



The Economic Impact of the Yellowknife Airport



December 2015

Prepared by:
The Lindbergh Group Inc.

in association with:



Institute on
Governance

LEADING EXPERTISE

Institut sur
la gouvernance

EXPERTISE DE POINTE

INTENTIONALLY BLANK

TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
1. INTRODUCTION	1
1.1. Background and Context.....	1
1.2. Study Approach.....	1
2. CIVIL AVIATION AND ITS IMPACT ON THE ECONOMY	3
2.1. Airports as Economic Generators	3
2.2. What is Economic Impact?.....	4
2.3. The Overall Value Airports contribute to the Economy	5
3. YELLOWKNIFE AIRPORT (YZF).....	7
3.1. Airport History and Overview	7
3.2. 2014 Year in Review	11
3.3. Airport Facilities and Services	13
3.4. Airport Lands	14
4. LOCAL AND REGIONAL ECONOMY	16
4.1. Northwest Territories – Economic Overview	16
4.2. Social Context	18
4.3. Demographics and Economic Indicators.....	19
4.4. Territorial Transportation System	20
4.5. Major Employers	21
5. YELLOWKNIFE AIRPORT’S ECONOMIC IMPACT 2014	22
5.1. Introduction	22
5.2. Employment	22
5.3. Labour Income	24
5.4. Output	27
5.5. GDP	29
5.6. Taxes	30
5.7. Capital Assets	31
5.8. Summary	31
5.9. Recurrent Operations	31
6. SOCIO-ECONOMIC CONTRIBUTION.....	33
6.1. Connections and Access for Remote Communities	33
6.2. Part of the Territorial Transportation System	33
6.3. Emergency Response and Humanitarian Relief	34
6.4. Policing / Law Enforcement / Courts	34
6.5. Conservation / Aerial Forest Fire Fighting.....	34
6.6. Economic Development in the North / Support to Resource Based Industry....	35
6.7. Supporting Tourism	36
7. SUMMARY	37

APPENDICES

Appendix A – Inferred Economic Impact Calculations.....	A-1
Appendix B – Economic Multipliers	B-1
Appendix C – Airport Tenant / Concessionaire / Based Organization List	C-1
Appendix D – List of Organizations and Stakeholders Contacted	D-1

EXECUTIVE SUMMARY

INTRODUCTION

An economic impact assessment helps communities and governments determine investment priorities in an era of hard choices for available finance. It is useful in assisting industry, stakeholders, and government decision makers to better understand what projects, facilities or even whole industries contribute to the economy.

AIR TRANSPORTATION IS IMPORTANT TO THE NORTHWEST TERRITORIES

Air transportation is critical to economic development in Canada generally, and North of 60 in particular; and northern airports play key roles in not only enabling economic activity through natural resource exploration and exploitation, but also by providing key social links between and among northern and arctic communities.

The Yellowknife Airport Generates Wealth, Employment & Taxes to All Levels of Government

- **1,000** people are directly employed through activity at the Yellowknife Airport
 - The Airport supports a total of **2,000** jobs in a number of sectors
- The airport's total economic impact, which includes supplier industries, is **\$171 million** in direct GDP
 - Each direct job associated with the Airport results in **374K** in direct output
 - Air Transportation supports **18** jobs for every **10,000** passengers using the Airport
 - Activity at the Airport contributes over, **\$45 million in taxes** (in various forms)

Airports are a vital component of the air transportation sector providing infrastructure not only for air carriers and their support services such as aircraft maintenance and repair, fuelling, flight catering and de-icing – but also for passenger services such as parking and retail outlets.

The Yellowknife Airport enhances the Northwest Territories' prosperity by:

- Directly generating employment and income by carrying out its mission, and indirectly through the many companies supporting activity at the airport, such as logistics firms and a range of domestic and technical suppliers to the aviation sector;
- Enabling those firms directly involved in the transportation of people and cargo by air, and those undertaking essential activities such as medical transportation and firefighting, to carry out their functions in an effective and efficient manner;
- Enhancing and promoting the welfare of citizens; and

- Improving connectivity to other parts of Canada and to other parts of the world, thereby acting as a catalyst to enhance business and tourism growth. Simply put, air transportation better allows visitors and residents to go where they want, when they want for business or pleasure.

THE ECONOMIC IMPACT APPROACH

The input-output method for determining economic impacts measures three separate effects:

- **Direct Impacts** which result from activities carried out by firms and others with a direct involvement in the operation and management of the airport and associated aviation related services;
- **Indirect Impacts** attributable to non-aviation industries, largely off-site, which result because of airport activity i.e., in support of direct airport activities; and
- **Induced Impacts** occur when employees directly linked to the airport spend their wages in the community.

These measures of economic activity for the Yellowknife Airport are summarized below.

THE DEVELOPMENT OF THE YELLOWKNIFE AIRPORT

The Yellowknife Airport (YZF) was originally built by Canadian Pacific Airlines in 1944. Transport Canada (TC) took over operation in 1946 and by 1954 had constructed two paved runways. A purpose built Air Terminal Building was constructed in 1963 (and subsequently upgraded and expanded significantly), and a new control tower was added in 1972.

YZF is one of the 26 Canadian airports included in the National Airports System, airports characterised as strategic infrastructure assets essential to Canada's air transportation system. In 1995 the land, assets and operations of all the airports in the Northwest Territories (NWT), including YZF and the associated federal staff and resources, were transferred to the Government of the Northwest Territories (GNWT) as part of the National Airports Policy (NAP). Today, YZF is managed by the GNWT Department of Transportation. It serves not only as the primary aviation gateway to other communities in the Northwest Territories but also as the primary link to other provinces and territories. YZF's capital assets had a book value of \$43.5M at the end of 2014.

TRAFFIC FACTS

Passengers. YZF processes over 500,000 passengers each year. Traffic throughput increased 12.7% between 2010 and 2014 (an average annual growth rate of 3.0%). Most outbound traffic reports attribute volume increases to tourism (particularly the growing China tourism market) and higher business travel demand, including mine personnel on shift changes.

Aircraft Movements. There were 52,881 air traffic movements at YZF in 2014. This level of traffic represents a growth of 1.8% over 2013, but overall a decrease of 2% between 2010 -2014.

THE ECONOMIC IMPACT OF THE YELLOWKNIFE AIRPORT

Employment Impact Summary

Operations at YZF **directly employ 1,000 people** on a full-time basis. Moreover, when accounting for indirect and induced effects, more than **2,000 people** are employed in Yellowknife because of activities on airport property.

For every 10,000 passengers, there are 18 direct full time jobs. Table E-1 summarizes the 2014 employment impacts at YZF.

Table E-1. 2014 Employment Impacts at YZF

Activity Category	Direct	Indirect	Induced	Total
Air Carrier (scheduled and charter (incl. ground handlers))	695	251	634	1,580
General Aviation	41	15	37	93
Airport Commercial Services	99	12	20	131
Aircraft / Aviation Services	26	2	2	29
Airport Operations	85	31	27	143
Ground Transportation	19	5	10	34
Other Non-Aviation Industrial / Commercial	36	8	17	61
TOTAL	1,001	323	748	2,072

Labour Income Impact Summary

Persons employed at YZF **directly earn over \$70 million** which combined with indirect and induced effects mean that almost **\$150 million** is earned because of activities on airport property. Table E-2 summaries the 2014 labour income impacts at YZF.

Table E-2. 2014 Labour Income Impacts at YZF (\$M)

Activity Category	Direct	Indirect	Induced	Total
Air Carrier (scheduled and charter (incl. ground handlers))	\$ 50	\$ 18	\$42	\$111M
General Aviation	\$3	\$ 1	\$3	\$7M
Airport Commercial Services	\$7	\$1	\$2	\$10M
Aircraft / Aviation Services	\$ 1	\$0	\$1	\$2M
Airport Operations	\$ 7	\$2	\$2	\$10M
Ground Transportation	\$ 1	\$0	\$1	\$2M
Other Non-Aviation Industrial / Commercial	\$3	\$1	\$1	\$5M
Total	\$ 72M	\$24M	\$50M	\$146M

Gross Output Impact Summary

Organizations based at YZF **directly produce over \$350 million** in gross output which combined with indirect and induced effects mean that more than \$600 million is produced because of activities on airport property. Table E-3 summarizes the 2014 gross output impacts.

Table E-3. 2014 Gross Output Impacts at YZF

Activity Category	Direct	Indirect	Induced	Total
Air Carrier (Scheduled and Charter (Incl. Ground Handlers))	\$188	\$59	\$133	\$370M
General Aviation	\$3M	\$1M	\$2M	\$6M
Airport Commercial Services	\$70	\$15	\$11	\$95M
Aircraft / Aviation Services	\$50	\$8	\$11	\$68M
Airport Operations	\$14	\$4	\$1	\$19M
Ground Transportation	\$2	\$1	\$0	\$3M
Other Non-Aviation Industrial / Commercial	\$37	\$4	\$10	\$51
Total	\$364M	\$80M	\$167M	\$612M

Gross Domestic Product (GDP) Impact Summary

Organizations based at YZF **directly produce \$170 million** in GDP which combined with indirect and induced effects mean that close to **\$310 million** is produced because of activities on airport property. Table E-4 summarizes the 2014 GDP impacts at YZF.

Table E-4. 2014 GDP Impacts at YZF (\$M)

Activity Category	Direct	Indirect	Induced	Total
Air Carrier (scheduled and charter (incl. ground handlers))	\$56	\$24	\$64	\$145M
General Aviation	\$1M	\$0	\$1M	\$2M
Airport Commercial Services	\$39	\$8	\$15	\$ 63M
Aircraft / Aviation Services	\$38	\$5	\$5	\$48
Airport Operations	\$8	\$3	\$2	\$13M
Ground Transportation	\$1	\$0	\$1	\$2M
Other Non-Aviation Industrial / Commercial	\$28	\$2	\$4	\$34M
Total	\$171M	\$42M	\$93M	\$307M

Taxes

There are many taxes associated with activities at the airport. Passengers pay some of those, others are paid by commercial operators at the airport and by their employees. These are summarized below:

- Based on Statistics Canada "Average Expenditure Statistics for Households" approximately **\$14.5 million in direct personal income taxes** was remitted to the territorial and federal governments in 2014.
- Based on Statistics Canada average household spend in the NWT, **\$828K in direct GST was paid to the federal government** by persons employed on airport property. Additionally, passengers pay **retail sales tax** on their retail and concession purchases at the airport which is estimated at **\$3.3 million**. **GST** is also paid by passengers on airfares; this is estimated at **\$9 million**.
- In 2014, the GNWT remitted **\$657K in payments in lieu of property taxes** to the City of Yellowknife.
- Airport tenants and based organizations pay **\$1.1 million in property taxes** to the City of Yellowknife. In addition, businesses based at YZF pay approximately **\$10 million in corporate tax**.

- **Payroll taxes**, including Canada Pension Plan (CPP), employment insurance (EI), and worker's compensation, amount to some **\$4.3 million**.
- In 2014, departing passengers paid approximately **\$1.36 million in Air Travellers Security Charges** to the federal government.
- GNWT collected approximately **\$97K in aviation fuel tax** in 2014 due to activities at YZF.

Impacts Beyond Dollars And Cents

Air transportation has value beyond the economic benefits provided by the industry. Of particular relevance to the North, air transportation and airports:

- Are vital to the livelihood of Canadians in remote regions.
- Promote the economic growth of Canada's north.
- Help protect the territories' natural resources.
- Are necessary for emergency response and humanitarian relief.
- Broaden people's leisure and cultural experiences, and keep families connected.
- Enhance business operations and efficiency.

YZF PROVIDES SIGNIFICANT ECONOMIC AND TRANSPORTATION BENEFITS

YZF is an integral part of the local, regional and territorial economy. Tables E-5 and E-6 summarize the economic benefits of YZF as measured in 2014.

