

***A SOCIO-ECONOMIC
IMPACT ASSESSMENT OF
SELECT ALBERTA AIRPORTS***

Prepared for
Aviation Alberta

RP ERICKSON & ASSOCIATES
AVIATION CONSULTANTS
CALGARY, ALBERTA, CANADA

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EXECUTIVE SUMMARY

ECONOMIC IMPACT

This report documents the socio-economic impact of 12 airports located throughout the province; the airfields represent 4 'Tiers' of airports differentiated on the basis of aviation activity and on-site users. In total, some 275 on-airport firms were canvassed with a 98 percent success rate for the data fields sought.

The economic impact of the survey airports has been measured by employment (in terms of full-time equivalents (FTEs)), labour income, and value-added Gross Domestic Product (GDP). Direct, indirect and induced forms of activity have been considered for calendar year 2003.

The airports reviewed were:

	<u>Tier I</u>	<u>Tier II</u>	<u>Tier III</u>	<u>Tier IV</u>
North	Peace River	High Level	Manning	La Crete
Central	Red Deer	Lloydminster	Drumheller	Bashaw
South	Lethbridge	High River	Taber	Coutts

All Tier I airports provide significant economic benefits to the communities they serve - in effect, they are local 'economic engines'. In 2003 on average, each Tier I airport provided roughly 300 direct FTEs, a labour income of nearly \$15 million, and a total impact of over \$45 million. All Tier I airports operate in a deficit circumstance for their annual operating and maintenance budgets: on average local municipalities were contributing some \$77,000 p.a. None have the financial resources to fund their capital funding requirements over the next 10 years.

All Tier II airports provide significant economic benefits to the communities they serve. In 2003 on average, each Tier II airport provided roughly 30 direct FTEs, a labour income of nearly \$2 million, and a total impact of over \$7 million. All Tier II airports operate in a deficit circumstance for their annual operating and maintenance budgets: on average local municipalities were contributing some \$21,000 p.a.. Two of the study airports do not have the financial resources to fund their capital funding requirements over the next 10 years.

All Tier III airports provide economic benefits to the communities they serve. In 2003 on average, each Tier III airport provided roughly 9 direct FTEs, a labour income of nearly \$500,000, and a total impact of nearly \$2 million. All Tier III airports operate in a deficit circumstance for their annual operating and maintenance budgets: on average local municipalities were contributing some \$45,000 p.a. None have the financial resources to fund their capital funding requirements over the next 10 years.

In light of the fact that none of the Tier IV airports provided any aviation services, nor enjoyed any on-site commercial businesses - it is not surprising that there was no measurable economic activity attached to any of the study airports. Any future capital investments will require assistance from outside the local community.

ADDITIONAL ECONOMIC BENEFITS

Airports in the survey generate significant positive impacts and off-site economic benefits related to non-resident visitor spending by travellers arriving in the community by air. These benefits provide a customer base for tourism, convention and other hospitality sector operators. More northerly or isolated airports generate substantial non-resident spending patterns from transient resource sector workers. Data was unavailable to accurately assess this additional, though hugely important impact. All local community leaders discussed the importance of their airport in facilitating commercial opportunities for off-airport businesses.

SOCIAL BENEFITS

The social benefits of the survey airports are more qualitative in nature:

Airports provide residents of the communities they serve with access to distant emergency health care services; in essence, airports ensure access to enhanced levels of health services to all Albertans.

Airports provide crucial access to the Province and Canada's national air transport network. While each airport operates individually, it is apparent that the Province's airports act as a network, which provides immeasurable social interactive opportunities of critical 'quality of life' value to every Albertan.

Airports act as a focal point for recreational, hobby, career development and volunteer opportunities; thus, the presence of airports helps to build the social capital of the communities each serves by encouraging initiative, co-operation, self-help, partnerships and through the development of 'community spirit'.

Airports provide the province with important air-related environmental services, which contribute to preserving the province's natural and renewable resource base. By example, aerial crop spraying protects a primary resource base for rural Alberta. A number of airports in this study act as a base for local forest protection or enhancement services; and as such, protect an important primary resource that local communities rely upon for employment and wealth generation. Local airports also provide a substantive capacity to accelerate responses to natural disasters or emergencies mitigating the loss of life and property while protecting resource bases for future generations.

**A SOCIO-ECONOMIC IMPACT
ASSESSMENT OF SELECT
ALBERTA AIRPORTS**

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Glossary of Terms

ab initio - primary flight training.

ACAP - Airports Capital Assistance Program - a federal funding program to assist with safety-related capital improvements.

ANS - Air Navigation System. NAV CANADA is Canada's ANS provider.

ARCAL - a radio-activated runway lighting system.

CASARA - Civil Air Search & Rescue Association - a national organization, whose provincial HQ is located in Red Deer. Volunteer members provide search and rescue support to the Canadian Forces.

CATSA - Canadian Air Transport Security Authority.

COPA - Canadian Owners & Pilots Association.

DME - Distance Measuring Equipment; a navigation aid to assist aircraft landing at airports.

FBO - Fixed Base Operations, generally an on-airport business which supports transiting aircraft with primarily fuel sales although other services may also be offered.

FSS - Flight Service Station; operated by NAV CANADA. FSSs provide advisory, flight planning and meteorological assistance to local aviators. As such, they are valuable assets in support of local aviation interests.

FTE - Full Time Equivalent

GA - General Aviation.

GDP - Gross Domestic Product

ILS - Instrument Landing System a navigation aid to assist aircraft landing at airports.

NDB - Non-Directional Beacon a navigation aid to assist aircraft landing at airports.

PMQ - Permanent Married Quarter

RCAF - Royal Canadian Air Force.

SAR - Search and Rescue.

STARS - Alberta Shock Trauma Air Rescue Society, a not-for-profit, rotary wing air ambulance service operating from bases in Calgary and Edmonton.

VHF - Very high frequency radio.

VOR - VHF Omnidirectional Range a navigation aid to assist aircraft landing at airports.

Chapter I

Introduction

1.0 About This Report

The report was undertaken by RP Erickson & Associates of Calgary for Aviation Alberta, Alberta Infrastructure & Transportation and Alberta Economic Development. The purpose of the study is to document the socio-economic impact of 12 airports located throughout the province on their local catchment areas for the 2003 calendar year.

Socio-economic impact assessments are valuable in that they serve to heighten business, community and political awareness as to the importance of an airport to a local economy; in this case, in terms of employment, labour income and value-added gross domestic product activity. This study can also be viewed as a base-line against which future developments may be measured.

Any questions arising from this report should be directed to Don Matthews, President & CEO, Aviation Alberta at (403) 717-2272.

Methodology

1.1 Airports in the Survey

In February 2003 the Alberta Action Strategy Group released a detailed facility assessment of Alberta's airports. The study featured an operational facility review of 173 airports of all types located throughout the province; the report provides a comprehensive review of each airport's operational facilities, infrastructure needs and replacement costs.

The facility assessment provides a basis for this follow-on study focused upon an assessment of the socio-economic value of Alberta's airports to the communities they serve. The available time and financial resources directed at this project has meant a less thorough review of the number of airports surveyed versus the earlier study. Twelve airports representing four general categories of airports have been selected from three geographical areas of the province (north of Edmonton; central Alberta; and south of Calgary).

The selected airports under review are †:

	<u>Tier I</u>	<u>Tier II</u>	<u>Tier III</u>	<u>Tier IV</u>
North	Peace River	High Level	Manning	La Crete
Central	Red Deer	Lloydminster	Drumheller	Basin
South	Delburne	High River	Taber	Combs

† Aviation Alberta created the Tier structure and selected the airports reviewed in this report. Tier I airports represent regional air carrier nodes, with a large general, recreational or flight training aviation presence; Tier II airports may feature scheduled air services, and have a significant GA, recreational or flight training presence; none of the Tier III airports in this report feature scheduled air services, and have a more limited GA and recreational presence; Tier IV airports can be characterized as 'turf' strips supporting a limited base of recreational aircraft, generally in the absence of on-airport aviation services.

* The Peace River airport has been selected to replace an earlier choice - Ft. McMurray airport chose not to participate in the survey. While not a true regional node airport, the Peace River airport supports a significant air carrier, GA and recreational role.

1.2 The Economic Impact Assessment Process

Economic impact analysis is based on the premise that operations within various industries in an economy are closely related or linked to each other; that is, an increase in the activity levels in one industry will produce a positive 'domino' or rippling effect on other industries. Economists discuss the impact that one sector has on another in terms of indirect and induced effects. The total economic impact is the sum of the direct, indirect and induced effects.

In this report:

Direct economic effects are the economic activities related to labour and expenditures emanating from firms located on airport.

Indirect + induced economic effects are described separately as the 'Total Impact'. These derive from those activities, which support on-airport businesses, and the increase in the goods and services produced within an economy, arising from the spending power of direct and indirect employees. This economic activity is accounted for by multipliers, which attempt to quantify the interactive linkages within the local economy impacted by direct economic activity.

The aviation industry is a good example of a highly integrated sectoral activity, which has significant linkages throughout a local economy. The multipliers associated with aviation are higher than most primary sectors and, as such, the potential impact to an economy linked to an increase or expansion in aviation activity is significant.

The most common economic measures used in economic impact surveys are: employment and value-added gross domestic product [GDP]. For this report, the consultant has chosen to display labour income as a separate category of value-added GDP in addition to total value-added GDP.

In this report:

Employment is measured by full-time equivalents (FTEs) and by annual income plus benefits of the employees required to mount an aviation or airport presence. FTEs are expressed in person-years and labour income by dollar value. Employment multipliers are used to generate the associated indirect and induced impacts.

Labour income is the total payroll expense of the canvassed firms, including wages, salaries and all employee benefits. Labour income multipliers are used to generate the associated indirect and induced impacts.

Other Value-added GDP is defined as the amount of value to the local economy created through expenditure activity. A GDP multiplier is used to generate the indirect and induced impacts.

Total Value-added GDP is an aggregate of labour income and other expenditure totals. No multiplier has been applied to this category.

The direct data compiled in this study was obtained via a questionnaire circulated amongst firms physically located on the 12 survey airports. In conducting the interview/questionnaire process, key principals at each identified firm were visited by the consultant, where: the underlying rationale for undertaking the study was explained; the objectives of the study could be examined; the value of their participation could be fully explored; and, the confidentiality of their data could be assured as data has only been released in an aggregated format. This approach resulted in an exceptional 98% response rate from the roughly 275 firms contacted. Local economic development officers and/or key political contacts were also canvassed for their airport views and perspectives.

A point related to the methodology is worth noting: a conservative approach has been intentionally undertaken in assessing the total economic impact. In fact, only on-airport firms were canvassed, when we are aware that many local businesses benefit from passenger or cargo traffic moving through an airport (e.g. non-resident visitor spending). However, and in this later case, local economic development offices and most airport operators do not keep statistics related to non-resident visitors nor average visit spending estimates. Thus we did not have the confidence to accurately measure this economic impact source, even though we are aware of its considerable, positive presence. Several airports displayed noteworthy ancillary economic benefits attributable to the airport, and these are noted although again, no economic impact has been ascribed. In view of this approach, it is safely stated that the analyses contained in this report can be viewed as the minimum economic impact of any given airport. One last important consideration is worth imparting: this report represents a 'snap-shot' of economic activity in time. The data displayed represents the economic activity at each airport for calendar year 2003.

