

*AN ECONOMIC IMPACT ASSESSMENT
OF THE SPRINGBANK AIRPORT : 2004*

prepared for

The Calgary Airport Authority

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AVIATION CONSULTANTS
CALGARY, ALBERTA

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EXECUTIVE SUMMARY

This report documents the economic impact activity attributable to firms operating on the Springbank Airport for calendar year 2004.

The economic impact is reported 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 as has the impact associated with new on-site capital construction.

The response rate to the interview process and survey questionnaire was exceptional : a 100 percent completion rate for the data sought from roughly 40 reporting firms.

In 2004, the Springbank Airport supported a significant level of local and provincial economic activity :

Direct Impact

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Expenditures</u>	<u>Total Value added GDP</u>
218	\$9,515,000	\$21,783,000	\$31,298,000

Total Impact†

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value added GDP</u>	<u>Total Value added GDP</u>
792	\$51,569,000	\$47,011,000	\$98,580,000

† includes indirect & induced impacts + 'one time' construction benefits

Percentage Change 2004 vs 1997

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
+95%	+89%	+42%	+54%

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Chapter I

Introduction

1.1 About this report

The report was undertaken by RP Erickson & Associates of Calgary for the Calgary Airport Authority. The purpose of the study is to document the economic impact of the Springbank Airport for the 2004 calendar year.

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 comparative review against past studies and/or as a base-line against which future developments may be measured.

Any questions arising from this report should be directed to Mr. Garth Atkinson, President & CEO, Calgary Airport Authority, at (403) 735-1244

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 the airport.

Indirect + Induced economic effects are described separately. 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 consultants have 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 the firms physically located on the Springbank airport. In conducting the interview/questionnaire process, key principals at each identified firm were visited by the consultants, 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 - data has only been released in an aggregated format. This approach resulted in an exceptional 100% response rate from the roughly 40 firms contacted.

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 numerous local businesses benefit from users of the airport (eg. accommodation expenses from students under going flight training). In view of this approach, it can be safely stated that the analyses contained in this report should be viewed as the minimum economic impact related to the 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 for calendar year 2004 attached to the presence of the Springbank airport.

1.2 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 + ‘one time’ construction benefits (ie. the 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 report. The consultants have chosen an Alberta-specific, Statistics Canada open multiplier set derived from that agency’s 1984 Input-Output Model, under the ‘Air Transport & Services Incidentals’ category contained in the Make/Use/Demand Matrix, The Input-Output Structure of the Canadian Economy, 1996-97, Statistics Canada, Cat. No 15-201, 2004.

Chapter II

The Economic Impact of the Springbank Airport

2.1 Background

The Springbank airport is operated and managed by the Calgary Airport Authority (the Authority). The airport is located 10 km W of the City of Calgary on the Trans-Canada Highway. The airport lies roughly 30 km WSW of the Calgary International Airport; the nearest National System Airport.

The airfield features a significant general aviation component, with a number of on-site flight training, maintenance, corporate, charter and speciality aviation services companies. Some 250 to 300 aircraft are based at the airport, housed amongst the 49 hangars located on-site - many of which feature multiple bays.

There is no scheduled air passenger activity at the Springbank airport. In 2004, there were 165,200 aircraft movements. Air traffic is dominated by flight training, accounting for 75 percent of annual aircraft movements.

The airport property generally exhibits a flat prairie topography. The reference elevation is 3937' above mean sea level. The airport operates on a 24-hour, 7-day per week basis. The main asphalt runway (07-25) is 3400 x 100'; the second runway (16-34) is 3000 x 75'. The airfield has runway and approach lighting; electronic navigation and landing aids including an ILS, VOR and DME (it is noted that the ILS, VOR and DME are for training purposes only and are "non-certified"). An on-site NAV CANADA Tower Operation is operated on a 16 hr per day basis; this facility remains a significant airport asset.

2.2 Economic impact of the Springbank airport

This section depicts the economic impact of the Springbank airport over calendar year 2004. In the main, these benefits accrue to the City of Calgary, the MD of Rockyview and the Town of Cochrane. The airport supports a robust aviation sector commiserate with its regional role as a leading aviation centre. It is noted that some 'leakage' of the airport's total economic impact is likely spilling over to the province as a whole, primarily in the form of purchased fuels, select aspects of the on-site aviation maintenance services and construction materials.