Table E-5. Summary of Economic Impacts at YZF – 2014

Measure	Direct	Indirect	Induced	Total
Employment (FTE)	1,001	323	748	2,072
Labour Income	\$72 million	\$24 million	\$50 million	\$146 million
Gross Output	\$364 million	\$80 million	\$167 million	\$612 million
GDP	\$171 million	\$42 million	\$93 million	\$307 million

Table E-6. Additional Economic Impact Measures (2014)

Measure	2014
Passengers (E/D)	532,688
Direct Output per E/D Passenger	\$678
Direct Output per Landing	\$13,658
Direct Output per FTE	\$373,856
Direct Wages per FTE	\$72K
Direct FTE per 10,000 E/D passengers	18
Number of Landings required for an increase in one full-time job	27

Yellowknife Airport provides great economic and socio-economic value which is recognized by the community. In interviews and meetings in the course of preparing this Economic Impact Report, stakeholders in the community, industry and government frequently used statements such as “... essential to support our work ...”, “ ... critical infrastructure for the Territory’s future ...” when describing the airport and its importance.

Overall, with 1,000 full time jobs, and \$364 million in direct output, YZF is a powerful economic generator for the City of Yellowknife and the Northwest Territories. The airport is a gateway to the Territory and the Arctic, and plays a major role in supporting industry, tourism and the overall quality of life in the North.

1. INTRODUCTION

1.1. BACKGROUND AND CONTEXT

Air transportation is critical to economic development in Canada generally, and North of 60 in particular, and northern airports play key roles in not only enabling economic activity through natural resource exploration and exploitation, but also by providing key social links between and among northern communities. Air transportation is heavily relied on for passenger and cargo transportation given the considerable distance between communities.

The Yellowknife Airport (YZF) is one of the 26 airports in Canada included in the National Airports System (NAS) – a strategic infrastructure asset essential to Canada’s air transportation system. YZF is managed by the GNWT Department of Transportation. It serves not only as the primary aviation gateway to other communities in the Northwest Territories but also as the primary link to other provinces and territories.

With potential changes to the governance structure, and with a more general need to engage key stakeholders to support the continuing operation and development of the Yellowknife Airport, it is timely for the Government of the Northwest Territories to undertake an economic impact study that provides a measure of the airport’s current activity, its importance and purpose to the local and regional economy, as well as the benefits associated with planned development.

The purpose of measuring YZF’s economic impact is to heighten business and community awareness of the activities taking place at the airport and its contribution to the economic well-being of the Territory. It also identifies linkages between the aviation industry and other sectors of the economy. This type of study is an important tool for the Yellowknife community as the results can be used to inform citizens of its beneficial effect on the general economy and to build public support for programs and initiatives based on that knowledge.

1.2. STUDY APPROACH

The primary local data collection tool used in this study was an online survey/questionnaire which was sent by the GNWT to all tenants and organizations based at YZF. The Consultant prepared the covering email and the survey questionnaire and followed up with non-respondents via phone call or in-person visit. A list of the 95 organizations the survey was sent to is shown in Appendix A. To protect the confidentiality of the respondents, all data inputs were aggregated into categories of activity taking place at the airport (see Table 1).

Other key community stakeholders were also interviewed to get their views on the importance of the airport to the regional economy and/or to their organization.

In addition, the consultants used a number of external industry data sources and online searches to add more general aviation industry background and verify the findings of the final report.

For the purposes of aggregating the activities and economic effects of various elements of the airport community, similar activities were grouped into activity sectors as illustrated in Table 1.

Table 1. Activity Categories

Activity Category	Examples
Air Carrier	Scheduled, charter, incl. ground handling
General Aviation	Private, corporate, flying clubs, medevac, military etc.
Airport Commercial Services	Retail concessions, F&B operations, car rentals
Aircraft / Aviation Services	FBO and fuelling, maintenance and repair, aircraft modification, aircraft cleaners, aircraft sales / leasing, aircraft parts
Airport Operations	Airport operator and sub-contracted firms, air traffic control, security firms, other government departments / agencies operating at airport
Non-Aviation Light Industrial	Manufacturing, assembly, maintenance
Ground Transportation	Taxi, limousine, bus, other public transportation, vehicle parking

To calculate the direct impacts of non-respondent organizations, data was inferred from other similar organizations. Appendix A describes the methodology.

Standard territorial/provincial economic multipliers were used to estimate indirect and induced impacts. These are further described in Appendix B.

Ongoing, long-term impacts were based on the current economic impacts applied to forecasts of passenger and aircraft traffic based trends seen over the last five years.

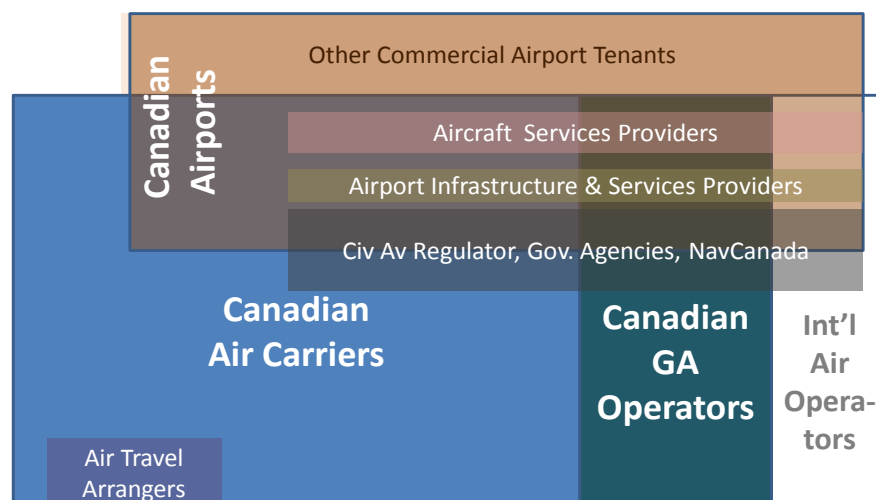
2. CIVIL AVIATION AND ITS IMPACT ON THE ECONOMY

2.1. AIRPORTS AS ECONOMIC GENERATORS

Commercial airports have all the functions and physical infrastructure of a modern city, share many responsibilities with their host communities, and provide essential, if not indispensable public services. The airport may have tenants engaged in a wide array of aeronautical and general business enterprises located on, and generating revenue for, the airport. Annual operating budgets can run into the millions of dollars, with capital projects accounting for millions more. The air terminal complex, general aviation facilities, airport support facilities such as maintenance buildings and equipment, and aircraft operating areas such as runways, taxiways and aprons easily value in the hundreds of millions of dollars, even for a modest-sized commercial airport. Modern airports are “big business”, impacting the social, economic and political life of communities across Canada.

Airports, together with their commercial lands, provide significant economic and transportation benefits and have become an integral part of the local, regional and national economies. They are a key catalyst for economic growth through employment and the utilization of goods and services, improved transportation services and have a profound influence on the quality of life of populations.

Figure 1. How Airports Fit Into Canada’s Air Transportation System¹



Airports provide communities with a focal point, and with essential infrastructure to:

- Attract new investment;
- Retain businesses;

¹ The Economic Impact of the Air Transportation Industry in Canada, Conference Board of Canada & SLI Airports+Aviation Group, April 2013

- Expand existing companies;
- Promote success; and
- Enhance competitiveness.

These dynamics act as strong regional drivers and form the basis of airports being a fundamental catalyst of business growth. Somewhat separate, but of significant importance, is the fact that airports attract inbound tourism with the consequent development of the tourism industry generating growth, income and employment.

Successful airport owners have developed aviation and non-aviation commercial lands, creating clusters of aviation businesses as well as those with compatible light industrial and commercial uses.

2.2. WHAT IS ECONOMIC IMPACT?

The input-output method of determining economic impacts measures three separate effects:

- **Direct Impacts** result from activities carried out by firms and others with a direct involvement in the operation and management of the airport and associated aviation related services. The distinguishing feature of a direct impact is that it is an immediate consequence of airport activities. Most direct impacts are generated on-site;
- **Indirect Impacts** are those attributable to non-aviation industries, largely off-site, which result because of airport activity i.e., in support of direct airport activities. Examples include tourism, travel agents, suppliers to airport based organizations; and
- **Induced Impacts** occur when employees directly linked to the airport spend their wages in the community.

Economic impacts can be measured and quantified in several different ways, including:

- **Gross output (\$)** – the total gross value of all business revenue – the broadest measure of economic activity which indicates the total sales and transactions triggered by operations;
- **Value-added (\$ GDP)** – the “value added” to the economy or the unduplicated total value of goods and services; includes only final goods to avoid double counting of products and services sold during an accounting period;
- **Employment (jobs / FTE)** – the number of jobs created expressed in full-time equivalent jobs or person-years;
- **Wages / salaries (\$)** – the total value of wages and salaries associated with the employment impacts; and
- **Tax Revenue (\$)** – the total amount of tax revenues generated for all levels of government.

2.3. THE OVERALL VALUE AIRPORTS CONTRIBUTE TO THE ECONOMY

Airports provide significant economic and transportation benefits, and have become an integral part of their local, regional and national economies. They are a key catalyst for economic growth through employment and the utilization of goods and services, and have a profound influence on the quality of life of populations around the globe. They integrate markets and promote the exchange of people, products, investment and ideas. They also provide a variety of other public benefits such as time and cost savings associated with air transportation.

There are some distinct advantages for communities or regions that are within the reach of efficient air transportation. By facilitating the activity of industrial and service sectors – connecting them to regional (and beyond) economic activity – airports play a key role in a community's ability to attract and retain business.

Clearly, air transportation has facilitated business' ability to move its products around the world. But it has played a far more important role in bringing business managers together, enabling them to build the links, communications and personal relationships necessary to achieve such a level of international business activity. Despite continuous advances in telecommunications technologies, the growth in global business over the last 50 years could not have been achieved without the personal contact established by the world's civil aviation system².

Figure 2 from Oxford Economics³ depicts how air transportation can affect the economy in a broader way than traditionally measured by input-output models. For example, if prices of aviation services increase, this could lead to higher fares or longer transport times, which could reduce competitiveness among firms that make heavy use of air transportation. There is also a long-run impact of aviation on productivity growth in other sectors of the economy; as well as an impact of changes in productivity growth on investment and the amount of capital equipment available for production in other sectors of the economy.

A 2013 Canadian Study⁴ notes that air transportation has value beyond the economic benefits provided by the industry. Of particular relevance to the North, air transportation and airports:

- **Are Vital to the Livelihood of Canadians in Remote Regions.** During times when winter roads are not available, air transportation is the only way in and out of many remote communities. Northerners depend on air transportation for the delivery of necessities such as food products and access to emergency care.
- **Promote the Economic Growth of Canada's North.** Mining is one of the most important economic drivers in Canada's North and its importance is expected to increase with climate change. Air transportation is essential for delivering oversized cargo to remote mining and exploration sites, and for the movement of large crews and supplies. As the economy in the North grows, so too will demand for air services.

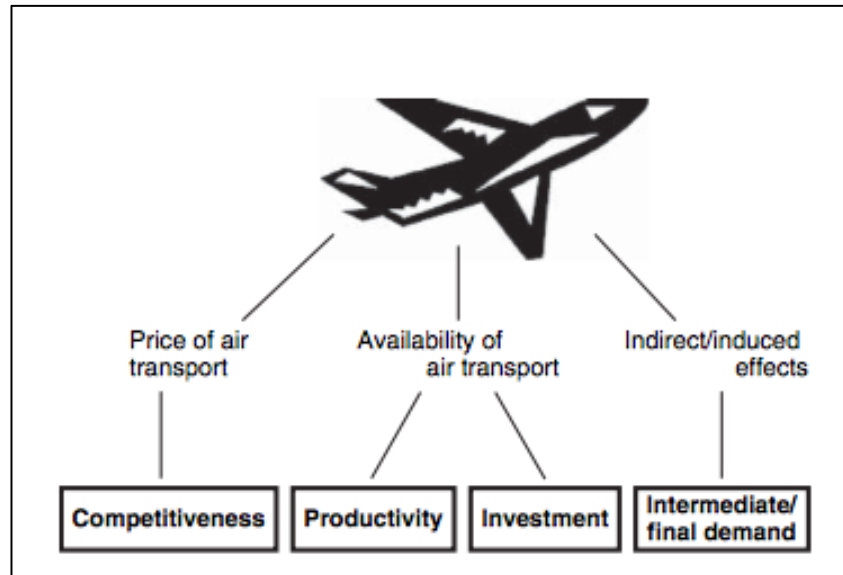
² "The National Economic Impact of Civil Aviation, July 2002", DRI-WEFA, Inc. in collaboration with the Campbell-Hill Aviation Group, Inc.