1.3 A Word About the Multipliers Used in this Report

Multipliers are used to infer indirect and induced economic activity from a measure of direct economic activity. Multipliers are not directly observed; they are inferred from an economic model. By far the direct measure is the most accurate. Readers are advised that multiplier analysis remains an imprecise econometric technique and that caution be used in interpreting the indirect and induced impacts (Total Impact) contained in this report. However, multipliers are virtually the only cost-effective tool available to identify the overall impact of a sectoral activity within an economy.

Considerable effort was directed at choosing the most appropriate multipliers for this study. The consultants have chosen an Alberta-specific multiplier set: 'Alberta Industry Multipliers' produced by Alberta Finance, Statistics, (revised September, 2004). This set utilizes a Closed Model and includes direct, indirect and induced economic benefits (i.e. Category 48A 'Air, Rail, Water & Support Activities for Transportation'). The model only accounts for the economic activity occurring within the province. It is fair to note that some 'leakage' of economic benefits is likely happening outside the province (e.g. aviation components which may be repaired or overhauled in Winnipeg, Toronto or Montréal). Choosing this multiplier set reinforces our premise of intentionally taking a conservative approach.

The following chart displays the multipliers applied to the aggregate direct data collected from the 12 survey airports related to their aviation activities. In one case, a significant manufactured housing sector presence accounts for substantial economic activities of a non-aviation nature, yet the activity is located on-airport and thus within the purview of this study. In this case, the consultants chose an appropriate multiplier set from the above agency as documented in Section 2.1.2.

	<u>Employment</u>	<u>Labour Income</u>	<u>Value-added GDP</u>
Multiplier	2.131	1.889	2.131

1.4 Socio Impact of Airports

Airports provide the residents of the communities they serve with significant social benefits generally of a non-monetary dimension. These can range from the societal advantages attached to the travel, tourism and transportation functions of an airport, through expansive career and hobby development opportunities to volunteerism. Airports also provide access for important air-related environmental and emergency response services; as well, all airports provide access to critical emergency health care. It has been the consultants' experience that once one moves beyond the travel and career development benefits; societal benefits often rest as a function of the historical role that the airport has played in a community and upon existing infrastructure. We constructed our questionnaire and interview process to capture the social benefits of the airport as perceived by the study respondents, alongside our evaluations. The analysis of these results is largely qualitative in nature and is included in a separate section under each airport and in the summary notes.

Chapter III

The Socio-Economic Impact Of Southern Alberta Airports

Tier I - Lethbridge County Airport

2.1.1 Background

The Lethbridge County Airport is owned and managed by the County of Lethbridge. The airport is located 2 km south of the City. The airport is bordered to the east by Highway 5, which runs into the City, and is situated roughly 10 km from the central business district. The airport lies 210 km SSE of the Calgary International Airport; the nearest National System Airport.

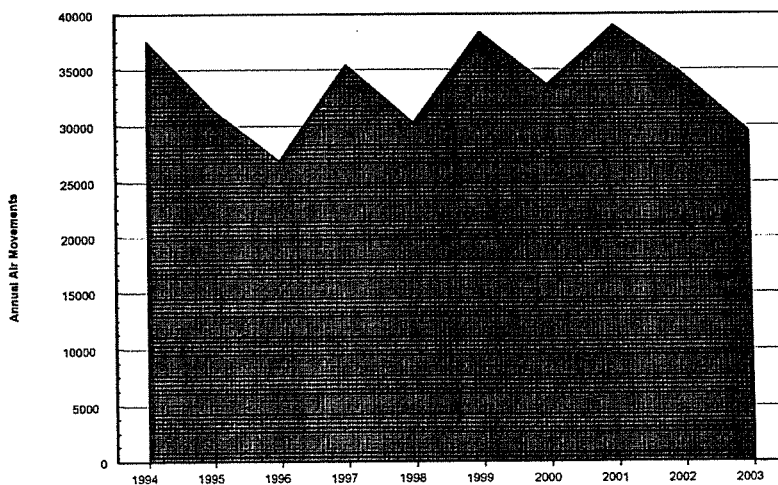
Lethbridge has had a long tradition of supporting the aviation sector. The City was one of the first in the province to operate an airfield commencing local operations in 1920. Several airfields were constructed in the greater municipal area leading to the current airfield complex, which was begun in 1937. At that time, Trans-Canada Airlines identified Lethbridge as "a critical support point for its flights over the Rocky Mountains" and constructed a substantial hangar, which yet exists. Air training in support of Canada's WWII war effort further transformed 'Kenyon Field' as the airport was then known. Under the British Commonwealth Air Training Plan substantial flight training and bombing/gunnery schools were established. The airport returned to primarily civil use through the 1950s and 60s, culminating in a new airport terminal building constructed with provincial funding in 1979. During that period a number of non-aviation firms were attracted to the airport through the availability of surplus RCAF hangar and building resources.

The Lethbridge County Airport provides the City of Lethbridge and surrounding community with scheduled air services. Three service providers currently link Lethbridge with Calgary, Edmonton, Kelowna and Vancouver where flight frequencies are largely conditioned by weekday scheduling interests; Lethbridge is a 'CATSA Designated Aerodrome' and, as such, provides full passenger screening. The airport also serves the region's general aviation requirements, with a number of on-site charter, maintenance, flight training and speciality aviation services. Some 40 commercial, corporate, recreational, flight training, aerial spray and rotary-wing aircraft are based at the airport.

The airport property generally exhibits flat prairie topography. The reference elevation is 3047' above mean sea level. The airport operates on a 24-hour, 7-day per week basis. The main asphalt runway (05-23) is 6500 x 200'; the crosswind runway (12-30) is 5500 x 150'. The airfield has runway and approach lighting; electronic navigation and landing aids include an ILS (05-23), VHF, VOR/DME and NDB. An on-site NAV CANADA Flight Services Station (FSS) is located within the terminal building and is operated on a 24 hr basis; the facility is a significant airport asset.

The following graph depicts air traffic movements over the past 10 years:

Lethbridge County Airport :
Air Traffic Movements (1994 - 2003)

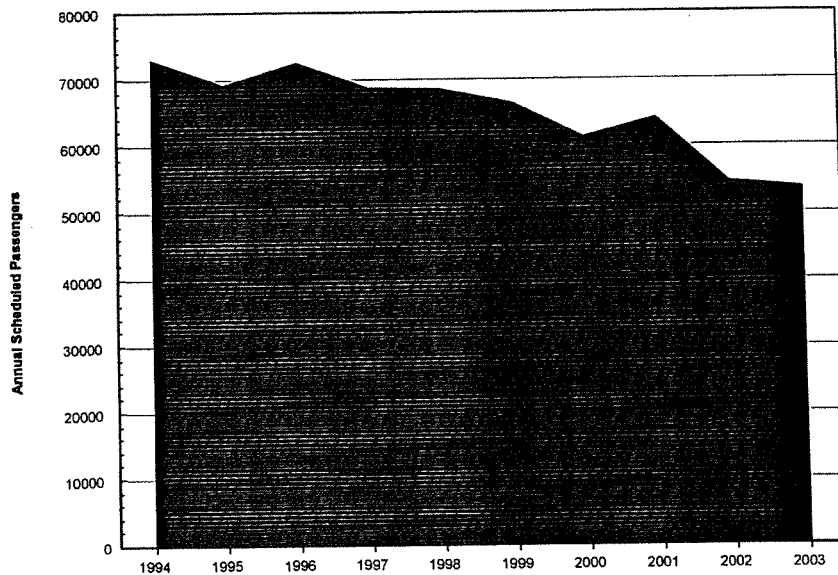


(Source: Lethbridge County Airport)

Annual aircraft movements at Lethbridge are dominated by flight training and scheduled air carrier services, accounting for between 50 and 60 percent of typical annual aircraft movement statistics. The fluctuations observed in the above graph reflect the level of activity on-going at the airport's flight training schools. In 2003 one of the three on-site flight schools ceased operations.

The following graph depicts annual passenger traffic movements over the past 10 years:

Lethbridge County Airport :
Annual Passenger Traffic (1994 - 2003)



(Source: Lethbridge County Airport)

Lethbridge's air passenger traffic base has been in relative decline over, not only the past 10 years, but since the late 1980s. Annual passenger totals averaged in excess of 100,000 during the mid-1980s. This decline can be loosely attributed to the higher costs associated with air travel including the recent panoply of fees and charges attached to ticket prices. As well, improved road access to Calgary in the form of a 4-lane highway direct to the Calgary International Airport has furthered the attraction of the 'rubber tire' option for many air travellers. As a consequence most of Lethbridge's scheduled activity is undertaken by smaller, commuter turbo-prop aircraft in the 19 to 37-seat range.

2.1.2 Economic Impact of the Lethbridge County Airport

This section depicts the economic impact of the Lethbridge County Airport on the City of Lethbridge and its surrounding catchment area over calendar year 2003. It is noted that some 'leakage' is likely spilling over to the province as a whole.

The airport supports a robust aviation sector commensurate with its role as southern Alberta's leading regional aviation centre. Additionally, the airfield supports a large number of non-aviation activities, centred around the construction of manufactured homes. This industry was developed in the late 1960s and was attracted to the airfield due to the availability of low-cost hangarage left surplus from the airport's largely reduced military presence. That industrial sector has continued to expand and dominates airport employment. There is also a substantial non-aviation military presence in the form of the 18th Air Defence Group located on airport. Due to the unusually large nature of the 'non aviation' sector, the consultants have chosen to highlight this activity separately; further, we have chosen to use the 'Construction' multipliers¹ from Alberta Finance, which more accurately reflect the impact from this unique source. Thus, the data in this section is presented as either 'aviation' or 'non-aviation'.

Direct Impact - Aviation

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
100	\$3,757,000	\$7,030,000	\$10,787,000

In 2003, there were approximately 100 FTE aviation jobs located on the airport. This workforce generated a labour income of roughly \$3.76 million. Aviation firms spent approximately \$7.03 million in non-labour related expenditures over the year. Aviation fuels represented some 15 percent of that total, and it is these benefits, which largely have 'leaked' outside of the immediate economy. Otherwise a substantial proportion of the direct 'Other Value-added GDP Expenditures' benefits find their way into local businesses in support of the airport's aviation activities. The total value-added GDP of the airport (labour + expenditures) summed to \$10.79 million.

¹ Alberta Industry Multipliers, September 2004, (Closed Model - Direct, Indirect and Induced Impacts: (#230) FTEs - 2.216; Labour Income - 1.976; Value-added GDP - 2.403).

As noted, a substantial 'non-aviation' economic presence is located on airport:

Direct Impact - Non-Aviation, On-Airport

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
497	\$21,662,000	\$55,710,000	\$77,372,000

In 2003, there were 497 FTE jobs located in this sector. This workforce generated a labour income of roughly \$21.66 million. These firms spent some \$55.71 million in non-labour related expenditures over the year. The total value-added GDP of the airport (labour + expenditures) totalled \$77.37 million.

Summing the direct aviation and non-aviation sectors produces:

Total Direct Impact of the Lethbridge County Airport			
<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
597	\$25,419,000	\$62,740,000	\$88,159,000

When the direct indicators are subjected to the multiplier modelling process, the 'rippling effect' of the overall contribution of the airport to the local economy can be assessed:

Total Impact - Aviation

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
213	\$7,097,000	\$14,981,000	\$22,078,000

Total Impact - Non-Aviation, On-Airport

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
1101	\$42,804,000	\$133,871,000	\$176,675,000

Total Impact of the Lethbridge County Airport

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
1304	\$49,901,000	\$148,852,000	\$198,753,000

Thus, some 1304 full-time jobs in Lethbridge and the surrounding communities are dependent upon the airport, generating an annual payroll of roughly \$50 million. Other value-added GDP expenditures totalled approximately \$150 million. When labour and expenditures are combined, the Lethbridge airport created nearly \$200 million dollars of GDP economic activity in 2003 for the City and surrounding area. A consequential, though undefined, portion of these benefits accrued elsewhere in the province, largely due to the building materials consumed by the house construction sector and the aviation fuels consumed by the local aviation industry.

