REGION OF WATERLOO INTERNATIONAL AIRPORT (YKF)

BUSINESS PLAN 2017-2022

Region of Waterloo

March 2017

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Executive Summary

The Region of Waterloo International Airport (YKF) is centrally located in southwestern Ontario in Woolwich Township. The airport is located 10 minutes north of Highway 401 approximately 85 kilometres from Toronto and is bordered by Cambridge, Waterloo, Kitchener and Guelph. With approximately 1,000 acres of land, YKF is home to over 250 private and charter aircraft, 25 businesses, over 300 employees, and generates approximately $90.1 million in economic impact to the local economy. In 2016, passenger numbers dropped to 127,824 with the loss of scheduled service to Chicago, IL and private charter service from Nolinor Aviation, however overall aircraft movement increased to 110,284, up 7.9% from the previous year. At the end of 2016, YKF was home to non-stop daily service to Calgary, Alberta by WestJet Airlines and seasonal service to sun destinations by both WestJet Airlines (Orlando, Florida) and Sunwing Airlines (Punta Cana, Dominican Republic).

YKF has a primary catchment area of 35 kilometres driving distance surrounding the airport. Despite having 127,824 passengers, YKF only captures 3.9% of the over two million origin-destination travellers in this catchment area. Despite low volumes, YKF now has an opportunity to increase its share of the passenger traffic based on local demand and capacity pressures at Toronto Pearson International Airport (Toronto Pearson). Waterloo Region is home to a diverse economy including a growing tech sector and one end of the Toronto-Waterloo Region Innovation Corridor, both of which require an increase in scheduled service from YKF. Loss of productivity as a result of congestion on Highway 401 is a concern for local companies that need to access key destinations in a timely manner. An estimated 90 million people will be looking to travel through southern Ontario airports by 2043 creating a valuable growth opportunity for YKF. A recent study completed in 2015 by the Greater Toronto Airports Authority (GTAA), “Toronto Pearson: Growth, Connectivity, and Capacity – The Future of a Key Regional Asset” identifies alleviating future capacity pressures of Toronto Pearson through a southern Ontario airports system.

Master Plan

The 2016 Region of Waterloo International Airport Master Plan (Master Plan) is a 20-year plan that serves as a framework to guide the long-term development of the airport. Development triggers have been used to guide the growth of the airport. Unlike traditional airport Master Plans, development of the airport will be determined by the actual growth at the airport based on the passenger traffic from scheduled service (e.g. development triggers of 250,000, 500,000, and one million annual passengers) rather than large up-front capital investments in the airport with the expectation of increased air service to follow. The Master Plan will also consider external factors such as the capacity pressures expected at Toronto Pearson in the coming years.

Business Plan

The associated 2017 Business Plan for YKF draws its direction from the Region of Waterloo Corporate Strategic Plan, the KPMG Service Review recommendations adopted by Regional Council in 2015, and the Master Plan. The Business Plan outlines the development and implementation of a number of strategic operational actions at YKF over the next five years that: develop the brand of the airport; increase air service and build out the business park; achieve operational excellence; and pursue opportunities to optimize revenues. These strategic actions ensure the airport is aligned with needs of the community, the airline industry, and strategically place YKF in a position to be a future reliever airport to Toronto Pearson.

1.0 Background

The Region of Waterloo International Airport (YKF) is located in Woolwich Township within Waterloo Region. YKF is centrally located in southwestern Ontario, about 85 kilometres west of Toronto and 60 kilometres west of Hamilton. Within its primary catchment area, YKF offers services to a population of more than 720,000[1].

YKF has a rich history with roots in flight training for civil aviation and pilot training for the Royal Canadian Air Force. Since its completion in 1950, YKF has experienced considerable investment, development, and expansion. YKF has been solely owned and operated by the Regional Municipality of Waterloo (Region of Waterloo) since 1996. The last Airport Master Plan was completed by the Region of Waterloo in 2000 and identified the role of YKF as being a fully equipped, certified airport facility that could accommodate general aviation, scheduled and non-scheduled air service. In 2009, a five-year business plan was completed to further support business development and airport operations.

Today, YKF is a modern full service international airport with commercial, corporate, and general aviation activities. As a result of the 2000 Airport Master Plan, the airport has had a number of infrastructure improvements that are now beginning to offer local passengers and the business community an alternative to Toronto Pearson International Airport (Toronto Pearson). In 2015, 153,963 passengers travelled through YKF, a record number for the airport. In 2016, passenger traffic dropped to 127,824 (Refer to Figure 1) with the loss of scheduled service to Chicago, IL and private charter service from Nolinor Aviation, however overall aircraft movement increased to 110,284, up 7.9% from the previous year.

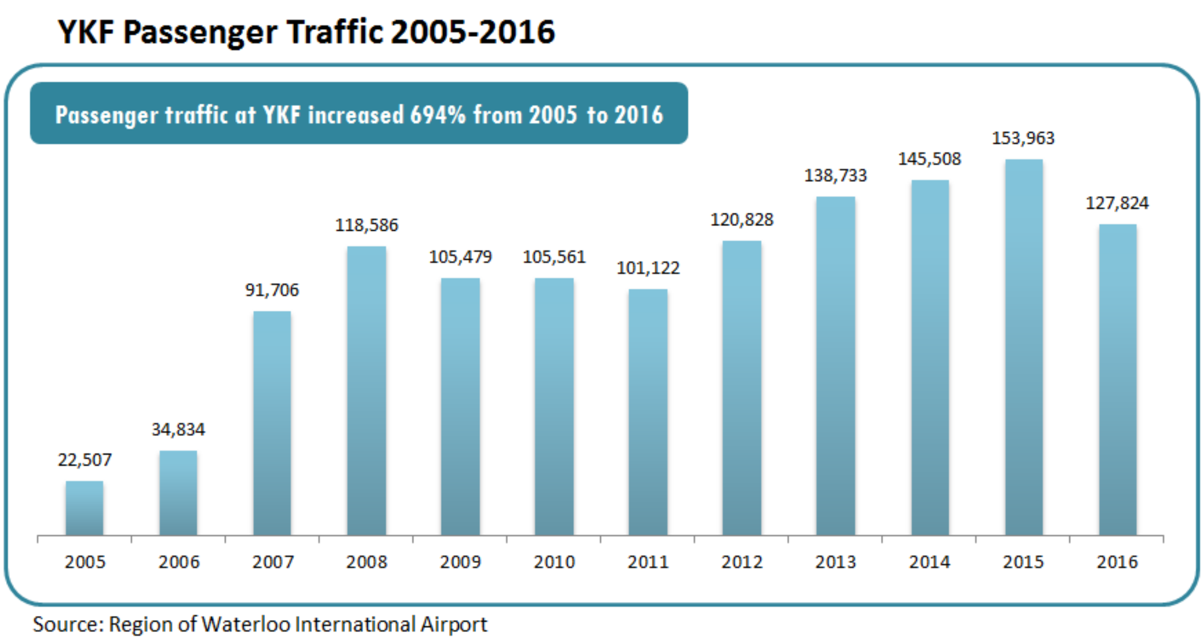


Figure 1 - Passenger Traffic at YKF

1 Region of Waterloo, Region of Waterloo International Airport Master Plan, 2016

YKF has a primary catchment area of 35 kilometres driving distance surrounding the airport (Refer to Figure 2). Despite having 127,824 passengers, YKF only captures 3.9% of the over two million origin-destination travellers in this catchment area.

Region of Waterloo International Airport (YKF) Catchment Area Map

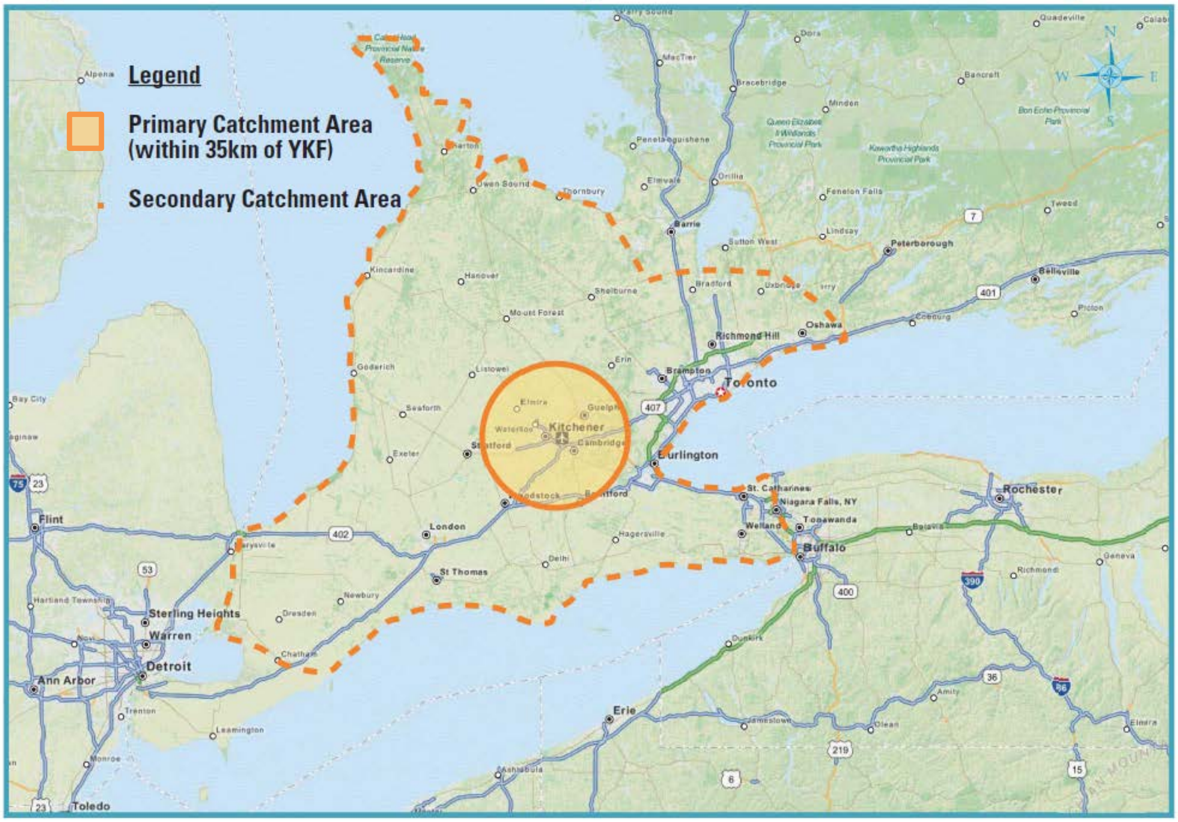


Figure 2 - YKF Catchment Area Map

The Kitchener-Cambridge-Waterloo census metropolitan area (CMA) is the 10th largest in Canada and 4th largest in Ontario[2]. With a population of approximately 575,000 that is expected to reach 835,000 by 2041, offering scheduled service to multiple destinations from YKF is increasingly becoming an important factor in the growth of the region. With an existing infrastructure capacity of approximately 250,000 passengers per year, YKF is capable of supporting a minimal increase in passenger service without additional capital investment.

In 2015, the Region of Waterloo completed a service review, which recommended completing the Airport Master Plan and associated Business Plan. On October 21, 2015, Regional Council approved the following resolution to optimize the airport commercial value:

[2] Does not include Wellesley Township or Wilmot Township

"That the Regional Municipality of Waterloo direct staff to complete the Airport Master Plan and associated Business Plan by the end of 2016, which would include recommendations regarding increasing revenue, managing operational and capital expenses and a net levy target for airport management to budget against to control operating and capital expenditures."

The 2016 Region of Waterloo International Airport Master Plan (Master Plan) has adopted the following strategic vision to shape the identity of YKF for the next 20 years:

> "The Region of Waterloo International Airport will contribute to the economic prosperity and competitive advantage of Waterloo Region by connecting this innovative community to the world. This will be achieved through managed growth, customer service excellence, passenger convenience and community responsiveness."

The Master Plan outlines a 20 year growth strategy for the airport based on actual growth in passenger traffic. This differs from the traditional airport planning model of building infrastructure with the expectation of increased air service. Five development triggers and corresponding development stages have been identified to manage growth at YKF (Refer to Figure 3). At each development trigger, Regional Council will be presented with decision points regarding further investment at the airport.

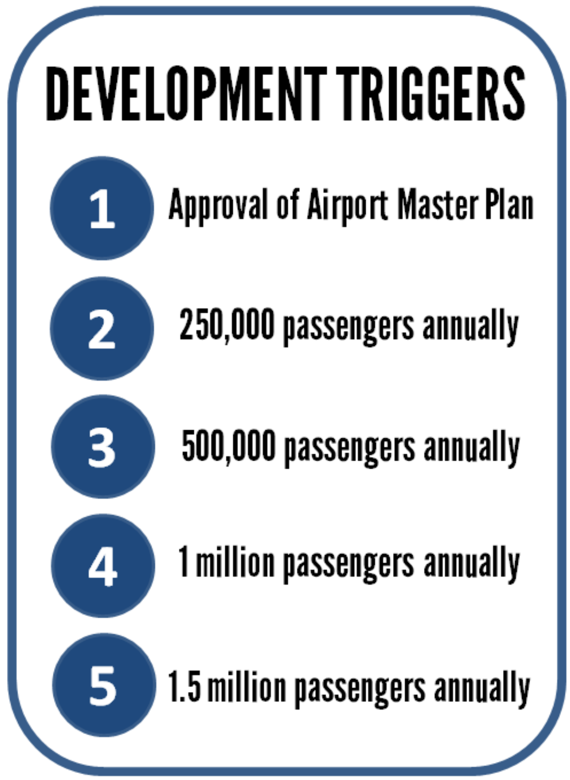


Figure 3 - Development Triggers

A contributing factor to the growth strategy in the Master Plan is the expected growth from Toronto Pearson. A study completed by the Greater Toronto Airports Authority (GTAA)[3] identified that the existing southern Ontario system of airports will start to approach a capacity milestone by the mid-2030s leading to upwards of 20 million passengers without adequate air service by 2043. YKF has been identified as one of several airports that could help close this gap.

Another factor that is accounted for in the Master Plan is the recent emergence of ultra low cost carriers (ULCC) in the Canadian aviation market. ULCCs operate under a point-to-point business model rather than the traditional hub-and-spoke model used by legacy carriers. Under

[3] GTAA, Growth, Connectivity, Capacity – The Future of a Key Regional Asset, 2015

this model, secondary market airports like YKF that are located close to a traditional hub airport servicing legacy carriers have an opportunity to increase their air service.

1.1 Business Plan

The 2017 Region of Waterloo International Airport Business Plan (Business Plan) is a supporting plan that recommends specific, measurable, and results-oriented operational actions over the next five years to advance the airport through the development stages. It draws its direction from the Region of Waterloo Strategic Plan (2015-2018)[4], the Region of Waterloo Council resolution based on the 2015 KPMG Service Review, and the Master Plan. The key themes of this business plan are:

1. Developing the Brand;
2. Building the Business;
3. Achieving Operational Excellence; and
4. Optimizing Revenues.

Specific action items, responsible departments, and associated timeframes have been categorized into one of these four themes. All of the strategic actions outlined in this Business Plan can be resourced through the existing airport operational budget and future budgets associated with the implementation of the Master Plan[5].

2.0 Aviation Industry Outlook

2.1 Global Outlook

In 2017, the aviation industry will continue to set new records. Projections from the International Air Transport Association (IATA) estimate that the aviation industry will support nearly four billion travellers and almost 56 million tonnes of cargo in the coming year[6]. Passenger load factors on average are expected to be just under 80%. Aircraft are being flown more intensively with 2017 departures expected to exceed 38 million (73 aircraft per minute)[7]. This growth is the result of increasingly affordable passenger airfare. Before taxes and surcharges, the average return fare per passenger is expected to be $351, a forecast that is 63% lower than the average airfare 22 years ago.

Almost 1% or $769 billion of global Gross Domestic Product (GDP) is spent on air transport. Profits are expected to be $35 billion and airlines and their customers will generate approximately $123 billion in taxes next year. The North American airline industry is expected

[4] Region of Waterloo, Region of Waterloo Strategic Focus (2015-2018)
[5] Assumption that the existing operational budget levels at the airport are not reduced
[6] IATA, Economic Performance of the Airline Industry, 2016 Year End
[7] IATA, Another Strong Year for Airline Profits in 2017

to see the largest profits in 2017. Net post-tax profits will be $18.1 billion next year, which represents a net profit of $19.58 per passenger. Employment by airlines will also increase to 2.6 million, up 2% from 2015. Many economic sectors also continue to rely heavily on the air transportation network to sustain global value chains. For example, international trade shipped in the manufacturing sector is forecasted to be approximately $5.7 trillion in 2017[6].
New aircraft will continue to be in high demand in 2017. Commercial airlines are expected to take ownership of 1,700 new aircraft next year[8]. Higher fuel prices and the demand to retain competitive prices are leading airlines to upgrade existing fleet to larger aircrafts that are more fuel efficient. It is projected that in 2017, approximately 4.1 million seats will be available by commercial airlines. This trend is expected to continue over the next 20 years. Commercial and cargo aircraft demand is projected at more than 33,000 aircraft.

The continued growth of ultra low-cost carriers (ULCCs) across the industry is a contributing factor to this demand for new aircraft. Growth in recent years by airlines such as Spirit Airlines, Ryanair, and Indigo Airlines are providing secondary market airports around the world with new opportunities for air service. The ULCC business model is based strictly around low fares and point-to-point service[9]. ULCCs have found success by serving underserved destinations that have been overlooked by legacy carriers due to passenger traffic volumes or proximity to hub airports. In order to take advantage of this growing opportunity, secondary market airports have been forced to review their air service development strategies including keeping airport fees at competitive rates.

2.2 Canadian Outlook

Between 2009 and 2015, the total number of passengers enplaned and deplaned in Canada increased approximately 27% to 133.4 million[10]. Domestic travel accounted for almost 80 million passengers while transborder traffic and other international traffic made up the remaining 53.9 million. Transborder and other international traffic have seen the largest growth in traffic, which has been in large part supported by Toronto Pearson and Vancouver International Airport (Refer to Figure 4). This growth has resulted in a 2.7% increase in passenger traffic at Canadian airports, a sixth consecutive annual increase.