³ ACRP Synthesis 7 "Airport Economic Impact Methods and Models – A Synthesis of Airport Practice", ISBN 978-0-309-09801-1, 2008

⁴ The Economic Impact of the Air Transportation Industry in Canada, Conference Board of Canada & SLI Airports+Aviation Group, April 2013

- **Help Protect the Country's Natural Resources.** Provincial and territorial governments attempt to minimize the number of forestry resources destroyed by forest fires, and rely heavily on air transportation to move fire crews, equipment, fuel and supplies. They also use specialized aircraft to suppress forest fires.

Figure 2. Catalytic Impacts



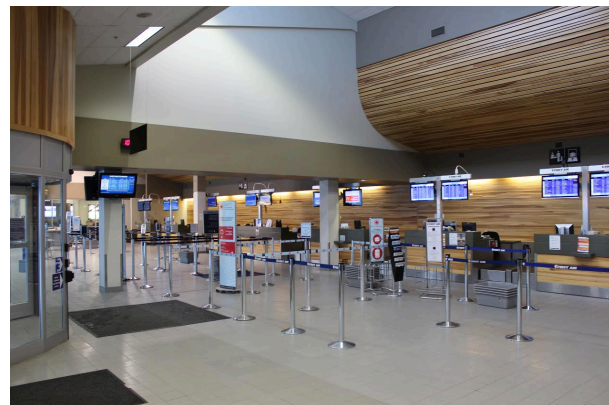
- **Are Necessary for Emergency Response and Humanitarian Relief.** Air transportation plays a critical role in supporting the movement of specialized emergency personnel, equipment and supplies involved in police, military, health care, search and rescue, or hydro maintenance activities. Climate changes will likely increase the severity and frequency of incidents requiring this type of airborne response.
- **Broaden People's Leisure and Cultural Experiences, and Keep Families Connected.** Historically, air transportation has provided a wider choice of vacation destinations and has made them more accessible and affordable to ordinary Canadians. Moreover, with an ever more mobile work force, particularly in Canada's developing regions, air transportation provides that essential link to "down home".
- **Enhance Business Operations and Efficiency.** Air transportation allows firms to shorten delivery times, minimize inventory costs and limit interruptions to production. It allows workers to move to areas where their skills are best utilized, benefiting themselves and Canada as a whole. It also allows firms to develop natural resources in isolated areas using air transport to fly-in workers on rotational shifts.

3. YELLOWKNIFE AIRPORT (YZF)

3.1. AIRPORT HISTORY AND OVERVIEW

The Yellowknife Airport (YZF) was originally built by Canadian Pacific Airlines in 1944. Initially it had one gravel airstrip. Transport Canada (TC) took over operation of the airport in 1946 and by 1954 had constructed two paved runways. A purpose built Air Terminal Building (ATB) was constructed in 1963, and a new control tower was added in 1972. The ATB was enlarged in 1973, 1989, refurbished in 2006, and enlarged again in 2008 with an expansion to the departure / check-in section, bringing the terminal to its current size of 57,000 sq. ft.

Figure 3. Air Terminal Building



In 1995 the land, assets and operations of all the airports in the NWT, including YZF and the associated federal staff and resources, were transferred to the Government of the Northwest Territories⁵ as part of the National Airports Policy (NAP).

YZF is managed by the GNWT Department of Transportation. It serves as the primary aviation gateway to other communities of the Northwest Territories. The Department is working with many partners – industry, other territorial departments, the City of Yellowknife - to chart a course for future development of the airport to build on its already significant impact.

YZF hosts extensive commercial activities that rely on quality aviation facilities and services. Non-aviation related businesses are attracted because of available land and good access. YZF also services federal and territory aviation needs associated with national defence, aircraft forest fire fighting, medevac and charter aircraft operations and base facilities. Together, these businesses generate significant economic impact for the Northwest Territories, the City of Yellowknife and the GNWT through employment, corporate product and services sale, consumption of goods and services, business and personal taxes and land rentals. The airport's commercial tenants are listed in Table 2.

⁵ Northwest Territories Arctic Airports Transfer Agreement, 1995

Table 2. Commercial Tenant List

Air Carriers (scheduled & charter): <ul style="list-style-type: none"> • Air Tindi Ltd. • Bradley Air Services Ltd. (First Air) • Summit Air (8199400 Canada Inc.) – charter • Buffalo Airways Ltd. • Canadian North Inc. • Great Slave Helicopters Ltd. • Jazz Aviation LP • Landa Aviation – L&A Aviation Ltd. (charter) • Northwester Air Lease • Summit Helicopters • Wright Airways Ltd. • Ursus Aviation (charter) • WestJet 	General Aviation (corporate & private) <ul style="list-style-type: none"> • Department of National Defence • RCMP (Air Services branch) • ~ another 50 private and corporate aircraft owners
Fuel / FBO / Aircraft Servicing <ul style="list-style-type: none"> • Fuel Flo Logistics • Imperial Oil Ltd. • Shell Canada Products Ltd. • Strategic Aviation Services • Northern Star Aviation (aircraft groomer) 	Ground Transport incl. Car Rental <ul style="list-style-type: none"> • Aurora Taxi Ltd. • Budget Rent a Car • City Cab (1993) Ltd. • Darryl's Shuttle Services Ltd.
Commercial Retail / F&B <ul style="list-style-type: none"> • GT Technology Vending (novelty items) • Hay River Liquor Retailers • Hub Publications Ltd. • Mohua Rasikal NWT Ltd. (Quiznos Canada Real Estate) • Northern Frontier Visitor's (gift shop) • Northern New Services Ltd. 	Cargo / Logistics / Freight Forwarding <ul style="list-style-type: none"> • Braden Burry Expediting Ltd. • Buffalo Parcel Courier Service • Canada Post Corp. • Deton' Cho Logistics Ltd. (see also Deton' Cho Corp) • Northwest Transport Ltd. • Private Sky Aviation (logistics)
Airport Services <ul style="list-style-type: none"> • GNWT / DOT • Garda Security Screening Inc. • NAV Canada • Scarlet Security Services 	

In 2014 YZF was the 32nd busiest airport in Canada, facilitating travel for 532,689 enplaned/deplaned passengers through the main air terminal building and adjacent FBOs.⁶

Air services are provided by five major carriers and a number of smaller regional carriers, as well as several charter operators. There are approximately fifty daily departures to destinations across Canada (not including all of the regional and mine charter flights that occur daily). Importantly, there are also several air carriers involved in the movement of air cargo. YZF air

⁶ Based on data provided by YZF Management

carriers operate B-737, ATR-42, Dash-8 and Dash-7, and C46 aircraft in “combi” passenger / cargo or all-cargo configurations.

Table 3. Scheduled Air Carriers Operating at YZF and Direct Destinations

Airline	Direct Destinations
Air Canada Jazz	Calgary, Edmonton
Air North	Ottawa, Whitehorse
Air Tindi	Whati, Lutsei K'e, Gameti, Fort Simpson, Wekweeti, Fort Resolution
Buffalo Airways	Hay River
Canadian North	Gjoa Haven, Cambridge Bay, Taloyoak, Kugluktuk, Norman Wells, Edmonton
First Air	Edmonton, Norman Wells, Inuvik, Iqaluit Gjoa Haven, Hay River, Fort Simpson
Northwestern Air Lease	Fort Smith
WestJet	Edmonton, Calgary, Vancouver

RCMP ‘G’ Division maintains a hanger at YZF, as does the Department of National Defence and the United States Air Force. Canadian NORAD Region Forward Operating Location (FOL) Yellowknife is located at YZF and is used for forward deployment of the CF-18 Hornet in times of conflict, and for search and rescue missions with a CC-138. The 440 Transport Squadron is an integral part of 17 Wing Winnipeg, with a primary role to provide airlift support to CF Northern Area, transporting Ranger and Cadet personnel and a myriad of supplies and cargo throughout the Arctic region. YZF also accommodates a number of expeditors and related transportation.

There are 227 aircraft based at YZF⁷, including 103 piston aircraft, 53 turbo-prop aircraft, and 71 helicopters. The majority of these aircraft (67%) are used for commercial purposes.

Table 4 highlights that in mid-2015 there were 94 tenants and other organizations operating at the airport.

⁷ Source: Canadian Civil Aircraft Register (March 2015)

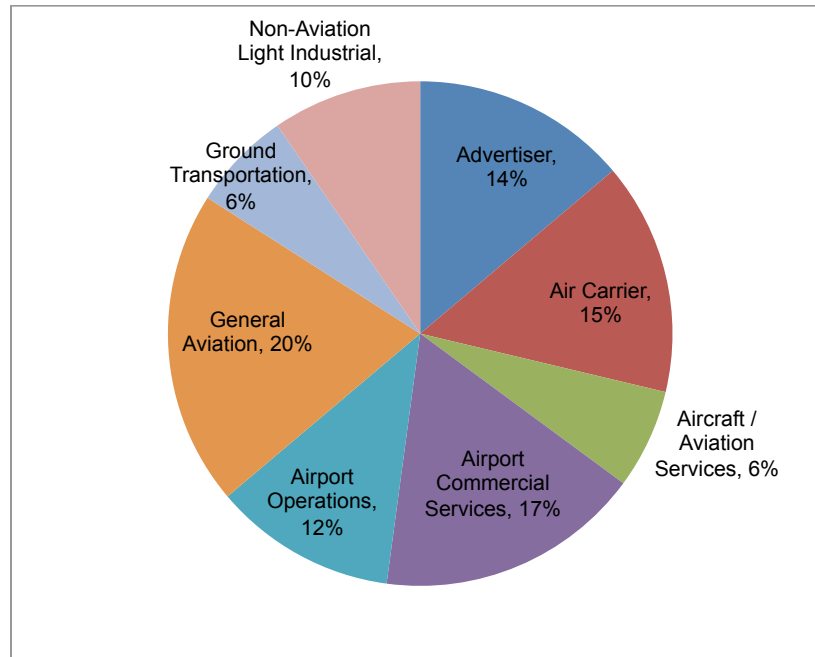


Table 4. Distribution of Organizations Operating at YZF – 2015

Activity Category	No. Of Organizations	% Of Total	% Of Total Aviation*
Advertiser	13	14%	-
Air Carrier (scheduled and charter (incl. ground handlers))	14	15%	19%
General Aviation	18	19%	10%
Airport Commercial Services	16	17%	22%
Aircraft / Aviation Services	7	7%	15%
Airport Operations	11	12%	25%
Ground Transportation	6	6%	8%
Other Non-Aviation Industrial / Commercial	9	10%	
TOTAL	94	100%	100%

* % of the businesses related to aviation activity, or passenger activity at the airport

Figure 4. Distribution of Organizations Operating at YZF – 2015
(Based on number of organizations in each primary category of operation)



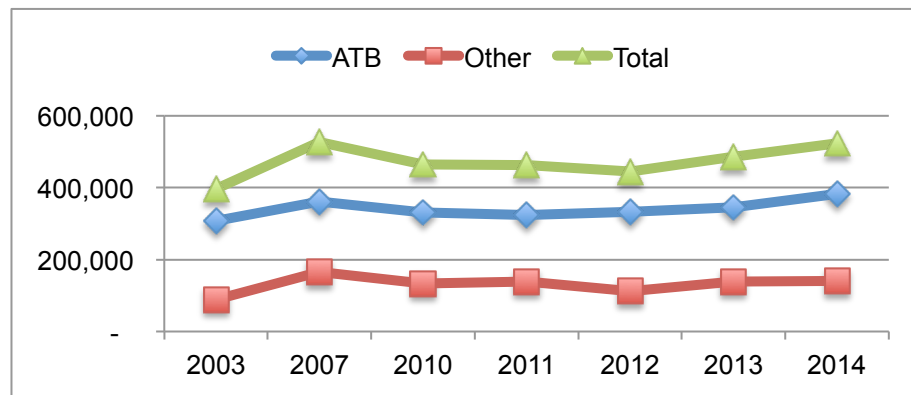
General Aviation is the largest activity category, comprising 19 of the total, followed closely by airport commercial services (17%) and air carrier (15%).