2.1.3 Social Benefits of the Lethbridge County Airport

The Lethbridge County Airport provides the residents of its catchment area with significant social benefits generally of a non-monetary dimension. These range from: the societal advantages attached to the travel, tourism and transportation functions of the airport (i.e. a crucial entry point to Canada's air transport network); through expansive career development opportunities for the 100 on-airport employees; furthering the aviation hobby pursuits of local residents; and, aviation-related opportunities for volunteerism. The airport remains a critical business 'attractor' to Lethbridge in that it facilitates corporate aircraft movements, which are vital to a number of local firms (e.g. agribusiness, aerospace, and retail distribution,). Additionally, the airport provides access for important air-related environmental and emergency response services. As well, it provides emergency air access to distant, critical health care facilities.

The consultants have identified the following specific social benefits attributable to the airport:

- Alberta Air Ambulance report 383 emergency medical flights to/from the airport in 2003;
- The annual Lethbridge Air Show attracts 30,000 spectators, and provides the 600 members of its host 'not-for-profit' society with an estimated 18,000 hours of volunteerism opportunities each year. The airshow furthers the aviation heritage of the airport and community, and no doubt influences younger residents into a career within the sector;
- A second, significant volunteerism opportunity provides the on-site RCAF Association (65 members) with an estimated 1000 hours of annual activities. The Association supports a number of local aviation-related projects, including support for the Lethbridge Air Cadet Squadron;
- The airport's presence permits a variety of corporate aircraft activity, which is invaluable to the community in attracting high tech firms to locate in the Lethbridge area;
- The Lethbridge County Airport acts an alternate for the Calgary International Airport, which enhances its viability as an attractive air service point. Airport management report on average a dozen diversions per year ex-Calgary;
- The airport is in essence a 'full service, international airport' with the same spectrum of navigational, lighting, ANS and radio aids to be found at much larger facilities. As such it plays a pivotal 'ab initio' and 're-current' training role for southern Alberta, providing the aviation industry (much of which is based elsewhere) with an uncongested, 'full service' airport training environment of invaluable operational/training experience;
- Aviation Alberta's 'Young Eagles' program is accessed through one of the flight schools to encourage an interest in aviation by taking local high school students for an initiation flight;

- The airport supports the 'Thrill of Flight' distance learning education experience which is integrated into Alberta Learning's Grade 6 Science curriculum by facilitating school visits;
- The airport provides Customs Clearance for aviation visitors to Canada;
- The greater runway resources and on-site services means that larger scale providers of aviation environmental and emergency response services choose Lethbridge as a temporary base for operations versus smaller airport facilities, even though they may be closer to the sphere of required actions (e.g. Rocky Mountain water bomber activity during 2003); and,
- The airport serves not only recreational users with a home base for operations; it is also a base for local amateur built and ultra-light aircraft enthusiasts during the summer flying season.

Tier II - High River Regional Airport

2.2.1 Background

The High River Regional Airport is jointly owned by the Town of High River and the Municipal District of Foothills; both levels of government provide modest annual subsidy support. Since June 2003, the airport has been managed and operated by the 'not-for-profit' High River Regional Airport Ltd. under the terms of a 40-year lease. The airport is located 8 km south of the Town. The airport lies 75 km South of the Calgary International Airport; the nearest National System Airport. The airport does not provide any scheduled air services although it does provide a significant 'reliever role' for general and recreational aviation in the Calgary area. Services include light aircraft and avionics maintenance, hangerage, and the provision of aircraft fuels. The airport is home to approximately 50 aircraft, including roughly 10 'light aircraft' used by individuals for corporate activities. Some corporate charter activity also occurs. Detailed aircraft movement statistics are not kept but an estimate of 4000 annual aircraft movements for 2003 was provided by the airport operator. Due to the airport's proximity to the Calgary area, some 50 percent of the annual aircraft movement total was estimated to be undertaken by 'ab initio' and 're-current' pilot training by students/aviation practitioners not based at the airport. In light of the airport's close proximity to Calgary, all emergency air ambulance activities in the High River area are undertaken by helicopter from the Calgary-based STARS organization.

The airport property generally exhibits flat prairie topography. The reference elevation is 3431' above mean sea level. The airport operates on a 24-hour, 7-day per week basis. The main asphalt runway (06-24) is 3000 x 75; a crosswind turf runway (14-32) of 2700 x 50' exists but currently is not in service. The airfield has runway lighting, but no navigation and landing aids. There are currently 17 hangars located on the field, with utilities in place for an additional 18 new hangars, which are expected to be built over the next 2 to 4 years. Some air tourism is acknowledged. Crop spraying is reported as an activity in flux dependent upon local operator activities within the area; the airport has a dedicated location for aerial applicators. The airport hosts an 'Open House' Fathers' Day event each year, and suggested that "between 40 and 50 aircraft visited in 2004, with some 300 local residents also coming out to the show".

2.2.2 Economic Impact of the High River Regional Airport

The following data depicts the economic impact of the High River Regional Airport on, largely, the Town of High River and within the Municipal District of Foothills:

Direct Impact

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
9	\$575,000	\$755,000	\$1,330,000

In 2003, on-site firms provided 9 FTE jobs at the airport. This workforce generated a labour income of \$575,000. Airport-located firms spent roughly \$755,000 in non-labour related expenditures over the year; a considerable proportion of these expenditures find their way into local businesses to support the activities of the airport. The total value-added GDP of the airport (labour + expenditures) summed to \$1.33 million.

Total Impact of the High River Regional Airport			
<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
19	\$1,086,000	\$1,609,000	\$2,695,000

When the direct indicators are subjected to the multiplier modelling process, the 'rippling effect' of the overall contribution of the High River airport to its local economy can be assessed. Thus, some 19 full-time jobs are dependent on the airport, generating an annual payroll of roughly \$1.09 million. Other value-added GDP expenditures total \$1.61 million. When labour and expenditures are combined, the High River Regional Airport generates some \$2.70 million dollars of GDP economic activity for the Town of High River and surrounding area.

Although not included in the above analysis, it was reported that capital investment in new hangar construction reached \$210,000 for 2003; undoubtedly, a good proportion of this funding would have circulated amongst local contractors and building supply firms. Additionally, it was reported that a growing number of air tourism visitors are using the airport to access Kananaskis Country, the Bar U Ranch, and the southern Rockies. No quantifiable data was available to document the economic benefits attached to this activity.

2.2.3 Social Benefits of the High River Regional Airport

In the absence of scheduled air services, the High River Regional Airport provides more limited social benefits than other airports in this study. Further, the close proximity of the emergency air ambulance resources at Calgary, a key 'quality of life' social benefit for most municipal airports, is also absent; Alberta Air Ambulance report no medivac activity at the airport in 2003.

Therefore, the social benefits of the airport largely rest on the hobbyist/recreational enthusiasts' access to aviation provided by the site. Not surprisingly, the managers of the airport require considerable volunteer assistance in operating the airfield, which come mainly from the ranks of on-site owner/flyers.

Tier III - Taber Municipal Airport

2.3.1 Background

The Taber Municipal Airport is jointly owned by the Town of Taber and the Municipal District of Taber. The airport is managed and operated under agreement with the Town and the MD by a major airport tenant. Both levels of government provide annual subsidy support in terms of funding and maintenance manpower resources. The airport is located 8 km north of the Town on secondary highway 864. The airport is situated 272 km by road SSE of the Calgary International Airport, the nearest National System Airport. The airport does not provide any scheduled air services. Available aviation services include light aircraft maintenance, hangerage, and aircraft fuels. The airport is home to approximately 15 aircraft, including a sizeable aerial spray operation. Some corporate charter activity utilizes the airport in support of local agri-food and oil & gas interests. Detailed aircraft movement statistics are not kept but an estimate of 5200 annual aircraft movements for 2003 was provided by the airport operator. A significant proportion of these movements are the result of the air spray operation, with student orientation flights from Lethbridge accounting for the second largest user of the facility. The airport hosts the glider activities of the local Air Cadet Squadron twice yearly for 3 days each. It was reported "there is little, if no use of the airport by military, search & rescue or fire-fighting users most years".

The airport property generally exhibits flat prairie topography, although the airfield lies adjacent to a significant riverine valley. The reference elevation is 2648' above mean sea level. The airport operates on a 24-hour, 7-day per week basis. The main asphalt runway (05-23) is 3000 x 75'; a crosswind oiled-asphalt runway (13-31) is 2000 x 50'. The airfield has runway lighting and provides an NDB and DME for navigational aids. There are 4 hangars on site.

2.3.2 Economic Impact of the Taber Municipal Airport

The following data depicts the economic impact of the Taber Municipal Airport on, largely, the Town of Taber and within the Municipal District of Taber.

Direct Impact

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
9	\$650,000	\$1,250,000	\$1,900,000

In 2003, there were 9 FTE jobs located on the Taber Municipal Airport. This workforce generated a labour income of \$650,000. Airport-located firms spent roughly \$1,250,000 in non-labour related expenditures over the year; a considerable proportion of these expenditures find their way into local businesses to support the activities of the airport. The total value-added GDP of the airport (labour + expenditures) summed to \$1.90 million.

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
19	\$1,228,000	\$2,664,000	\$3,892,000

When the direct indicators are subjected to the multiplier modelling process, the 'rippling effect' of the overall contribution of the Taber Municipal Airport to its local economy can be assessed. Thus, some 19 full-time jobs are dependent on the airport, generating an annual payroll of roughly \$1.23 million. Other value-added GDP expenditures total \$2.66 million. When labour and expenditures are combined, the Taber Municipal Airport generates some \$3.89 million dollars of GDP economic activity for the Town of Taber and within the MD of Taber.

2.3.3 Social Benefits of the Taber Municipal Airport

In the absence of scheduled air services, the Taber Municipal Airport provides more limited social benefits than other airports in this study. The consultants have identified the following social benefits attributable to the airport:

- Alberta Air Ambulance report 16 emergency medical flights at the airport in 2003;
- Provides a near-by facility for aerial spraying in support of local agricultural interests;
- Hobbyist/recreational enthusiasts' access to aviation provided by the site;
- Aviation Alberta's 'Young Eagles' program is accessed through one of the flight schools to encourage an interest in aviation by taking local high school students for an initiation flight;
- The airport supports the 'Thrill of Flight' distance learning education experience which is integrated into Alberta Learning's Grade 6 Science curriculum by facilitating school visits; and,
- A local Air Cadet Squadron undertakes some of its flight training requirements on the airfield, providing a recreation and career development opportunity for participants.

Tier IV - Coutts Airport

2.4.1 Background

The Coutts Airport, also known as the Ross International Airport, is owned by the Canada-US Border Commission. The airport is managed and operated by the Department of Transportation of the State of Montana, although the Village of Coutts also provides limited maintenance support. The airfield bifurcates the Canada-US border, with the runway lying exactly on the 49th Parallel in an east-west orientation. The airport is located on the western outskirts of the village with adjacent housing on the US side and a recreational park on the Canadian side.

The airport is located 317 km South of the Calgary International Airport, the nearest National System Airport. The reference elevation is 3550'. The field consists of a 2900 x 80' turf strip with no available services, no terminal building facilities, no on-site hangerage or businesses and no aircraft based on the field. There are no navigational, lighting or radio aids. There are four tie-down positions for light aircraft.

