven successful and popular in many European and Asian centres. Dedicated rail links in North American centres are less common and, as a result, may be slower to gain acceptance (particularly by U.S. visitors).
- The convenience factor of BBTCA for business travellers is unlikely to be supplanted by the Union Pearson Express option however, the maximum capacity at BBTCA is expected to limit competitive pressures on Union Pearson ticket sales.
- Assumption that airlines utilizing BBTCA will utilize stimulative ticket pricing to increase usage from longer haul, incremental markets and attract , to some extent, a new leisure customer who is price sensitive rather than motivated by convenience offered by the future rail link.

CITY PAIR TARGETS

Target city pairs for longer-haul (i.e., distances greater than 500 nautical miles) have been identified based on stakeholder input, existing city pair volumes and pricing/competitive analysis. The key focus is on those routes currently commanding the highest average price considering all current competitors. This approach assumes the business model for any airline operating from BBTCA will partly be built on price reduction to existing air service in/out of Pearson.

Targeted geographic regions (and major centres) are summarized below:

Region	Principal City Targets	Airlines Providing Service
Canada West	Calgary Edmonton (also Vancouver)	Air Canada Westjet
USA (South)	Dallas Atlanta (also Miami, Houston)	Air Canada American Delta United US Air Westjet
USA (West)	San Francisco (also Los Angeles, Denver, Phoenix)	Air Canada Alaska American Delta United US Air Westjet

6. POTENTIAL BBTCA PASSENGER VOLUME ADJUSTMENTS AND ECONOMIC IMPACTS

FORECASTING CONTEXT

The potential economic impacts from expanded air activity at BBTCA are based on the following assumptions:

- The 202/day “cap” on flights in/out of BBTCA (101 flight pairs) remains unchanged. These caps (+/-5%) are already achieved most weekdays, necessitating replacement of existing aircraft with larger aircraft as opposed to simply adding more flights.
- The new aircraft under consideration (i.e., Bombardier CS 100 series) seat 107 passengers, 37 seats more than the current 70-seat Q400 aircraft used by Porter. WestJet and Air Canada use configurations for Q400 aircraft ranging from 70-78 seats.
- Approximately 23% of existing Q400 flights will be replaced by CS100 flights (mid-range scenario).
- Inbound and outbound point of origin is assumed to be 50% (consistent with current passenger distribution).
- Visitor spending estimates were taken from the *Statistics Canada’s Travel Survey of the Residents of Canada and International Travel Survey 2010* provided by the Ontario Ministry of Tourism, Culture and Sport.
- Economic output was calculated using the Ontario Ministry of Tourism, Culture and Sport’s TREIM model.

Economic impact was calculated on inbound passengers. Distribution of business versus leisure passengers was estimated using current Porter customer data. To the extent aircrafts are used for other purposes (outbound Caribbean), the economic impact will be reduced. The economic output and related impacts on the following pages assume the economic outputs estimated by InterVISTAS’ Billy Bishop Toronto City Airport Economic Impact Study (October 2012) remain in place (except as noted).

Finally, the economic impact projections in this report give no consideration to which airline(s) operates future incremental flight activity.

FLIGHT DISTRIBUTION

BBTCA has a maximum capacity of 202 scheduled commercial movements per day amounting to 73,730 flights per year. This is a self-imposed cap by BBTCA to ensure compliance with noise exposure levels. The number of BBTCA scheduled flights varies by day with weekday demand the highest at 97%. Scheduled flights on Sundays and Holidays operate at between 70-75% capacity. Saturday demand is further reduced to 50% of available supply.

With the addition of jet aircraft and the 202 flight per day cap, existing Q400 flights will be replaced at peak times. Three scenarios have been prepared (i.e. low, medium and high) with all three scenarios achieving 100% utilization. As a result, jet aircraft flights will represent 16% in the low scenario rising to 31% in the high scenario on weekdays. The cap on existing Q400 flights on weekends and holiday will be unaffected, as there is currently enough capacity to accommodate additional flights required from the jet aircraft.

Current overall BBTCA utilization is 84.8%. The addition of jet aircraft will increase utilization to between 90.5% and 94.4%.