Direct Impact

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
218	\$9,515,000	\$21,783,000	\$31,298,000

In 2004, there were 218 FTE aviation jobs located on the Springbank airport. This workforce generated a labour income of roughly \$9.52 million. Aviation firms spent approximately \$21.78 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 \$31.30 million.

Direct, Indirect & Induced Impact

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
706	\$29,401,000	\$41,046,000	\$70,447,000

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 706 full-time jobs are dependent upon the airport, generating an annual payroll of roughly \$29.40 million. Other value-added GDP expenditures totalled approximately \$41.05 million. When labour and expenditures are combined, the Springbank Airport created over \$70 million dollars of GDP economic activity in 2004 .

2.3 The economic impact associated with new construction on the Springbank airport

There is a 'one-time' impact of economic benefits accompanying the Authority's on-going capital construction program at Springbank alongside a number of tenant facility expansion. All of these projects provide direct work to the local construction sector and indirectly to the province's construction materials sector.

From the questionnaire survey, the consultants have identified \$7.23 million of new capital construction on the Springbank airport in 2004; new hangar developments accounted for nearly 70 percent of this total. In assessing the economic impact of this activity, the consultants have utilized the Alberta Commodity Intensity Ratios in Producer Prices (Table 7, Commodity 30 'Non-residential Construction', Alberta Economic Multipliers, produced by Alberta Finance, Statistics, (revised September, 2004).

The following table depicts the 'one-time' economic impact activity associated with capital construction spending on the Springbank airport in 2004 and distributed throughout the province¹.

Direct, Indirect & Induced Impact from Construction

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
86	\$4,194,000	\$5,965,000	\$10,159,000

¹ Note : In the 1997 study we did not include an assessment of the 'one time' economic impact attached to that year's on-airport capital spending. This evaluation has evolved over the past several Calgary International economic studies as we have refined our impact assessment process; further, in 1997 there was little new construction activity on the Springbank airport.

2.4 The total economic impact of the Springbank airport

When all forms of direct, indirect and induced economic impact are summed, the total economic impact for the Springbank airport in 2004 amounted to :

Total Economic Impact of the Springbank Airport in 2004			
<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
792	\$51,569,000	\$47,011,000	\$98,580,000

2.5 A comparison of the direct economic impact(s) of the Springbank airport : 2004 vs 1997

The consultants undertook an economic impact review of the Springbank airport in 1997 using a similar methodology. The following three charts depict the findings of the 1997 and 2004 reports alongside the comparative changes for each of the respective categories reviewed.

Direct Impact 1997

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
117	\$5,033,000	\$15,299,000	\$20,332,000

Direct Impact 2004

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
218	\$9,515,000	\$21,783,000	\$31,298,000

Percentage Change 2004 vs 1997

<u>FTEs</u>	<u>Labour Income</u>	<u>Other Value-added GDP Expenditures</u>	<u>Total Value added GDP</u>
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Clearly, the airport has enjoyed substantive growth over the seven year span 1997-2004, especially in the number of FTEs and the labour income attached to this workforce where both categories have enjoyed 90+ percent growth. Reflected in this trend has been growth in the number of firms involved in flight training; significant as well, has been the growth of smaller companies supporting general aviation. A new addition has been the several firms involved in constructing light recreational aircraft in the 'homebuilt' category. Overall, the number of on-site firms has more than doubled from 16 in 1997 to over 40 today.

2.6 Social benefits of the Springbank airport

The Springbank Airport provides the residents of its catchment area with significant social benefits of a non-monetary dimension. These range from : expansive career development opportunities for the 218 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 Springbank in that it facilitates corporate aircraft movements which are vital to a number of local oil & gas and agricultural firms. Additionally, the airport provides access for important air-related environmental and emergency response services, although not medivac flights : it is noted that the Springbank region falls well within the range of STARS Calgary; as such, all medivac activity involves rotary-wing aircraft operating directly to and from local hospitals or accident sites.

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

- 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 100 to 300 students participate each year; and,
- the Calgary Flying Club has over 650 members, operating some 40+ aircraft. The club supports a variety of local aviation interests and hosts a number of aviation re-fresher training courses each year. Annual club volunteerism to local aviation pursuits is in the “hundreds of hours”.