

**ECONOMIC IMPACT OF  
MILITARY FLIGHT TRAINING  
IN LABRADOR AND  
NORTHEASTERN QUÉBEC**

**Final Report  
Volume I**

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## **EXECUTIVE SUMMARY**

### **Introduction**

Between 1994 and 2000, military flight training activities in the Happy Valley-Goose Bay area underwent changes through cost reduction, downsizing and Alternative Service Delivery (ASD). In 2000, the Institute of Environmental Monitoring and Research commissioned the first qualitative and quantitative study of the Economic Impact of Military Flight Training in Labrador and Northeastern Québec. In 2002, the Institute commissioned a second study to research and assess the same economic indicators and determine what changes had occurred to the economy of Labrador and Northeastern Québec in the intervening two years. After the second study, the Institute decided to conduct a third study the following year in order to include the 2001 Statistics Canada census data that was previously unavailable. This document is the result of the third study. As was the case with the previous two studies, this study:

- tracks employment patterns (military and civilian) at CFB Goose Bay;
- tracks direct expenditures of the Department of National Defence (DND) to businesses in Central Labrador;
- estimates the indirect expenditures (i.e. income expenditures) of Base personnel, including the allied and Canadian military trainees in Central Labrador;
- determines the induced benefits of the project, if any, in terms of economic diversification and training in Central Labrador;
- provides a comprehensive statement describing the past and current economy of the region against which project impacts are identified and evaluated; and
- reviews DND's mitigation measures as outlined in the 1994 EIS as the Panel's recommendations and the Government's decision.

The economic effects of military flight training were assessed primarily through the use of an input/output (I/O) model. The model uses data on direct impacts (purchases of goods and services by 5 Wing Goose Bay and direct employment on the Base), estimates indirect impacts (those resulting from inter-industry purchases of goods and services) and induced impacts (consumer spending of incomes earned in both direct and indirect activities). The economic impact using the I/O model is assessed for both Labrador and the province of Newfoundland and Labrador. Northeastern Quebec is not assessed using the model because the impacts are too small to be measured.

This report, as did the previous two reports, includes a synthesis of information provided by key informants knowledgeable about individual sectors (e.g. primary, secondary and service), military activities or their community. This information helped in qualitatively assessing economic effects of military flight training on various sectors of the economy. This report, as did the previous two reports, also reviews DND's progress related to the 1994 EIS recommendations regarding socio-economic matters.

### **Economic Data**

For the 2000 (1999 data), 2002 (2000 data) and 2003 (2002 data) studies, 5 Wing Goose Bay provided information about their operations which was then fed into the

input/output model to obtain direct, indirect and induced impacts. In cases where direct information was not available, estimates were made using the best possible information coupled with the most logical inferences. Table Ex. Summary 1 shows the changes in key personnel at the Base for the years 1999 - 2003. For the first time since these studies have been reporting employment on the Base, the employment figure has dropped: 88 people since last year.

	1999/00	2000/01	2001/02	2002/03
<b>Category</b>				
Military employment	91	94	94	94
Civilian Public funds	24	25	25	27
Civilian non-Public funds	88	99	89	85
Serco permanent	412	419	414	340
Serco temporary	20	23	40	28
Total Base employment	635	660	662	574

Table Ex. Summary 2 shows the changes in expenditures at the Base for the years 1999 - 2003. Table Ex. Summary 1 and 2 shows that while military employment has remained relatively constant, increases have been experienced in operations as well as maintenance and construction costs, but the number of Allies has decreased, as has their expenditures. In 1999/2000, wages were paid out for contract settlement, pay equity, step increases, etc. These were non-recurring expenses, raising average wages for the 1999/2000 year.

	1999/00	2000/01***	2001/02	2002/03
<b>Category</b>				
Total Base salaries	\$28.29	N/A	\$13.32	\$15.14
Allies permanent spending	\$4.43	N/A	\$5.74	\$4.07
Total operations, maintenance and construction spending	\$43.37	N/A	\$61.68	\$77.97

Total Base spending	\$76.09	N/A	\$80.62	\$97.18
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\* Includes: Spending on Salaries, Transients and Operations, Maintenance and Construction.