3.2. 2014 YEAR IN REVIEW

Passengers

YZF processes over 500,000 passengers each year. Approximately 350,000 of these passengers pass through the terminal building each year (382,212 in 2014). An additional 140,000 passengers (mostly on charter flights) are processed through facilities operated by fixed based operators.

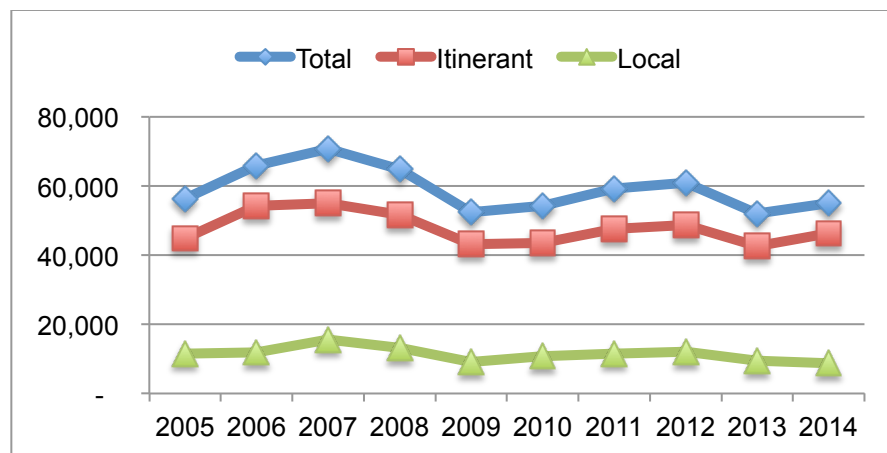
Total passenger traffic increased 12.7% between 2010 and 2014 (an average annual growth rate of 3.0%). Recent passenger traffic growth has been healthy in part because of the shift system at the mine (2 in / 2 out). Most outbound traffic reports attribute volume increases to tourism (Asian Market) and higher business travel demand.

Figure 5. YZF Enplaned and Deplaned Passengers


Source: GNWT

Air Traffic Movements

There were 52,881 air traffic movements at YZF in 2014. On an aircraft movements basis YZF ranked 32nd busiest among the 42 airports in Canada with control towers⁸. This level of traffic represents a growth of 1.8% over 2013, but overall a decrease of 2% between 2010 -2014 (compound annual growth rate of -0.5%). Itinerant movements represented 84% of the air traffic in 2014.

Figure 6. YZF Aircraft Movements by Class⁹ of Operation


Source: Statistics Canada TP 577, Catalogue 51-209X, Table 2-1; CANSIM Table 401-0008 for 2014 (monthly)

⁸ Source: Statistics Canada catalogue 51-209-X (TP 577) – 2014 corrected

⁹ Terms defined as: LOCAL: A flight that takes off and lands in the same air traffic control zone (generally the same airport). ITINERANT: A flight that originates in a different air traffic control zone than where it lands.

The 2008 Development Plan Update forecasts movements to reach between 66,000 and 102,000 by 2027. No new forecasts have been prepared since that time. These forecasts should be treated with caution given the anomalous spike in 2007 and the changes in airline operation in the last 5 to 10 years.

3.3. AIRPORT FACILITIES AND SERVICES

The current terminal building is 57,000 sq. ft. and has:

- 5 gates and 10 aircraft parking stands
- Arctic Ambassadors, a retired citizen volunteer group, run the customer service / welcome desk
- One Gift Shop, and two beverage / food outlets: Quiznos and Javaroma.
- Executive Boardroom for rent from Airport

There are a total of 95 public and 95 pre-assigned/dedicated vehicle parking stalls in the terminal building area.

The airfield currently consists of two asphalt runways: 16-34 is 7,500 feet in length and 10-28 is 5,000 feet long.

Aircraft servicing at YZF includes: fuel (100LL Avgas, Jet A-1 turbine, F-34 turbine fuel (military designation)); oil; de-icing fluids types D and A; hangarage; minor repairs, and jet aircraft starting units. There are two fixed based operators (FBOs) that offer service at YZF. Aircraft rescue and firefighting is provided at the Category 6 level.

YZF is classified as a “port of entry” for general aviation aircraft of up to 15 passengers (AOE/15), with CBSA provided customs services available to international passengers weekdays.

Passenger services available in the terminal include two food service outlets, a gift shop, ATM machine, pay phones, vending machines, and direct courtesy phones to hotels, taxi and car rental companies. There is a pay parking lot for vehicles. There are three car rental companies (Hertz, Budget and National) located at the airport, as well as a hotel shuttle service to four hotels, and two taxi companies (City Cab and Aurora Taxi).

There are a variety of cargo facilities at YZF operated by carriers (First Air, Canadian North, Buffalo Airways, Air Tindi), and expediting and logistics firms (G&G Expediting, Braden Bury Expediting, Deton Cho logistics). First Air and Canadian North have bonded warehouse facilities.

3.4. AIRPORT LANDS

Airport management has indicated that there is little airport land to develop that is in its current serviced parcels. Developing new serviced parcels would require road access only as there is no piped water/sewer on the airport property, no plan to provide it, and no airside access. Figure 7 indicates potential runway extensions (to 10,000' and 11,500'), a proposed new air terminal building, and a large, phased commercial development area to the west. While no specific costs have been provided, the amount of investment required to implement the plan would be significant and is likely to be in the order of \$100M.

Rental rates are determined based on market value, which is determined by an appraisal of the land, building or structure; the size and development activity of the airport; sales statistics of comparable land; and criteria reflecting the particular market and demand conditions.

The Deputy Minister may, on giving 180 days written notice to the lessee, cancel a lease. The maximum term of a lease is 30 years. Leases can be renewed.

Figure 7. YZF 2012 Orthophoto

(not to scale)



4. LOCAL AND REGIONAL ECONOMY

4.1. NORTHWEST TERRITORIES – ECONOMIC OVERVIEW

The NWT is bordered by Nunavut to the east, the provinces of Saskatchewan, Alberta and British Columbia to the south, and Yukon to the west. The territory has a land mass of 1,183,085 km².

The NWT has demonstrated its potential for tremendous economic activity, where government and private sector investors have capitalized on opportunities amid a rich and diversified resource base. Primary resource extraction is the foundation of the NWT economy. Since the 1930s, minerals have become the most important economic base, with all other economic activities except the service industry trailing behind.

The NWT's expanding industrial sectors include diamond mining, oil and gas industries, the production and sale of energy, a superior fur trade, planned pipeline construction and a significant tourism industry. In the new post-devolution environment, the GNWT has greater ownership and authority to promote the potential of the NWT's resource sector, tourism as well as its growing communications, transportation and energy infrastructure needs.

Services play a significant role in the economy, but manufacturing is negligible. Because royalties and other revenues from natural resource extraction are collected by the federal government, the territorial administration relies on funds transferred to it from Ottawa for most of its revenues.¹⁰ Government assistance in the development of major resources has been provided mainly in the form of roads, electric power facilities, mapping, and geologic services. Government departments and agencies produce and distribute electric power throughout the territories and provide certain transportation services.

With its small total population and internal demand, external policy and economic conditions have significant impact on NWT's growth rate. Growth has been erratic since 1966, reflecting the administrative transfer from Ottawa to Yellowknife, the ceding of territory for the creation of Nunavut in 1999 and the fluctuating interest in mineral resource development.

In 2013, there were approximately 22,500 employed people in the NWT (with 8.2% unemployment), most of whom (82.6%) had jobs in the service sector. These include: public administration (23.5%), business, finance and administration (21%), trades, transport, equipment (15%), management (10%), and health services (9%). Within the goods producing sector, construction (8.4%) and mining (6%) were the largest employers. It is projected that within the next six years one in every three new jobs created will be in trades, transport and equipment operator occupations, and that one in every five new jobs will be in business, finance and administrative occupations.¹¹

¹⁰ Devolution has changed this to some extent. Further details can be found at: <http://devolution.gov.nt.ca/>

¹¹ <http://www.ece.gov.nt.ca/files/pages/422/lmr12-14-websiteversion.pdf>

Diamond Industry¹²

The total value of mineral production in the NWT grew to over \$2 billion in 2010 from about \$6.8 million in 2000, a nearly 200% increase. Two of the diamond-producing mines opened during this 10-year period, accounting in large part for the increase in production value. The abundance of diamonds in this Territory makes it the third largest producer of rough-cut diamonds in the world, an industry worth \$1.7 billion. The GNWT committed its support to the industry and its pursuit to authenticate NWT diamonds mined, cut and polished in the NWT. This includes the Approved NWT Diamond Manufacturer certification and the GNWT Diamond Certification Program.

Resources Sector¹³

One of the priorities of the 17th Legislative Assembly is strengthening and diversifying the economy in an environmentally sustainable way. There are vast undeveloped oil and gas reserves. It is estimated that the NWT could hold as much as 37 percent of Canada's marketable light crude oil resources and 35 percent of its marketable natural gas resources.

Tourism¹⁴

Global, national and territorial forecasts indicate that the tourism economy is growing. In fiscal year 2012/2013 visitor spending in the NWT was \$106.7 million, an increase of six per cent over the previous year. Tourism is an important component of the territorial economy with each region offering unique visitor experiences and in turn economic opportunities for communities. The new tourism plan provides GNWT with direction to build on previous tourism investments made over the last five years under *Tourism 2015*. NWT Tourism promotes the NWT as a "spectacular" world-class tourist destination and has as its goal to increase the value of the tourism industry to \$130 million by 2015/2016.

Arts and Crafts¹⁵

Inuit prints and sculpture have established an international reputation and are a major source of employment. In 2008, about 9% of the population over the age of 15 produced arts and crafts, including large percentages of the population of the small Aboriginal communities of Kakisa and Trout River (about 40 per cent and 48 per cent, respectively).

¹² Historica Canada, The Canadian Encyclopedia, Northwest Territories, <http://www.thecanadianencyclopedia.ca/en/article/northwest-territories/>; GNWT, Industry, Tourism and Investment, Diamond Industry, <http://www.iti.gov.nt.ca/infopage/diamond-manufacturing>.

¹³ GNWT, Industry, Tourism and Investment, About Oil and Gas, <http://www.iti.gov.nt.ca/sectors/oil-gas> & <http://www.iti.gov.nt.ca/news/resource-potential-highlighted-offshore-technology-conference>.

¹⁴ GNWT, Industry, Tourism and Investment, Tourism, <http://www.iti.gov.nt.ca/sectors/tourism> & <http://www.iti.gov.nt.ca/content/tourism-2015>.

¹⁵ Historica Canada, The Canadian Encyclopedia, Northwest Territories, <http://www.thecanadianencyclopedia.ca/en/article/northwest-territories/>;

4.2. SOCIAL CONTEXT¹⁶

Yellowknife is the territorial capital, the largest community in the Northwest Territories, and is the government and service centre for the territory and much of the central Arctic. It is also the economic hub for mining and tourism activity. With the potential opening of the Northwest Passage, the prospects for additional air lift requirements for people and cargo in the medium to long term are positive.