Maintenance of the airfield is primarily grass cutting and the filling of gopher holes. The Montana MoT estimate that it spends "less than \$1000 per year" on maintenance and through the replacement of wind socks and plastic demarcation cones, where manpower is provided by department personnel (hence any economic benefit from this labour accrues to the State). Montana MoT is responsible for 14 airports throughout the State and suggests that the Coutts Airport is "visited three to four times annually" for maintenance purposes. Aircraft movements were estimated at 200 in 2003, "with the majority being US recreational flyers . . . primarily attracted to the novelty of an airstrip lying exactly on the border".

It was observed, "prior to 9-11 aircraft movements were 300 to 400 percent greater". Reference was made to a limited use of the airfield by border security agencies. In the post-9-11 environment, Canadian and US Customs have discouraged recreational flyers from using the airfield for Immigration and Customs Clearance purposes and their position is to direct traffic to either the Great Falls or Lethbridge airports. It was also suggested that recreational flyers are reluctant and apprehensive in their use of the airfield due to on going "border and security issues".

There is negligible economic activity attached to the Coutts Airport

The social benefit of the airport appears limited to the few recreational and hobbyist users who access the airfield. Due to the turf surface and lack of any navigational or lighting aids, emergency medical service aircraft do not use the Coutts Airport; Alberta Air Ambulance report no medivac activity at the airport in 2003.

Summary and Conclusions

The attached Socio Economic Data Matrix contains a compilation of 2003 data related to the four tiers of airports reviewed in the Southern Alberta zone. On display is the direct and total economic impact data as seen previously; alongside financial details, capital requirements, sources of funding, scheduled passenger and aircraft movement data, medivac movements, aircraft and movement statistics and a range of general geographical details. Further analysis is contained in Chapter V where airports within each Tier are compared and contrasted.

*Socio Economic Data Matrix: Southern Alberta Airports
See Appendix Chart 1*

Chapter III

The Socio-Economic Impact Of Central Alberta Airports

Tier I - Red Deer Regional Airport

3.1.1 Background

The Red Deer Regional Airport is owned, operated and managed by the Red Deer Regional Airport Authority (RDRAA). The airport is located 8 km SW of the City of Red Deer on Highway 2A. The airport lies roughly equidistant 135 km North of the Calgary International Airport and 130 km South of the Edmonton International Airport, the nearest National System Airports.

The airport had its genesis in the former RCAF Penhold air base, constructed as part of the British Air Commonwealth Training Plan to train WWII aviators. The air force completed its gradual withdrawal from the base in 1999, having ended its flying efforts in 1965. The City took over the airport in 1965 and the RDRAA commenced its tenure in Sept 1999. The base has been divided into three units: the airport and adjacent airside lots operated by the RDRAA; Harvard Park - a business redevelopment of former RCAF building assets under separate management; and, the Hamlet of Springbrook - a housing development occupying the former military PMQs alongside new subdivisions.

The airfield features a significant general aviation component, with a number of large on-site fire suppression, charter, maintenance, flight training and speciality aviation services companies. Some 100 commercial aircraft are based at the airport, alongside an estimated 25 year-round recreational aircraft residents.

The airport has featured 'spotty' scheduled services since the early 1980s, with scheduled air services commencing again in January 2004 and a second operator commencing services in December. Current scheduled services link Red Deer with Kelowna, Vancouver, Calgary, Edmonton and Ft. McMurray where flight frequencies are largely conditioned by weekday commercial interests. Detailed annual aircraft movement statistics are kept by the airport; and, as noted, there was no scheduled passenger activity last year. In 2003, there were 39,790 aircraft movements. Air traffic at Red Deer is dominated by flight training, accounting for 45 percent of typical annual aircraft movement statistics.

The airport property generally exhibits flat prairie topography. The reference elevation is 2968' above mean sea level. The airport operates on a 24-hour, 7-day per week basis. The main asphalt runway (16-34) is 5528 x 98'; the crosswind runway (11-29) is 3449 x 100'. The airfield has runway and approach lighting; electronic navigation and landing aids include VHF, DME and NDB. An on-site NAV CANADA Flight Services Station (FSS) is located within the terminal building and is operated on a 24 hr basis; the facility is a significant airport asset, which ensures the integrity of scheduled air carrier activities and provides a value-added service to local aviation practitioners.

3.1.2 Economic Impact of the Red Deer Regional Airport

This section depicts the economic impact of the Red Deer Regional Airport on mainly the City and County of Red Deer over calendar year 2003. The airport supports a robust aviation sector commensurate with its regional role as central Alberta's leading aviation centre. It is noted that some 'leakage' of the airport's economic impact is likely spilling over to the province as a whole in the form of purchased fuels and select aspects of the on-site aviation maintenance services.

Direct Impact

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
206	\$13,154,000	\$25,371,000	\$38,525,000

In 2003, there were 206 FTE aviation jobs located on the Red Deer airport. This workforce generated a labour income of roughly \$13.15 million. Aviation firms spent approximately \$25.37 million in non-labour related expenditures over the year. A substantial proportion of the direct

'Other Value-added GDP Expenditures' benefits find their way into local businesses in support of the airport's aviation activities. The total value-added GDP of the airport (labour + expenditures) summed to \$38.53 million.

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
439	\$24,848,000	\$54,066,000	\$78,914,000

When the direct indicators are subjected to the multiplier modelling process, the 'rippling effect' of the overall contribution of the airport to the local economy can be assessed: thus, some 439 full-time jobs in Red Deer and its surrounding communities are dependent upon the airport, generating an annual payroll of roughly \$25 million. Other value-added GDP expenditures totalled approximately \$55 million. When labour and expenditures are combined, the Red Deer Regional Airport created nearly \$80 million dollars of GDP economic activity in 2003.

3.1.3 Social Benefits of the Red Deer Regional Airport

The Red Deer Regional Airport provides the residents of its catchment area with significant social benefits generally of a non-monetary dimension. These range from: the societal advantages attached to the travel, tourism and transportation functions of the airport (i.e. a crucial entry point to Canada's air transport network); through expansive career development opportunities for the 206 on-airport employees; furthering the aviation hobby pursuits of local residents; and, aviation-related opportunities for volunteerism. The airport remains a critical business 'attractor' to Red Deer in that it facilitates corporate aircraft movements, which are vital to a number of local firms (e.g. oil & gas, automotive and retail distribution). Additionally, the airport provides access for important air-related environmental and emergency response services. As well, it provides emergency air access to distant critical health care facilities.

The consultants have identified the following specific social benefits attributable to the airport:

- Alberta Air Ambulance report 5 emergency medical flights to/from the airport in 2003. It is noted that Red Deer falls within the range of both STARS Calgary and Edmonton; as such, most medivac activity involves rotary-wing aircraft directly to and from local hospitals or accident sites;
- The Red Deer Air Show attracts some 16,000 to 20,000 spectators each year, and provides the roughly 400 members of its host 'not-for-profit' society with an estimated 8,600 hours of volunteerism each year. The airshow furthers the aviation heritage of the airport and community, and no doubt influences younger residents into a career within the sector;
- The Red Deer airport is the provincial HQ of the CASARA search and rescue support unit. The group provide SAR support for the Canadian Forces. CASARA has 4 aircraft 'based' at the airport, with some 40 local volunteers. It is estimated that this group average 7000 hours of volunteerism annually depending on annual SAR functions, in addition to providing the region and province with a vital emergency response service;
- Aviation Alberta's 'Young Eagles' program is accessed through one of the flight schools to encourage an interest in aviation by taking local high school students for an initiation flight;
- The airport supports the 'Thrill of Flight' distance learning education experience which is integrated into Alberta Learning's Grade 6 Science curriculum by facilitating school visits. The airport co-ordinator of the program estimates some 1200 to 1500 students participate each year;
- The airport hosts a number of significant Air Cadet functions. In addition to the Red Deer 'home' squadron, the airport is visited each summer by upwards of 1200 cadets from other units across the country who undertake a variety of on-site training activities, including flight training; and,

- The Red Deer Flying Club has some 40 members, operating 25 aircraft. The club supports a variety of local aviation interests and hosts an annual COPA 'Rust Remover' re-fresher training course which generally attracts some 200 participants each year.

Tier II - Lloydminster Municipal Airport

3.2.1 Background

The Lloydminster Municipal Airport has been owned and operated by the City of Lloydminster since its April 1995 transfer from the Province. Although located in Alberta the airfield also provides for the aviation needs of mid-central Saskatchewan, including service by Saskatchewan Air Ambulance. The airport is located 5 km NW of the City and is reached on secondary roads. The airport lies 240 km East of the Edmonton International Airport, the nearest National System Airport. Weekday scheduled air services are provided by two carriers serving Calgary, Edmonton and Cold Lake. On-site aviation services include light aircraft and avionics maintenance, hangerage, and aircraft fuel sales. There are 8 hangars on the airfield and the airport is home to approximately 40 fixed-wing aircraft. Detailed aircraft movement statistics are kept by the airport operator: scheduled passenger activity in 2003 was reported at 11,480 and aircraft movements for the year were reported at 15,850. Included in the aircraft movement statistics total were some 1500 corporate charter aircraft moving personnel primarily from Calgary to the local heavy oil facility and/or other oil & gas interests in the area. Two on-site air training schools generated "some two thirds of all aircraft movements for 2003".

A substantial terminal building exists, funded by the Province and opened in 1981; Lloydminster is a 'CATSA Designated Aerodrome' and, as such, provides full passenger screening. A significant number of large, corporate US-registered aircraft are noted in the fall bringing US sportsmen to the area - "each year some 20 to 25 large US corporate jets visit the airport for anywhere between 3 and 6 days". Lloydminster also hosts "some 20 to 25 US-registered light recreational aircraft each summer on their way to or from Alaska". The airport has undertaken airshows in the past (1995 and 1997).

The airport property generally exhibits flat prairie topography. The reference elevation is 2194' above mean sea level. The airport operates on a 24-hour, 7-day per week basis. The main asphalt runway (07-25) is 5577 x 150'; a crosswind turf runway (12-30) of 1500 x 100' intersects the button of R07 but is not maintained in winter. An on-site NAV CANADA Flight Services Station (FSS) is located within the terminal building and is operated on a 24 hr basis; the facility is a significant airport asset which ensures the integrity of scheduled air carrier activities and provides a value-added service to local aviation practitioners. The airfield has runway lighting, local radio, an NDB and a DME.

3.2.2 Economic Impact of the Lloydminster Municipal Airport

The following data depicts the economic impact of the Lloydminster Municipal Airport on, largely, the City of Lloydminster and within the County of Vermilion River, with some 'spill-over' likely occurring in central Saskatchewan:

Direct Impact

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
27	\$1,263,000	\$1,710,000	\$2,973,000

In 2003, the airport provided 27 FTE jobs on-site. This workforce generated a labour income of \$1,263,000. Airport-located firms spent \$1,710,000 in non-labour related expenditures over the year; a considerable proportion of these expenditures find their way into local businesses to support the activities of the airport. The total value-added GDP of the airport (labour + expenditures) summed to \$2,973,000.

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
58	\$2,386,000	\$3,644,000	\$6,030,000

When the direct indicators are subjected to the multiplier modelling process, the 'rippling effect' of the overall contribution of the airport to its local economy can be assessed. Thus, some 58 full-time jobs are dependent on the airport, generating an annual payroll of roughly \$2.39 million. Other value-added GDP expenditures total \$3.64 million. When labour and expenditures are combined, the Lloydminster Municipal Airport generates over \$6 million dollars of GDP economic activity for the City of Lloydminster and surrounding area.