[8] Airbus, Global Market Forecast 2016-2035
[9] Aviation Industry Trends, InterVistas, 2012
[10] Statistics Canada, Air Carrier Traffic at Canadian Airports, 2015

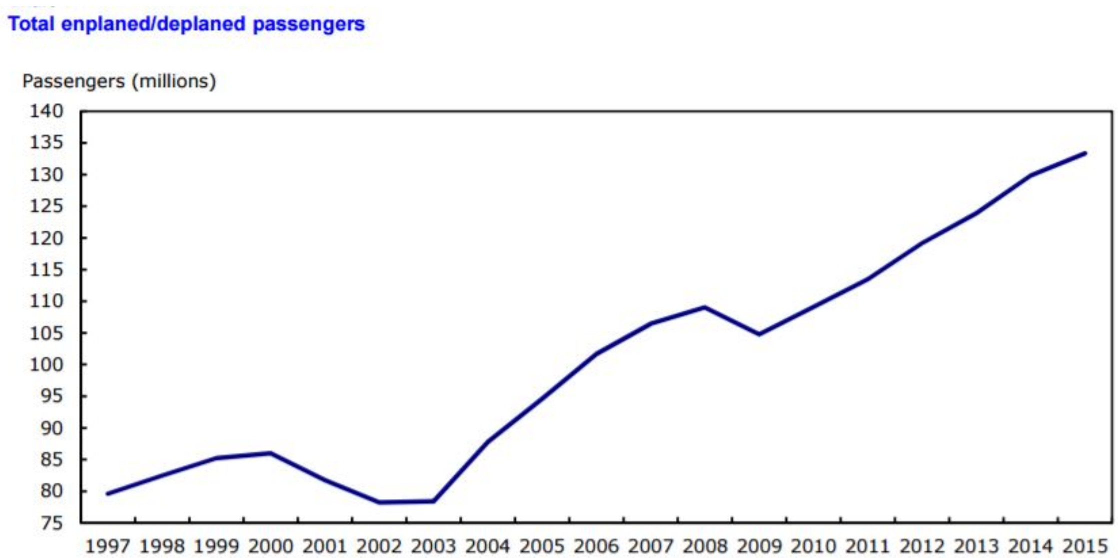


Figure 4 - Total Enplaned/Deplaned Passengers in Canada – 1997-2015

In 2013, the air transport industry as a whole contributed $34.9 billion to Canada's GDP. The industry supported approximately 405,000 jobs including 141,000 direct jobs[11]. This has provided various levels of government with approximately $12 billion through fees and taxes.

Domestic travel in Canada is supported by point-to-point services where the economics work; however, connecting to international destinations generally requires connections through a hub airport in order to generate a net profit for airlines. Approximately 1.9 million origin-destination travellers from Canadian regional airports connect through international hubs. The opportunity for modest growth at these airports exists depending on the driving distance to a hub airport and airlines seeing value in regional connections in their route planning process. These factors can create an environment of uncertainty for regional airports in Canada serving less than 600,000 passengers annually, making efforts to enhance infrastructure and attract additional air service a greater challenge. With increased travel demand in various parts of the country, new opportunities are becoming available to a number of regional airports.

In Canada, a new ultra low-cost carrier (ULCC) market is beginning to emerge. Due to regulation, the tax and border fee regime, and capital constraints, Canada is currently the only G7 country without ULCC service. ULCCs in the United States (US) have tried to take advantage of this by attracting Canadian travellers with discounted fares at US border airports. Approximately 85% of the commercial airline market in Canada is currently controlled by Air Canada and WestJet (Figure 5)[12]. Despite a changing business model, WestJet still considers itself as Canada's low-cost airline and has been public about their intent to protect that reputation against new airlines offering ULCC service[13]. This existing market share combined

[11] Conference Board of Canada, Growing Canada's Economy: A New National Air Transportation Policy, 2013
[12] Centreforaviation.com, Canada's Airline Market Duopoly, 2016
[13] Financial Post, NewLeaf drops more routes, down to five destinations for summer season, February 2017

with Federal Government restrictions and the hub-and-spoke model of legacy carriers has left secondary market airports across Canada with limited opportunity to increase air service.

In November 2016, the Federal Transport Minister provided foreign investment exemptions to two companies pursuing ULCC service in Canada, Enerjet and Canada Jetlines. All Canadian airlines are expected to see the same 25% foreign investment limit increased to 49% within a year[14]. The emergence of ULCCs into the marketplace may have an impact on overall flight offerings in Canada. The point-to-point model used by ULCCs rather than the hub-and-spoke model currently used by legacy carriers can potentially benefit regional airports like YKF.

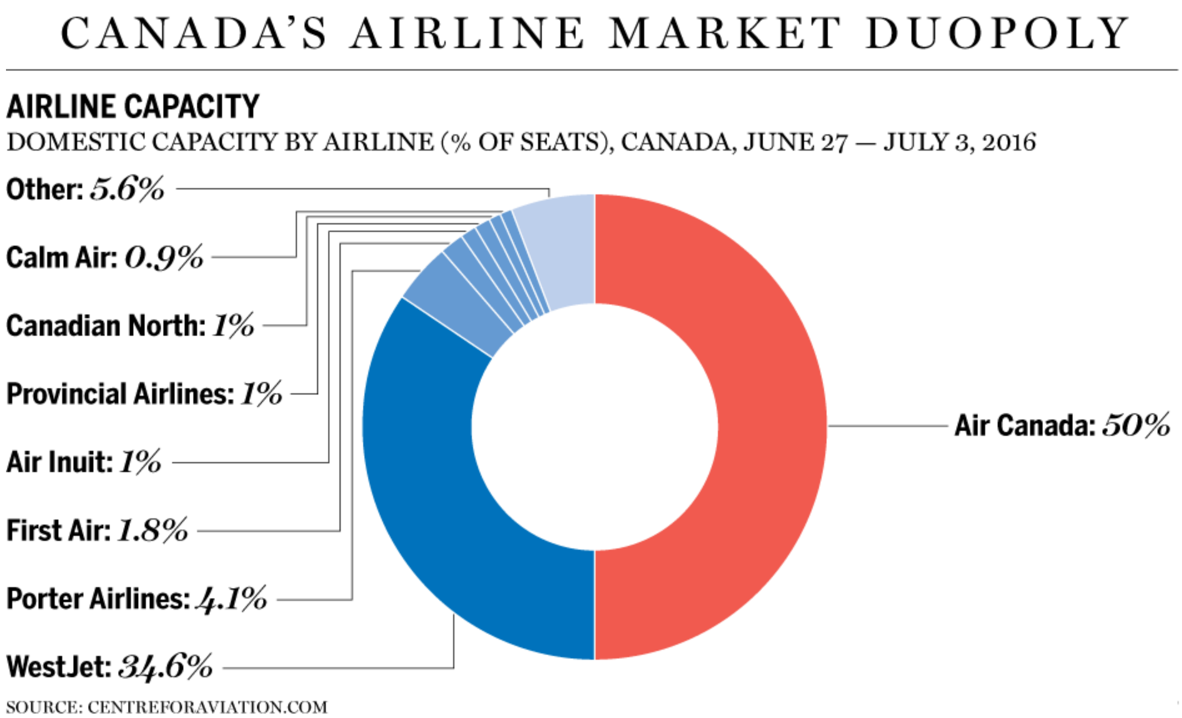


Figure 5 - Airline Duopoly in Canada

2.3 Ontario/Southern Ontario Outlook

In 2015, approximately 49.5 million passengers enplaned and deplaned at Ontario airports[10]. This is the highest amongst all provinces and territories in the country. General aviation aircraft movements at southern Ontario airports has remained constant at approximately 450,000 movements on average, but is projected to grow to 553,000 thousand by 2043[15]. The southern Ontario system of airports is currently served by 11 airports, seven of which have scheduled service (Refer to Figure 6).

[14] Transport Canada, Minister Garneau presents his strategy for the future of transportation in Canada: Transportation 2030, 2016

[15] McKinsey & Company, Regional Airport and Ground Transportation strategy, December 2015

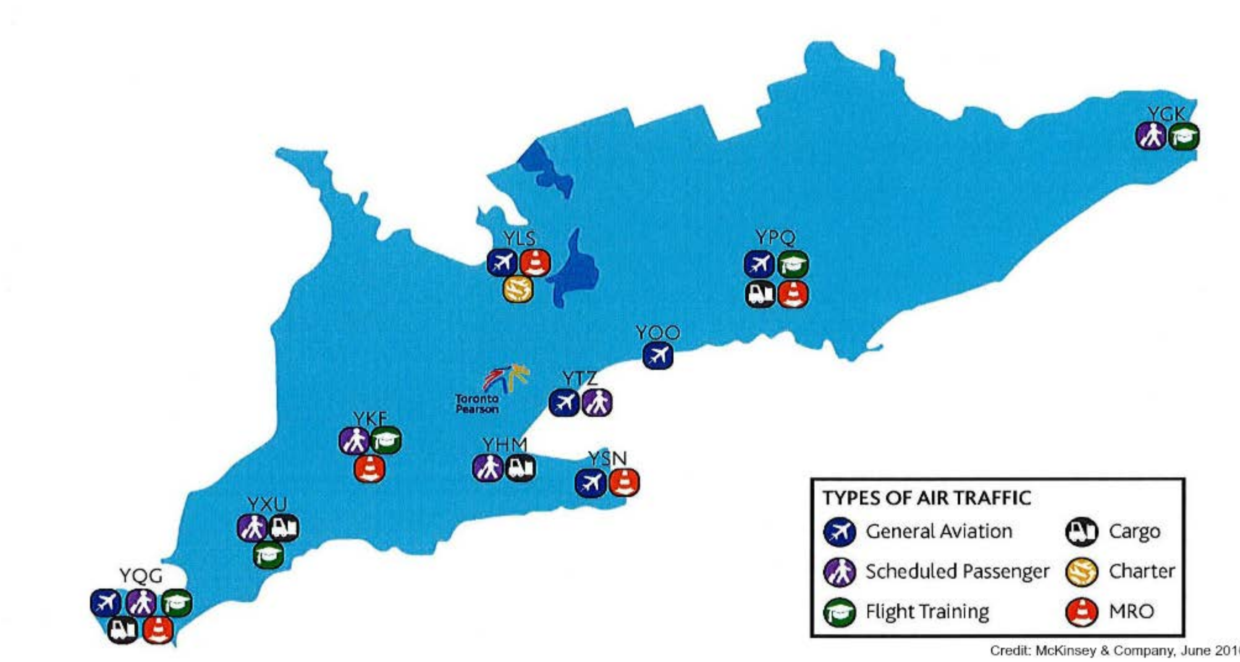


Figure 6 - Map of Southern Ontario Airports with Scheduled Service

In the long term, Ontario's population is projected to grow by 30.1%, or almost 4.2 million over the next 26 years[16] and will have a GDP greater than $1 trillion[3]. The Greater Toronto Area (GTA) is projected to be the fastest growing region with its population increasing by over 2.8 million. This translates to further capacity pressures at Toronto Pearson and Billy Bishop Toronto City Airport. By 2025, southern Ontario is projected to have approximately 50 million passengers travelling by air and approximately 90 million passengers by 2043, which exceeds the current 70 million passenger capacity at existing airports. With no plan in place to address this capacity gap, an opportunity is created for airports like YKF to serve an increased portion of the southern Ontario population.

2.4 Waterloo Region Outlook

Waterloo Region continues to grow in its population and economy. The current population is approximately 575,000. The Kitchener-Cambridge-Waterloo census metropolitan area (CMA) has moved up relative to other large centres in Canada. The Kitchener-Cambridge-Waterloo CMA is 10th largest in Canada, and 4th largest in Ontario (Refer to Figure 7). Between 2011 and 2016, the Kitchener-Cambridge-Waterloo CMA had a growth rate of 5.5%[17]. The Region's population is expected to grow to 789,000 by 2036 and 835,000 by 2041. Employment is also expected to grow to 383,000 in 2036 and 404,000 in 2041.

[16] Ontario Ministry of Finance, Ontario Population Projections Update, 2015–2041, 2016
[17] Statistics Canada, Population size and growth in Canada: Key results from the 2016 Census, 2017

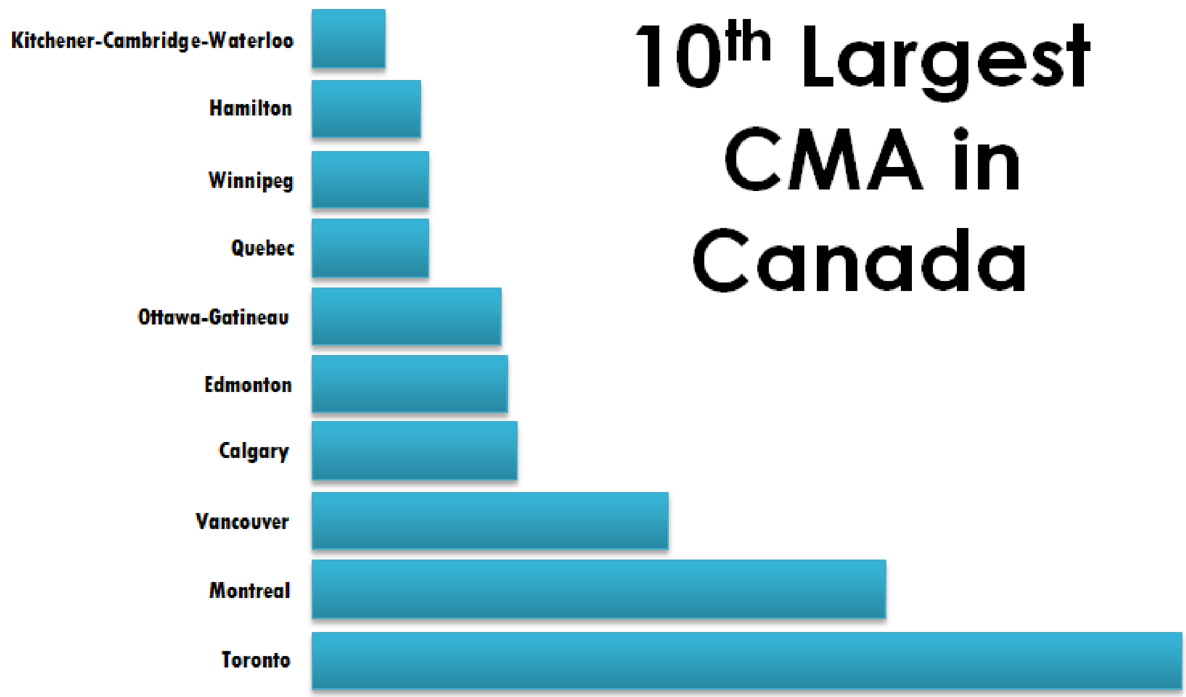


Figure 7 - Top 10 CMAs in Canada

Investment and growth remain strong in Waterloo Region, due in part to the Region of Waterloo's long-term planning and consistently strong financial management. GDP in 2016 increased to 3.2% to $26.8 billion, up from 2.7% in 2015, which outpaced the provincial average for the eighth consecutive year. In 2017, GDP is projected to rise 2.8%, compared with 2.4% for Ontario as a whole[18]. Only Toronto is projected to post stronger economic growth in 2017.

In the spring of 2016, the Region of Waterloo and the City of Toronto launched the Toronto-Waterloo Region Innovation Corridor (T-WR Corridor). This 112-kilometre corridor is a global centre of talent, growth, and innovation. As the second largest technology cluster in North America, the T-WR Corridor boasts 16 universities and colleges, over six million people speaking 150 languages and 15,000 tech companies including 5,200 tech start-ups with 200,000 tech workers (Refer to Figure 8)[19].

[18] Conference Board of Canada: Metropolitan Outlook 2 Winter Outlook 2017
[19] Thecorridor.ca, 2016

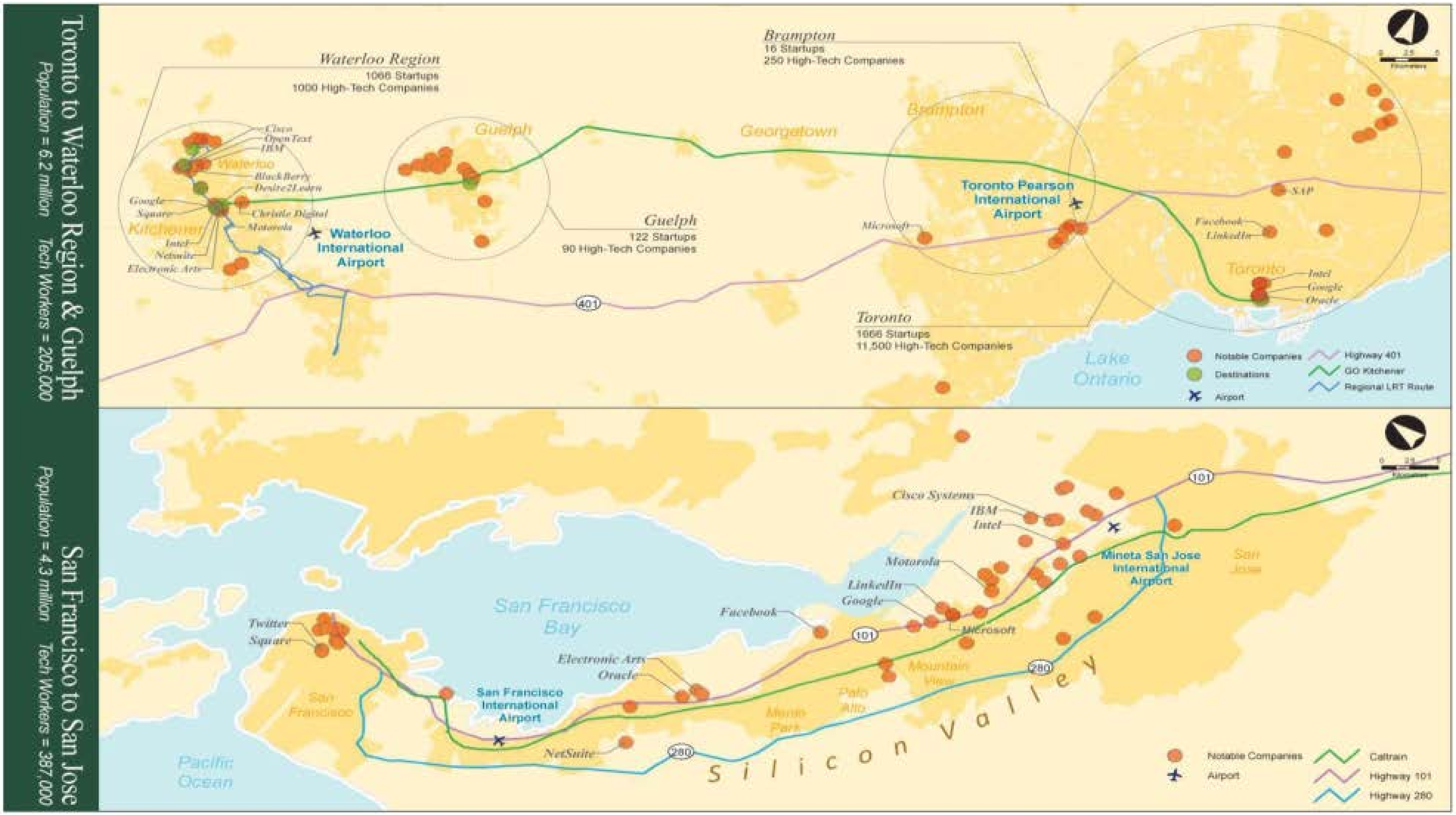


Figure 8 - Toronto-Waterloo Region Innovation Corridor

A critical component to the success of the T-WR Corridor is the connectivity between Toronto and Waterloo Region and between the T-WR Corridor and the global economy. In 2011, over 87,000 daily trips were made by individuals travelling between Toronto and Waterloo Region[20]. This travel is largely supported by Highway 401, which is seeing increased congestion on an annual basis. Whether trying to get to Toronto Pearson or into downtown Toronto, travelling by car on Highway 401 can often lead to delays that many businesses cannot afford. The Region of Waterloo, along with a network of other communities between Waterloo Region and Toronto have been actively working with Metrolinx to increase rail service between the two communities to alleviate this pressure for business and leisure travellers.