The Northwest Territories is made up of small remote communities along with larger, increasingly urban communities that serve as government, business and industry and education centres. The most populous of the small urban centres in the NWT are located in the Mackenzie Valley area. Yellowknife was founded as a gold mining centre and became the territorial capital in 1967. While most of the settlements in the NWT are significantly smaller, they are important for a variety of reasons. Fort Smith, for instance, was the major administrative centre prior to Yellowknife becoming the capital, and remains central to the region. Hay River is a transportation and fishing centre. Behchokò is the largest Dene community in the NWT, while Inuvik is the major administrative and transportation centre for the western Arctic. Fort Simpson, once the centre of the fur trade, is located at the confluence of the Liard and Mackenzie rivers.

Its people are very much connected to their traditions through essential relationships with the land, animals and each other. Aboriginal peoples in the NWT have strong interests in maintaining their cultures and preserving their heritage. Aboriginal cultural institutes have been established in several communities, and many others have initiated programs to record the knowledge of elders, to teach children traditional skills and to maintain their languages. Music and art festivals are becoming increasingly popular in many parts of the NWT. Many community museums, historical societies and heritage groups operate within the NWT.

The cultural identities of the Dene, Métis and Inuvialuit remain strong. A smaller proportion of the population is non-Aboriginal in the smaller communities, while in the larger regional centers the non-Aboriginal proportion of the population is on the rise. In Yellowknife, non-Aboriginal residents make up the majority of residents and there is a growing immigrant population. While the larger communities contain the most residents, the smaller communities and their people remain central to defining the NWT. Many of the people living in smaller communities continue to earn at least part of their living by hunting, trapping and fishing.

The NWT has a relatively young, male-dominated population. Its population is mobile, with potential for significant outmigration from small, remote communities. According to the Arctic Social Indicators, the life expectancy of NWT residents is four years less than nationwide.¹⁷ The birth rate remains one of the highest in Canada, however (about 1.97 children per woman), which creates pressure for employment. Per capita household income varies greatly. ASI identifies wide variations between communities (\$13,009 in Gamètì; \$43,642 in Norman Wells). Yellowknife average household income is double the national average but residents also spend 50% more than the average Canadian home.

¹⁶ Historica Canada, The Canadian Encyclopedia, Northwest Territories, <http://www.thecanadianencyclopedia.ca/en/article/northwest-territories/>

¹⁷ Joan Nymand Larsen et co. Arctic Social Indicators – ASI II: Implementation, 2014 p. 102.

4.3. DEMOGRAPHICS AND ECONOMIC INDICATORS

There are 33 official communities in the Northwest Territories (NWT). With a population of over 44,000, the NWT is the most populous of the three territories in Canada. Yellowknife has a population of 20,470, representing almost half of the Territorial population¹⁸.

Yellowknife residents are well educated. Approximately 63% of the adults residing in Yellowknife have completed post-secondary education, as compared to 52% in NWT and 54% in Canada¹⁹.

AVERAGE INCOME

Type	Yellowknife	Canada
Family	\$146,736	\$74,540
Personal	\$68,067	\$31,320

(2012, Statistics Canada)

The average personal income among Yellowknife residents in 2011 was \$67,629, which is 21% higher than the average in the NWT and 59% higher than the national average²⁰. 2012 figures demonstrate the same trend.

The employment rate is also quite high. The City reports the 2011 employment level in Yellowknife to be 82.1% compared to 70.3% in the NWT and 61.8% in Canada.

The NWT's Gross Domestic Product (GDP) in 2014 was 3,830.2 million, representing a 6.8% increase over 2013²¹. The Conference Board²² forecasts that economic growth in the territories as a whole will grow to 5.3% in 2015 due to stronger investment in the mining sector. Public sector projects will also stimulate construction growth in all three territories. Specifically in the Northwest Territories, construction work on several new mines and public investment, as well as growth in wholesale and retail trade and financial services, is expected to drive growth in real GDP growth from 1.4 per cent in 2014 to 3.6 per cent in 2015. Stronger diamond production will help the Northwest Territories' economy, but prospects for more work on the Canol shale oil play have dimmed due to an exploration hiatus. In a separate report co-authored by the Conference Board it states: "... as the economy in the north grows, so too will demand for air services."²³



¹⁸ Source: NWT Bureau of Statistics

¹⁹ Source: City of Yellowknife

²⁰ Source: City of Yellowknife

²¹ Source: NWT Bureau of Statistics

²² Source: Conference Board of Canada News Release 14-51

²³ Source: *The Economic Impact of the Canadian Air Transportation Industry in Canada*, April 2013, SNC-Lavalin Inc. and the Conference Board of Canada

4.4. TERRITORIAL TRANSPORTATION SYSTEM

The Northwest Territories is served by all modes of transportation:

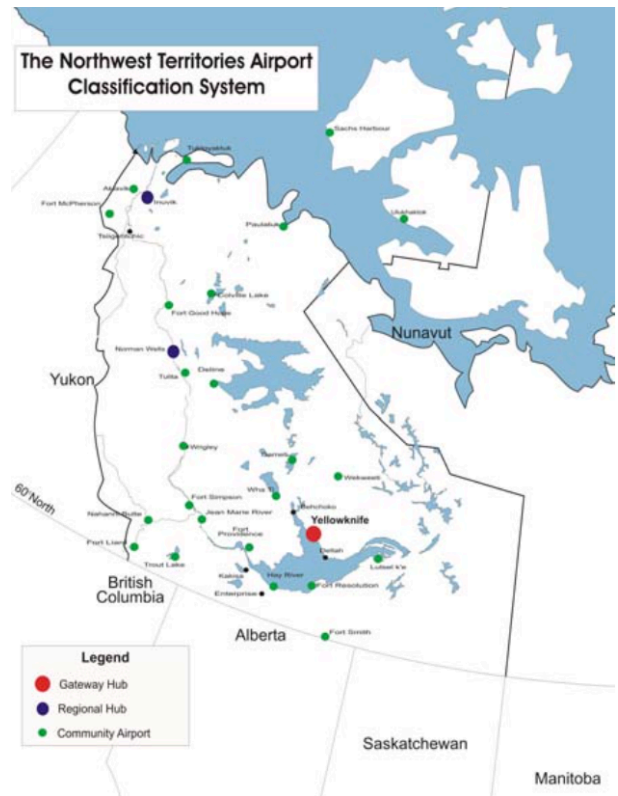
Air: There are 44 airports in the Northwest Territories (excludes heliports)²⁴. Nineteen (19) of these are certified aerodromes – a requirement for scheduled air service – and 25 are registered. The GNWT owns and operates 26 of the airports in the Territory. There are only three airports that provide customs services (Yellowknife, Tuktoyaktuk, and Inuvik).

The number of passengers getting on/off aircraft as a proportion of the city's population is much higher in Iqaluit and Yellowknife than in cities where other modes of transport are readily available²⁵.

Rail: Rail lines in the NWT, as in the rest of Canada's Arctic, are scarce, due largely to the small, widely dispersed population coupled with the climate that impacts the efficiency of rail infrastructure. Of the three northern territories, only the NWT has operating rail lines accounting for about 0.2% of the total rail lines in Canada²⁶. Hay River is home to the only rail line in the NWT, formally known as the Mackenzie Northern Railway. The 585 km line connects to Peace River, AB, and High Level (at the 310 km mark). CN operates one train north into Hay River six days a week, and one train back south.

Highways: There are eight highways in the NWT; a mix of paved and gravel. The longest highway is Highway 1 (the Mackenzie Highway) which starts at the NWT/AB border and continues approximately 690 km to Wrigley. The graphic shows the NWT highway system, including paved highways (solid red lines), gravel highways (dotted red lines), and winter roads (dotted blue lines).

Vehicle gasoline (unleaded, gas and propane) is available in most communities along the highway system, with repair facilities in larger towns; however distances between these services may be significant and hours of operation may be limited.



²⁴ Source: Canada Flight Supplement effective to 25 June 2015

²⁵ Statistics Canada "Transportation in the North", catalogues 16-002-X, Table 4 Propensity to travel by airplane 2006

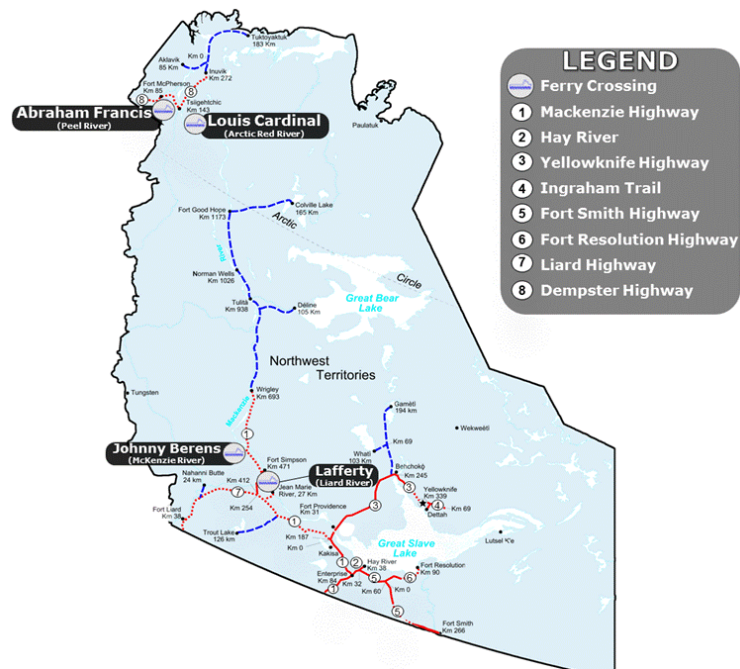
²⁶ Statistics Canada "Percentage distribution of Canada's rail network by province and territory, 2007", CANSIM Table 404-0011

Winter Roads and Ice Bridges:

Winter access roads are open from about mid-December to late March, but may vary with weather conditions and locations. Some of the winter roads are privately operated and maintained, offering no services (emergency or otherwise) and are used at the traveller's own risk.

Ice bridges provide safe crossing in the winter. Crossing service (ice bridges &/or ferry service) may be interrupted for several weeks at a time however when the river ice breaks up and in the fall at freeze-up.

Ferries: In the summer, free ferry services are provided at four river crossings: Fort Simpson (Liard River, Hwy 1, "Lafferty"); Ndulee (Mackenzie River, Highway 1, "Johnny Berens"; Peel River, (Highway 8, "Abraham Francis"); and Tsiigehtchic (Mackenzie River, Highway 8, "Louis Cardinal").



4.5. MAJOR EMPLOYERS

Major employers in Yellowknife include but are not limited to: The NWT Government, City Of Yellowknife, Dominion Diamonds, Diavik Diamond Mine, Tlicho Investment Corporation, Deton Cho Corporation, Walmart, Canadian Tire and Canadian North.

5. YELLOWKNIFE AIRPORT'S ECONOMIC IMPACT 2014

5.1. INTRODUCTION

To protect the confidentiality of information provided by survey respondents, their information has been aggregated into categories of activity. All impacts quoted, unless otherwise noted, include those from respondent organizations and inferred impacts from non-respondent organizations.

The use of multipliers is described in Appendix B.

5.2. EMPLOYMENT

Direct

Direct employment at the airport was calculated in terms of full-time equivalents (FTEs). The conversion from jobs to FTE, where necessary, was based on an available 2080 working hours per year (40 hours a week, 52 weeks per year).

Tenants, concessionaires, service providers and organizations based at the airport were asked to report employment directly related to activities at the airport. Inferred employment calculations for non-respondent firms can be found at Appendix A.