2013 Schedule: Distribution of Flights					
	Days	Max Flights per Day	Max Flights	Average Flights/Day	Flights
Weekdays	236	202	47,672	97%	46,198
Holidays/Other*	25	202	5,050	71%	3,567
Saturdays	52	202	10,504	48%	5,093
Sundays	52	202	10,504	73%	7,642
Total	365	202	73,730	84.8%	62,500

Source: Billy Bishop Toronto City Centre Airport.
*Holidays/Other are weekdays with less than 182 scheduled flights.

Distribution of Flights (with jet aircraft)					
	Days	Max Flights per Day	Utilization	Flights/Aircraft	
				Q400	CS100
<u>Low</u>					
Weekdays	236	202	100.0%	39,896	7,776
Holidays/Other*	25	202	82.5%	3,567	600
Saturdays	52	202	56.6%	5,093	857
Sundays	52	202	85.0%	7,642	1,286
Total	365	202	90.5%	56,198	10,520
<u>Mid</u>					
Weekdays	236	202	100.0%	35,779	11,893
Holidays/Other*	25	202	88.8%	3,567	918
Saturdays	52	202	61.0%	5,093	1,311
Sundays	52	202	91.5%	7,642	1,967
Total	365	202	92.5%	52,081	16,089
<u>High</u>					
Weekdays	236	202	100.0%	31,663	16,009
Holidays/Other*	25	202	95.1%	3,567	1,236
Saturdays	52	202	65.3%	5,093	1,765
Sundays	52	202	98.0%	7,642	2,648
Total	365	202	94.4%	47,965	21,658

Source: HLT Advisory Inc. based on Billy Bishop Toronto City Centre Airport schedule data.
*Holidays/Other are weekdays with less than 182 scheduled flights.

FLIGHT AND PASSENGER FORECAST

The addition of jet aircraft flights was anticipated in three major North American market areas.

- Canada West- Primarily Calgary and Edmonton, and to a lesser extent Vancouver. These markets are projected to add between 8-16 flights on a peak weekday. Additional passengers (enplaned + deplaned) from these flights would range from a low of 307,000 to a high of 615,000.
- US West- Primarily San Francisco, and to a lesser extent Los Angeles. These markets are projected to add between 3-5 flights on a peak weekday. Additional passengers (enplaned + deplaned) from these flights would range from a low of 115,000 to a high of 192,000.
- US South- Primarily Dallas and Atlanta. These markets are projected to add between 6-14 flights on a peak weekday. Additional passengers (enplaned + deplaned) from these flights would range from a low of 230,000 to a high of 538,000.

Inbound Flights per Day (Peak Weekday)			
	Low	Mid	High
Canada West	8	12	16
US West	3	4	5
US South	6	10	14
Additional Inbound Flights	17	26	35

Source: HLT Advisory Inc.

Total Passengers Projected			
	Low	Mid	High
Q400	2,300,496	2,131,979	1,963,462
CS100			
Canada West	307,228	460,842	614,455
US West	115,210	153,614	192,017
US South	230,421	384,035	537,649
Total CS 100	652,859	998,490	1,344,121
Total Passengers	2,953,355	3,130,469	3,307,583

Source: HLT Advisory Inc.

Note: Q400 planes have a capacity of 70 passengers. CS100 planes have a capacity of 107 passengers.

ECONOMIC BENEFITS FROM EXPANDED BBTCA OPERATIONS

Spending by incremental non-resident passengers through BBTCA (as a result of CS100 service) is estimated at between \$68 million and \$134 million annually. As a result of replacing Q400 flights with longer distance jet flights, a reduction will occur in same-day passenger spending. However, the increase in overnight passenger spending will more than offset the loss in same day spending.

Spending of Non-Resident Passengers*			
	Low	Mid	High
Business			
Same Day Passengers	-\$380,889	-\$751,666	-\$1,122,443
Overnight Passengers	\$44,209,069	\$65,258,063	\$86,307,057
Total Business	\$43,828,180	\$64,506,397	\$85,184,614
Leisure			
Same Day Passengers	-\$317,106	-\$524,253	-\$731,399
Overnight Passengers	\$24,826,361	\$37,274,386	\$49,722,411
Total Leisure	\$24,509,254	\$36,750,133	\$48,991,011
Total Spending	\$68,337,435	\$101,256,530	\$134,175,625

Source: HLT Advisory Inc. based on visitor spending data from Statistics Canada's Travel Survey of the Residents of Canada and International Travel Survey 2010

*Non-resident passengers are estimated at 50% of total passengers, consistent with current.