\*\*Calculated in dollar value of each year.

\*\*\* An economic impact of military flight training study was not conducted during this year.

### Economic Impact

For the years 1999, 2000 and 2002 studies, financial and employment information based on indicators similar to the above information was fed into the I/O model and used to generate indirect and induced impacts. Table Ex. Summary 3 shows the changes in personnel and spending by the Base for the years 1999, 2000 and 2002.

As shown in Ex. Summary Table 3, direct, indirect and induced employment and economic impacts in Labrador increased between 1999 and 2000 and decreased slightly in 2002 due to a slight decrease in overall direct expenditures.

**Table Ex. Summary 3**  
**Summary of Economic Impacts of 5 Wing Goose Bay for 1999, 2000 and 2002, Labrador (Pys and millions)**

Category	Direct			Indirect			Induced			Total		
	1999	2000	2002	1999	2000	2002	1999	2000	2002	1999	2000	2002
Employment (Pys)	671.5	760	730	350.4	430	410	328.1	290	251	1,350	1,480	1,391
Gross Domestic Product	\$45.29	\$50.62	\$50.09	\$4.00	\$4.01	\$4.20	\$18.61	\$18.01	\$16.01	\$67.90	\$72.64	\$70.30
Government Revenues	-	-	-	\$8.03	\$7.81	\$7.52	\$13.42	\$18.99	\$15.08	\$21.45	\$26.80	\$22.60

Table Ex. Summary 4 provides a summary of economic impacts of 5 Wing Goose Bay for 1999, 2000 and 2002 for the Province of Newfoundland and Labrador. As shown in Ex. Summary Table 4, direct, indirect and induced employment and GDP impacts in the Province of Newfoundland and Labrador increased between 1999 and 2000 and decreased slightly in 2002, due to lowered direct expenditures in 2002. Government revenues increased in 2000 and fell slightly in 2002 due to a drop in direct expenditures.

**Table Ex. Summary 4**  
**Summary of Economic Impacts of 5 Wing Goose Bay for 1999, 2000 and 2002, Province of Newfoundland and Labrador (PYs and millions)**

Category	Direct			Indirect			Induced			Total		
	1999	2000	2002	1999	2000	2002	1999	2000	2002	1999	2000	2002
Employment (Pys)	671.5	760	730	491.9	620	595	564.6	500	480	1,728	1,880	1,805

Gross Domestic Product	\$45.29	\$50.62	\$50.09	\$4.80	\$6.43	\$5.85	\$39.97	\$39.63	\$30.01	\$90.06	\$96.68	\$85.95
Government Revenues	-	-	-	\$9.65	\$12.39	\$11.15	\$18.81	\$23.29	\$21.34	\$28.46	\$35.68	\$32.49

Table Ex. Summary 5 compares the employment impacts by industry sector in 1999, 2000 and 2002 as a percentage of total impacts. The indirect and induced employment impacts on each of the major sectors remained relatively stable between 1999 and 2000 with the exception of (1) construction which increased by 6.6% in Labrador, (2) transportation, communications and utilities which increased by 2.3% in Labrador and (3) services which decreased by 8.3% in Labrador.

Over the three year period, construction has fluctuated in Labrador from 12.4% to 19% to 10% based on the level of activity on the Base. Only in 2002 did transportation, communications and utilities decline as a percentage of the total employment. Both the wholesale/retail trade and services categories have varied widely between 1999 and 2002, but this may have more to do with the way in which Statistics Canada defines these sectors than with anything structurally happening in those sectors.