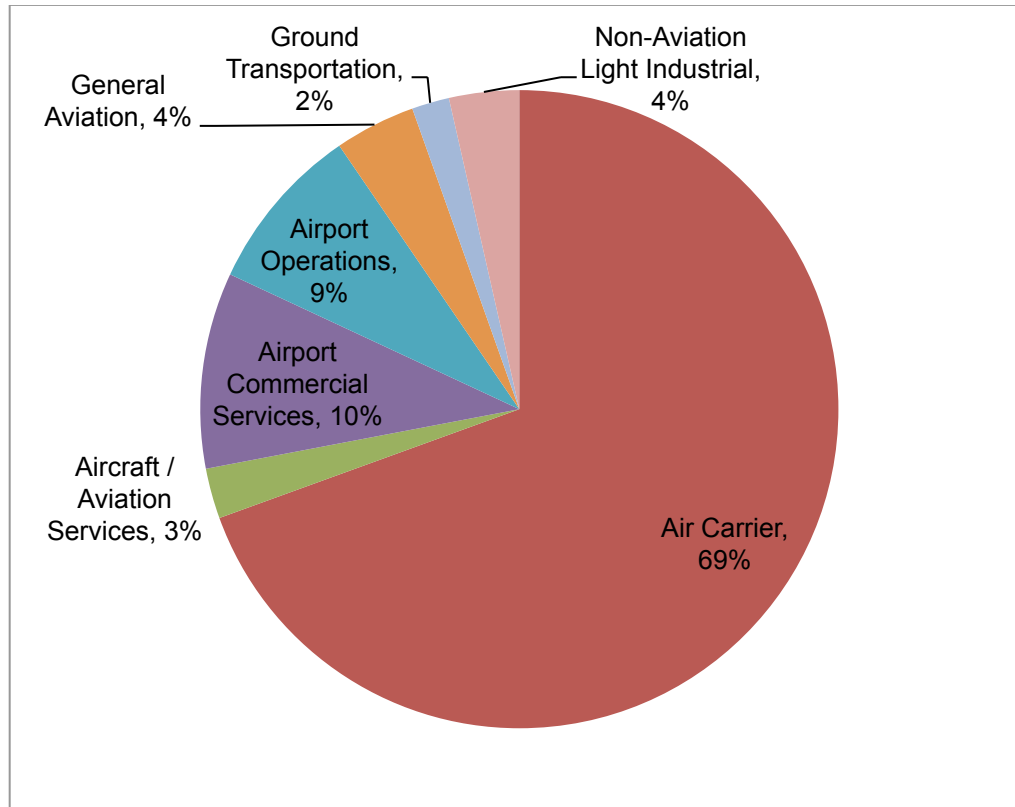
There are **one thousand full time equivalent (FTE) directly jobs** at the Yellowknife Airport. Table 5 shows the distribution of direct employment at YZF in 2014.

Table 5. Distribution of Direct Employment at YZF (2014)

Activity Category	FTE 2014
Air Carrier (scheduled and charter (incl. ground handlers and air cargo))	695
General Aviation	41
Airport Commercial Services	99
Aircraft / Aviation Services	26
Airport Operations	85
Ground Transportation	19
Other Non-Aviation Industrial / Commercial	36
TOTAL	1,001

Air Carrier is the largest activity category as measured by direct employment, followed by Airport Commercial Services, and Airport Operations.

Figure 8. YZF Distribution of Direct Employment (2014)



Indirect

Indirect employment was calculated by using a multiplier applied to the direct effects in an open model, less the direct effects. Different multipliers were used for different activity categories.²⁷

Indirect employment at YZF in 2014 is estimated at 323 FTE jobs.

Induced

Induced employment was calculated by using a 'total' multiplier applied to the direct effects less the direct and indirect effects. Different multipliers were used for different activity categories.

Induced employment at YZF in 2014 is estimated at 748 FTE jobs.

²⁷ The use of multipliers is described in Appendix B.

Employment Summary

Table 6 summarizes the 2014 employment impacts at YZF.

Operations at YZF directly employ almost 1,000 people on a full-time basis. In addition, when accounting for indirect and induced effects, slightly over **2,000** people are employed because of activities on airport property.

For every 10,000 passengers, there are 18 direct full time jobs.

Table 6. 2014 Employment Impacts at YZF

Activity Category	Direct	Indirect	Induced	Total
Air Carrier (scheduled and charter (incl. ground handlers))	695	251	634	1,580
General Aviation	41	15	37	93
Airport Commercial Services	99	12	20	131
Aircraft / Aviation Services	26	2	2	29
Airport Operations	85	31	27	143
Ground Transportation	19	5	10	34
Other Non-Aviation Industrial / Commercial	36	8	17	61
TOTAL	1,001	323	748	2,072

5.3. LABOUR INCOME

Direct

Tenants, concessionaires, service providers and organizations based at the airport were asked to report employment earning and wages for their employees directly involved in activities at the airport. Very few organizations reported labour income figures. Inferred labour income calculations for non-respondent firms can be found at Appendix A.

It is estimated that activity at YZF directly contributes \$72 million in labour income. This equivalent on average to \$71.6K per FTE. Table 7 shows the distribution of direct labour income at YZF in 2014.

Table 7. Distribution of Direct Labour Income at YZF (2014)

Activity Category	Labour Income 2014
Air Carrier (scheduled and charter (incl. ground handlers))	\$ 50M
General Aviation	\$ 3M
Airport Commercial Services	\$ 7M
Aircraft / Aviation Services	\$ 1M
Airport Operations	\$ 7M
Ground Transportation	\$ 1M
Other Non-Aviation Industrial / Commercial	\$ 3M
TOTAL	\$ 72M

Air carrier is the largest activity category as measured by direct labour income, followed by Airport Commercial Services, and Airport Operations.

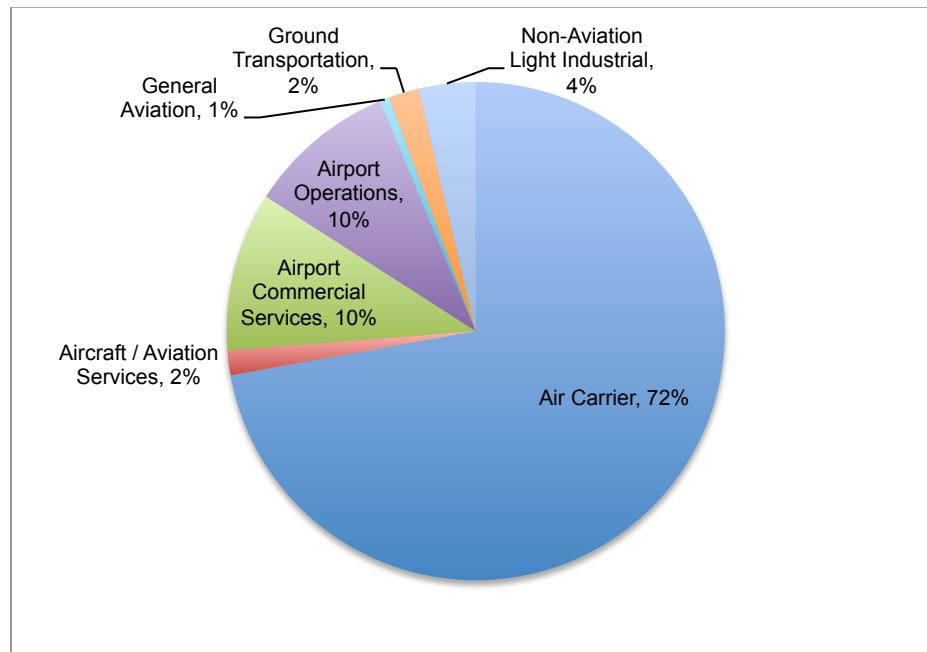
Indirect

Indirect labour income was calculated by using a multiplier applied to the direct effects in an open model, less the direct effects. Different multipliers were used for different activity categories. **Indirect labour income at YZF in 2014 is estimated at \$24 million.**

Induced

Induced labour income was calculated by using a 'total' multiplier applied to the direct effects less the direct and indirect effects. Different multipliers were used for different activity categories. **Induced labour income at YZF in 2014 is estimated at \$50 million.**

Figure 9. Distribution of Direct Labour Income at YZF (2014)



Labour Income Summary

Table 8 summarizes the 2014 labour income impacts at YZF.

Persons employed at YZF **directly earn just over \$70 million** which combined with indirect and induced effects mean that approximately **\$145 million** is earned because of activities on airport property.

Table 8. 2014 Labour Income Impacts at YZF (\$M)

Activity Category	Direct	Indirect	Induced	Total
Air Carrier (scheduled and charter (incl. ground handlers))	\$ 50	\$ 18	\$42	\$111M
General Aviation	\$3	\$ 1	\$3	\$7M
Airport Commercial Services	\$7	\$1	\$2	\$10M
Aircraft / Aviation Services	\$ 1	\$0	\$1	\$2M
Airport Operations	\$ 7	\$2	\$2	\$10M
Ground Transportation	\$ 1	\$0	\$1	\$2M
Other Non-Aviation Industrial / Commercial	\$3	\$1	\$1	\$5M
Total	\$ 72M	\$24M	\$50M	\$146M

5.4. OUTPUT

Direct

Tenants, concessionaires, service providers and organizations based at the airport were asked to report direct output (components of sales of goods and services, including that of the Airport Authority) directly related to activities at the airport. Very few organizations reported direct output figures. Inferred output calculations for non-respondent firms can be found at Appendix A.

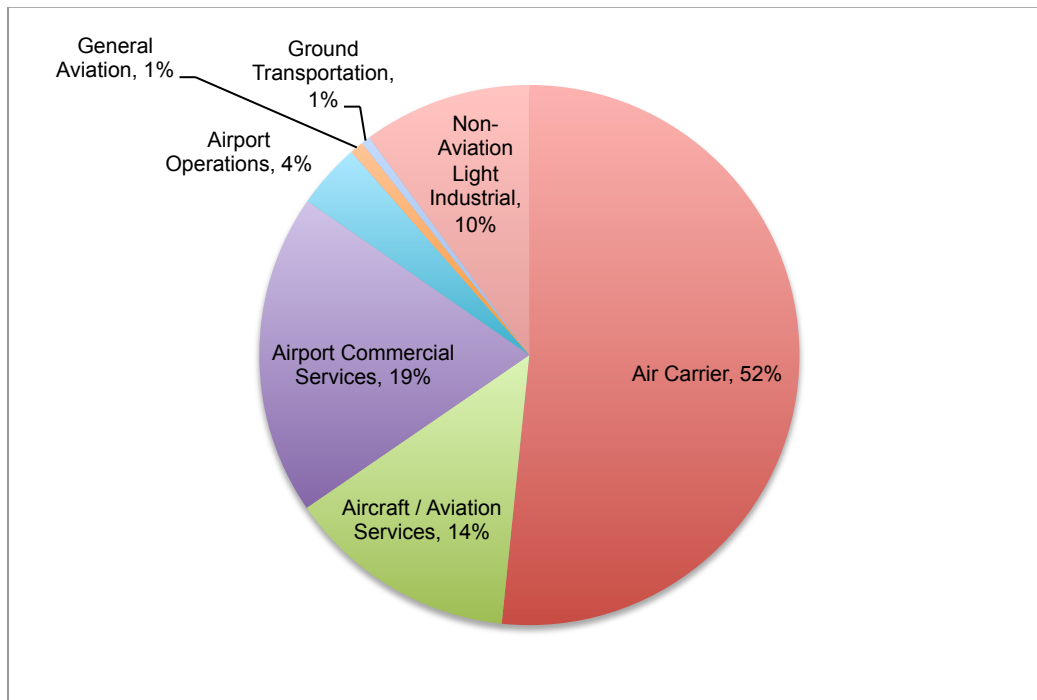
It is estimated that activity at YZF **directly contributes \$364 million in direct output**. Table 9 shows the distribution of direct output at YZF in 2014.