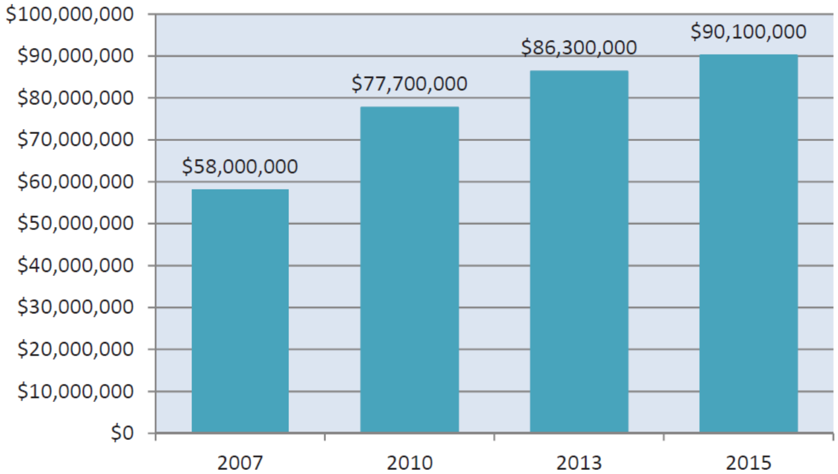
For air travellers in Waterloo Region, the importance of increased air service out of YKF to domestic and international destinations is increasingly becoming more critical. With the uncertainty of Highway 401, the time lost in travel to and from Toronto Pearson means a loss in productivity for business. Lack of scheduled air service at YKF also impacts economic development throughout Waterloo Region. As Waterloo Region continues its efforts to compete in the global marketplace, lack of connectivity presents a barrier for companies looking to invest and also for attracting and retaining talent. The world's most valuable companies place a premium on locations that combine easy access to vibrant city regions and international airports[21].

"Waterloo Region has a global orientation. Many of our fastest growing companies with the best employment opportunities do the majority of their business outside of Canada and even the United States. Having transportation links that connect the region with this global network is an essential feature of economic development for Waterloo Region. We cannot aspire to grow the region's economy without providing vital transportation infrastructure to the world." Mark Barrenechea, OpenText CEO & CTO

In 2015, YKF and its tenants generated an estimated $90.1 million economic impact to the local economy, supporting approximately $65 million in GDP[22] (Refer to Figure 9). This support includes contributions to local tourism, trade, investment and business productivity within the local economy.

[20] Transportation Tomorrow Survey, 2011
[21] GTAA, Pearson Connects: A Multi-Modal Platform for Prosperity, 2016
[22] ROWIA, WLU Economic Impact Study 2015, 2016

In 2015 the Airport contributed an estimated $90 million to the Region's economy*



* Wilfrid Laurier University 2015 Economic Impact Study

Figure 9 - YKF Contribution to the Region's Economy

YKF currently has 25 businesses with approximately 300 employees operating on the airport lands. At the end of 2016, YKF was home to non-stop daily service to Calgary, Alberta by WestJet Airlines and seasonal service to sun destinations by both WestJet Airlines (Orlando, Florida) and Sunwing Airlines (Punta Cana, Dominican Republic). Despite the loss of scheduled service from American Airlines to Chicago, IL and private charter service from Nolinor Aviation in 2016, YKF is still expected to have made a noteworthy economic impact in 2016. YKF continues to pursue new air service to better serve the needs of the business community and the community at large. This includes targeting new opportunities such as the new ULCC market emerging in Canada. The Master Plan and associated Business Plan outline key steps in the long and short term that support YKF's vision to be an economic driver in Waterloo Region's economy.

3.0 Strategic Analysis

During the Master Plan development process, a SWOT (strengths, weaknesses, opportunities, and threats) analysis was completed to determine the scope of future development at YKF over the next 20 years. As part of the development of this Business Plan, an extension of this SWOT analysis was completed to determine the operational action items that will be implemented over the next five years. The results of the analysis are listed below.

Strengths

- **Diverse local economy with demand for scheduled air service** – Waterloo Region has a diverse economy that ranges from advanced manufacturing to a growing technology sector. The majority of these sectors are represented by different businesses on YKF's Airport Business Advisory Committee (ABAC) that actively support air service development efforts.

- **Municipal Support** – YKF is owned and operated by the Region of Waterloo and carries a AAA credit rating, which allows the airport to secure long term capital financing to make strategic infrastructure investments in the airport. In the Region of Waterloo 2015-2018 Strategic Focus, the completion of the Master Plan and associated Business Plan were identified as strategic actions to support a thriving economy.

- **Strategic Location** – The airport is strategically located in Ontario's 4th largest CMA between Toronto and London. While the airport is close enough to major populations, it is far enough away from the United States (US) border to prevent a loss in significant market share to US airports.

- **Facilities, Infrastructure, and Support Services** – YKF has benefited from multiple investments in its infrastructure ranging from runway extensions to a new operations centre to terminal upgrades. The airport also offers an extensive suite of support services including two fixed-base operators, Canada Border Services for international flights, fire services, and maintenance, repair, and operations (MRO).

- **Aviation Activity** – There is a diverse range of aviation activity at the airport including corporate and general aviation as well as flight training.

- **Passenger Convenience** – Travelling to YKF, accessing affordable parking, checking in, and passing through security is all done in a minimal amount of time providing a seamless airport experience for local travellers.

- **Competitive Rates** – YKF strategically keeps rates at competitive levels to support air service development, which can attract new service in the emerging ultra low-cost carrier market.

- **Aviation Business Park** – The airport business park currently has over 30 acres of serviced land available for development. Lots are located adjacent to Apron IV, VI, and VII and vary in size and airside access availability. Additional lands are currently being assembled near YKF in the East Side Lands and will be available for aviation companies requiring larger lots with access to both the airport and Highway 401.

Weaknesses

- **Noise** – There are perceived noise issues from a small segment of the neighbouring population around the airport that may be exacerbated with future expansion.

- **Limited Scheduled Service** – With the lost of American Airlines in the fall of 2016, YKF only has scheduled service through WestJet Airlines to Calgary. This forces the over two million origin-destination air travellers in YKF's primary catchment area to use Toronto Pearson or other neighbouring airports.

- **Limited Access** – There is no direct access to YKF from major highways and there is no public transportation connecting to the airport.

- **Performance Indicators** – YKF does not have a performance measurement system in place to track performance in core areas and benchmark against industry standards and past performance.

Opportunities

- **Increased Market Share** – Despite having 127,824 passengers in 2016, YKF only captures 3.9% of the over two million origin-destination travellers in its primary catchment area. Due to a number of potential external factors in the coming years, YKF has an opportunity to increase its market share and serve a larger portion of these travellers.

- **Capacity Pressure in Southern Ontario** – The existing system of airports in southern Ontario will reach capacity and will be unable to serve upwards of 20 million passengers by 2043. YKF has been identified as one of several airports that could help close this gap.

- **Population Growth** – Waterloo Region is expected to grow to a population of 835,000 by 2041. This will increase the demand for air service from YKF and present route opportunities for airlines.

- **Economic Growth** – In addition to having a diverse economy, Waterloo Region stands to benefit from strategic growth opportunities such as the growing technology sector and the T-WR Corridor. Business attraction and expansion as a result of these opportunities will create more demand for air service.

- **Financial Viability** – As passenger traffic grows, YKF can expect to see an increase in revenues from both aeronautical and non-aeronautical sources, while expenditures will only see a nominal increase.

- **Airport Brand** – Those who use YKF understand the convenience of using the local airport, however further opportunities exist to develop the airport brand in the community and with airlines.

- **Marketing and Community Engagement** – YKF currently undertakes a number of marketing and community engagement activities to raise awareness of the airport and obtain feedback. The completion of the Master Plan and Business Plan provides YKF with an opportunity to enhance these existing activities and develop the airport brand based on the new strategic vision and projected growth targets.

- **Ultra Low-Cost Carrier Service (ULCC)** – In 2016, the foreign exemption restrictions were raised to 49% for two start-up ULCCs in Canada. The point-to-point operating model used by both of these ULCCs creates new air service opportunities for secondary market airports like YKF. With available serviced land at YKF, an opportunity exists to have one of the ULCCs locate their hub or maintenance, repair, and operations at the airport.

- **International Traffic** – With the on-site presence of Canada Border Services, a full suite of support services available at the airport, and growing demand to access the global economy, YKF has an untapped potential for additional routes to sun destinations and other international destinations.

- **Aeronautics Centre** - Waterloo Region is becoming an ideal location for new aeronautic companies to invest. Available land at the Aviation Business Park presents an opportunity to the growing aeronautics cluster with an aeronautics centre to support research and development and new start-ups in this sector.

- **Reliever Airport to Toronto Pearson** – By the mid-2030s, Toronto Pearson is expected have a staggering 65 million passengers creating capacity pressures for airlines. With the implementation of the Master Plan and Business Plan, YKF is strategically positioned to act as a reliever for some of the traffic off-loaded from Toronto Pearson.

- **Rail Connectivity** –The new Breslau GO Train stop, scheduled to be built by 2024, is located approximately 2.5 kilometres from YKF. This rail line presents a future opportunity to have direct connectivity between YKF and Toronto Pearson.

- **Air Service Development Strategy** – YKF is actively involved in air service development to increase scheduled service from the airport. The new Master Plan and Business Plan combined with recent changes in the aviation market present an opportunity for YKF to focus its efforts through an annual air service development strategy.

Threats

- **Neighbouring Airports** – Competition created by neighbouring airports with scheduled service to more destinations can cause passenger leakage from YKF. Airlines with established service at neighbouring airports may be more inclined to add service where they have an operating base rather than expand service to YKF.

- **Entrenched Behaviour** – The existing hub-and-spoke model used by legacy carriers, loyalty programs, and passenger preference to use existing hub airports like Toronto Pearson can contribute to further passenger leakage at YKF even with enhanced air service.

- **Opponents to Airport Expansion** – Despite new aircraft technologies and increased service for the community, affected neighbours, environmental constraints, and those opposed to investing more into YKF can impact future expansion decisions at the airport.

- **Changing Market Conditions** – The aviation market is subject to many influences that can affect travel patterns, spending patterns, and route viability. Some of these changes can impact YKF's ability to increase air service and revenues.

- **Development of Pickering Airport** – Transport Canada is currently finalizing its analysis of the Pickering lands to determine if the development of a new reliever airport to Toronto Pearson is a viable option to meeting future passenger traffic demands.

- **Senior Government Funding** – Capital investments associated with the implementation of the Master Plan are assumed to be 50% funded by non-property tax sources including Federal and Provincial governments. Without this funding, growth opportunities at YKF could be significantly limited.

Action items responding to this SWOT analysis are aligned to the following four key theme areas below.

4.0 Developing the Airport Brand

4.1 Airport Brand

With the fast pace of globalization, an airline industry that is continuously evolving, and the transformation of airports into commercial entities, more airports are taking advantage of branding strategies to build their competitive advantage. An airport brand can best be described as the perception or set of associations that travellers and the industry have for a specific airport. It should be reflected in the answer travellers provide when they are asked how they feel about the airport. The airport brand needs to be innovative and flexible to allow it to communicate to all stakeholders, both internal and external, local residents and visitors, business to business and to the wider community[23]. Brands have helped airports reinvent themselves and attract new customers by influencing, educating and making people aware of what an airport represents and offers[24].

In order to develop a successful airport brand, it is important to understand the point of view of the traveller using the airport. It requires understanding the strengths and weaknesses of the passenger experience. Customers perceive the travel experience as a continuum. An excellent airport experience is safe, secure, seamless, on time, efficient, hassle free, and pleasing. The passenger experience no longer begins when you enter the airport terminal; it starts the moment the passenger leaves their residence or place of business for their destination. A strong airport brand is reinforced with robust marketing, customer service, and community engagement actions. The majority of successful airport brands are an extension of the airport vision, the strategic

[23] Susan Bond, Importance of the Airport Brand – Branding your Airport, 2013
[24] Airport World Magazine, *All in a Brand*, 2012

forward-looking statement that reflects the relationship between the airport and the community it serves.

Questions to ask when developing a brand

YKF's brand is reflected in its "Fly from Home" slogan and the seamless travel experience it provides to existing passengers. Travelling to YKF, parking, checking in, going through security, and boarding the flight is all done in a minimal amount of time, providing travellers with the attributes of a private terminal experience. If there is a flight delay, passengers have access to a licensed concession and free Wi-Fi. Similarly, when arriving at YKF, deplaning, clearing customs, collecting baggage and departing the airport is a seamless experience. In 2015, YKF completed a survey of passengers to determine who was using the airport and why they chose to travel from the airport. 61% of the respondents used YKF because of convenience and 16% because of its size, both of which reinforce the airport's brand and give it a competitive advantage to neighbouring airports (Refer to Figure 10).

Figure 10 – 2015 YKF Customer Survey Results

With increasing congestion on Highway 401, local travellers are becoming more frustrated with their passenger experience even before arriving at Toronto Pearson. YKF on the other hand offers a premium service to passengers with a consistent and convenient experience when using the airport. This is creating another air service development tool that can be used by YKF to attract new airlines to the airport. If the airlines understand the effectiveness of the brand in attracting passengers, they may be more inclined to consider providing service from YKF.

Strategic Action	Division/Organization Responsibility Lead	 Support	Timeframe
Complete a branding exercise that builds on the passenger experience offered by YKF and can be used to attract new air service and passengers.	YKF	Region of Waterloo Office of Regional Economic Development (ORED) Region of Waterloo Corporate Communications External – Consultant	2017-2018

In order to maintain a successful and unique brand, YKF will reinforce the brand with the following supporting actions:

- The development of a marketing strategy that focuses on communicating the airport brand and opportunities to increase revenues;
- Customer service initiatives that ensure the seamless experience associated with the brand is maintained as the airport grows; and,
- Community engagement that ensures the airport is obtaining feedback, providing updates to the community, and providing an excellent passenger experience to destinations that support community needs.

4.2 Marketing Strategy

The marketing strategy is a critical component of ensuring the success of an airport's brand. It ensures that the airport executes specific actions that continuously reinforce the airport's value proposition to travellers. The airport marketing strategy is the foundation that sets out the global goals so that specific and coordinated marketing actions can be implemented. It starts by considering the strategic vision statement to determine where the airport wants to be in the short and long term. Specific actions must adjust to the economic realities of the day, including airline industry performance and overall demand for travel. It should also be a contributing factor in the airport achieving financial self-sufficiency.

Icons from the "LAX is happening" campaign. Targeted to frequent travellers and those who live or work near the Los Angeles International Airport (LAX), the campaign strategy was launched to inform travellers about the modernization efforts and related construction.

Marketing for an airport should address the following questions[25]:

- What are the marketing goals?
- Who are the target audiences?
- What is the message the airport intends to communicate?
- What methods of communication will the airport use to reach its audience?
- What staffing and financial resources will support the effort?
- How will the airport measure the success of its marketing initiatives?

Current marketing at YKF supports expanding commercial air service, becoming self-sufficient, attracting aviation related business, and community engagement. Linking to the 2016 Strategic Vision and to a future brand, YKF will further enhance its existing marketing efforts by reviewing

[25] Airport Cooperative Research Program Report 28: *Marketing Guidebook for Small Airports*, 2010

the effectiveness of its name, slogan, airport code, and logo. It will also build on the following elements:

Niche Marketing – Similar to a key consideration in the brand development, ongoing marketing of the unique passenger experience will reinforce the brand and build community awareness of the convenience of using YKF.

Adopting Innovation – As Waterloo Region is increasingly known as a hub for innovation, YKF will be a leading edge airport by fostering creativity in adopting new technologies that enhance the passenger experience, and support efficient airport operations.

Growth Strategies – To support growth outlined in the 2016 Master Plan, YKF will align its future marketing outreach with its six key target groups – the airlines, airport businesses, the local business and charter community, leisure travellers, the destination, and employees. This will be supported with data collection and analysis based on demographics, travel patterns, local economic information and industry trends.

Strategic Advertising and Increasing Commercial Income – To support growth, YKF will explore new innovative marketing opportunities. This will include strategically partnering with airport tenants, neighbouring businesses, or segments of the business community that would benefit from greater air service at the airport. YKF will also explore creative ways to market available land and hangar space to aviation related businesses.

Strategic Action	Division/Organization Responsibility		Timeframe
	Lead	Support	
Develop and implement a new five-year marketing strategy based on the 2016 strategic vision that reinforces the airport brand, identifies innovative actions to market to different segments of the community, and supports the increase of airport revenues.	YKF ORED	Region of Waterloo Corporate Communications	2018 - 2019 (updated annually)

The marketing strategy will be updated annually outlining the following:

- Specific objectives for current year;
- Marketing activities to achieve objectives;
- Sequencing and mix of activities;
- Staff, other organizations, and volunteer resources required; and,
- Budget and funding sources.

4.3 Customer Service

Aside from air service availability and passenger convenience, customer service is one of the most important elements of attracting customers to an airport. For both regional and large airports, good customer service can either reinforce the airport's brand or discredit it. Offering a top rated passenger experience has become a strategic priority for airports around the world. It is viewed as providing an airport with a competitive advantage when attracting new travellers and retaining existing ones. Airports such as Billy Bishop Toronto City Airport and Portland International Jetport have embraced this view and realize that the customer experience goes beyond the physical environment and have been recognized for these efforts by the airport industry.


Ahrens family, winners of the 2015 Rogers Radio "Fly From Home" Visit Orlando radio contest.

The five most competitive airport service quality factors are:

1. Speed through the airport;
2. Cleanliness and ambiance of the terminal, concourses, washrooms, and gate areas;
3. Excellent selection of concessions/services and value for money;
4. Positive gate experience; and,
5. Exceptional customer service and courtesy of staff[26].