3.2.3 Social Benefits of the Lloydminster Municipal Airport

The Lloydminster Municipal Airport provides the residents of its catchment area with significant social benefits generally of a non-monetary dimension. These range from: the societal advantages attached to the travel, tourism and transportation functions of the airport (i.e. a crucial entry point to Canada's air transport network); through expansive career development opportunities for the 27 on-airport employees; furthering the aviation hobby pursuits of local residents; and, aviation-related opportunities for volunteerism. The airport remains a critical business 'attractor' to Lloydminster in that it facilitates corporate aircraft movements, which are vital to a number of local firms (e.g. oil & gas). Additionally, the airport provides access for important air-related environmental and emergency response services. As well, it provides emergency air access to distant critical health care facilities.

The consultants have identified the following specific social benefits attributable to the airport:

- Alberta Air Ambulance report 51 emergency medical flights to/from the airport in 2003. As noted, the airport also serves the regional aviation interests of west central Saskatchewan; as such, Saskatchewan Air Ambulance report 34 medivac flights in 2003 and also observed "from Jan to Nov we have had 72 flights in 2004, some of which carried patients to Edmonton".
- An on-site flying club with some 40 members, operating 25 aircraft; the Flying Club, in conjunction with the airport, support an annual 'Fathers' Day Fly-In' which is generally attended by 25 to 30 aircraft;
- Aviation Alberta's 'Young Eagles' program is accessed through one of the flight schools to encourage an interest in aviation by taking local high school students for an initiation flight;
- The airport supports the 'Thrill of Flight' distance learning education experience which is integrated into Alberta Learning's Grade 6 Science curriculum by facilitating school visits; and,
- A local Air Cadet Squadron undertakes some of its flight training requirements on the airfield, providing a recreation and career development opportunity for participants.

Tier III - Drumheller Municipal Airport

3.3.1 Background

The Drumheller Municipal Airport, formerly known as Burroughs Field, is owned by the Town of Drumheller. The airport was built in 1962 by private interests; the Town taking ownership in 1968. The Town has established an Airport Committee reporting to the Town Council to provide oversight for its airport interests. The airport is operated and managed by a major airport tenant under agreement with the Town. The Town provides an annual subsidy to support the operations and maintenance budget of the airport.

The airport is located 8 km north of the Town, accessed by Highway 9. The airport is situated roughly 130 km by road NE of the Calgary International Airport the nearest National System Airport. The airport does not provide any scheduled air services, although a modest air terminal building exists. Available aviation services include light aircraft maintenance, hangerage, and the sale of aircraft fuels. Approximately 15 aircraft are based at the airport, including an aerial spray operation. Detailed aircraft movement statistics are not kept but an estimate of 10,500 annual aircraft movements for 2003 was provided by the airport operator.

The airport property generally exhibits a flat prairie topography, although the airfield lies adjacent to the significant Red Deer River 'Badlands' valley. The reference elevation is 2599' above mean sea level. The airport operates on a 24-hour, 7-day per week basis. The main asphalt runway (16-34) is 3500 x 75'. The airfield has runway lighting and provides an NDB and DME for navigational aids. There are 5 hangars on site. The airport completed the resurfacing of its entire runway, taxiway and apron area in 2003 with provincial funding.

The long asphalt runway and available navigation aids means the airport plays a prominent role for 'ab initio' and 're-current' training flights undertaken by Calgary area and central Alberta aviation schools; airport management suggest this activity accounts for 75 percent of annual movements and that roughly half of all training flights are undertaken by light twin aircraft. Corporate charter activity is also important, with a number of off-site charter operators utilizing the airport in support of local oil & gas interests. Of particular interest are the roughly 500 air tourism recreational aircraft arriving each year to visit the Drumheller Badlands and local environs. Airport management suggest "that on average each aircraft has four visitors aboard and stay for two days . . . where US visitors make up 10 percent of these totals . . . and, non-Alberta visitors make up 50 percent or more of domestic visitors". The airport is also regularly used by the provincial Department of Justice and RCMP flights in support of activities undertaken at the Drumheller Penitentiary.

3.3.2 Economic Impact of the Drumheller Municipal Airport

The following data depicts the economic impact of the Drumheller Municipal Airport on largely the Town of Drumheller and within Starland County.

Direct Impact

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
4	\$155,000	\$720,000	\$875,000

In 2003, there were 4 FTE jobs located at the Drumheller Municipal Airport. This workforce generated a labour income of \$155,000. Airport-located firms spent roughly \$720,000 in non-labour related expenditures over the year; a considerable proportion of these expenditures find their way into local businesses to support the activities of the airport. The total value-added GDP of the airport (labour + expenditures) summed to \$875,000.

<u>Total Impact of the Drumheller Municipal Airport</u>			
<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
9	\$293,000	\$1,534,000	\$1,827,000

When the direct indicators are subjected to the multiplier modelling process, the 'rippling effect' of the overall contribution of the Drumheller Municipal Airport to its local economy can be assessed. Thus, some 9 full-time jobs are dependent on the airport, generating an annual payroll of roughly \$293,000. Other value-added GDP expenditures total \$1.53 million. When labour and expenditures are combined, the Drumheller Municipal Airport generates some \$1.83 million dollars of GDP economic activity for the Town of Drumheller and within Starland County.

Other economic benefits

The following observations highlight additional areas of airport-related economic benefit to the community:

- The consultants conservatively estimate \$500,000 in hospitality and visitor spending in Drumheller and local environs undertaken by passengers arriving by recreational aircraft and,
- The airport reports \$351,000 in capital projects was spent in 2003 which likely circulated amongst local construction firms. This funding was derived from provincial sources.

3.3.3 Social Benefits of the Drumheller Municipal Airport

In the absence of scheduled air services, the Drumheller Municipal Airport provides more limited social benefits than other airports in this study. The consultants have identified the following social benefits attributable to the airport:

- Alberta Air Ambulance report 3 emergency medical flights at the airport in 2003;
- The uncongested traffic environment, combined with the long asphalt runway and NDB approach aid provide the airport with an important flight training role for central and southern Alberta;
- Support for the provincial Department of Justice and RCMP aviation requirements related to the Drumheller Penitentiary;
- Provides a near-by facility for aerial spraying in support of local agricultural interests;
- Provides local hobbyist/recreational enthusiasts' access to aviation;
- Aviation Alberta's 'Young Eagles' program is accessed through one of the flight schools to encourage an interest in aviation by taking local high school students for an initiation flight;
- The airport supports the 'Thrill of Flight' distance learning education experience which is integrated into Alberta Learning's Grade 6 Science curriculum by facilitating school visits; and
- A local Air Cadet Squadron undertakes some of its flight training requirements on the airfield, providing a recreation and career development opportunity for participants.

Summary and Conclusions

The attached Socio Economic Data Matrix contains a compilation of 2003 data related to the four tiers of airports reviewed in the Central Alberta zone. On display is the direct and total economic impact data as seen previously; alongside financial details, capital requirements, sources of funding, scheduled passenger and aircraft movement data, medivac movements, aircraft and movement statistics and a range of general geographical details. Further analysis is contained in Chapter V where airports within each Tier are compared and contrasted.

*Socio Economic Data Matrix: Central Alberta Airports
See Appendix Chart 2*

Chapter IV

The Socio-Economic Impact Of Northern Alberta Airports

Tier I - Peace River Municipal Airport

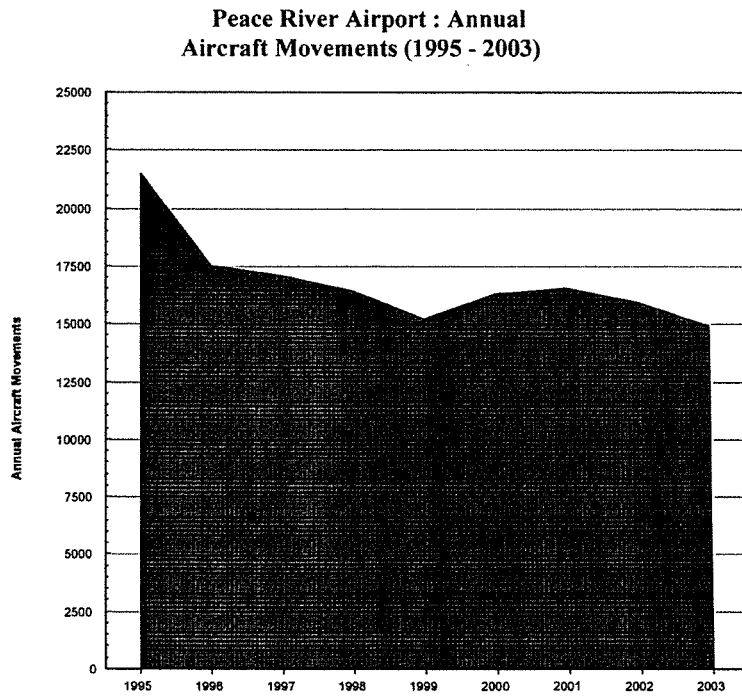
4.1.1 Background

The Peace River Airport is owned and managed by the Town of Peace River. The airport is located 10 km west of the Town on Highway 2. The airport lies 520 km NW of the Edmonton International Airport; the nearest National System Airport. The airport provides a range of scheduled air services linking the community with direct services to High Level, Grande Prairie, both Edmonton airports, with same plane services to Calgary and destinations within BC.

On-site services include light aircraft and avionics maintenance, hangerage and aircraft fuel sales. In addition, several rotary and fixed-wing charter operators are located on the airfield. A major Tier III air carrier is headquartered on the airport. The airport supports an FBO, re-fuelling and a ground handling company; 3 car rental firms compete within the airport terminal building. The airport is home to 35 aircraft, including 5 recreational planes. Airport management report 10 'private' grass airfields in the local area, where "a number" of recreational aircraft are based. There are 6 hangers on airport. Detailed statistics are kept by the airport operator; in 2003, there were 14,365 aircraft movements and 13,630 scheduled passengers. The airport generally puts on an airshow every two years; although the 2004 was cancelled due to other civic commitments. On average the Peace River Airshow attracts 5000 to 8000 visitors.

The airport property generally exhibits a flat topography flanked to the east and north by woodlands. The reference elevation is 1873' above mean sea level. The airport operates on a 24-hour, 7-day per week basis. The main asphalt runway (04-22) is 5000 x 150'; a crosswind turf strip (08-26) is 1900 x 150' with limited winter maintenance. The airfield has a NDB, VOR, DME, radio aids and runway lighting. The airport supports a significant terminal building opened by the province in 1981. An on-site NAV CANADA Flight Services Station (FSS) is located within the terminal building and is operated on a 24 hr basis; the facility is a significant airport asset, which ensures the integrity of scheduled air carrier activities and provides a value-added service to local aviation practitioners.