Table 9. Distribution of Direct Output at YZF (2014)

Activity Category	Output \$M 2014
Air Carrier (scheduled and charter (incl. ground handlers)	\$188M
General Aviation	\$3M
Airport Commercial Services	\$70M
Aircraft / Aviation Services	\$50M
Airport Operations	\$14M
Ground Transportation	\$2M
Other Non-Aviation Industrial / Commercial	\$37M
Total	\$364M

Air carrier is the largest activity category as measured by direct gross output, followed by airport operations, airport commercial services, aircraft / aviation services, and other non-aviation industrial/commercial. Put another way, there is approximately \$677 in direct gross output generated on a per passenger basis.

Figure 10. Distribution of Direct Output at YZF (2014)



Indirect

Indirect output was calculated by using a multiplier applied to the direct effects in an open model, less the direct effects. Different multipliers were used for different activity categories. **Indirect output at YZF in 2014 is estimated at \$80 million.**

Induced

Induced output was calculated by using a 'total' multiplier applied to the direct effects less the direct and indirect effects. Different multipliers were used for different activity categories. **Induced output at YZF in 2014 is estimated at \$167 million.**

Output Impacts Summary

Table 10 summarizes the 2014 gross output impacts at YZF.

Organizations based at YZF **directly produce over \$360 million** in gross output which combined with indirect and induced effects mean that slightly more than **\$610 million** is produced because of activities on airport property.

Table 10. 2014 Gross Output Impacts at YZF

Activity Category	Direct	Indirect	Induced	Total
Air Carrier (Scheduled and Charter (Incl. Ground Handlers))	\$188	\$59	\$133	\$370M
General Aviation	\$3M	\$1M	\$2M	\$6M
Airport Commercial Services	\$70	\$15	\$11	\$95M
Aircraft / Aviation Services	\$50	\$8	\$11	\$68M
Airport Operations	\$14	\$4	\$1	\$19M
Ground Transportation	\$2	\$1	\$0	\$3M
Other Non-Aviation Industrial / Commercial	\$37	\$4	\$10	\$51
Total	\$364M	\$80M	\$167M	\$612M

5.5. GDP

Direct

Gross Domestic Product (GDP) is calculated using economic multipliers applied to direct output previously estimated. Different multipliers were used for different activity categories. \$359 million in direct output is estimated to produce **\$170 million in direct GDP**.

Indirect GDP

Indirect GDP was calculated using economic multipliers applied to direct GDP and results in an estimate of **\$42 million in indirect GDP**.

Induced GDP

Induced GDP was calculated using economic multipliers applied to direct GDP and results in an estimate of **\$92 million in induced GDP**.

GDP Summary

Table 11 summarizes the 2014 GDP impacts at YZF.

Organizations based at YZF **directly produce just over \$170 million** in GDP which combined with indirect and induced effects mean that approximately **\$305 million** is produced because of activities on airport property.

Table 11. 2014 GDP Impacts at YZF (\$M)

Activity Category	Direct	Indirect	Induced	Total
Air Carrier (scheduled and charter (incl. ground handlers))	\$56	\$24	\$64	\$145M
General Aviation	\$1M	\$0	\$1M	\$2M
Airport Commercial Services	\$39	\$8	\$15	\$ 63M
Aircraft / Aviation Services	\$38	\$5	\$5	\$48
Airport Operations	\$8	\$3	\$2	\$13M
Ground Transportation	\$1	\$0	\$1	\$2M
Other Non-Aviation Industrial / Commercial	\$28	\$2	\$4	\$34M
Total	\$171M	\$42M	\$93M	\$307M

5.6. TAXES

There are many taxes associated with activities at the airport. Passengers pay some of those, others are paid by commercial operators at the airport and by their employees. These are summarized below:

- Statistics Canada provides Average Expenditure Statistics for households in each province and territory²⁸. In the NWT, the average household spends 21% of their income on personal income taxes. By applying this percentage to the \$69 million in earnings directly associated with activity at the airport activity, we conclude that approximately **\$14.5 million in direct personal income taxes** was remitted to the territorial and federal governments in 2014.
- Statistics Canada also reports that the average household in the NWT spends 24% of their income on retail goods and services. By applying 5% **GST** (no provincial/territorial sales tax in the NWT) to the amount spent on retail goods and services, we estimate that \$828K in direct GST was paid to the federal government by persons employed on airport property. Additionally, passengers pay GST tax on their retail and concession purchases at the airport: this is estimated at \$3.3M. GST is also paid by passengers on airfares; this is estimated at \$9M million.
- In 2014, the GNWT remitted **\$657K in payments in lieu of property taxes** to the City of Yellowknife.
- Airport tenants and based organizations also pay **\$1.1 million in property taxes** to the City of Yellowknife, as well as corporate income taxes. The combined federal / territorial

²⁸ NWT Bureau of Statistics based on Statistics Canada's Survey of Household Spending

corporate tax rate is approximately 23%. Using gross output of \$364 million, and net income estimates of 12% of gross output, we can estimate that the organizations based at YZF pay approximately **\$10 million in corporate tax**.

- All employers at the airport are required to pay payroll taxes including Canada Pension Plan (CPP), employment insurance (EI), and worker's compensation. These are estimated at **\$4.3 million**²⁹.
- Air passengers are also levied, through the **Air Travellers Security Charge (ATSC)** which is applied to the price of their airline ticket, to cover the cost of security screening services. Currently the ATSC is set at \$7.12 for a one-way domestic trip. Using the passenger traffic at YZF, we estimate that in 2014, departing passengers paid approximately \$1.36 million in ATSC.
- The NWT levies an aviation fuel tax of 1 cent per litre of aviation fuel (jet fuel) sold³⁰. It is estimated that the territory collected approximately **\$97K** in aviation fuel tax in 2014 due to activities at YZF.

5.7. CAPITAL ASSETS

The capital assets owned and operated by the GNWT as the Airport Operator had a book value of \$43.548M at the end of 2014.

While some tenants and based organizations provided information regarding the value of their capital assets at the airport, there was insufficient information to estimate the total value of the capital assets owned by these organizations.

5.8. SUMMARY

Table 12. Summary of Economic Impacts at YZF - 2014

Measure	Direct	Indirect	Induced	Total
Employment (FTE)	1,001	323	748	2,072
Labour Income	\$72 million	\$24 million	\$50 million	\$146 million
Gross Output	\$364 million	\$80 million	\$167 million	\$612 million
GDP	\$171 million	\$42 million	\$93 million	\$307 million

5.9. RECURRENT OPERATIONS

Even without airport development, the airport would continue to generate recurrent impacts based on ongoing operations. Over the past five years, YZF has seen passenger traffic grow at

²⁹ CPP maximum \$2480/pp; EI max \$931/pp employee ; WCB \$0.014 x earnings

³⁰ Northwest Territories Fuel Tax Rates published December 18, 2014 www.fin.gov.nt.ca

an average annual rate of 3%. At an estimated direct gross output of \$678 per E/D passenger, by the year 2019, operations at YZF can be expected to generate approximately \$418.7 million. This in turn equates to approximately 1,460 FTE directly employed at the airport.

6. SOCIO-ECONOMIC CONTRIBUTION

As noted in the introduction to this study, it isn't just about numbers – the Yellowknife Airport provides key socio-economic benefits to residents, businesses and visitors.

6.1. CONNECTIONS AND ACCESS FOR REMOTE COMMUNITIES

Air transportation connectivity impacts trade, investment, and labour productivity.



Air transportation also provides key access to remote northern communities where air provides the only safe year-round access. Air transportation is also relied upon for the delivery of necessities such as food products. Air transportation therefore becomes critical to the livelihood of Canadians living in these northern communities.

6.2. PART OF THE TERRITORIAL TRANSPORTATION SYSTEM

YZF plays an essential role in the economic growth of the north, serving approximately 270,000 travellers within the territory each year, and acting as a gateway to the NWT.

6.3. EMERGENCY RESPONSE AND HUMANITARIAN RELIEF

Air service / medevac from YZF is a critical component of the health care system. The airport is necessary in supporting the movement of specialized emergency personnel, equipment and supplies. While difficult to quantify, there are many examples of how the availability of medevac services result in increased survival rates.

Fixed wing ambulances (and thus airports) are the primary method of patient transfer; and helicopter air ambulances are used to access remote locations, when patients cannot be transferred to an airport or when it is the most expedient method.

Not only are air ambulance services used for critical care patient transfer, but air transportation is essential in providing territorial residents with access to specialized medical services, such as MRIs in Edmonton. There are four dedicated MED-Response aircraft (three based at YZF) that operate between NWT and predominantly Edmonton. Scheduled service is used for the movement of patients between NWT and major medical centres for access to specialized physicians and equipment. There were 13,000 MED-Travel cases in 2014 (10,000 to YZF and 3,000 to YEG). The number of cases is not anticipated to change in the near future.

Airports are not only key in providing essential health care services to a community, but simply having access to medevac services assists in recruiting new doctors (in a very competitive environment), and transporting locum physicians.

6.4. POLICING / LAW ENFORCEMENT / COURTS

The RCMP have 23 detachments in the Northwest Territories, of which 10 are on the road system. RCMP Air Services provides all RCMP travel requirements into these communities to support police operations which include: moving relief Members, transfers, major crime investigators, emergency response teams, and prisoner transfer. By using their own aircraft versus commercial air transport, the RCMP save days of travel as well as significant financial resources due to less time in hotels and overtime for Members. An example of this savings is travelling to Fort Liard which would be a nine hour drive from Yellowknife (one-way) compared to a 2.5 hour return flight. The RCMP move approximately 1,200 – 1,500 people a year by air, and a typical day involves on average 3-5 movements, but up to 8.

YZF is also very important to the function of the Department of Justice for court services. Generally court parties comprising four people (judge, clerk, Crown and defence attorneys and perhaps others such as social services) use scheduled service, however they also often use charters. The court parties travel every two weeks resulting in two flights out and two return every two weeks (48-52 sectors / year). If YZF were not available, the Department of Justice could not fulfil its mandate, as defendants are entitled to be tried by their peers in the community where the incident has taken place.

6.5. CONSERVATION / AERIAL FOREST FIRE FIGHTING

Aviation is considered a critical aspect of the Government of the Northwest Territories, Department of Environment and Natural Resources (ENR)'s forest fire management program.

The loss of forest can significantly impact local wood supply, and large fires can cause individual communities to be isolated and to disrupt utility corridors for days at a time.

In the Northwest Territories, aerial fire fighting services including water bombing, initial / helitack, prescribed burns, fire mapping, bird dog and detection, and crew and supply transport are provided under contract by Buffalo Air. The main firefighting assets, four CL-215 Skimmer Air Tanker aircraft, are owned by GNWT and split into two Air Tanker Groups (each with its own Bird dog aircraft provided by Buffalo Air) located in Fort Smith and Yellowknife, NT Air Tanker Bases. ENR has one Intermediate helicopter (under contract from Great Slave Helicopters) based at YZF where ENR has a Helibase with 3 helipads to accommodate additional helicopter assets as operationally required. ENR has up to two wildland firefighting crews (5 people in a crew) that will be positioned at the helibase during red alert periods for immediate deployment out to initial attack a wildland fire they are tasked to respond to. YZF is also the main logistic base for fuel, spares and fire retardants.

Aerial fire fighting demand is dependent on the current wildland fire danger levels during each wildland fire season. The use of the airport for aerial fire fighting activities is dependent on the number of fires in a given year. ENR (through its contracted resources) responds to approximately 60 – 85 wildland fire incidents each year. Each incident might involve one or more assets undertaking one or multiple operations depending on the scale of the fire.

If the airport were unavailable, ENR could operate out of other airports; however this would increase the response time when responding to fires, and increase aircraft operating costs as the aircraft would have to travel a longer distance. The increased response time would likely result in serious consequences, including potentially increased loss of human life, property (i.e. communities and other infrastructure), natural resources (i.e. primary wildlife habitat, commercial timber areas and endangered species areas) and cultural resource values (i.e. historical/archaeological sites, and culturally significant areas).

6.6. ECONOMIC DEVELOPMENT IN THE NORTH / SUPPORT TO RESOURCE BASED INDUSTRY

YZF is key to developing the NWT through oil and gas, and mining exploration and exploitation. As the economy in the north grows, so will demand for air services.