Establishing service levels based on these factors equips airport management with the information required to: understand strengths and weaknesses of facilities and services; identify areas of improvement; track progress; and compare service levels against other airports. These service levels also apply to the many third party delivery providers that interact with passengers at the airport. Whether it is at the check in counter, the concession stand, or the rental car service desk, every position that is involved in providing service must ensure excellent customer service is a priority. As airport traffic increases, the number of services for passengers will increase, which means additional customer service initiatives with enhanced monitoring will need to be implemented. Increased traffic also results in increased revenues from which resources can be drawn from to support these initiatives.

[26] Airport Cooperative Research Program: Synthesis 48, *How Airports Measure Customer Service Performance*, 2013

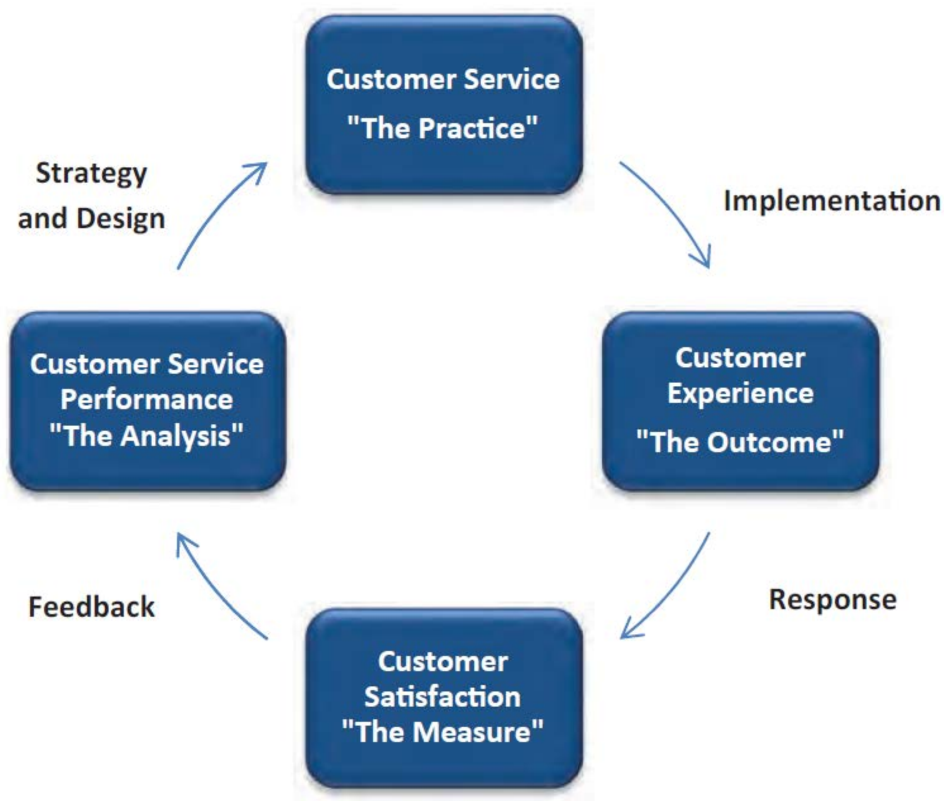


Figure 11 - How Airports Measure Customer Service Performance

Critical to the customer experience are the physical elements of the airport terminal. Design considerations extend beyond the ambience elements in the waiting area; they include understanding flow routes, dwell times, and other design elements that will support a positive passenger experience. It also means designing the terminal to ensure that standard requirements like the passenger screening area, hold rooms, and baggage conveyors support a seamless experience. Design elements like intuitive wayfinding, place-making features, and retail, food, and beverage offerings that are strategically placed and cater to the wide-ranging expectations of customers are all important to the airport experience. They also reinforce the airport brand and create a sense of place that reflects the community the airport serves. For regional airports, design elements are important when expanding or renovating existing terminal spaces. As the airport grows, it is important that the terminal can adapt fairly easily to evolving design standards like new requirements in passenger processing and the incorporation of new technologies.

At YKF, various customer service tools are currently in use. Surveys, customer comment boxes, and an online platform are available for customers and the public to provide feedback to the airport. If applicable, this feedback is also passed along to third party service providers at the airport. As the airport grows through the five development triggers to 2.5 million passengers, YKF will develop and implement enhanced customer service actions to ensure customer service levels meet or exceed passenger expectations. This will also ensure the airport maintains the Region of Waterloo's core value to "provide excellent public service and strive to understand and meet the needs of all those served" in its daily operations[27]. YKF will review customer service actions on an annual basis, which will allow the airport to adjust measures according to projected growth and reinforce to travellers that the customer experience is a priority. This will be done with input from airport tenants and any third party service providers that interact with passengers.

Strategic Action	Division/Organization Responsibility		Timeframe
	Lead	Support	
Develop and implement a series of new and enhanced customer service actions that include: • Collecting and responding to customer feedback on a regular basis; • Establishing consistent service levels for all employees providing service to customers (including third party service providers); and, • Incorporate the appropriate design elements into renovation and/or expansion plans.	YKF	Region of Waterloo Design and Construction Region of Waterloo Citizen Service External – Design Consultant	2018 – 2019 (updated annually based on growth in passenger traffic)

4.4 Community Outreach Strategy

The future growth plans outlined in the Master Plan reinforce YKF's position as an economic generator for the region. If local businesses are able to effectively compete in the global economy, YKF should be one of the reasons why. An airport should be a reflection of the community it serves. For YKF, this means being a gateway to Waterloo Region, a reflection of the different sectors in the community, and recognizing potential adverse impacts on its neighbours.

YKF currently engages in a number of community relations initiatives that support raising the awareness of the airport and its linkage to the community. Whether it is school tours, hosting Aviation Fun Day, or working with the Airport Business Advisory Committee (ABAC), YKF has made outreach to the community a priority. This effort has carried over to managing issues such as noise complaints. Through its Aeronautical Noise Advisory Committee (ANAC) and through online and social media platforms, YKF has made efforts to respond to the community on aircraft noise complaint issues and has decreased noise impacts where possible. This two-way communication has allowed YKF to outline additional mitigation measures through design and recommended land use policies in the Master Plan.

[27] Region of Waterloo, Region of Waterloo Corporate Strategic Plan 2015-2018

As the airport grows over the next 20 years, YKF will maintain and enhance its engagement efforts to ensure its services are aligned with the needs and economic growth strategies of the community. Leveraging the ABAC to reach out to the different industry sectors in Waterloo Region will assist YKF in understanding the travel needs of specific industries, obtain travel guarantees to establish specific routes, and provide critical updates to the business community on recent developments at the airport.

To support increased engagement with the community as the airport increases in passenger traffic, YKF will build on existing community engagement activities with enhanced outreach through new platforms targeted at the business community, leisure travellers, and neighbouring land owners who may be adversely impacted by the airport. This will also align YKF's future growth with another Region of Waterloo core value "to achieve common goals and resolve differences" through effective collaboration[36]. Community outreach activities will be updated annually with outreach initiatives to the different segments of the community. These will include the following:

2015 Greater Kitchener-Waterloo Chamber of Commerce Business After Five Event at Chartright Air Services.

- Community open houses;
- Update meetings with neighbouring land owners;
- Customized presentations to industry meetings, community organizations, and municipal advisory committees;
- A coordinated social media plan and enhanced online platform;
- Newsletters;
- Educational events; and,
- Sponsorships.

Strategic Action	Division/Organization Responsibility Lead	Division/Organization Responsibility Support	Timeframe
Undertake a series of community outreach activities targeted at the business community, leisure travellers, and neighbouring land owners who may be adversely impacted by airport operations.	YKF	ORED YKF Airport Business Advisory Committee Region of Waterloo Aeronautical Noise Advisory Committee	2018 (updated annually based on projected growth plan in Master Plan)

5.0 Building the Airport Business

5.1 Air Service Development Strategy

Air Service Development (ASD) includes all the activities and techniques associated with attracting new and retaining existing air service at an airport. ASD is an important undertaking because of its value to growing the local or regional economy. It can be directly linked to the expansion of local companies and the ability of communities to attract foreign investment. Successful ASD is also a measure of the economic contribution directly made to a community by an airport. A community not primarily serviced by a hub airport can experience slowed economic growth as a result of reduced or no air service to its regional airport.

Successful ASD requires an understanding of the following:

- Existing air service and fares offered by airlines;
- The competitive advantage of an airport compared to neighbouring airports (e.g. fees, infrastructure, service levels, incentives);
- The route development process, specifically the revenue factors that an airline takes into consideration when establishing a new route;
- Community specific information that the airlines are looking for; and,
- The ability to review and enhance ASD techniques as needed.

Even with a solid understanding of what successful ASD includes, many regional airports across North America suffer from various competitive challenges. These can include:

- Proximity to a legacy carrier's network hub;
- Proximity to a neighbouring airport with low-cost carrier service; and,
- Proximity to a neighbouring airport with regional service into a legacy carrier's hub (fragmenting passenger traffic in the primary catchment area)[28].

[28] Intervistas, Airport Cooperative Research Program, *Passenger Air Service Development Techniques*, 2009

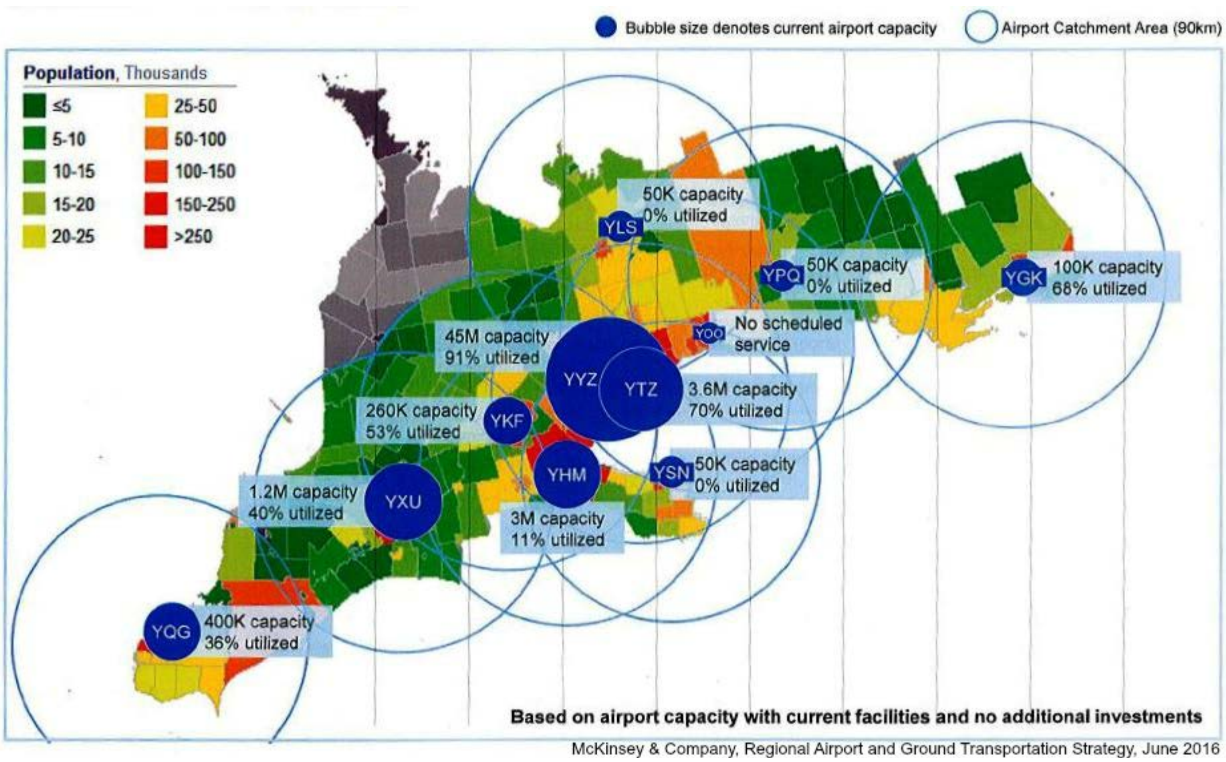


Figure 12 - Southern Ontario Airports and Their Capacities

In Waterloo Region, business and leisure travellers regularly reinforce the pressing need for new air service at YKF. Recognizing this need, YKF has been actively engaged in the ASD process with its community partners. To date, a majority of this work has been focused around air service proposals to existing Canadian carriers that offer regional service out from one of their hub airports. Some outreach has also been done with select US carriers that have had a presence in the Canadian market. It has included attracting the relocation of MRO facilities to YKF. The limited success YKF has seen from ASD efforts can largely be attributed to YKF's proximity to Toronto Pearson, a hub for two of the largest Canadian carriers. However, with recent changes in the Canadian aviation industry and the growing demand for air service in southern Ontario, new opportunities for air service at YKF are becoming available.

The ultra low-cost carrier (ULCC) evolution of recent years has increased awareness world-wide of the economic and social benefits that air traffic can bring to regions[29]. In the fall of 2016, the Government of Canada announced a number of new regulatory changes meant to support more affordable and convenient air service within Canada and into a number of US destinations. One of those changes in particular, relaxes foreign ownership restrictions for Canadian airlines allowing foreign entities to own up to 49% of an airline, up from the current 25%. This has paved the way for new ULCCs to enter secondary markets. These airlines use a different business model than the legacy carriers, providing point-to-point service instead of the more common hub-and-spoke model. This model favours the secondary market served by airports like YKF, where low fees, existing infrastructure, and sufficient passenger traffic exist.

[29] Strair, Air Service Development Techniques for Regional Development Agencies, 2005

Toronto Pearson is rapidly approaching its capacity to serve its existing market. One of the solutions identified by the Greater Toronto Airports Authority (GTAA) is to leverage the existing southern Ontario system of airports. Of all the regional airports identified in the existing secondary market airports in southern Ontario, only YKF has a direct connection to Toronto Pearson via rail (Refer to Figure 13). Pursuing service on this connection will not only link the two airports in the Toronto-Waterloo Region Innovation (T-WR) Corridor, it will also position YKF to be a potential reliever to Toronto Pearson.

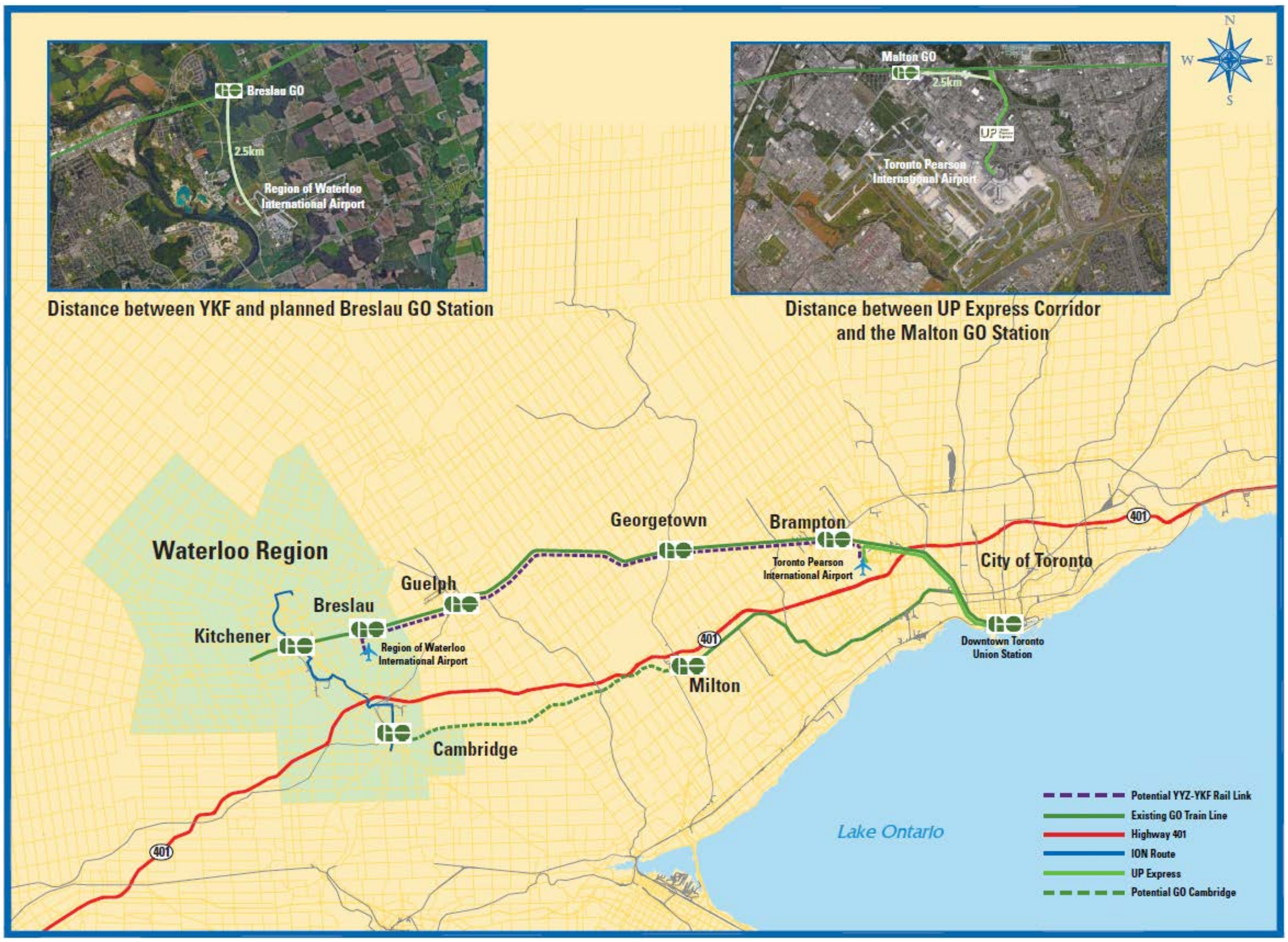


Figure 13 - Rail connections from YKF to YYZ

Airlines are beginning to take notice of the congestion that exists on Ontario’s Highway 401. This congestion is creating increased frustration for the local business community and other leisure travellers who do not want to face the uncertainties of commuting to Toronto Pearson. The potential time lost from sitting in traffic and the associated time that business travellers need to allocate in order to ensure they reach Toronto Pearson on time translates to hours of lost productivity and revenue. This is in addition to the costs associated with overnight stays, parking, or shuttle service that may be incurred. All of these factors are resulting in some local companies willing to provide direct support to airlines for new routes from YKF.

In order to support enhanced air service in Waterloo Region, YKF will develop a new air service development strategy that will be updated and adjusted annually to support the ongoing air service needs of the community. The strategy will include the elements outlined below.