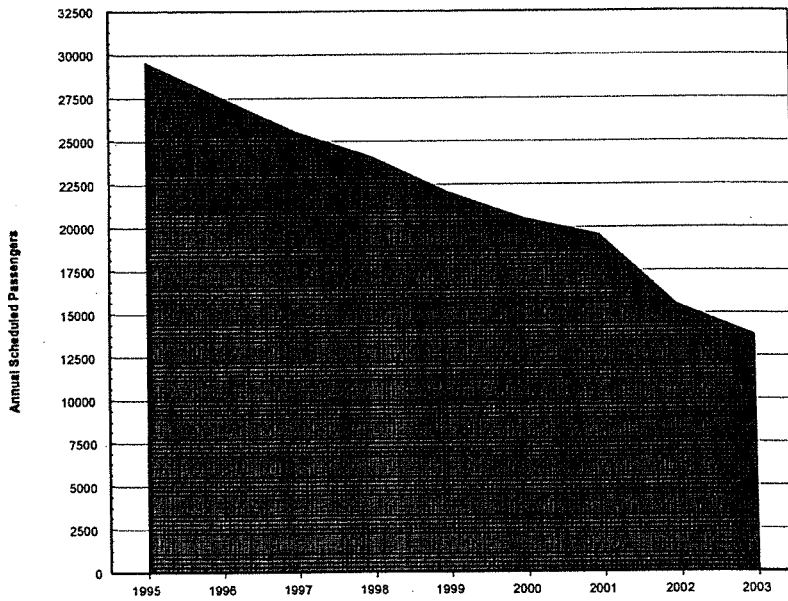
The following graph depicts air traffic movements over the period 1995 - 2003:



(Source: Peace River Airport)

Aircraft movements are dominated by scheduled and charter aircraft activities; the latter sector's demand accounting for 35 percent of the airport's annual movements. Annual traffic shows a clearly declining pattern and when compared with the accompanying 1995 - 2003 annual passenger graph, it is apparent that overall traffic levels are suffering. Local economic authorities attribute this trend to "a combination of high air travel costs and the on-going Edmonton City Centre airport debate which discourages passenger traffic from smaller, northern communities".

Peace River Airport : Annual
Passenger Traffic (1995 - 2003)



(Source : Peace River Airport)

4.1.2 Economic Impact of the Peace River Airport

The following data depicts the economic impact of the Peace River Airport upon, largely, the Town of Peace River and also within the Municipal District of Peace:

Direct Impact

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
109	\$5,604,000	\$4,495,000	\$10,099,000

In 2003, on-airport firms provided 109 FTE jobs. This workforce generated a labour income of \$5,604,000. Airport-located firms spent roughly \$4,495,000 in non-labour related expenditures over the year; a considerable proportion of these expenditures find their way into local businesses to support the activities of the airport. The total value-added GDP of the airport (labour + expenditures) summed to \$10,099,000.

<u>Total Impact of the Peace River Airport</u>			
<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
232	\$10,586,000	\$9,579,000	\$20,165,000

When the direct indicators are subjected to the multiplier modelling process, the 'rippling effect' of the overall contribution of the Peace River airport to its local economy can be assessed. Thus, some 232 full-time jobs are dependent on the airport, generating an annual payroll of roughly \$10.59 million. Other value-added GDP expenditures total \$9.58 million. When labour and expenditures are combined, the Peace River Airport generates over \$20 million dollars of GDP economic activity for the Town of Peace River and the MD of Peace.

4.1.3 Social Benefits of the Peace River Airport

The Peace River Airport provides the residents of its catchment area with significant social benefits generally of a non-monetary dimension. These range from: the societal advantages attached to the travel, tourism and transportation functions of the airport (i.e. a crucial entry point to Canada's air transport network); through expansive career development opportunities for the 109 on-airport employees; furthering the aviation hobby pursuits of local residents; and, aviation-related opportunities for volunteerism. The airport remains a critical business 'attractor' to Peace River in that it facilitates corporate aircraft movements, which are vital to a number of local firms (e.g. forestry, oil & gas and retail distribution). Additionally, the airport provides access for important air-related environmental and emergency response services. As well, it provides emergency air access to distant critical health care facilities.

The consultants have identified the following specific social benefits attributable to the airport:

- Alberta Air Ambulance report 442 emergency medical flights to/from the airport in 2003;
- The airport facilitates corporate aircraft visitors to the local forestry mills; the retail sector; as well as, a variety of aviation-borne support for the oil and gas sector, ranging from pipeline patrol, seismic surveys, geomatics, etc;
- Bi-annual volunteer opportunities with the Peace River Air Show Committee;
- The airport supports the 'Thrill of Flight' distance learning education experience which is integrated into Alberta Learning's Grade 6 Science curriculum by facilitating school visits;
- Aviation Alberta's 'Young Eagles' program is accessed through one of the flight schools to encourage an interest in aviation by taking local high school students for an initiation flight; and,
- A local Air Cadet Squadron undertakes some of its flight training requirements on the airfield, providing a recreation and career development opportunity for participants.

Tier II - High Level Municipal Airport

4.2.1 Background

The High Level Municipal Airport is owned and operated by the Town of High Level. The airport is located 10 km directly north of the Town adjacent to the MacKenzie Highway. The airport lies approximately 850 km NNW of the Edmonton International Airport the nearest National System Airport. The airport provides a range of scheduled air services linking the community with direct services to Edmonton and Grande Prairie, and through services to Calgary. The High Level Municipal Airport serves as an important 'hub' role for regional services throughout the NW portion of the province, including all of the Municipal District of MacKenzie. Scheduled and charter flights continue from southern locations beyond High Level to a number of other centres, including: Zama City, Rainbow Lake, Fort Vermilion and several First Nations' communities, amongst: Chateh, Habay, Carcajou and Fox Lake.

On-site services include light aircraft and avionics maintenance, hangerage and aircraft fuel sales. In addition, 3 rotary and fixed-wing charter operators are located on the airfield. The airport supports an FBO, re-fuelling and a ground handling company; 3 car rental firms compete within the airport terminal building. The airport is home to 12 aircraft, not including "anywhere between 2 and 25 water bombers and support aircraft depending upon the severity of the fire year". Alberta Sustainable Resource Development operates a major regional office located adjacent to the airport; and during the early May through late October 'fire season', the department operates from an on-site fire suppression tanker base. Airport management report 4 'private' grass airfields in the local area, where some 15 recreational aircraft are based. There are 7 hangers on airport. Detailed statistics are kept by the airport operator; in 2003, there were 13,770 aircraft movements and 15,650 scheduled passengers.

The airport property generally exhibits a flat topography. The reference elevation is 1110' above mean sea level. The airport operates on a 24-hour, 7-day per week basis. The main asphalt runway (13-31) is 5000 x 150'. The airfield has a NDB, VOR, DME, radio aids and runway lighting. The airport supports a significant terminal building. An on-site NAV CANADA Flight Services Station (FSS) is located within the terminal building and is operated on a 24 hr basis; the facility is a significant airport asset, which ensures the integrity of scheduled air carrier activities and provides a value-added service to local aviation practitioners.

4.2.2 Economic Impact of the High Level Municipal Airport

The following data depicts the economic impact of the High Level Airport upon, largely, the Town of High Level and also within the Municipal District of MacKenzie:

Direct Impact

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
49	\$3,956,000	\$11,575,000	\$15,531,000

In 2003, on-airport firms provided 49 FTE jobs. This workforce generated a labour income of \$3,956,000. Airport-located firms spent roughly \$11,575,000 in non-labour related expenditures over the year; a considerable proportion of these expenditures find their way into local businesses to support the activities of the airport. The total value-added GDP of the airport (labour + expenditures) summed to \$15,531,000.

<u>Total Impact of the High Level Municipal Airport</u>			
<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
104	\$7,473,000	\$24,666,000	\$32,139,000

When the direct indicators are subjected to the multiplier modelling process, the 'rippling effect' of the overall contribution of the High Level airport to its local economy can be assessed. Thus, some 104 full-time jobs are dependent on the airport, generating an annual payroll of roughly \$7.47 million. Other value-added GDP expenditures total \$24.67 million. When labour and expenditures are combined, the High Level Municipal Airport generates some \$32.14 million dollars of GDP economic activity for the Town of High Level and the MD of MacKenzie.

Other Economic Benefits

The consultants note the following areas of aviation or airport-related areas of additional economic benefit to the community:

- A regional branch of Alberta Sustainable Resource Development is housed on an adjacent site to the airport; the unit manages and directs its local fire suppression efforts from this facility, and maintains an on-airport tanker base. The office is staffed by 23 FTEs and supported in summer by "40 to 60" part-time workers depending on the severity of the fire season. The economic contribution of this workforce and the annual budget of the department to High Level is significant - conservatively estimated at \$3.5 million p.a. In the absence of the airport it is unlikely that this regional office would be based in High Level;
- Two major rotary-wing charter operators are located off-airport but within the 5 nautical miles ANS control area of the airport. Some 10 helicopters are operated, with upwards of 15 FTEs employed p.a. The two firms likely generate \$4.0 to \$5.0 million p.a. in value-added GDP within the community and, again, likely owe their existence to the presence of the airport;
- The economy of High Level is heavily influenced by seasonal oilfield workers, either those living in the numerous 'work motels' found in the centre or in company work camps throughout the region. Scheduled and charter air services are paramount to this sector, especially in winter, in moving work crews northward from southern bases of operations. The High Level airport plays a crucial role in servicing the air transport needs of this workforce: the annual economic impact on the community of the oilfield sector is likely measured in the tens of million dollars; and,
- Should a MacKenzie valley route be selected for the impending 'Northern Pipeline', the presence of the High Level airport will be a determining factor for most of the economic benefits which will accrue in the High Level area during the construction phase of the pipeline.

4.2.3 Social Benefits of the High Level Municipal Airport

The High Level Municipal Airport provides the residents of its catchment area with significant social benefits generally of a non-monetary dimension. These range from: the societal advantages attached to the travel, tourism and transportation functions of the airport (i.e. a crucial entry point to Canada's air transport network); through expansive career development opportunities for the 49 on-airport employees; furthering the aviation hobby pursuits of local residents; and, aviation-related opportunities for volunteerism. The airport remains a critical business 'attractor' to High Level in that it facilitates corporate aircraft movements, which are vital to a number of local firms (e.g. forestry, oil & gas and retail distribution,). Additionally, the airport provides access for important air-related environmental and emergency response services. As well, it provides emergency air access to distant critical health care facilities.

The consultants have identified the following specific social benefits attributable to the airport:

- Alberta Air Ambulance report 442 emergency medical flights to/from the airport in 2003;
- The airport provides a range of environment services which help to sustain Alberta's forestry industry, including surveys, tree planting, pest control, aerial seeding activities, etc;
- The airport facilitates corporate aircraft visitors to the local forestry mills, as well as the retail sector;
- The airport facilitates RCMP and provincial Department of Justice support within the region;
- The airport supports a variety of aviation-borne support for the oil and gas sector, ranging from pipeline patrol, seismic surveys, geomatics, etc;
- The airport facilitates the movement of provincial and federal government personnel, of considerable economic and social value to the community;
- The airport is of significant value to First Nations' communities within the region for transport and re-supply;
- The High Level airport is one of two CASARA search HQs located in the Province. The group provides search and rescue support for the Canadian Forces. CASARA has 2 aircraft 'based' in High Level, with roughly 12 local volunteers. It is estimated that this group averages 1000 hours of volunteerism p.a. depending on annual SAR functions, in addition to providing the region with a vital emergency response service;

- The airport supports the 'Thrill of Flight' distance learning education experience which is integrated into Alberta Learning's Grade 6 Science curriculum by facilitating school visits;
- Aviation Alberta's 'Young Eagles' program is accessed through one of the flight schools to encourage an interest in aviation by taking local high school students for an initiation flight; and,
- A local Air Cadet Squadron undertakes some of its flight training requirements on the airfield, providing a recreation and career development opportunity for participants.

Tier III - Manning Municipal Airport

4.3.1 Background

The Manning Municipal Airport is owned and operated by the Municipal District of Northern Lights. The airport was transferred to the MD in 1995 by the province. The MD provides an annual subsidy to support the operations and maintenance budget of the airport.