**Table Ex. Summary 5**  
**Comparison of Indirect and Induced Employment Impacts By Sector, 1999, 2000 and 2002**  
**(as Percentage of Total Employment Impacts)**

	Employment Impacts for 1999		Employment Impacts for 2000		Employment Impacts for 2002	
	Labrador	Province of Newfoundland & Labrador	Labrador	Province of Newfoundland & Labrador	Labrador	Province of Newfoundland & Labrador
Agriculture, Forestry, & Fishing	0.7%	0.4%	0.34%	0.44%	0.10%	0.20%
Oil, Quarries	N/A	N/A	0.43%	0.26%	0.05%	0.07%
Manufacturing	0.2%	3.9%	0.23%	4.35%	0.03%	0.98%
Construction	12.4%	9.6%	18.99%	13.37%	10.44%	8.68%
Transportation, Communications & Utilities	7.9%	8.3%	10.24%	8.89%	4.48%	5.86%
Wholesale and Retail Trade	34.9%	30.8%	33.74%	29.43%	9.84%	9.98%
Services (1)	44.3%	47.0%	36.03%	43.25%	75.05%	74.23%
Salary Expenditures (2)	-	-				
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

(1) Services include financial, travel and other services such as business and retail services.

(2) This is a collection of 'dummy industries' used to capture expenditures made by various industries, such as salaries. The use of dummy industries is a Statistics Canada convention for input/output modeling.

### **Impact – Primary Industries**

The Base has limited economic impact on primary industries because of low production volume. As expected, the I/O model attributes less than 1% of all Base GDP and employment impacts to the primary industries' GDP and employment in Labrador.

### **Impact – Secondary Industries**

The studies for the years 1999 and 2000 pointed out that the Base had limited economic impact on the manufacturing sector within Labrador and the province as a whole because of low production volume. This is still true. Nonetheless, the percentage share of the Base's impact on manufacturing, as a percentage share of all of the Base's impacts, has decreased since the 2000 study.

The first study, using 1999 information, noted that recent downsizing at the Base had resulted in one-time severance packages as well as civilians moving off Base. This, in turn, resulted in a short-term escalation of residential construction and renovation. The second study, using 2000 information, noted that this activity had ceased. However, construction on the Base in the form of demolition and upgrades had increased. Both studies indicated that other major construction projects in the Study Area were also contributing to the economy (e.g. construction of the new hospital, high school, hotel, etc.). This study, using 2002 information, shows that some demolition and upgrading is continuing on the Base, but no indirect construction activity is occurring and only a limited amount of non-related Base construction activity is taking place (e.g. construction in Sheshatshiu and the promise of the final phase of the Labrador highway from Cartwright to the Study Area).

The Base's estimated percentage share of impacts on the construction sector's GDP, as a percentage share of all the Base's impacts in Labrador, decreased between 2000 and 2002 from 14.58% to 8.40% and the Base's estimated percentage share of impacts on employment within the construction industry, as a percentage share of all the Base's employment impacts in Labrador, decreased from 18.99% to 10.44% for the same time period.

The Base's estimated percentage share of impacts on the construction sector's GDP, as a percentage share of all the Base's impacts on GDP in the province of Newfoundland and Labrador, decreased between 2000 and 2002 from 11.57% to 6.82% and the percentage share of employment impacts, as a percentage share of all the Base's impacts on employment in the province decreased from 13.37% to 8.68% for the same time period.

### **Impact – Service Industries**

The situation for the service industries has begun to change since the 1999 and 2000 studies. In the context of the entire economy, the Base continues to have limited direct economic impact on the service industries with the two exceptions that were noted in the previous reports: local companies that had aggressively sought to service the Base or

companies that had targeted military personnel for specific goods and services. Other service companies (e.g. taxis, bars, and some restaurants and retail operations) might not have depended directly on the Base, but indirectly it contributed to their profitability.

Because this report is based on 2002 figures, it does not track the economic reality of 2003 in which many of the service companies, particularly those two exceptions noted in the two previous studies, as well as the transportation, food and beverage sub-sectors are beginning to feel the effects of the significant reduction in activities by the Allies due to either downsizing (i.e. Royal Air Force) or canceling their training (e.g. Royal Dutch Air Force).

Services are now defined differently by Statistics Canada and, therefore, any comparison with the previous year's study figures would be invalid. However, the Base's indirect and induced percentage share of impacts on Labrador's services sector GDP (including financial) was 40.44% in 2002. The Base's indirect and induced percentage share of impacts on Labrador's services sector employment (including financial) was 75.05% for the same time period.