The incremental non-resident passenger spending produces the following economic impacts, all of which are additive to the InterVISTAS economic impact calculations.

Economic Impacts of Expanded BBTCA Operations			
	Low	Mid	High
Total Visitors' Spending	\$68,337,435	\$101,256,530	\$134,175,625
Gross Domestic Product			
Direct	\$33,159,798	\$46,114,920	\$65,070,042
Indirect	\$14,908,227	\$22,085,847	\$29,263,467
Induced	\$14,894,631	\$22,051,252	\$29,207,772
Total	\$62,962,656	\$90,252,019	\$123,541,281
Labour Income			
Direct	\$22,712,967	\$33,618,924	\$44,524,880
Indirect	\$10,119,618	\$14,992,325	\$19,865,032
Induced	\$9,452,502	\$13,993,970	\$18,535,372
Total	\$42,285,087	\$62,605,219	\$82,925,284
Employment (Jobs)			
Direct	637	943	1,250
Indirect	176	261	346
Induced	164	243	322
Total	977	1,447	1,918
Total Taxes			
Direct	\$15,576,317	\$23,072,709	\$30,569,027
Indirect	\$12,465,556	\$18,470,897	\$24,476,222
Induced	\$200,861	\$297,316	\$393,770
Total	\$28,242,734	\$41,840,922	\$55,439,019

Source: HLT Advisory Inc. based on Ontario Ministry of Tourism's TREIM Model.

7. NEXT STEPS

NEXT STEPS

This analysis, together with other City and consultant analyses related to airport planning and zoning, has been compiled for Toronto City Council as an initial overview of expansion potential for BBTCA. The preceding analysis (and other consultant analyses) have been prepared within a compressed time frame for the purpose of presenting sufficient information to enable Toronto City Council to determine if further investigation of airport expansion is warranted. If, after consideration of these initial analyses, Toronto City Council elects to continue to pursue airport expansion, the following additional work steps should be considered:

- Economic impact of potentially manufacturing aircraft in Toronto versus other locations outside Toronto (or Ontario).
- Alternative aircraft (to the currently planned CS100) that satisfy current Noise Exposure Forecast (NEF) thresholds including size, range and any associated landing/takeoff restrictions.
- The impact on General Aviation operations.
- More detailed passenger forecast over a 10 year period possibly consumer research to validate interest.

APPENDICES

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List of Interviewees

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In addition to various Statistics Canada, individual airport and airline data sources as referenced on individual tables and charts throughout the report.

INTERVIEWS

1. Air Canada – Derek Vanstone, VP Government Relations
2. BMO – Linda Tuck Chapman, Chief Procurement Officer
3. Billy Bishop Taxi Association – Asafo Addai
4. Canadian Owner & Pilots Association – Kevin Psutka, President & CEO
5. Cinespace Studios- Steve Mirkopoulos, CEO
6. Great Gulf Homes – Alan Vihant, Senior VP High-rise
7. Greater Toronto Airports Authority –Toby Lennox, Vice President Strategic Planning and Stakeholder Relations
8. Metrolinx – Stephan Mehr, Director Business Planning
9. Ontario Media Development Commission – Donna Zuchinski, Film Commissioner Industry Development
10. Pinnacle Developments – Mark Bales, Project Manager
11. Porter Airlines – Jeffrey Brown, Executive VP Strategy & Procurement
12. RBC – Glenn Desouza, VP Sourcing
13. Sky Regional Airlines – Russell Payson Operations Director
14. Stolport Corporation – Victor Pappalardo, President
15. Toronto Island Pilot Owners – David Sprague, Secretary
16. Toronto Port Authority, BBTCA – Geoffrey Wilson, President & CEO
17. Toronto Tourism – David Whitaker, President & CEO
18. Tridel Corporation – Jim Ritchie, Senior VP Sales & Marketing
19. urbanMetrics – Rowan Faludi, Partner
20. Waterfront Toronto – Meg Davis, VP Development
21. WestJet Airlines – Mike McNaney, VP Environment, Fuel & Government Relations

In addition to City of Toronto staff and consultants responsible for other aspects of the BBTCA expansion analysis.