The airport is located 1 km north of the Town of Manning, adjacent to the MacKenzie Highway. The airport is situated roughly 650 km by road NW of the Edmonton International Airport, the nearest National System Airport. The airport does not provide any scheduled air services, although Manning Municipal has enjoyed scheduled air services in the past - most recently Peace Air which withdrew from the market in the late 1990s. A modest air terminal building exists, opened by the province in 1979. Available aviation services include hangerage, aircraft fuels and a single rotary-wing charter operation. Five other rotary-wing operations operating a total of 9 machines are based within 20 kms of the airport. There is a substantial water bomber/tanker base on airport to launch and service fire-fighting aircraft during the summer season. Detailed annual aircraft movement statistics are kept by the airport operator: in 2003, there were a total of 6472 aircraft movements, where some 4500 were corporate charters. It was estimated that charter passengers numbered 35,000 in 2003, mainly in support of the oil & gas sector.

The airport property generally exhibits a flat topography. The reference elevation is 1612' above mean sea level. The airport operates on a 24-hour, 7-day per week basis. The main asphalt runway (07-25) is 5577 x 100'. The airfield has runway lighting and provides an NDB and local radio frequency. There are 4 hangars on site; 5 aircraft are based at the airport, including a modest aerial spray operation.

4.3.2 Economic Impact of the Manning Municipal Airport

The following data depicts the economic impact of the Manning Municipal Airport on, largely, the Town of Manning and within the MD of Northern Lights.

Direct Impact

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
15	\$700,000	\$1,814,000	\$2,514,000

In 2003, there were 15 FTE jobs located at the Manning Municipal Airport. This workforce generated a labour income of \$700,000. Airport-located firms spent \$1,814,000 in non-labour related expenditures over the year; a considerable proportion of these expenditures find their way into local businesses to support the activities of the airport. The total value-added GDP of the airport (labour + expenditures) summed to \$2,514,000.

<u>Total Impact of the Manning Municipal Airport</u>			
<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
32	\$1,322,000	\$3,866,000	\$5,188,000

When the direct indicators are subjected to the multiplier modelling process, the 'rippling effect' of the overall contribution of the Manning Municipal Airport to its local economy can be assessed. Thus, some 32 full-time jobs are dependent on the airport, generating an annual payroll of roughly \$1.32 million. Other value-added GDP expenditures total \$3.87 million. When labour and expenditures are combined, the Manning Municipal Airport generates some \$5.19 million dollars of GDP economic activity for the Town of Manning and within Starland County.

4.3.3 Social Benefits of the Manning Municipal Airport

The Manning Municipal Airport provides the residents of its catchment area with significant social benefits generally of a non-monetary dimension. These range from: the societal advantages attached to the travel, tourism and transportation functions of the airport (i.e. a crucial entry point to Canada's air transport network); through expansive career development opportunities for the 15 on-airport employees; and, furthering the aviation hobby pursuits of local residents. The airport remains a critical business 'attractor' to Manning in that it facilitates corporate passenger traffic which is vital to a number of local firms (e.g. oil & gas and forestry,). Additionally, the airport provides access for important air-related environmental and emergency response services. As well, it provides emergency air access to distant, critical health care facilities.

- Alberta Air Ambulance report 135 emergency medical flights at the airport in 2003;
- Provides a significant base in support of fire suppression activities within the region;
- Provides a near-by facility for aerial spraying to assist local agricultural interests;
- The airport supports the 'Thrill of Flight' distance learning education experience which is integrated into Alberta Learning's Grade 6 Science curriculum by facilitating school visits;
- Aviation Alberta's 'Young Eagles' program is accessed through several local flyers who encourage an interest in aviation by taking high school students for an initiation flight; and,
- A local Air Cadet Squadron undertakes some of its flight training requirements on the airfield, providing a recreation and career development opportunity for participants.

Tier IV - La Crete Airport

4.4.1 Background

The La Crete Airport is owned and managed by the Municipal District of MacKenzie. The airport is operated by an informal group of volunteers drawn mainly from the ranks of the local flying and aircraft owner community. The MD provides an unknown annual subsidy in the form of limited maintenance support, including grass cutting, road maintenance and winter snowploughing. Annual capital expenditures were reported at "less than \$1000 per year" and consisted of replacement lights, demarcation cones and a windsock. There is no landing fee schedule; revenues were reported limited to the annual lease of the single hangar on the field.

The airport is located 8 km NE from the Hamlet of La Crete and is accessed via secondary roads. The airport lies 925 km NNW of the Edmonton International Airport, the nearest National System Airport. The reference elevation is 1046'. The field consists of a 2950 x 75' turf strip with no on-site available services, businesses or common use facilities. There are no navigational or radio aids at the La Crete airport; however, an ARCAL lighting system is present. In addition to the one small hangar, there are a number of tie-down positions for light aircraft. It was reported that there are 5 aircraft based on the airport during its summer months of operation; the consultants noted 3 aircraft on the field during our early December fieldwork.

No aircraft movement statistics are kept for the La Crete airport; and no estimate was available from local practitioners or the MD with regard to annual movements. It was suggested that some recreational use of the airfield is undertaken by US users during the fall hunting season; otherwise the airfield is primarily used by local aviation enthusiasts. It is noted that 2 aircraft from the High Level CASARA unit are based at La Crete, with 8 local CASARA members making up the volunteer SAR team.

The nearest airport to La Crete is the airfield at Ft. Vermilion, some 20 nautical miles by air and roughly 65 km by road: the nearest airport with scheduled air services is High Level, some 40 nautical miles distant by air and 135 km by road. It was reported by the MD that population growth in the La Crete area was an exceptional +10 percent p.a. over the past several years, with continued rapid growth forecast. The Hamlet has a population of 2500, with a catchment area population of 16,000. In this light, the consultants would expect the airport to play a greater economic and social role in the community in the coming years, particularly for the medivac role. Presently the airport hosts a rotary-wing medivac capability, and it was reported that limited number of fixed-wing medivac flights have used the La Crete airport in the past.

There is negligible economic activity attached to the La Crete Airport

While there is presently a negligible amount of economic activity at the airport - primarily the limited MD maintenance presence which was reported at less than 100 hours per annum and some minor expenditures for lights, wind socks, and cones, the airfield likely has a greater role to play in the rapidly growing local community. Further, the MD expressed its support for the continued operational viability of the airfield, and ultimately its future expansion.

The social benefit of the airport is contained by the few, though unspecified, number of charter rotary-wing medivacs carried out; Alberta Air Ambulance report no fixed-wing medivac activity in 2003 at the airport. The present social value of the La Crete airport appears to be limited to the 'handful' of recreational and hobbyist users who access the airfield on a regular basis. The presence of the airport also creates roughly 500 hours of annual volunteerism activity for the 8 local CASARA members while providing a base of expertise for regional SAR operations.

Summary and Conclusions

The attached Socio Economic Data Matrix contains a compilation of 2003 data related to the four tiers of airports reviewed in the Northern Alberta zone. On display is the direct and total economic impact data as seen previously; alongside financial details, capital requirements, sources of funding, scheduled passenger and aircraft movement data, medivac movements, aircraft and movement statistics and a range of general geographical details. Further analysis is contained in Chapter V where airports within each Tier are compared and contrasted.

*Socio Economic Data Matrix: Northern Alberta Airports
See Appendix Chart 3*

Chapter V

Socio-Economic Data Templates: Analysis & Conclusions

5.1.1 Tier I Airports

Tier I airports represent regional air carrier nodes, with a large general, recreational or flight training aviation presence. The Tier I airports in our survey include: Lethbridge, Red Deer, and Peace River. The following socio-economic data matrix provides a range of information uncovered in our review of Tier I airports throughout the province.

All Tier I airports provide significant economic benefits to the communities they serve - in effect, they are local 'economic engines'. In 2003 on average, each Tier I airport provided roughly 300 direct FTEs, a labour income of nearly \$15 million, and a total impact of over \$45 million. These numbers will rival the largest employers in each of the cities or towns these airports service. The downside is that all Tier I airports operate in a deficit circumstance for their annual operating and maintenance budgets: on average local municipalities were contributing some \$77,000 p.a., with most also drawing down on earlier transfer funding provided by either the federal or provincial governments. If one reviews the capital funding requirements for each airport over the next 10 years, it is obvious that none have the financial resources to fund such improvements.

Passenger and aircraft movement data is also presented and is uniquely determined by local demand circumstances (i.e. those centres with larger populations create a greater demand for scheduled passenger flights). Aircraft movement statistics are heavily conditioned by on-site users; flight-training demands can create significant annual totals. Of particular interest are the medivac movements, which reflect local population numbers and the availability of health care facilities. In the case of Tier I airports, Red Deer's proximity to the STARS resources of both Calgary and Edmonton is highlighted in the seemingly few medivacs reported. In contrast, Peace River, with its large local medical facilities, received the greatest number of medivacs in this study.

*Socio Economic Data Matrix: Tier I
See Appendix Chart 4*

5.1.2 Tier II Airports

Tier II airports may feature scheduled air services, and have a significant GA, recreational or flight training presence. The Tier II airports in our survey include: High River, Lloydminster, and High Level. The following socio-economic data matrix provides a range of information uncovered in our review of Tier II airports throughout the province.

All Tier II airports provide significant economic benefits to the communities they serve. In 2003 on average, each Tier II airport provided roughly 30 direct FTEs, a labour income of nearly \$2 million, and a total impact of over \$7 million. The downside is that all Tier II airports operate in a deficit circumstance for their annual operating and maintenance budgets: on average local municipalities were contributing some \$21,000 p.a.. If one reviews the capital funding requirements for each airport over the next 10 years, it is obvious that two (High River and High Level) do not have the financial resources to fund such improvements.

Passenger and aircraft movement data is also presented and is uniquely determined by local demand circumstances. Aircraft movement statistics are heavily conditioned by on-site users; flight-training demands can create significant annual totals. Of particular interest are the medivac movements, which are also affected by local population numbers and the availability of health care facilities. In the case of Tier II airports, High River's proximity to the STARS resources of Calgary resulted in no medivac activity being reported in 2003.

*Socio Economic Data Matrix: Tier II
See Appendix Chart 5*

5.1.3 Tier III Airports

Tier III airports may or may not feature scheduled air services, and have a more limited GA and recreational presence. The Tier III airports in our survey include: Taber, Drumheller, and Manning. The following socio-economic data matrix provides a range of information uncovered in our review of Tier III airports throughout the province.

All Tier III airports provide economic benefits to the communities they serve. In 2003 on average, each Tier III airport provided roughly 9 direct FTEs, a labour income of nearly \$500,000, and a total impact of nearly \$2 million. The downside is that all Tier III airports operate in a deficit circumstance for their annual operating and maintenance budgets: on average local municipalities were contributing some \$45,000 p.a. If one reviews the capital funding requirements for each airport over the next 10 years, it is obvious that none have the financial resources to fund such improvements.

None of the Tier III airports in the study featured scheduled passenger traffic. Aircraft movement statistics are heavily conditioned by on-site users; flight-training demands can create significant annual totals. Of particular interest are the medivac movements, which are also conditioned by local population numbers and the availability of health care facilities. In the case of Tier III airports, Drumheller's proximity to the STARS resources of Calgary is reflected in the seemingly few medivacs reported. In contrast, Manning, with its large local medical facilities and the size of the catchment basis that this facility serves, received a significant number of medivac flights in 2003.