On a qualitative note, the real estate sector benefits less in this study since the town has readjusted to the new housing mix. Tourism and recreation are also affected by changes in the Base's activities since hotels benefit directly from military use and indirectly as a result of contractors staying there. The Base also pays for the use of local recreational facilities.

Public administration; assistance to business; social infrastructure and services; medical and health services and facilities do not depend on the military and, therefore, are not significantly impacted by Base activities. They benefit indirectly as a result of a generally prosperous Study Area. The exception is the annual grant in lieu of taxes that the Base pays directly to the Town of Happy Valley-Goose Bay (approximately \$871,000, 2003). Post secondary education continues to be directly and positively affected as the military out sources some of its training and extra curricular needs.

Several recreational outfitters in Labrador and Québec were contacted for both the 2002 and 2004 studies to determine the impact of low level flights on recreational activities (e.g. hunting, fishing, hiking and other outdoor recreational experiences). Based on discussions with these recreational outfitters, it was determined that no negative impacts were associated with low level flights in both Labrador and Québec. No evidence was found of negative impacts on tourism and recreation services and facilities resulting from the flight training activities of Goose Bay. However, the Allies are strong supporters of some of the recreational infrastructure in the Study Area (e.g. training, swimming, skiing facilities) and any changes in the payment for use of those facilities could seriously affect their viability. Base personnel also volunteer their expertise and time to various community organizations and any change to their level of involvement could affect the ability of some of these organizations to operate effectively.

## **Review of EIS Recommendations**

The primary focus of the 1994 EIS recommendations was on training, recruitment and promotion; cooperation with local and regional business representatives, and avoidance

of non-consumptive adventure tourism. It should be noted that since 1994, DND has downsized by 25% and the Base was the first in Canada to undergo the Alternate Service Delivery Process. As a consequence, employment on the Base is approximately one third of its previous size. These significant changes have overshadowed socio-economic mitigation efforts recommended by the EIS Panel and accepted by government.

Although attempts have been made to develop training programs for specific job descriptions, to date, Serco has put no special training program initiatives in place for Aboriginal people or women. The Serco training program does not distinguish by type of person; it is solely job related.