Mining companies are reliant on air transportation to bring their itinerant crews into Yellowknife as well as to move them between Yellowknife and the mining sites. Crews work on two week rotations. It is estimated that approximately 500 – 800 workers (~ 50% of the workforce) come in and out of Yellowknife every two weeks.

There are many businesses that provide support to the resource industry and require air transport to do so. For example, KBL Environmental provides waste removal and treatment services, and uses YZF approximately 26 times a year to ship waste from mining sites. If YZF were not available, the services would be provided out of Edmonton, which would increase costs, and the currently local employment would be lost. Additionally, this waste would need to be transported by winter road which causes logistical issues receiving a year's worth of waste in only several months.

6.7. SUPPORTING TOURISM

Air transportation is a critical enabler of the tourism industry. Spending by air passengers on their trips can be considered a downstream or catalytic impact of the air transportation industry. In 2013/14, 91,810 people visited the Northwest Territories, and 80% of those by air through YZF (73,500). These visitors spent over \$10.5 million. In the winter, most of the visitors come from Asia, via Calgary; and the European market is important in the summer. NWT Tourism considers YZF as “critical infrastructure”. NWT Tourism tracks the tourism travel by segment, including travel through YZF: All of the visitors coming to see the northern lights travel through YZF; 90% of those coming to fish; 90% of business travel; 30% of general touring travel; 50% of adventure travel; and 90% of visiting friends and family. A strong air transport system also enables Yellowknife residents to travel outside of the Region, the Territory, and the country.

7. SUMMARY

YZF provides significant economic and transportation benefits and is an integral part of the local, regional and territorial economy.

Table 13 summarizes the economic benefits of YZF as measured in 2014. Indirect and induced impacts were determined using NWT Bureau of Statistics' input/output multipliers.

Table 13. Summary of Economic Impacts at YZF – 2014

Measure	Direct	Indirect	Induced	Total
Employment (FTE)	1,001	323	748	2,072
Labour Income	\$72 million	\$24 million	\$50 million	\$146 million
Gross Output	\$364 million	\$80 million	\$167 million	\$612 million
GDP	\$171 million	\$42 million	\$93 million	\$307 million

Table 14. Additional Economic Impact Measures (2014)

Measure	2014
Passengers (E/D)	532,688
Direct Output per E/D Passenger	\$678
Direct Output per Landing	\$13,658
Direct Output per FTE	\$373,856
Direct Wages per FTE	\$72K
Direct FTE per 10,000 E/D passengers	18
Number of Landings required for an increase in one full-time job	27

Overall, with 1,000 full time jobs, and \$364 million in direct output, YZF is a powerful economic generator for the City of Yellowknife and the Northwest Territories. The airport is a gateway to the Territory and the Arctic, and plays a major role in supporting industry, tourism and the overall quality of life in the North.

Appendix A – Inferred Economic Impact Calculations

EMPLOYMENT

For the most part, employment estimates for non-respondent organizations were based on figures provided by the GNWT as the Airport Operator, or by “like” organizations. Where this was not possible, or received data was considered to be an “outlier”, the Consultant used other methods to infer employment figures, as described below.

Air Carriers and Ground Handlers

All but two carriers provided direct employment figures. The GNWT/YZF provided estimates for one non-respondent firm;

Aircraft / Aviation Services

Fourteen of the aircraft / aviation service providers reported employment figures. The GNWT/YZF provided estimates for the non-respondent firms.

General Aviation

One general aviation organization (corporate) reported employment figures. The GNWT/YZF provided estimates for the non-respondent firms. No employment figures were estimated for private aircraft owners.

Airport Commercial Services

Five commercial service providers provided employment figures. The average of these respondent firms was used to estimate the employment levels for “like” non-respondent firms, and where this was not possible, the GNWT/YZF provided estimates for the remaining non-respondent firms.

Airport Operations

Three of the organizations involved in airport operations provided employment figures. The GNWT/YZF provided estimates for the non-respondent firms.

Ground Transportation

Three of the organizations involved in non aviation light industrial / commercial operations provided employment figures. The GNWT/YZF provided estimates for the non-respondent firms.

Non-Aviation Light Industrial

Two of the organizations involved in non aviation light industrial / commercial operations provided employment figures. The GNWT/YZF provided estimates for the non-respondent firms.

LABOUR INCOME

For the most part, wage estimates for non-respondent organizations were based on figures provided by the 'like' organizations. Where this was not possible, or received data was considered to be an 'outlier', other methods were used below to infer labour income impacts, including the use of multipliers from NWT Bureau of Statistics that relate income to direct output in various industries, and/or the use of an average weekly earnings rate for the NWT..

According to Statistics Canada, the average weekly employment income in 2014 in the NWT was \$1,381.37.

Air Carriers and Ground Handlers

None of the carriers provided direct labour income figures. The scheduled carrier output is therefore based on calculations using NWT average weekly earnings.

Aircraft / Aviation Services

Two of the aircraft / aviation service providers reported labour income figures. The per employee wage rate provided was used for 'like' non-respondent firms. For other firms, an estimate was based on a calculation using NWT average weekly earnings.

General Aviation

None of the general aviation organizations reported labour income figures. Estimates for non-respondent organizations were based on calculations using NWT average weekly earnings.

Airport Commercial Services

None of the commercial services organizations reported labour income figures. Estimates for non-respondent organizations were based on calculations using NWT average weekly earnings

Airport Operations

One organization involved in airport operations provided labour income figures. Average weekly wage rates in NWT were used for non-respondent firms.

Non-Aviation Light Industrial

None of the organizations provided labour income figures. using NWT average weekly earnings

GROSS OUTPUT

The NWT Bureau of Statistics provides multipliers that relate direct gross output to employment. These multipliers (different for various activity categories), were used in the absence of any other method as described below.

Air Carriers and Ground Handlers

Two of the carriers and charter operators provided direct gross output figures. The scheduled carrier output is therefore based on passenger traffic for each carrier and the average one-way fare per destination.

Aircraft / Aviation Services

Estimates for non-respondent firms were based on information provided by 'like' firms.

General Aviation

None of the general aviation organizations reported output figures. Estimates for non-respondent organizations were based on multipliers or on pass-through of wages for government GA operators.

Airport Commercial Services

Three commercial service providers provided output figures. Sales provided to GNWT/YZF for concession fee calculations were used where possible for non-respondent firms; otherwise multipliers were used.

Airport Operations

Gross output for several airport operations organizations was provided through the survey or through annual reports.

Direct output related to the air navigation services provided at YZF was estimated based on NAV Canada's Terminal Fee Revenues in 2014³¹ factored by the YZF contribution to national movements as measured by NAV Canada and published by Statistics Canada. This is a conservative approach as it excludes other commercial, private and government operations. It also excludes en-route charges.

To estimate the output associated with security services, the 2014 CATSA rate schedule by segment was applied to passengers departing YZF in each segment.

A straight pass-through was applied to the total wages reported by other government organizations (e.g., customs and border control).

Non-Aviation Light Industrial

The NWT Bureau of Statistics multipliers were used for non-respondent industrial / commercial organizations.

³¹ NAV Canada 2014 Annual Report (\$464M in terminal charge revenues)

Appendix B – Economic Multipliers

The multipliers summarized below represent the economic multipliers and supply ratios for the NWT Bureau of Statistics using the 2008 NWT Input-Output (I/O) Model. Information is provided for the Open forms of the model³².

NWT Industry Intensity Ratios - Open Model – Total Direct and Indirect Impacts (Table 1)

INDUSTRY TITLE	GDP at Basic Prices per Dollar of Output	Labour Income per Dollar of Output	Jobs per \$ million of Output
Construction	0.46	0.33	3.5
Transportation (other)	0.36	0.27	3.5
Repair and Maintenance	0.62	0.58	12.9
Accommodation and Food Service	0.58	0.45	10.7
Repair and Maintenance	0.829	0.597	0.113
Transit, ground passenger transportation	0.65	0.47	13.7
Government Sector	0.74	0.58	6.0

* Intensity ratios calculated by dividing total impact by the change in output

The following national multipliers were provided by Statistics Canada.

Input-Output National Multipliers, 2009 – Direct Effects (Table 4.3)

INDUSTRY TITLE	GDP at Basic Prices	Labour Income	Employment	Gross Output
Air transportation	0.3	0.21	0.41	1.90

* Industry multipliers calculated by taking the total impact observed for a change in an economic variable and dividing it by the direct change.

The government of Yukon's economic multiplier calculator was used to validate calculations and to fill any data gaps.

³² "NWT Economic Multipliers" published in July 2012 by NWT Bureau of Statistics.

Appendix C – Airport Tenant / Concessionaire / Based Organization List

CURRENT YZF TENANT / BASED ORGANIZATION		
4912 NWT Ltd.	Garda Security Screening	Private aircraft owners
5735 NWT Ltd.	GNWT / YZF	Private Sky Aviation
Aurora Village	Great Slave Helicopters	PWGSC
Air North Partnership	GSC	Quiznos
Air Tindi	GT Technology	Royal Canadian Mounted Police
Alanco Holdings	Hay River Liquor Retailers	RS Cleaning
Aurora Taxi	Hub Publications	Scarlet Security Services
Braden Burry Expediting	Imperial Oil	Shell Canada
Budget Rent-A-Car	Jazz Aviation	Strategic Aviation Services
Buffalo Airways	KBL Environmental	Summit Air
Canada Border Services Agency	Kingland Ford	Summit Helicopters
Canada Post Corporation	La Federation franco-Tenoise	Suncor Energy
Canadian North	Landa Aviation	Superior Propane
City Cab	Larga Kitmeot	Ted Yaceyko
Darryl's Shuttle Service	Matrix Aviation Solutions	Ted's U-Drive
Department of Industry, Tourism & Investment	Metcor	Territorial Beverages
Department of National Defence	Midnight Sun Energy	Tetra Tech EBA
Department of ENR	NAV Canada	TH Janitorial
Deton' Cho Logistics	Northern Frontier Visitor's Centre	Tilden Rent-A-Car
Diamond Air	Northern News Services Ltd.	Tundra Transfer
Diamond Glass	Northern Star Aviation	Twilite Security
Diavik Mines	Northwest Transport	Up Here Publishing
Dominion Diamond Marketing	North-Wright Airways	Ursus Aviation
Esso	Northwestern Air Lease	We Le Dai
First Air	NWT Floatplane Association	WestJet
Fuel Flo Logistics	Partner Properties	Yellowknife Golf Club
G&E Expediting	Petersen & Auger	

Appendix D – List of Organizations and Stakeholders Contacted

The following organizations and stakeholders were contacted by the Consultant concerning the impact of the airport in terms of, economic, business, social and operational development. While all organizations / people were contacted, most but not all were available for interview.

ORGANIZATION	PERSON	TITLE
GNWT	Sandy Kalgutkar	Deputy Secretary of the Financial Management Board
GNWT	Delia Chesworth	Director, Airports Division
GNWT	Michael Conway	Regional Superintendent, North Slave Region
GNWT	Lee Stroman	Regional Airport Manager, YZF
GNWT	Peter Vician	Deputy Minister, Industry, Tourism & Investment
GNWT	Kevin Todd	A/ADM – Director, Investment & Economic Analysis
NWT & Nunavut Chamber of Mines	Tom Hoefer	Executive Director
NWT Chamber of Commerce	Mike Bradshaw	Executive Director
City of Yellowknife	Jeffrey Humble	Director of Planning & Development
GNWT	Gerri Saville	Department of Justice (Supreme Court)
GNWT	Carol Bucknor	Territorial Health Authority, Med-Response & Med-Travel Coordinator
NWT Tourism	Cathie Bolstad	Executive Director
GNWT	Duane Sinclair	Manager, Aviation Services, Forest Management Division, Department of Environment and Natural Resources
Aurora College	Heather McCagg-Nystrom	VP Community and Extensions