*Socio Economic Data Matrix: Tier III
See Appendix Chart 6*

5.1.4 Tier IV Airports

Tier IV airports can be characterized as 'turf' strips supporting a limited base of recreational aircraft, generally in the absence of on-airport aviation services. The Tier IV airports in our survey include: Coutts, Bashaw, and La Crete. The following socio-economic data matrix provides a range of information uncovered in our review of Tier IV airports throughout the province.

In light of the fact that none of the Tier IV airports provided any available aviation services, nor enjoyed any on-site commercial businesses, it is not surprising that there was no measurable economic activity attached to any of the study airports, nor was there any medivac activity at any airport.

The majority of the community benefit derived from Tier IV airports appears to be the access they provide to local recreational aviation enthusiasts and the odd itinerant user passing through the area. Conversely, these airports do not require much in the way of an annual operating and maintenance budget, with most such needs met by local volunteers. Any future capital investments will likely require assistance from outside the local community.

*Socio Economic Data Matrix: Tier IV
See Appendix Chart 7*

Appendix A

Chart 1 – Socio Economic Data Matrix: Southern Alberta Airports.....57

Chart 2 – Socio Economic Data Matrix: Central Alberta Airports.....58

Chart 3 – Socio Economic Data Matrix: Northern Alberta Airports.....59

Chart 4 – Socio Economic Data Matrix: Tier I.....60

Chart 5 – Socio Economic Data Matrix: Tier II.....61

Chart 6 – Socio Economic Data Matrix: Tier III.....62

Chart 7 – Socio Economic Data Matrix: Tier IV.....63

Socio Economic Data Matrix: Tier III

2003	FTEs ¹		Labour Income ¹ (in 000s)		Other Value-Added GDP ¹ (in 000s)		Total Impact ¹ (in 000s)		Revenue ² (in 000s)		Expenses ² (in 000s)		Net ² (in 000s)		Capital Requirements ² (in 000s)		Capital Funding ² (1998-2003)		Scheduled Air Passengers ²		Aircraft Movements ²		Medivac Movements ²		% Aerial Movements Involving Training, Enroute, and/or Airt. Services ²		Number of Aircraft based on the Airport ²		Population ²		Average Household Income ²		Road Distance to Nearest Scheduled Air Services		Road Distance to Nearest MAS Airport		Daily Bus Service to Nearest MAS Airport City ²		Airport Terminal Building ²					
	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total						
Taber (Tier III)	0	\$650	\$1,250	\$1,800	\$28	\$50	(\$24)	\$515,000	0	0	5,200	16	80	15	7,700	51 km	272 km	1x	yes																									
	19	\$1,228	\$2,064	\$3,892	\$38	\$73	(\$35)	\$650,000	0	0	10,500	3	75	15	9,800	138 km	138 km	3x	yes																									
Drumheller (Tier III)	4	\$155	\$720	\$875	\$38	\$73	(\$35)	\$650,000	0	0	10,500	3	75	15	9,800	138 km	138 km	3x	yes																									
	9	\$293	\$1,534	\$1,827	\$38	\$73	(\$35)	\$650,000	0	0	10,500	3	75	15	20,000	138 km	138 km	3x	yes																									
Manning (Tier III)	15	\$700	\$1,814	\$2,514	\$138	\$214	(\$78)	\$1,632,000	0	0	6,470	135	40	5	1,300	100 km	850 km	1x	yes																									
	32	\$1,322	\$3,688	\$5,168	\$138	\$214	(\$78)	\$1,632,000	0	0	6,470	135	40	5	4,000	100 km	850 km	1x	yes																									

Sources:
 1 - RP Erickson & Associates
 1 - Airport Operators
 1 - ASAG Alberta Airports Infrastructure Inventory Study
 4 - Transport Canada and Alberta Infrastructure & Transportation
 1 - Alberta Air Ambulance Statistics Unit
 1 - Stats Canada, 2001 Census
 1 - Greyhound Web Site, December 2004
 na - not available

Socio Economic Data Matrix: Tier I

2003	FTE ¹		Labour Income ¹ (in 000s)		Other Value-Added GDP ¹ (in 000s)		Total Impact ¹ (in 000s)		Revenue ² (in 000s)		Expenses ² (in 000s)		Net ² (in 000s)		Capital Requirements ³ (to 2010)		Capital Funding ⁴ (1998-2003)		Schedul Air Passengers ⁵		Aircraft Movements ⁶		% Aerial Movements Involving Towing, Drivng and Agrl. Services ⁷		Number of Aircraft based on the Airport ⁸		Population ⁹		Average Household Income ⁹		Road Distance to Nearest Scheduled Air Services		Road Distance to Nearest NAS Airport		Daily Bus Service to Nearest NAS Airport City ⁷		Airport Terminal Building ⁷			
	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total				
Lethbridge (Tier I)	597	\$25,400	\$82,740	\$88,159	\$940	\$974	(\$33)	\$3,750,000	\$3,156,000	56,000	29,400	383	65	40+	72,700	\$52,811	0	209 km	4x	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes		
Red Deer (Tier I)	206	\$13,154	\$25,371	\$38,525	\$265	\$453	(\$188)	\$3,589,000	0	0	39,790	5	50	125+	72,000	\$60,372	0	130 km	9x	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes		
Peace River (Tier I)	109	\$5,604	\$4,405	\$10,089	\$819	\$630	(\$11)	\$2,003,000	\$197,000	13,930	14,365	1,082	25	35	8,250	\$61,560	0	500 km	2x	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
	232	\$10,588	\$9,579	\$20,165																																				

Sources:

1. RP Erickson & Associates
2. Airport Operators
3. ASAG Alberta Airports Infrastructure Inventory Study
4. Transport Canada and Alberta Infrastructure & Transportation
5. Alberta Air Ambulance Statistics Unit
6. Stats Canada, 2001 Census
7. Greyhound Web Site, December 2004

na - not available

Socio Economic Data Matrix: Northern Alberta Airports

2003	FTEs ¹		Labour Income ¹ (in 000s)		Other Value-Added gnp ¹ (in 000s)		Total Impact ¹ (in 000s)		Revenue ² (in 000s)		Expenses ² (in 000s)		Net ² (in 000s)		Capital Requirements ³ (to 2010)		Capital Funding ⁴ (1998-2003)		Scheduled Air Passengers ⁵		Airport Movements ⁶		% Aerial Movements Involving Training, Enviro. and/or Agri. Services ⁷		Number of Aircraft Based on the Airport ⁸		Population ⁹		Average Household Income ⁹		Road Distance to Nearest Scheduled Air Services		Road Distance to Nearest NAS Airport		Daily Bus Services to Nearest NAS Airport City ⁷		Airport Terminal Building ²								
	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total									
Peace River (Tier I)	109	\$5,604	\$4,495	\$10,099	\$619	\$630	(\$11)	\$2,003,000	\$197,000	19,630	14,385	1,082	25	35	6,250	\$61,560	0	500 km	2x	yes	yes	0	500 km	0	500 km	0	6,250	\$61,560	0	500 km	2x	yes	yes	0	500 km	0	500 km	0	6,250	\$61,560	0	500 km	2x	yes	yes
	232	\$10,596	\$9,579	\$20,165	\$328	\$365	(\$37)	\$1,500,000	\$819,000	15,950	13,770	442	40	12	4,200	\$68,800	0	800 km	1x	yes	yes	0	800 km	0	800 km	0	9,500	\$68,800	0	800 km	1x	yes	yes	0	800 km	0	800 km	0	9,500	\$68,800	0	800 km	1x	yes	yes
High Level (Tier II)	49	\$3,956	\$11,575	\$15,706	\$328	\$365	(\$37)	\$1,500,000	\$819,000	15,950	13,770	442	40	12	4,200	\$68,800	0	800 km	1x	yes	yes	0	800 km	0	800 km	0	22,000	\$68,800	0	800 km	1x	yes	yes	0	800 km	0	22,000	\$68,800	0	800 km	1x	yes	yes		
	104	\$7,473	\$24,866	\$32,139	\$328	\$365	(\$37)	\$1,500,000	\$819,000	15,950	13,770	442	40	12	4,200	\$68,800	0	800 km	1x	yes	yes	0	800 km	0	800 km	0	22,000	\$68,800	0	800 km	1x	yes	yes	0	800 km	0	22,000	\$68,800	0	800 km	1x	yes	yes		
Manning (Tier III)	15	\$700	\$1,614	\$2,514	\$138	\$214	(\$76)	\$1,532,000	0	0	8,470	135	40	5	1,300	\$56,800	100 km	650 km	1x	yes	yes	0	650 km	0	650 km	0	4,000	\$56,800	100 km	650 km	1x	yes	yes	0	650 km	0	4,000	\$56,800	100 km	650 km	1x	yes	yes		
	32	\$1,322	\$3,886	\$5,188	\$138	\$214	(\$76)	\$1,532,000	\$573,000	0	8,470	135	40	5	1,300	\$56,800	100 km	650 km	1x	yes	yes	0	650 km	0	650 km	0	4,000	\$56,800	100 km	650 km	1x	yes	yes	0	650 km	0	4,000	\$56,800	100 km	650 km	1x	yes	yes		
La Crete (Tier IV)	0	0	0	0	na	na	na	\$155,000	0	0	na	na	na	na	2,500	\$51,200	135 km	935 km	1x	no	no	0	935 km	0	935 km	0	1,600	\$51,200	135 km	935 km	1x	no	no	0	935 km	0	1,600	\$51,200	135 km	935 km	1x	no	no		
	0	0	0	0	na	na	na	\$155,000	0	0	na	na	na	na	2,500	\$51,200	135 km	935 km	1x	no	no	0	935 km	0	935 km	0	1,600	\$51,200	135 km	935 km	1x	no	no	0	935 km	0	1,600	\$51,200	135 km	935 km	1x	no	no		

Sources:
 1. RP Erickson & Associates
 2. Airport Operators
 3. ASAG Alberta Airports Infrastructure Inventory Study
 4. Transport Canada and Alberta Infrastructure & Transportation
 5. Alberta Air Ambulance Statistics Unit
 6. Stats Canada, 2001 Census
 7. Greyhound Web Site, December 2004
 na - not available

Socio Economic Data Matrix: Tier IV

2003	FTEs ¹		Labour Income ² (in 000s)		Other Value-added GDP ³ (in 000s)		Revenue ⁴ (in 000s)		Expenses ⁵ (in 000s)		Net ⁶ (in 000s)		Capital Requirements ⁷ (to 2010)		Capital Funding ⁸ (1998-2003)		Scheduled Air Passengers ⁹		Aircraft Movements ¹⁰		% Aerial Movements Involving Training, Enroute and/or Airt. Services ¹¹		Number of Aircraft based on the Airport ¹²		Population ¹³		Average Household Income ¹⁴		Road Distance to Nearest Scheduled Air Services ¹⁵		Road Distance to Nearest NAS Airport ¹⁶		Daily Bus Service to nearest NAS Airport City ¹⁷		Airport Terminal Building ¹⁸	
	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total		
Coutts (Tier IV)	0	0	0	0	0	0	0	\$1	(\$1)	na	0	0	0	0	0	0	200	0	0	0	0	0	0	365	\$59,563	100 km	317 km	3x	no							
Bashaw (Tier IV)	0	0	0	0	0	0	\$3	(\$1)	\$100,000	0	0	0	0	0	0	0	350	0	0	10	5	8,000	800	\$40,300	145 km	148 km	0	yes								
La Crete (Tier IV)	0	0	0	0	0	0	na	na	\$163,000	0	0	0	0	0	0	na	0	0	10	5	2,500	2,500	\$51,200	135 km	835 km	1x	no									

Sources:
 1. RP Erickson & Associates
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