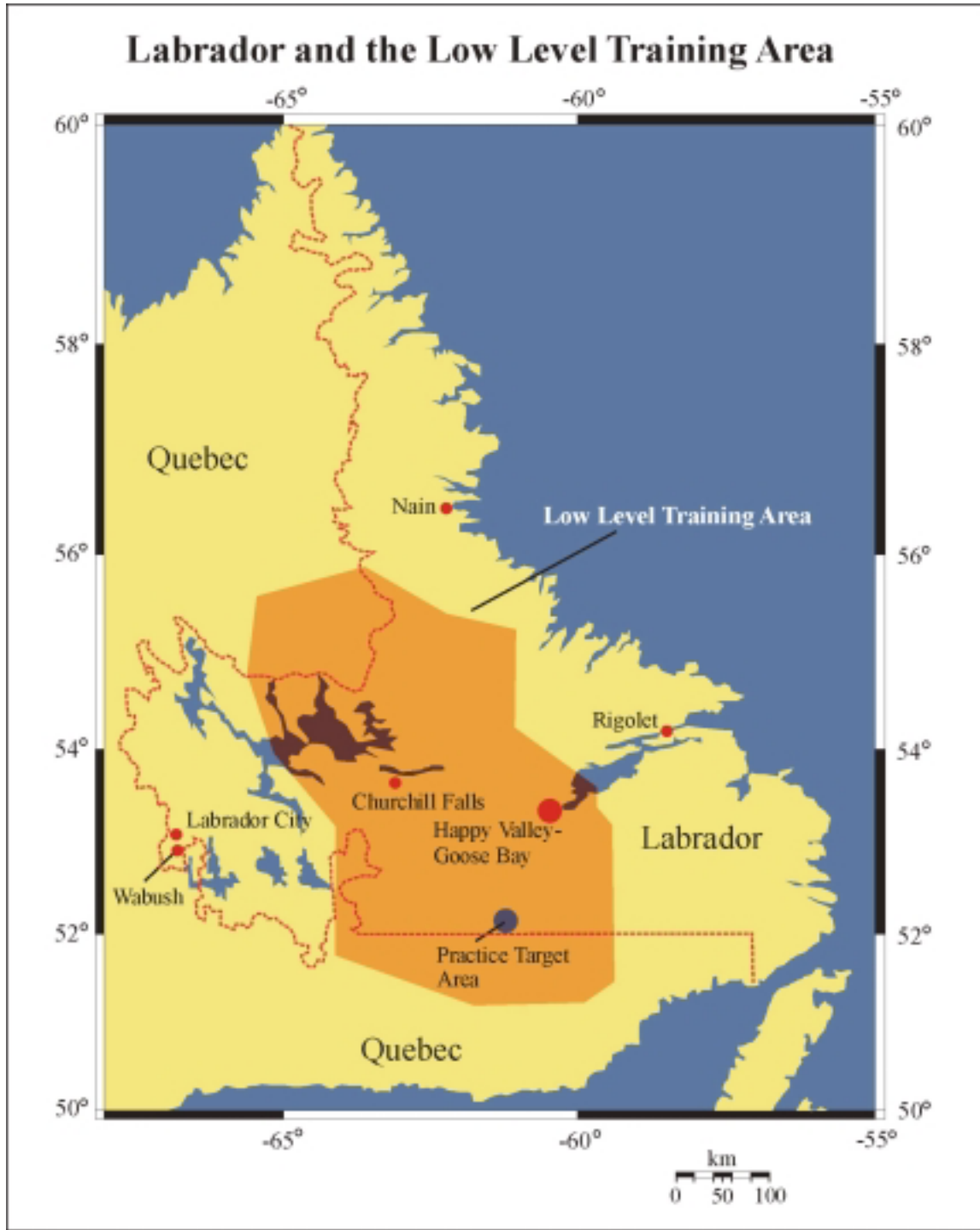
Local quantitative data on equity employment figures is unavailable for both DND and Serco. Serco does not record in any employee file, nor ask any employee whether they are of Aboriginal descent. However, Serco does collect Employment Equity statistics, based on employee self-declaration, which identify that Serco's average is higher than the Provincial average. The number of Aboriginals employed by DND is known. However, the data is sensitive and, therefore, cannot be released. However, Employment Equity statistics identify that DND's average is high.

There are no special initiatives targeted at employing Aboriginal people.