5.1.1 Market Analysis

Airports and communities can help carriers decide whether to serve their market in a number of ways. Airlines for the most part understand the travel patterns of their existing markets and new markets they are considering. Despite this, it is important that airports know the travel patterns within their primary and secondary catchment areas to target air service to destinations where demand exists. In order to do this, airports need to complete a market analysis and leakage study every two to three years. The study will provide an airport with information on the size of the market, which airports passengers are using, where travelers are going, and how much travellers are paying for fares (Refer to Figure 14).

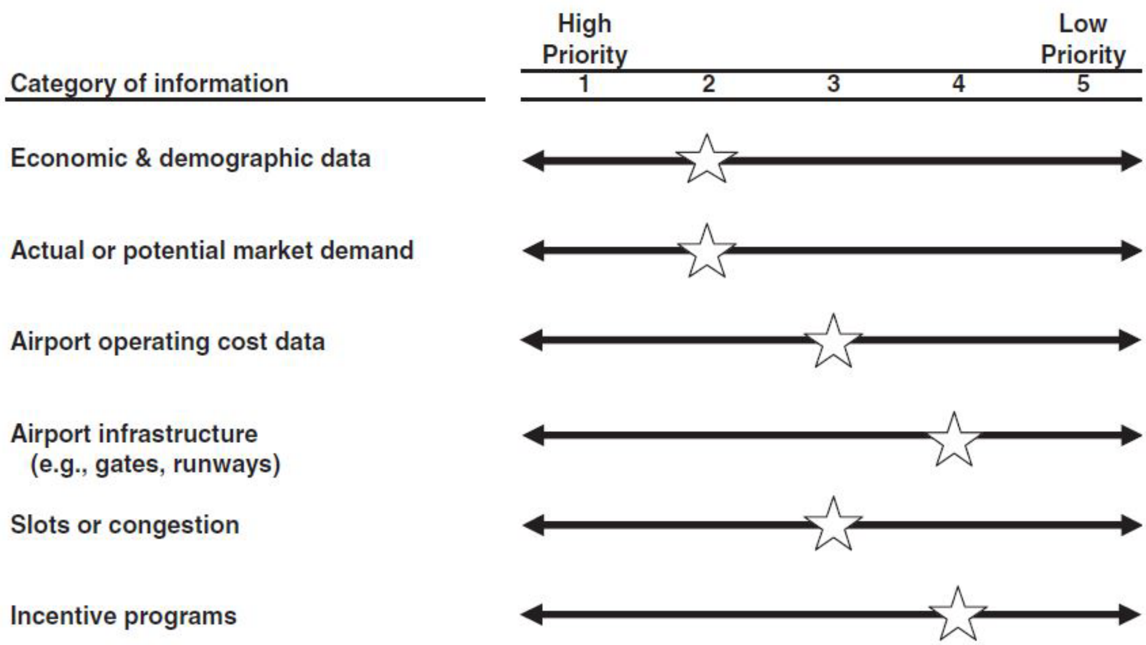


Figure 14 - Information Carriers are Interested in
Credit: Intervistas, Airport Cooperative Research Program, *Passenger Air Service Development Techniques*, 2009

The other data that airline route planners usually do not have is the relevant local economic and demographic data, which could affect future travel demand[30]. This includes the potential future growth of local businesses and their associated travel habits. The airport's brand, details of customer service initiatives, and planned infrastructure investments in the airport that directly support an airline's route needs also become a selling point. To address these potential gaps in information, airports can develop customized community profiles that inform airlines of changes in the local economy that can impact the local travel market.

[30] Airport Improvement Magazine, Air Service Development Strategies

As demand for air service continues to increase in southern Ontario, YKF will ensure it has the appropriate data and metrics to support enhanced ASD and build its competitive advantage. This includes completing a market analysis and leakage study for its catchment area and updating it every two to three years. YKF will also develop a community profile or information materials that can be used to update airlines of local opportunities on a regular basis. This will ensure that YKF and market opportunities remain a consideration for airlines when they are doing route planning.

5.1.2 Route Development

Airports have an important role to play in the route development process. Understanding that the route development process has many variables will allow an airport to have better success in establishing a new route. The specific route, the carrier, an airline's internal strategy, available aircraft, and the economy are all variables that need to be factored into a route proposal. All of this needs to be articulated and presented to each airline that could provide air service. The core elements of a route development proposal include: a proposed schedule; aircraft type; seating capacity; seating configuration; and a comparison of the proposed route to similar routes flown by the target airline[28]. The route development proposal speaks to an airline's bottom line and should be clear on how the route would fare against similar routes to the target destination.

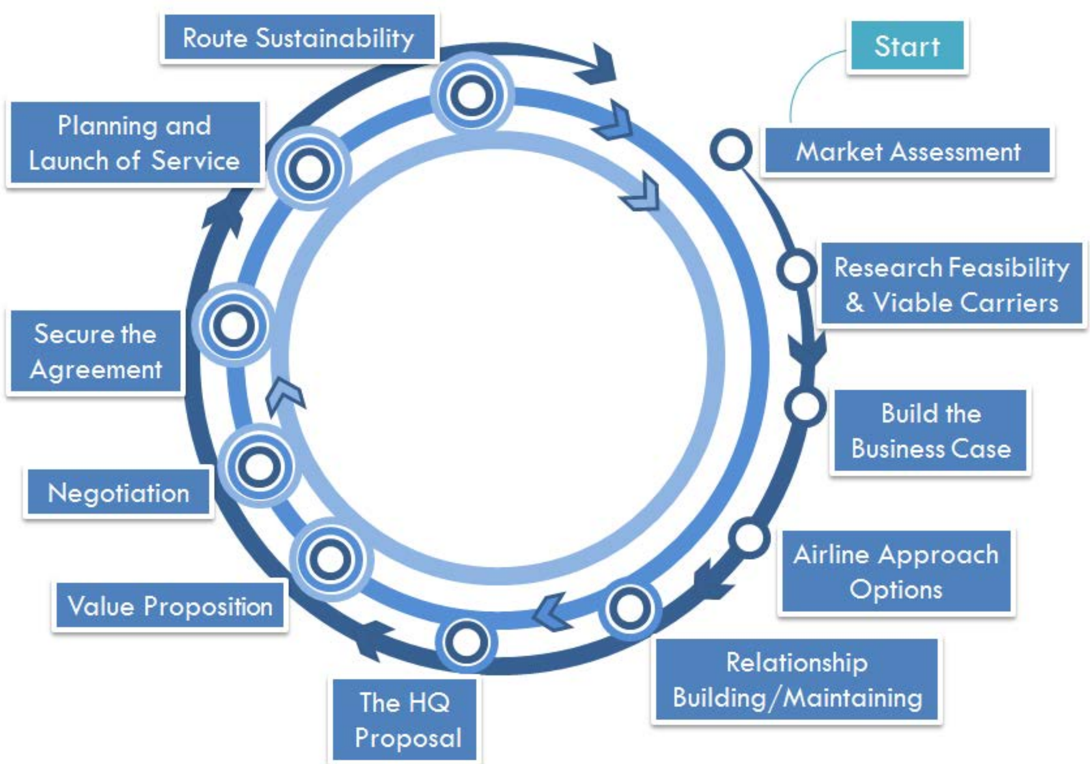


Figure 15 - Air Service Development Cycle Credit: Edmonton International Airport, 2014

Route development should also factor in the support that can be provided by local businesses. Airports can make the direct linkage to industry sectors and economic development strategies to ensure air service is supporting business growth and investment in the community. For YKF, this means continuing to build its relationship with the business community through its Airport Business Advisory Committee (ABAC). Responding to the air service needs of various industry sectors can translate into a commitment to an airline that a route will be financially viable. It will also directly fulfil one of the airport's responsibilities to support the growth of the local economy.

With a complete market analysis and leakage analysis, airports are able to identify routes that can support non-stop service. Airports like YKF that have had challenges establishing routes, not only need up-to-date market information, but also need to explore non-traditional ASD techniques to ensure success. On certain routes, YKF was successful in adding service in part because of a partnership with the destination airport and tourism partners. Continuing this partnership with the business community and local government at the proposed destination will be a regular part of YKF's ASD strategy.

To increase its potential for increased service, YKF will immediately explore offering route exclusivity from the airport. Due to the competitive behaviour of established carriers, the opportunity for a new airline to successfully offer service on a route for an extended period of time is significantly limited. Established airlines will offer competing service on the same route at similar rates to push out the start-up airline. Once the start-up airline has discontinued service, the established airline will soon also withdraw it service on the route. Airports like YKF end up being a causality of this competitive behaviour and are left with limited to no service. Offering route exclusivity to airlines will significantly increase YKF's potential to offer sustained air service to multiple destinations.

5.1.3 Retaining Air Service

Once a new route is established, it is critical for an airport to support it on an ongoing basis to ensure it remains financially viable for the airline and a benefit to the community. Air service retention is a combined effort between an airport, the local fixed-base operator providing above- and below-the-wing services, and the airline servicing the route. WestJet Airlines currently offers non-stop daily service to Calgary, Alberta and seasonal service to Orlando, Florida. Sunwing Airlines also offers seasonal service to Punta Cana, Dominican Republic. Retaining this air service at YKF is important part of continuing to service the Waterloo Region market and is a foundation for adding service. As part of the ASD strategy, the airport will include specific activities that support existing routes. This will include: regular discussions with existing airlines such as Sunwing and WestJet about route viability and other needs of the airline (e.g. infrastructure, available slots, etc.); ongoing marketing initiatives with the destination airport and partner tourism organizations; strategic route marketing in the catchment area to build market share; responding to fluctuations in passenger volumes; and updated data from the market analysis and local economy.

5.1.4 Airport Incentives

The majority of legacy and low-cost carriers considering serving secondary markets like Waterloo Region expect a community to offer some form of risk-sharing. For an airline, committing assets and investing in above- and below-the-wing services at an airport currently not offering service on a proposed route is a major financial risk. If an airport is willing to make a commitment to supporting the route with financial and non-financial incentives, an airline is more likely to consider establishing a route in its route planning cycle. An incentive package offered by an airport could include: changes to rates and charges; route marketing; leasing of airport lands; construction of MRO facilities; cost-reduction measures; or reduction of third-party costs, such as ground handling or fueling services.

Municipally run airports such as YKF are subject to the bonusing provisions in the Ontario Municipal Act, 2001, which restrict the airport's options on providing certain incentives. YKF has a strong Airport Business Advisory Committee (ABAC) representing key businesses and institutions throughout the region and has been able to leverage the membership of the committee to attract service such as the Waterloo Region to Chicago, IL service that was provided by American Airlines. This support has been and continues to be a strategic selling point for YKF in its ASD initiatives.

5.1.5 Partnering with Fixed-Base Operators

The success of a fixed-base operator (FBO) is directly linked to its location, the local market demand, and economic influences from the aviation industry. In the secondary market, FBOs have an essential role in providing service to commercial airlines in addition to their work with private charters. FBOs can complete the service offering of airports by providing the following services:

- Repair and maintenance of aircraft;
- Check-in and ticketing services;
- Sale of aviation fuel;
- Ground services;
- Baggage handling;
- Auxiliary services to flight crews;
- Telecommunication services;
- Access to in-flight catering; and,
- Customer service representatives.

It is important for a secondary market airport and its FBO to maintain a collaborative relationship in order to grow the airport business. The FBO not only provides the airport with direct revenue from its lease and services, but it can also be a key partner in air service attraction and retention. If the airport and its FBO work together, both parties benefit. The FBO benefits from increased revenues from its increased service and the airport benefits from increased air service for the community.

Executive Service on the FliteLine Ramp

YKF benefits from having two FBOs on the airport grounds. They provide services to commercial, charter, and flight training aircraft. As service providers interacting directly with both airlines and passengers, the FBOs have an important role in reinforcing the airport brand, providing good customer service, and maintaining operational standards required under Transport Canada. YKF has partnered with the FBOs on certain outreach initiatives such as participation at the National Business Aviation Association Schedulers and Dispatchers conference or the attraction of the 2018 Canadian Business Aviation Association Conference. As part of an ASD strategy, YKF will build on these efforts and identify joint opportunities for both FBOs to be involved in increasing air service to the airport. These opportunities will include joint marketing of the airport; development of customized route proposals; customized fee packages for commercial airlines considering new routes; and collaborative efforts to retain existing air service.

5.1.6 Preclearance

In 2015, Canadian airports had 25.6 million enplaning and deplaning passengers on services between the United States (US) and Canada[31]. As this number continues to grow, airports that provide service to US destinations need to consider options like US preclearance where travellers pass through Immigration and Customs prior to boarding the aircraft. In addition to supporting increased security and border integrity, preclearance streamlines border procedures, reduces congestion, and facilitates travel between the preclearance locations and US airports that may not be equipped to handle international travellers. Currently, preclearance is available at most major Canadian airports and without it, travellers wouldn't be able to take advantage of approximately 25 of the 50 direct flights offered into US airports. They would instead have to fly into an airport with US customs and then connect onwards through a domestic flight to their final destination.

[31] Transport Canada, Transportation in Canada 2015

Preclearance offers two advantages for airports, it is a way to offer express service for travellers going into the US and also an ASD incentive for attracting and retaining airlines. For the passengers, it offers reduced congestion, more options for direct flights, and better connectivity for passengers that need to connect through a US airport to another destination. For airlines, preclearance offers the following advantages:

- Better asset utilization, lower fuel and other operational costs - By reducing cycle times, carriers are able to use less equipment to service a route with a given passenger or freight volume;
- Lower terminal cost - Airlines can make better use of cheaper domestic terminals since passengers are already cleared;
- Increased revenues through improved service and ridership or added service offering - If wait times are reduced and reliability is increased, carriers should be able to offer more appealing services, thus increasing potential fare revenues; and,
- Lower inventory costs for freight - If reliability and wait times are reduced for freight shipments, inventories could be reduced. As a result inventory carrying costs would also be reduced[32].

In 2016, the Government of Canada and US Government announced new efforts to expand preclearance to additional border crossing locations in Canada. For secondary market airports like YKF, obtaining preclearance is a significant challenge due to existing passenger traffic, but presents a future opportunity to support ASD efforts with airlines and travellers. Once the airport reaches minimum passenger traffic levels and establishes multiple US routes, YKF will pursue preclearance services to increase air service. It will also be a valuable asset when positioning YKF as a reliever to Toronto Pearson.

Strategic Action	**Division/Organization Responsibility** Lead	 Support	**Timeframe**
Develop and implement an ASD Strategy that incorporates the following elements: • A market analysis and leakage study updated every two to three years • Route development actions for specific destinations and airlines based on market analysis and travel demands of the business community • Outreach to airlines considering expanding in the southern Ontario market with airport, market and economic plans	YKF ORED	External – Airport FBOs External – Consultant YKF Airport Business Advisory Committee (ABAC)	2017-2018 (Updated Annually)

[32] Public Safety Canada, A Discussion on the Economics of Preclearance with Proposed Measurement Methodologies, 2015

Strategic Action	Division/Organization Responsibility Lead	Support	Timeframe
• Air service retention activities for existing carriers • An incentive package that can be used to attract and retain air service including route exclusivity and the addition of preclearance services • Partnering with existing FBOs on commercial and private charter air service development			

5.2 Aviation Business Park Development

YKF's Aviation business park currently has over 30 acres of serviced lands available for development on the airport grounds. Lots are located adjacent to Apron IV, VI, and VII and vary in size and airside access availability. Additional lands north of Runway 08-26 and east of Runway 14-32 are also available for future development, but require servicing and potentially the acquisition of neighbouring lands depending on the size of the development and setback requirements. Located near YKF on the eastern edge of Waterloo Region, at the border of Woolwich Township and Cambridge, are 300 hectares of land designated for employment uses in what is known as the East Side Lands. In early 2016, the Region of Waterloo and its partners began a study to develop a framework for the future urban lands uses and development within the Stage 2 Lands of the East Side Lands. Once assembled, these lands present an additional opportunity for aviation companies requiring larger lots and access to both the airport and Highway 401.

Aerial image of YKF Aviation Business Park.

To support connectivity for businesses locating at the airport and future travellers, the Region of Waterloo is currently reviewing public transit access directly to the airport lands through the Region of Waterloo Transportation Master Plan being finalized in 2017. If needed, YKF could immediately begin service with contracted transit service. This can be supported from increased revenues associated with increased passenger traffic or land leases. Increased rail connectivity between the Greater Toronto Area and Waterloo Region is also being pursued with two-way all day GO service. The future GO Train stop in Breslau, scheduled to be built by 2024, is just over two kilometres west of YKF and can provide an important connection for businesses located at and passengers using the airport. The importance of this connection was further emphasized in the 2016 December Metrolinx Station Area Report where the Region was encouraged to pursue public transit connections between the GO Train stop and the airport[33].

As part of its marketing strategy, YKF will build on existing efforts to leverage opportunities at the Aviation Business Park in relation to future growth of the airport. This will include an annual outreach plan to attract aviation related companies that are looking to expand their operations or relocate to a new facility. The strategic acquisition of property will be an ongoing priority for YKF in order to support business development at the Aviation Business Park. Larger scale aviation companies that have research and development and full scale manufacturing needs may require larger lots than currently available on the airport grounds. To assist in meeting this need, YKF will continue to actively support the assembly of the East Side Lands for aviation related businesses or airport reserve lands for future uses and ensure future servicing of these lands aligns with the growth projections in the Master Plan.

Waterloo Region is home to a growing aeronautics sector. With over 40 established and start-up aeronautics companies specializing in research and development, manufacturing, and training, Waterloo Region is becoming an ideal location for new aeronautics companies to invest. It also presents YKF with a unique opportunity to further support this growth. By partnering with existing aeronautics businesses, the Post-Secondary institutions in Waterloo Region that support the aeronautics sector with research and development, and the start-up support network, YKF will leverage its infrastructure and available land to develop an aeronautics centre on the airport grounds. A centre will not only support the sector by bringing key partners together to close gaps in the sector, but it will also attract new investment, talent, and increased productivity.

Strategic Action	**Division/Organization Responsibility**		**Timeframe**
	Lead	Support	
Build on existing business development efforts at the YKF Aviation Business Park by implementing the following actions: • Outreach to aviation related companies looking to expand or relocate • The assessment and strategic acquisition of neighbouring lands including supporting the assembly of the East Side Lands for aviation	YKF ORED	External – Waterloo Economic Development Corporation	2017 - 2018 (updated annually)

[33] Metrolinx, GO Rail Station Access Plan, 2016

related business • Pursue opportunities to develop an aeronautics centre at YKF that will support the growing aeronautics sector in Waterloo Region by leveraging the existing network of businesses, Post-Secondary Institutions, and start-up support network		

6.0 Achieving Operational Excellence

6.1 Airport Performance Measures

Performance measurement is an important management activity that an airport can use to support growth and continuous improvement. Airport performance measurement enables an airport to identify financial and operational efficiencies, determine where to target investments, and support accountability[34]. It allows an airport to know where its strengths and weaknesses are, and where improvements can be made. It can also be a tool for an airport to benchmark itself against comparable airports or industry standards and establish goals to strive towards in various operational areas.

There are six key performance areas that airports generally rate their performance in (Refer to Figure 16). Each performance area includes a set of indicators that helps airports identify what they should be tracking in order to measure performance. Regional airports focus on different indicators than large airports given the difference in aviation activities, commercial activities, site constraints, governance, and ownership[35]. Therefore, it is important to utilize the indicators that best reflect the true performance of the airport. This can also include additional indicators not listed that measure unique initiatives undertaken by an airport in one of the key performance areas.

[34] Ian Humphreys, Graham Francis, Jackie Fry, Performance Measurement in Airports: A Critical International Comparison
[35] Airport Cooperative Research Program, Resource Guide to Airport Performance Indicators, 2011

Performance Indicators in Six Key Performance Areas

Core	Safety and Security	Service Quality	Productivity/ Cost Effectiveness	Financial/ Commercial	Environmental
Passengers	Runway Accidents	Practical Hourly Capacity	Passengers per Employee	Aeronautical Revenue per Passenger	Carbon Footprint
Origin and Destination Passengers	Runway Incursions	Gate Departure Delay	Aircraft Movements per Employee	Aeronautical Revenue per Movement	Waste Recycling
Aircraft Movements	Bird Strikes	Taxi Departure Delay	Aircraft Movements per Gate	Non-Aeronautical Operating Revenue as a percent of Total Operating Revenue	Waste Reduction Percentage
Freight or Mail Loaded/ Unloaded	Public Injuries	Customer Satisfaction	Total Cost per Passenger	Non-Aeronautical Operating Revenue per Passenger	Renewable Energy Purchased by the Airport (Percent)
Destinations – Nonstop	Occupational Injuries	Baggage Delivery Time	Total Cost per Movement	Debt Service as Percentage of Operating Revenue	Utilities/Energy Usage per Square Meter of Terminal
	Lost Work Times from Employee Accidents and Injuries	Security Clearing Time	Total Cost per Workload Unit	Long-Term Debt per Passenger	Water Consumption per Passenger
		Border Control Clearing Time	Operating Cost per Passenger	Debt to Earnings before interest, tax, depreciation and amortization Ratio	
		Check-in to Gate Time	Operating Cost per Movement	Earnings before interest, tax, depreciation and amortization per Passenger	
			Operating Cost per Workload Unit		

Figure 16 - Performance Indicators in Six Key Performance Areas
Credit: Airport Cooperative Research Program, Resource Guide to Airport Performance Indicators, 2011

With the implementation of a new Master Plan, YKF will develop a new performance measurement system that will support passenger traffic growth through the five development stages. Much of the information that YKF can use to development a performance measurement system is already being collected as part of other airport initiatives or reporting requirements. Bringing these indicators together into a performance measurement system will help give YKF and Regional Council a complete picture of strengths, opportunities for improvements, and where to target resources. It will also assist YKF in meeting its various reporting requirements to Transport Canada. Performance measures can act as sub-triggers to the development triggers outlined in the Master Plan. Once implemented, they can indicate early stages of degradation in service or pressure on existing infrastructure. Given the current size and traffic at YKF and the projected growth outlined in the Master Plan, indicators will need to be adjusted or added as passenger traffic and airport services increase.

Strategic Action	Division/Organization Responsibility		Timeframe
	Lead	Support	
Develop and implement a performance measurement system using indicators that benchmark the airport's performance against past performance, comparable airports and industry standards. Indicators should be adjusted or added as the airport reaches development trigger levels and service levels increase.	YKF	Region of Waterloo Office of Corporate Performance	2017 (targets established and reported on annually)

6.2 Annual Report

An airport annual report is an opportunity for YKF to provide Regional Council and the community at large a comprehensive update on key activities, financial performance, and the overall health of the airport. It is also an opportunity to identify priorities and establish the foundation for key activities in the coming year. The majority of airports across Canada with scheduled service currently complete annual reports. It provides an airport with another mechanism to raise the profile of the airport and highlight efforts around air service development (ASD), customer service, and community outreach. Despite the governance model of an airport, the audience of an annual report generally remains the same. Governments, businesses, airlines, and the public at large can look to the annual report as a window into the key activities of the airport.

With a new Master Plan, YKF will develop an annual report that outlines to the community how its efforts and key activities are supporting the vision and action items outlined in both the Master Plan and Business Plan. As a municipally governed airport, the annual report will provide the airport with an additional accountability measure by outlining the financials for the preceding year and the impact on the municipal tax levy and cost to the average household. It will also reinforce the importance of YKF engaging in effective communication with different segments of the community.

Strategic Action	Division/Organization Responsibility Lead	Division/Organization Responsibility Support	Timeframe
Develop an annual report to Regional Council for the preceding year that includes updates in the following areas: • Branding • Marketing, customer service, and community outreach activities • Air service development initiatives • Financial reports including impact on the tax levy and cost to the average household • Performance measurement	YKF	N/A	2018 (annually)

7.0 Optimizing Revenues

7.1 Increasing Revenues while Maintaining a Competitive Advantage

Airports traditionally derive revenue from a variety of sources including landing and passenger fees; advertising; rentals and land leases; fuel surcharges; parking fees; and, concession fees including surcharges on food and beverage sales, car rentals, and taxis. However, with operating and capital needs increasing on an annual basis, airports across North America are continuously under pressure to identify sustainable ways to increase revenues. This has resulted in airports increasing their reliance on non-aeronautical opportunities such as retail and other concession fees rather than on other funding sources like government programs, the tax base, or airport fees. Pursuing these other revenue streams has allowed airports to manage airport needs better during uncertain economic times or changes in the aviation industry.

In 2015, non-aeronautical revenues accounted for 40% of global airport revenues as opposed to 55% for aeronautical revenues[36]. Similar to passenger and landing fees, other sources of revenue such as concessions, parking and advertising are also directly related to the number of passengers using the airport. For instance, with higher passenger volumes, advertising is easier to sell, more food and drinks are sold, and more parking passes are required. While increases to these fees are possible, they are unlikely to yield significant increases in overall revenue without additional passengers.

Relying on these revenue streams is easier for medium to large airports that have passenger traffic over one million. For the smaller regional airports with less than one million in passenger traffic,

[36] Airports Council International, *Airport Economic Report 2015*, 2016

these opportunities can be minimal and take significant effort or the use of incentives to obtain. Increasing landing fees, fuel surcharges, rental and leasing fees, and parking fees can take away from an airport's competitive advantage. Depending on the airport size, air service offered, and proximity to neighbouring airports, increasing any of these fees by even a minimal amount can be a deciding factor for passengers considering which airport to use and for airlines considering where to establish routes.

At YKF, the greatest opportunity to grow revenues is to increase regularly scheduled air service. In 2012 and 2013 when new flights were added, the airport saw corresponding increases in revenues. Conversely, the revenue for 2016 was impacted by the loss of chartered service by Nolinor Aviation and daily scheduled service from American Airlines flights to Chicago, IL (Refer to Figure 17).

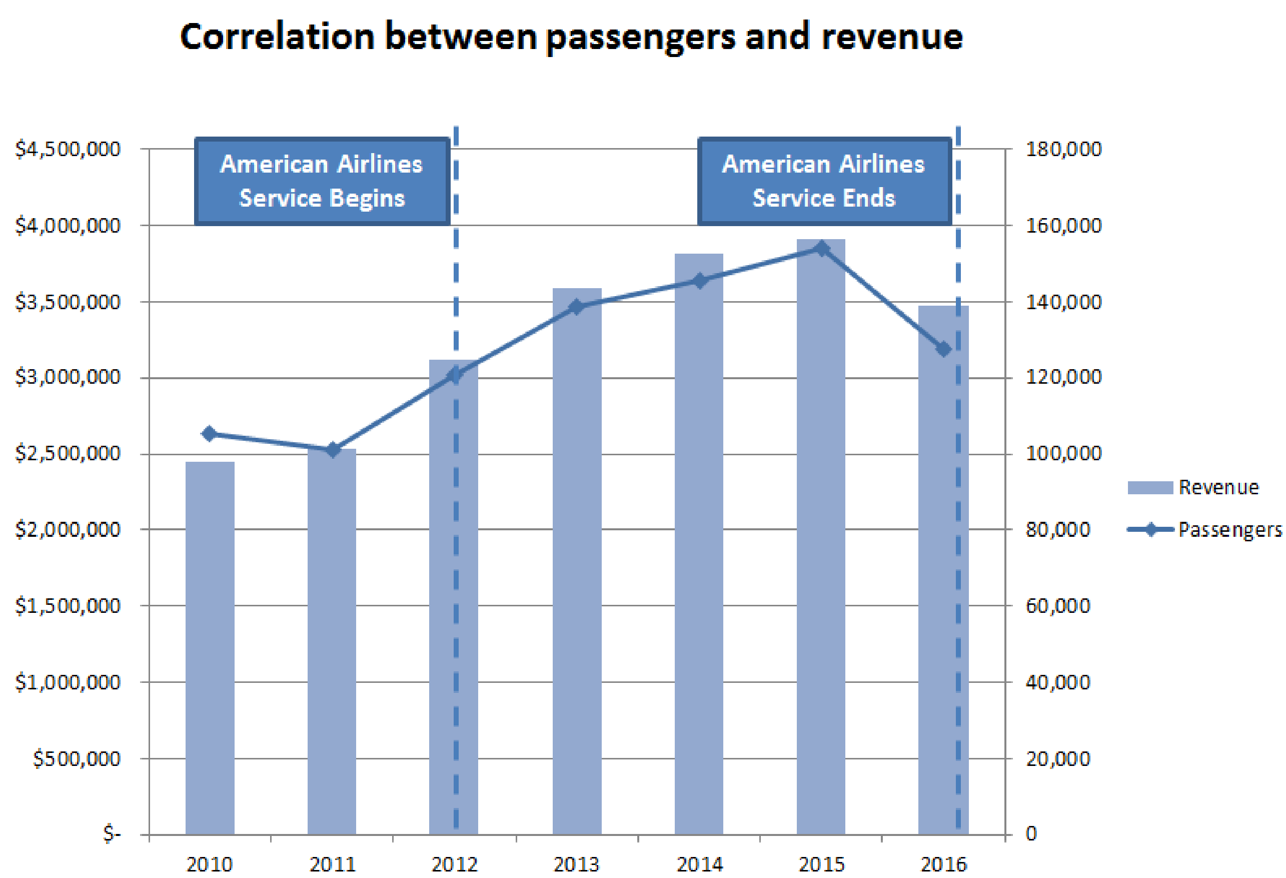


Figure 17 - Correlation between passengers and revenue

Today, YKF is very cost competitive compared with London International Airport, John C. Munro Hamilton International Airport, Toronto Pearson, and Billy Bishop Toronto City Airport, which all have the same or higher rates and terminal fees (Refer to Figure 18). This price advantage is one of the strategies being used to attract discount airlines to YKF. While the airport remains committed to pursuing and developing new opportunities for revenue generation, increasing rates that affect ticket price would put YKF at a competitive disadvantage. YKF will review these rates on an annual basis and prior to any proposed increase to ensure the airport retains this competitive advantage for attracting new air service.

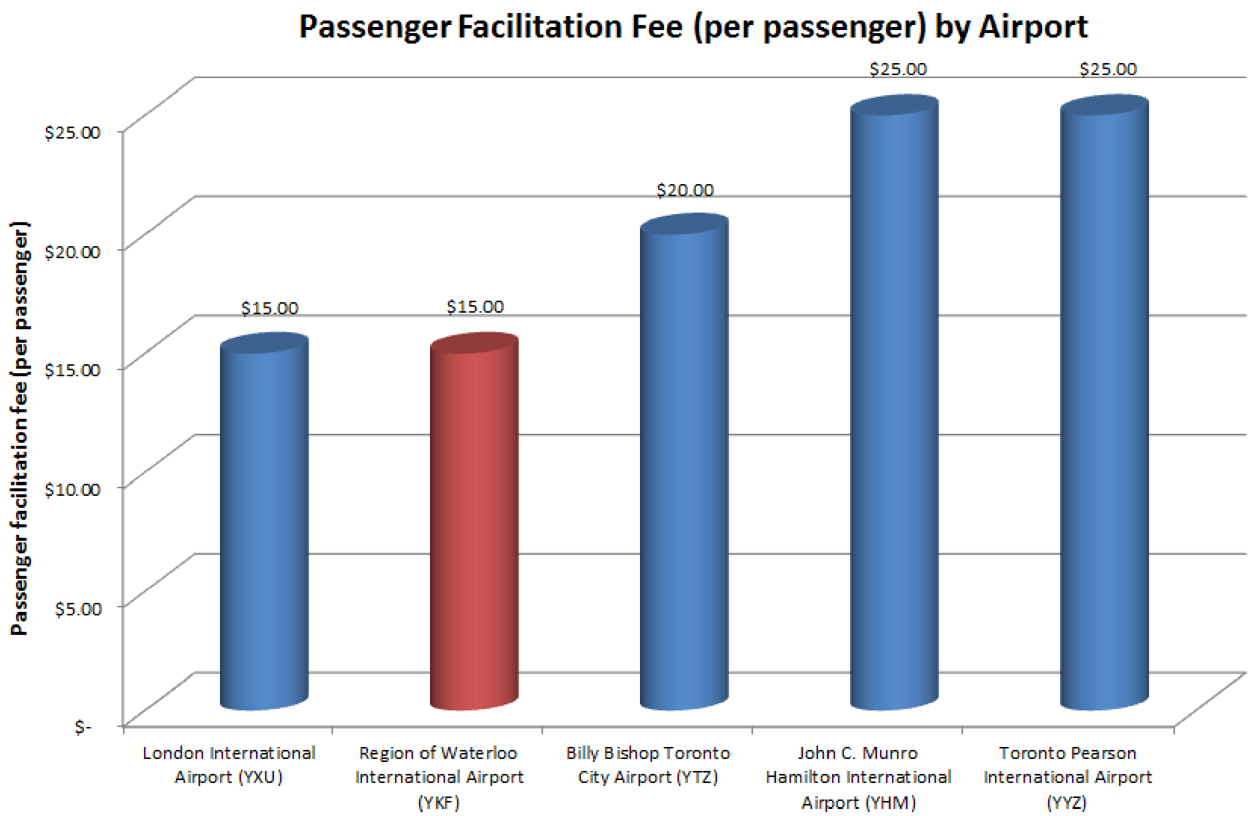


Figure 18 - Passenger Facilitation Fee (per passenger) by Airport

Passenger growth remains the most effective strategy for increasing revenue and managing the impact on the municipal tax levy and cost to the average household. This is largely due to the revenue and expense model at the airport. Capital and operating expenses do not change whether the airport has one or five scheduled flights a day. Better economies of scale are achieved through even modest increases in passenger activity. For instance, one additional daily flight from the airport to a domestic location using a 737-700 series aircraft that can fit up to 149 seats would increase gross income by approximately $1,000,000. This includes estimated revenues from parking and concessions ($130,000), fuel surcharges ($100,000), and landing fees ($161,375). Also, the airport charges a Passenger Facilitation Fee of $15.00 for every passenger departing from the airport, which would result in revenues of approximately $650,000 annually.

The following graph provides a breakdown of the various sources of airport revenue in 2016:

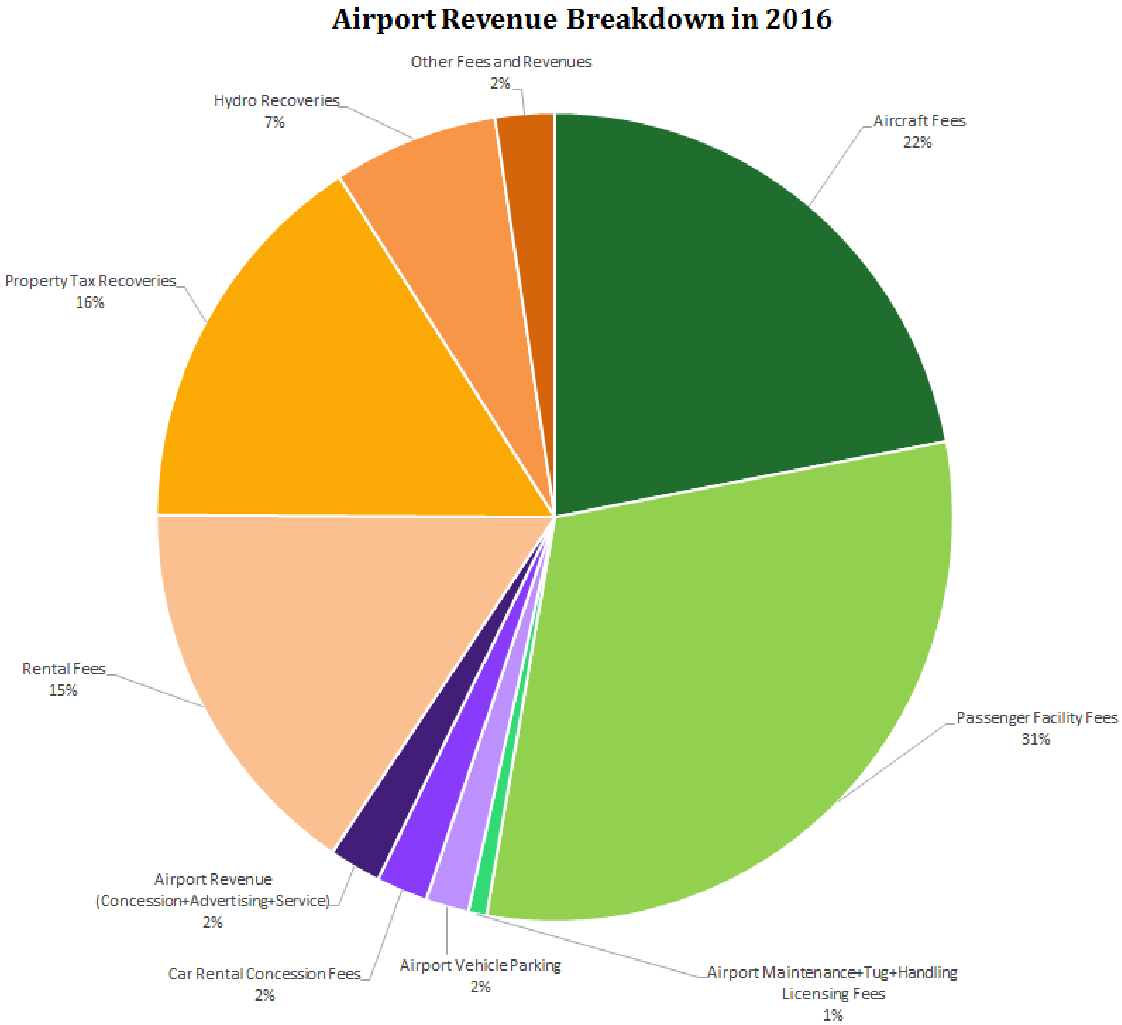
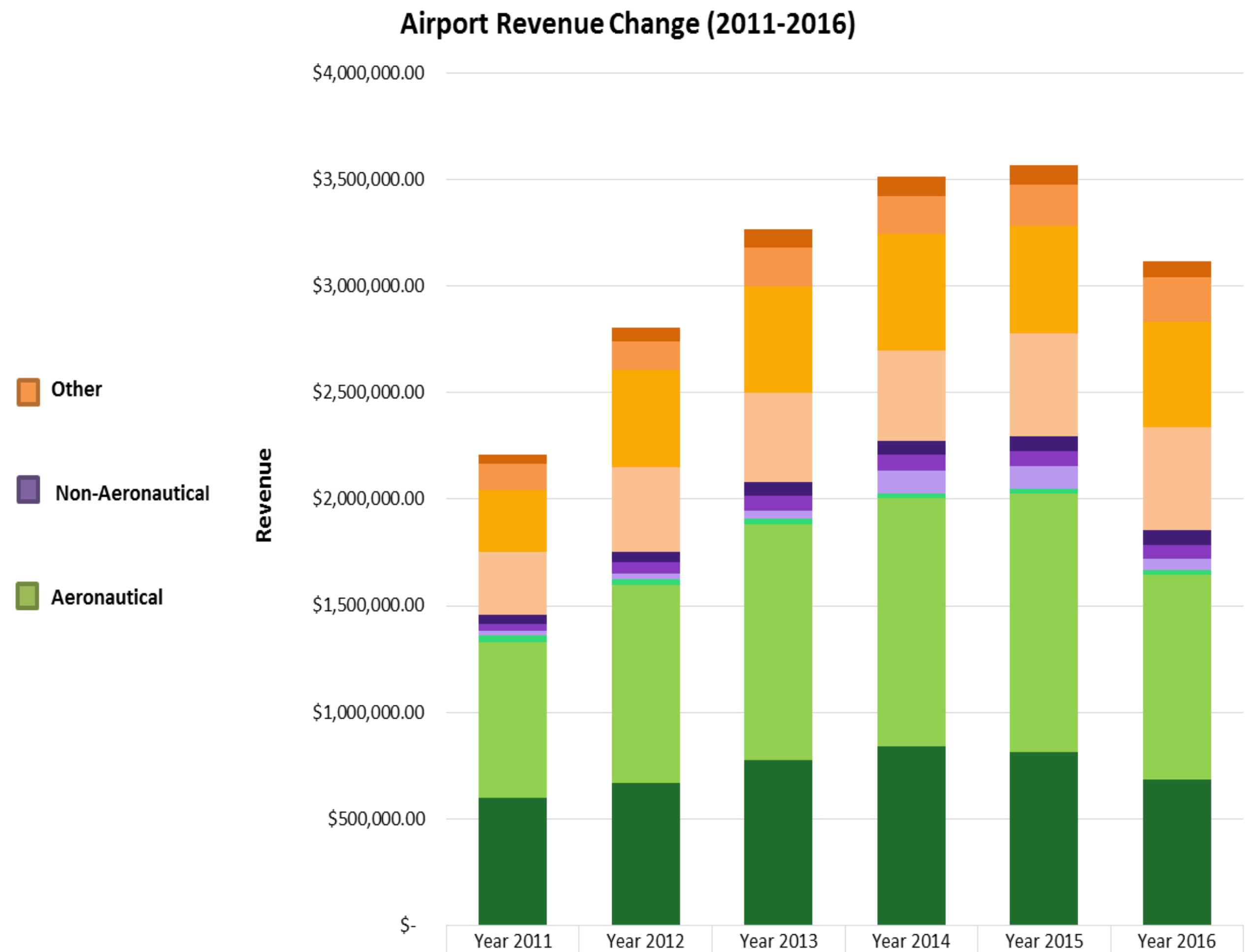


Figure 19 - Breakdown of Airport Revenue in 2016 Source: Region of Waterloo International Airport

The following chart provides a comparison of annual revenues at YKF between 2011 and 2016:



	Year 2011	Year 2012	Year 2013	Year 2014	Year 2015	Year 2016
Other Fees and Revenues	$42,506.43	$62,256.24	$82,517.74	$92,442.84	$91,314.42	$75,076.83
Hydro Recoveries	$125,412.25	$133,447.98	$185,782.75	$179,358.55	$189,252.43	$208,656.51
Property Tax Recoveries	$290,006.78	$458,266.62	$497,872.54	$544,845.01	$504,353.75	$492,748.19
Rental Fees	$296,528.79	$394,691.91	$420,251.14	$425,404.75	$483,640.02	$487,267.55
Airport Revenue (Concession+Advertising+Service)	$41,959.47	$51,724.44	$61,946.94	$61,294.30	$71,709.76	$65,784.65
Car Rental Concession Fees	$32,646.02	$54,217.15	$69,779.42	$76,807.57	$69,339.05	$65,001.73
Airport Vehicle Parking	$20,393.00	$23,415.00	$36,038.00	$108,180.00	$104,895.00	$54,600.00
Airport Maintenance+Tug+Handling Licensing Fees	$30,102.63	$27,460.67	$29,043.69	$22,909.99	$25,275.00	$23,205.41
Passenger Facility Fees	$730,188.35	$928,355.35	$1,103,506.85	$1,162,116.88	$1,209,594.12	$958,113.10
Aircraft Fees	$600,370.25	$668,749.31	$777,844.45	$841,256.75	$815,415.54	$685,482.52

Figure 20 - Airport Revenue Change 2011-2016 Source: Region of Waterloo International Airport

In 2012, Regional Council approved annual increases of one cent per square foot per year for five years for all new or renewed rental agreements. Typically, rental income is tied to long term leases that increase only at the rate of inflation. Aside from these rates, increasing other airport fees at YKF can be a barrier to future air service and passenger traffic growth. With the implementation of the new Master Plan, YKF will continue to review and adjust rates and fees on an annual basis based on current and projected passenger traffic with the goal of reducing the airport's impact on the municipal tax levy and cost to the average household.

7.1.1 Federal and Provincial Funding

An essential component to the growth of YKF is the funding that is required from senior levels of government. The majority of the capital expenditures outlined in the Master Plan are based on a cost-sharing model with the Federal and Provincial governments. All three levels of government have a role to play in supporting infrastructure investment at YKF. For the Region of Waterloo, additional investment in YKF supports increased air service for the community and the growth of the local economy. With an expected air service gap of 20 million passengers in southern Ontario by 2043, both the Government of Canada and the Ontario Government have a responsibility to ensure citizens and businesses have reliable access to the global economy to remain competitive. Given the existing airport capacity and future growth plans outlined in the Master Plan, YKF will be able to help senior levels of government close this gap.

Federal and provincial funding can assist in other developmental areas at the airport outlined in this Business Plan. Different funding programs exist that can support various air service development (ASD) and business attraction efforts, which can assist new companies considering locating at YKF. These programs can also apply to initiatives such as the development of an aeronautics centre at the Aviation Business Park.

As part of efforts to optimize revenues, YKF will actively pursue funding support from both the Federal and Provincial governments. As new programs become available, YKF will review capital and other business attraction or retention opportunities to determine if available funding could support growth at the airport.

Strategic Action	Division/Organization Responsibility Lead	 Support	Timeframe
Pursue opportunities to optimize revenues based on current and projected passenger traffic levels that includes the following elements: • A review and adjustment (if needed) of lease and rental rates • Business retention and expansion discussion with retail and concession providers on current and future service levels • A review of airport fees at comparable airports across the country to support YKF's competitive advantage • An exploration of new airport revenue opportunities including Federal and Provincial funding sources • Cost-sharing opportunities with airport tenants to support growing the business	YKF	ORED	2017 (updated annually)

7.2 Airport Financials and Cost to the Average Household

The following budget outlines the capital costs associated with each development stage in Chapter C of the Master Plan and has been used to determine the financial impact of future growth at YKF.

Financial Plan Staging

Phase No. 1 – Pre-Planning for Growth (2017)

ACTION	COST
Commence Zoning Process for Runway 14-32 Extension Initiate Zoning Study for Third Runway Environmental Assessment for Runway 32 End Extension Review of Federal, Provincial and Other Sources of Funding to Support Short-term Capital Projects	$ 300,000
Design Runway 14-32 for Precision Approach (5% Cost of Works)	$ 1,000,000
Reassess Feasibility of Expanding Existing Terminal Building vs. Relocating Terminal Building to New Site Commence Concept / Design of Terminal Expansion to 500,000 Passengers (5% Cost of Works)	$ 1,044,000
Continue to Develop Existing Serviced Lands on Airport Property Based on Demand (Apron VII Extension)	$ 500,000
Assess Need to Purchase Additional Land for Future Development (Not included in costing) Commence Master Land Use and Servicing Plan for Airport Commence a preliminary review of Rail Connectivity between YKF and TPIA	$ 100,000
15% Contingency	$ 441,600
Total	**$ 3,385,600**

Phase No. 2 – Secondary Runway Extension and Terminal Expansion to 500,000 Annual Passengers (Approximately 2019)

ACTION	COST
Strategic Acquisition and Relocation Fees	$ 11,250,000
Construct Runway 14-32 Extension (Including Taxiway Extensions and Approach Lighting)	$ 20,000,000
Design Runway 08-26 Extension to 8737' (Including Taxiways and Approach Lighting (5% Cost of Works)	$ 400,000
Review Shantz Station Road Reconfiguration Options (5% Cost of Works for Realignment Option)	$ 230,000
Design Runway / Taxiway / Apron Clearances and Widths to Accommodate AGN-IV Aircraft (5% Cost of Works)	$ 140,000
Design and Construct Apron 'II' Expansion	$1,250,000
Construct New Terminal Building Expansion (up to 500,000 Passengers) Including Associated Apron Expansion	$ 21,400,000
Design New Terminal Building Expansion (Including Associated Apron Expansion) to Accommodate 1,000,000 Passengers (5% Cost of Works)	$ 3,100,000
Increase Available Surface Parking	$ 2,500,000
Continue to explore Rail Connectivity options and expand on Phase 1 findings	$ 0
Continue to Develop Existing Serviced Lands on Airport Property Based on Demand	$ 2,400,000
Fountain Street Utility Relocations	$ 2,000,000
15% Contingency	$ 9,700,500
Total	**$ 74,370,500**

Phase No. 3 – Primary Runway Extension and Terminal Expansion to 1,000,000 Annual Passengers (Approximately 2025)

ACTION	COST
Strategic Acquisition and Relocation Fees	$ 11,250,000
Construct Approved Shantz Station Road Reconfiguration (Based on Two-Lane Road Realignment Around Runway 26 Extension)	$ 4,600,000
Construct Partial Taxiway ‘B’	$ 3,400,000
Construct Runway 08-26 Extension to 8737’ (Including Associated Taxiways and Approach Lighting)	$ 10,000,000
Widen Existing Taxiways to Accommodate AGN-IV Aircraft	$ 2,800,000
Construct New Terminal Expansion (up to 1,000,000 Passengers)	$ 62,250,000
Begin Negotiations with Existing Tenants in Vicinity of Terminal Expansion for Future Relocation	$ 0
Design New Terminal Building Expansion (Including Associated Apron Expansion) to Accommodate 2,000,000 Passengers (in Two – 500,000 Passenger Increments) (5% Cost of Works)	$ 4,200,000
Design New Landside Configuration (Roads & Parking) (5% Cost of Works)	$ 200,000
Continue to Develop Existing Serviced Lands on Airport Property Based on Demand (Southeast Development – New Taxiway, Road and Utilities)	$ 3,300,000
15% Contingency	$ 15,300,000
Total	**$ 117,300,000**

Phase No. 4 – Terminal Expansion to 1,500,000 Annual Passengers (Approximately 2030)

ACTION	COST
Review Additional Land Acquisition Requirements	TBD
Relocate Existing Tenants Within Terminal Expansion Footprint	TBD
Construct New Terminal Building Expansion and Associated Apron to Accommodate Additional 500,000 Passengers	$ 40,500,000
Construct New Landside Configuration (Roads and Parking)	$ 4,000,000
Design New Parking Structure (5% Cost of Works)	$ 1,050,000
Commence Negotiations with Tenant for Relocation to New Facility	$ 0
Design New South Terminal Building Expansion and Associated Apron (Additional 500,000 Passengers) (5% Cost of Works)	$ 2,000,000
Develop Newly Purchased Lands Based on Demand (Southwest Development – Road and Utilities)	$ 750,000
15% Contingency	$ 7,245,000
Total	**$ 55,545,000**

Phase No. 5 – New Parking Structure and Terminal Expansion to 2,500,000 Annual Passengers (Approximately 2034)

ACTION	COST
Construct New South Terminal Building Expansion and Associated Apron (Additional 500,000 Passengers – 2,000,000 Total Passengers)	$ 43,600,000
Construct New Parking Structure	$ 21,000,000
Construct New Terminal Building Expansion and Associated Apron (Additional 500,000 Passengers – 2,500,000 Total Passengers)	$ 40,400,000
15% Contingency	$ 15,750,000
Total	**$ 120,750,000**

(Note: the financial costs for each development stage does not include any potential transportation infrastructure improvements that may be identified in the Regional Transportation Master Plan to support the Airport growth).

Funding the Development Stages

A 20 year financial forecast has been prepared based on projected revenue, expenses and debt service costs at each development trigger to determine the tax levy impact and cost to the average household. Revenue and expenses were based on actual operating results of comparable airports at each development trigger and have been adjusted for inflation. Revenues reflect the expected increase in passenger volumes at each development trigger as well as periodic increases to the passenger facilitation fee. Interest rate projections aligned with the anticipated timing of each development trigger were used to calculate the debt service costs of long-term debt required to finance the capital costs associated with each development trigger. The cost per household calculation assumes net property assessment growth of 1.25% annually (Refer to Figure 21).

The financial forecast assumes that 50% of capital costs at each development trigger will be funded from non-property tax sources. Such recoveries could be in the form of provincial or federal government subsidies and/or regional development charges. Based on the Development Charges Act and Regulation currently in place, preliminary analysis suggests that there is the potential for the Region to recover a portion of the growth-related capital costs through the imposition of a higher Airport Development Charge. The actual amount of any regional development charge recovery (and the corresponding impact on the cost to the average household) would be subject to the determination of available capital subsidies, the completion of a future development charge background study, and the approval of increased Airport Development Charges by Regional Council.

At each development trigger, the cost to the average household is at or below the current cost for the airport. YKF will use the current cost for the airport as a budget target for future growth outlined in the Master Plan. Depending on the actual timing of long term borrowing and the level of subsidy, it is possible that the cost per household could temporarily increase to slightly above the current levels.

Figure 21 – 50% ROW Debt, 50% Subsidy

50% ROW Debt, 50% Subsidy						
	Current 2017 Approved Budget	Trigger 1 Existing Capacity and Expansion Planning	Trigger 2 Build 500,000 Passenger Capacity	Trigger 3 Build 1,000,000 Passenger Capacity	Trigger 4 Build 1,500,000 Passenger Capacity	Trigger 5 Build 2,500,000 Passenger Capacity
Year Trigger Volume Reached	**2017**	**2018**	**2021**	**2028**	**2032**	**2036**
New Capital Investment	$ -	$ 3,385,600	$ 78,899,663	$ 148,592,131	$ 81,569,705	$ 199,581,352
ROW New Debt Requirement	$ -	$ 1,692,800	$ 45,417,394	$ 81,421,647	$ 40,784,853	$ 99,790,676
Operating Expenses	$ 6,978,984	$ 7,736,900	$ 11,958,333	$ 18,800,605	$ 25,085,984	$ 44,189,082
Revenue	$ 2,991,764	$ 4,764,400	$ 12,012,907	$ 25,253,460	$ 36,201,781	$ 65,171,986
Levy Before Debt Servicing	$ 3,987,220	$ 2,972,500	$ (54,574)	$ (6,452,854)	$ (11,115,797)	$ (20,982,904)
Debt Servicing	$ 1,935,000	$ 1,883,924	$ 3,878,255	$ 9,259,478	$ 12,327,307	$ 19,833,545
Net Levy	**$ 5,922,220**	**$ 4,856,424**	**$ 3,823,681**	**$ 2,806,624**	**$ 1,211,510**	**$ (1,149,359)**
Average Levy Impact 2017-2036						**$ 1,301,575**
Cost to the Average Household	**$ 23**	**$ 19**	**$ 14**	**$ 10**	**$ 4**	**$ (4)**
Average Cost per Household 2017-2036						**$ 5**

Additional Funding Scenarios

As part of the financial analysis for the Master Plan, additional funding scenarios were completed to determine the impact to the tax levy and cost to the average household at 100%, 60% and 40% (Refer to Figures 22-24).

Figure 22 – 100% ROW Funded (no Subsidy)

Scenario 1: 100% ROW Funded (no Subsidy)						
	Current 2017 Approved Budget	Trigger 1 Existing Capacity and Expansion Planning	Trigger 2 Build 500,000 Passenger Capacity	Trigger 3 Build 1,000,000 Passenger Capacity	Trigger 4 Build 1,500,000 Passenger Capacity	Trigger 5 Build 2,500,000 Passenger Capacity
Year Trigger Volume Reached	**2017**	**2018**	**2021**	**2028**	**2032**	**2036**
New Capital Investment	$ -	$ 3,385,600	$ 78,899,663	$ 148,592,131	$ 81,569,705	$ 199,581,352
ROW New Debt Requirement	$ -	$ 3,385,600	$ 78,899,663	$ 148,592,131	$ 81,569,705	$ 199,581,352
Operating Expenses	$ 6,978,984	$ 7,736,900	$ 11,958,333	$ 18,800,605	$ 25,085,984	$ 44,189,082
Revenue	$ 2,991,764	$ 4,764,400	$ 12,012,907	$ 25,253,460	$ 36,201,781	$ 65,171,986
Levy Before Debt Servicing	$ 3,987,220	$ 2,972,500	$ (54,574)	$ (6,452,854)	$ (11,115,797)	$ (20,982,904)
Debt Servicing	$ 1,935,000	$ 2,079,848	$ 6,483,633	$ 16,611,454	$ 22,747,114	$ 37,759,590
Net Levy	**$ 5,922,220**	**$ 5,052,348**	**$ 6,429,059**	**$ 10,158,600**	**$ 11,631,317**	**$ 16,776,686**
Average Levy Impact 2017-2036						**$ 7,836,933**
Cost to the Average Household	**$ 23**	**$ 20**	**$ 24**	**$ 35**	**$ 38**	**$ 53**
Average Cost per Household 2017-2036						**$ 27**

Figure 23 – 60% ROW Debt, 40% Subsidy

Scenario 2: 60% ROW Debt, 40% Subsidy						
	Current 2017 Approved Budget	Trigger 1 Existing Capacity and Expansion Planning	Trigger 2 Build 500,000 Passenger Capacity	Trigger 3 Build 1,000,000 Passenger Capacity	Trigger 4 Build 1,500,000 Passenger Capacity	Trigger 5 Build 2,500,000 Passenger Capacity
Year Trigger Volume Reached	**2017**	**2018**	**2021**	**2028**	**2032**	**2036**
New Capital Investment	$ -	$ 3,385,600	$ 78,899,663	$ 148,592,131	$ 81,569,705	$ 199,581,352
ROW New Debt Requirement	$ -	$ 2,031,360	$ 52,113,848	$ 94,855,744	$ 48,941,823	$ 119,748,811
Operating Expenses	$ 6,978,984	$ 7,736,900	$ 11,958,333	$ 18,800,605	$ 25,085,984	$ 44,189,082
Revenue	$ 2,991,764	$ 4,764,400	$ 12,012,907	$ 25,253,460	$ 36,201,781	$ 65,171,986
Levy Before Debt Servicing	$ 3,987,220	$ 2,972,500	$ (54,574)	$ (6,452,854)	$ (11,115,797)	$ (20,982,904)
Debt Servicing	$ 1,935,000	$ 1,923,109	$ 4,399,331	$ 10,729,874	$ 14,411,270	$ 23,418,756
Net Levy	**$ 5,922,220**	**$ 4,895,609**	**$ 4,344,757**	**$ 4,277,020**	**$ 3,295,473**	**$ 2,435,852**
Average Levy Impact 2017-2036						**$ 2,608,647**
Cost to the Average Household	**$ 23**	**$ 19**	**$ 16**	**$ 15**	**$ 11**	**$ 8**
Average Cost per Household 2017-2036						**$ 10**

Figure 24 – 40% ROW Debt, 60% Subsidy

Scenario 3: 40% ROW Debt, 60% Subsidy						
	Current 2017 Approved Budget	Trigger 1 Existing Capacity and Expansion Planning	Trigger 2 Build 500,000 Passenger Capacity	Trigger 3 Build 1,000,000 Passenger Capacity	Trigger 4 Build 1,500,000 Passenger Capacity	Trigger 5 Build 2,500,000 Passenger Capacity
Year Trigger Volume Reached	**2017**	**2018**	**2021**	**2028**	**2032**	**2036**
New Capital Investment	$ -	$ 3,385,600	$ 78,899,663	$ 148,592,131	$ 81,569,705	$ 199,581,352
ROW New Debt Requirement	$ -	$ 1,354,240	$ 38,720,940	$ 67,987,550	$ 32,627,882	$ 79,832,541
Operating Expenses	$ 6,978,984	$ 7,736,900	$ 11,958,333	$ 18,800,605	$ 25,085,984	$ 44,189,082
Revenue	$ 2,991,764	$ 4,764,400	$ 12,012,907	$ 25,253,460	$ 36,201,781	$ 65,171,986
Levy Before Debt Servicing	$ 3,987,220	$ 2,972,500	$ (54,574)	$ (6,452,854)	$ (11,115,797)	$ (20,982,904)
Debt Servicing	$ 1,935,000	$ 1,844,739	$ 3,357,179	$ 7,789,083	$ 10,243,347	$ 16,248,338
Net Levy	**$ 5,922,220**	**$ 4,817,239**	**$ 3,302,605**	**$ 1,336,229**	**$ (872,450)**	**$ (4,734,566)**
Average Levy Impact 2017-2036						**$ (5,497)**
Cost to the Average Household	**$ 23**	**$ 19**	**$ 12**	**$ 5**	**$ (3)**	**$ (15)**
Average Cost per Household 2017-2036						**$ 1**

8.0 Implementation of Development Stage 1

The implementation of Development Stage 1 will commence upon Regional Council approval of the Master Plan. The two main components of this Stage include planning for the expansion of the terminal building and completing the design for the extension of runway 14-32. The work that will be completed as part of Development Stage 1 ensures that YKF is prepared to support business growth as future opportunities arise, while maximizing the existing infrastructure capacity in the terminal building and on both runways.

Prior to the planning of the terminal building expansion, YKF will undertake a feasibility study to determine if future growth should be accommodated on the existing footprint by expanding the terminal or if relocating the terminal to a different location would better serve future needs. The Master Plan reflects the expansion of the terminal building on the existing footprint at each trigger point, however if the feasibility study determines that relocating the terminal building is the preferred option, a decision will have to be made as to when a new terminal will be designed and constructed. As part of Development Stage 1, YKF will complete the expansion designs for the terminal building to accommodate up to 500,000 passengers. This will ensure YKF is well-positioned to respond immediately to airlines considering YKF for new or expanding service.

To improve the overall utilization of YKF and support increased air service, it is essential to extend Runway 14-32 in order to provide a viable cross-wind runway option for arrivals and departures. Runway 14-32 currently accommodates light general aviation aircraft and flight training activity. Under extreme cross-wind conditions, this runway may not be suitable for passenger aircraft such as the 737-700. As part of Development Stage 1, YKF will complete a detailed design and environment assessment of the Runway 14-32 extension, including all taxiway extension and lighting upgrades. Similar to the expansion design for the terminal, having the design ready for the extension of Runway 14-32 will allow the airport to respond quickly to airlines considering new or expanded air service at YKF.

In order to protect for future growth at the airport, YKF will pursue the implementation of an Airport Noise Protection Area and consider a strategic airport reserve through the implementation of planning policies in the Region’s Official Plan.

The following table outlines the detailed actions that will be implemented as part of Development Stage 1.

Development Stage 1 Actions		
Action	**Year**	**Approx. Costs**
Review and pursue sources of funding (Federal, Provincial, other sources)	2017	$600,000
Initiate third runway study including zoning implications		
Commence environmental assessment for Runway 14-32 and 08-26 extensions including 30% preliminary design of both runways		
Reassess feasibility of expanding terminal building vs. relocating terminal building		
Review environmental impacts for future terminal expansions (including developing engineered mitigations/solutions)		
Commence concept/design of existing terminal expansion to 500,000 passengers		
Commence zoning process for extension of Runway 14-32 to 7000 ft. and 08-26 to 8737 ft. (including by-law regulations for maximum building heights in areas surrounding the YKF)	2018	$2,785,600
Commence master land use and servicing plan for airport		
Develop existing serviced lands on airport property based on demand		
Commence detailed design Runway 14-32 for precision approach including identifying instrument approach height restrictions		
Commence a preliminary review study of rail connectivity between YKF and Toronto Pearson		
Initiate Official Plan Amendment process to consider the implementation of the Airport Noise Protection Area		

Development Stage 1 allows YKF to respond to carriers looking to offer new service or expand service within a short timeframe. Given the planning and design actions outlined in this Stage take time to complete, proceeding immediately with studies will allow Development Stage 2 to commence shortly after Development Trigger 2 is reached and Council approval is obtained. Having these plans completed also provides YKF with another air service development tool that can be used to attract additional air service. With capacity pressures at Toronto Pearson and the emerging low-cost carrier market, if a carrier chooses to grow their operations at YKF, growing to 2.5 million passengers per year could be accelerated.

EXAMPLE

A similar example where this occurred is Billy Bishop Toronto City Centre Airport, where a new airline, Porter Airlines, launched service in 2006. Passenger traffic rose from 28,500 annual passengers in 2005 to almost 2.5 million annual passengers in less than 10 years. Billy Bishop Toronto City Centre Airport grew by almost 100 times in only a decade, and hundreds of millions of dollars were spent on airport infrastructure to accommodate this growth. After Porter launched in 2006, passenger volumes increased to the point at which airport operations became self-sufficient by 2010. Such growth was completed despite many constraints, including limited runway lengths, physical access to the Island, a tripartite agreement governing usage and noise limits, and significant political objections. Porter Airlines transformed the fortunes of Billy Bishop Toronto City Airport by targeting an airport with a high population and high propensity to travel, and made it easier for passengers to travel from their homes and offices in the downtown core.

Year	Annual Passengers
2004	30,400
2005	28,500
2006	22,300
2007	262,300
2008	508,600
2009	770,700
2010	1,130,600
2011	1,576,000
2012	2,292,500
2013	2,410,000
2014	2,413,000
2015	2,481,000
2016	2,725,800

Appendix 1 – Summary Strategic Actions

Strategic Action	Division/Organization Responsibility Lead	 Support	Timeframe
Complete a branding exercise that builds on the passenger experience offered by YKF and can be used to attract new air service and passengers.	YKF	Region of Waterloo Office of Regional Economic Development (ORED) Region of Waterloo Corporate Communications External – Consultant	2017-2018
Develop and implement a new five-year marketing strategy based on the 2016 strategic vision that reinforces the airport brand, identifies innovative actions to market to different segments of the community, and supports the increase of airport revenues.	YKF ORED	Region of Waterloo Corporate Communications	2018 - 2019 (updated annually)
Develop and implement a series of new and enhanced customer service actions that include: • Collecting and responding to customer feedback on a regular basis; • Establishing consistent service levels for all employees providing service to customers (including third party service providers); and, • Incorporate the appropriate design elements into renovation and/or expansion plans.	YKF	Region of Waterloo Design and Construction Region of Waterloo Citizen Service External – Design Consultant	2018 – 2019 (updated annually based on growth in passenger traffic)
Undertake a series of community outreach activities targeted at the business community, leisure travellers, and neighbouring land owners who may be adversely impacted by airport operations.	YKF	ORED YKF Airport Business Advisory Committee Region of Waterloo Aeronautical Noise Advisory Committee	2018 (updated annually based on projected growth plan in Master Plan)

Strategic Action	Division/Organization Responsibility Lead	 Support	Timeframe
Develop and implement an ASD Strategy that incorporates the following elements: • A market analysis and leakage study updated every two to three years • Route development actions for specific destinations and airlines based on market analysis and travel demands of the business community • Outreach to airlines considering expanding in the southern Ontario market with airport, market and economic plans • Air service retention activities for existing carriers • An incentive package that can be used to attract and retain air service including route exclusivity and the addition of preclearance services • Partnering with existing FBOs on commercial and private charter air service development	YKF ORED	External – Airport FBOs External – Consultant YKF Airport Business Advisory Committee (ABAC)	2017-2018 (Updated Annually)
Build on existing business development efforts at the YKF Aviation Business Park by implementing the following actions: • Outreach to aviation related companies looking to expand or relocate • The assessment and strategic acquisition of neighbouring lands including supporting the assembly of the East Side Lands for aviation related business • Pursue opportunities to develop an aeronautics centre at YKF that will support the growing aeronautics sector in Waterloo Region by leveraging the existing network of businesses, Post-Secondary Institutions, and start-up support network	YKF ORED	External – Waterloo Economic Development Corporation	2017 - 2018 (updated annually)

Strategic Action	Division/Organization Responsibility Lead	Division/Organization Responsibility Support	Timeframe
Develop a performance measurement system using indicators that benchmark the airport's performance against past performance, comparable airports and industry standards. Indicators should be adjusted or added as the airport reaches development trigger levels and service levels increase.	YKF	Region of Waterloo Office of Corporate Performance	2017 (targets established and reported on annually)
Develop and implement an annual report to Regional Council for the preceding year that includes updates in the following areas: • Branding • Marketing, customer service, and community outreach activities • Air service development initiatives • Financial reports including impact on the tax levy and cost to the average household • Performance measurement	YKF	N/A	2018 (annually)
Pursue opportunities to optimize revenues based on current and projected passenger traffic levels that includes the following elements: • A review and adjustment (if needed) of lease and rental rates • Business retention and expansion discussions with retail and concession providers on current and future service levels • A review of airport fees at comparable airports across the country to support YKF's competitive advantage • An exploration of new airport revenue opportunities including Federal and Provincial funding sources • Cost-sharing opportunities with airport tenants to support growing the business	YKF	ORED	2017 (updated annually)

Appendix 2 – Region of Waterloo International Airport – 2017 Fees and Charges

Airline and Aviation Related Fees		
Aircraft Operating Fees	**Category**	**Monthly Rates**
Based Flight Schools	Single Engine	$100.00
	Medium Twin	$125.00
Passenger Facilitation Fees		**Rate/passenger enplaning**
Domestic and International		$15.00
Aviation Fuel Surcharge		**Rate per litre**
Jet Fuel		$0.045
AvGas		$0.05
Apron Parking **	**Daily Rates**	**Monthly Rates**
Based, non-based, domestic and international (Based on gross take off weight)	**After 6 hours**	
0 - 2,000 kg.	$11.00	$80.00
2,001 - 5,000 kg.	$16.50	Not available
5,001 - 10,000 kg.	$22.00	Not available
10,001 - 30,000 kg.	$44.00	Not available
30,001 - 60,000 kg.	$55.00	Not available
60,001 - 100,000 kg.	$66.00	Not available
Landing Fees **		**Rate per 1,000 kg.**
0 - 2,499 kg.		No Charge
2,500 - 21,000 kg.		$6.75
21,001 - 45,000 kg.		$6.75
Greater than 45,000 kg.		$6.75
Helicopters		$6.75
Military/Government		Exempt

Airline and Aviation Related Fees	
Commercial flights originating directly from Florida between October 1, 2016 and April 30, 2017	50% Reduction in Landing Fees Set Out in the Above
Commercial flights originating directly from Florida after May 1, 2017	No Reduction in Landing Fees Set Out in the Above

Parking	
Automobile Parking (Includes H.S.T.)	**Rate**
Tenant Parking (monthly)	$45.00/month
Car Rental Agencies - Reserved Spots	$75.00/month
Lost Ticket Fee	$100.00
Special Events Parking Permit - per vehicle	$4.50 / vehicle
Regular Parking – Hourly	$4.50
Regular Parking – Daily	$9.00
Regular Parking – Weekly	$63.00

Advertising	Monthly Rates 2016
Airport Terminal Building Lobby Ads (various sizes)	$172.02 to $540.09
Outside Parking Shelter	$112.50
Advertising Displays in Terminal Building (over 50 square feet)	$11.00/square foot
Roadside Signage	$50.00 per side
Advertising Displays under 50 sq. ft.	$12.00 per sq. ft.
Digital Media	$200.00

Rental and Land Lease	
Land Lease Development Fees	**Rate**
Development Fee L.L.2 (one time fee)	$1.43 / sq. ft.
Development Fee L.L.4 (one time fee)	$7.43 / sq. ft.

Airline and Aviation Related Fees		
Sewage and Water Connection Fee L.L.2 (one time fee)		$20,000.00
Airport Water Maintenance and Service Charge	$50.00 / month plus Township of Woolwich usage and reserve water charges	
Union Gas Connection Fee (one time)		$5,000.00
Airport Sewage user Charge		$6.00/cubic metre
Land Rental Fees		**$150.00 per acre**
Lease Rates ** (Adjusted annually based on the Consumer Price Index - C.P.I.)		
	Building Rate (per sq. ft.)	Land Rate (per sq. ft.)
Private	$0.275	$0.06
Commercial	$0.275	$0.06
Special Commercial	$0.43 Plus maintenance fee of $0.09 per sq. ft.	$0.12 Plus maintenance fee of $0.09 per sq. ft.
Office Rent - Terminal Building **	$19.00	
Office Rent - Common Area	$0.75	
Electrical equipment rack fees terminal building	$200.00/month per rack	
Asphalt - Apron I, II, III		$0.41
Hangar Rent	$4.70/sq. ft.	

Airport Miscellaneous Fees	Rate
Blue Directional Signs	$100.00
Hydro Connection Fee	$250.00
Hydro Meter Reading Administration Fee	$15.00

Airline and Aviation Related Fees	
After Hour Custom Fee	Actual costs plus $25.00 Administration Fee
Urea applications	Actual costs
Office Administration Fees	**Rate**
Boardroom Rental - During business hours	no fee
Boardroom Rental - After hours	$50.00 1st 4 hours / $10.00 each additional hour Security $25.00/hour
Overhead and L.C.D. display - If not renting Boardroom	$25.00 each per day
Film Production (Commercial)	$1,000.00 per day plus expenses
Film Production (Student)	Time and Materials
Mobile Fees	**Rate**
All airside vehicles and equipment	$0.033 per kg. per year
Fire Services Fees	**Rate**
Airport Rescue Fire Fighting Standby Fee	$200.00 per hour
Fire Extinguisher Training	$60.00 per person
First Aid Training (2 days)	$150.00
First Aid Re-training (1 day)	$100.00
Airline Associated Fees	**Rate**
Aircraft Pushback Fee	$30.00 / push back
Lavatory Disposal Fee	$25.00 per flight
Weigh Scale Fees	$50.00 per flight per scale (for occasional flights); $500/month (for airlines)
Ground Handler License Fee	$1000.00 per annum
International Waste Fee	Time and materials
Security	

Airline and Aviation Related Fees		
Airside Escort Fees		$50.00 per hour
Airport Vehicle Operators Permit (A.V.O.P.)		$50.00 (refunded upon return)
Terminal Security Access Permit (T.S.A.P.)		$50.00 (refunded upon return)
Key Deposit		$50.00 (refunded upon return)
Key Replacement Fee		$100.00 per key
Restricted Area Identity Card (RAIC) Fee		$75.00
Real Estate Fees		**Rate**
New Leases		$500.00
Assignment of Leases		$250.00
Snow Removal		**Rate**
After Hour Call Out Fee		Actual Cost
During Operating Hours:	Commercial property tax tenant	$250.00 per hour
	Non-Commercial property tax tenant	15% of lease cost for one season
Winter Sand Application		$50.00 per application

Notes for Airport Services Fees:

** Fees and Charges are nil for twelve (12) months for a passenger airline commencing service to a new additional trans-border and domestic destination(s). (Not applicable to airline that has entered into a minimum revenue guarantee with the Regional Municipality of Waterloo.

**Fees and Charges for a vacation charter service approved to provide service to a new additional trans-border destination(s) are nil for the first season.

** Landing and Parking Fees for an initial four (4) month period of enhanced frequency of an existing air service are nil.
HST is applicable to all the above fees at the time of invoicing unless otherwise noted. Automobile parking rates include HST, Lease rates are HST exempt.

The only fee subject to Consumer Price Index (CPI) increases are lease rates.