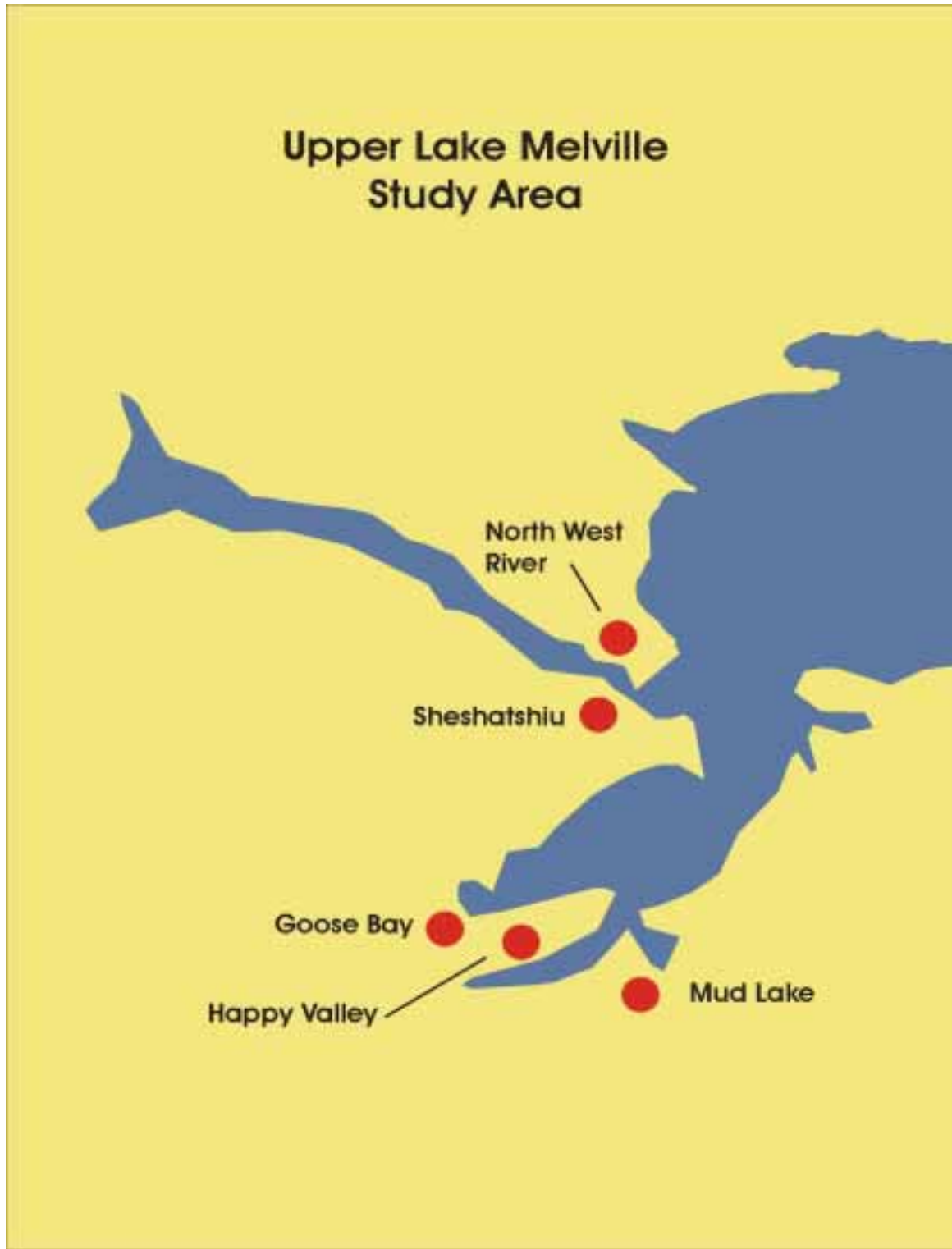
Serco is in the process of developing an employment Equity Plan, scheduled for completion during the first quarter of 2002. Both the Labrador Metis Association and the Labrador Inuit Association acknowledge that DND and Serco employ a substantial representation of their membership.

## **Summary**

In Labrador in 2002, low level flying activities at 5 Wing Goose Bay accounted for 1,391 of direct, indirect and induced person-years of employment, added \$70.30 million to Gross Domestic Product (GDP), and contributed \$25.42 million to government revenues. Considering the whole of the province of Newfoundland and Labrador, 1,805 person-years of employment were created, \$85.95 million was added to GDP, and \$32.49 million was contributed to government revenues by low level flying activities. These numbers are down in all categories from 2000, but are slightly ahead of the 1999 figures in Labrador and slightly ahead of the 1999 figures for the province of Newfoundland and Labrador with the exception of GDP. Economic impacts on Québec are minimal other than the purchasing of some goods and services for the Base.







## 1.0 INTRODUCTION

This study updates the previous two studies submitted in November 2000 and August 2002 respectively to the Institute for Environmental Monitoring and Research on the *Economic Impact of Low Level Flying on Labrador and Northeastern Québec*. These studies qualitatively and quantitatively assess the economic impacts of military flight training on the Upper Lake Melville Area, Labrador; Northeastern Québec, and the province of Newfoundland and Labrador for the years 1999, 2001 and 2002 (reports were produced in 2000, 2002 and 2003).

### 1.1 BACKGROUND

In January 1994, an *Environmental Impact Statement on Military Flight Activities in Labrador and Québec* was submitted to the Canadian Environmental Assessment Agency. As a result of this submission, the Environmental Assessment Panel appointed to review these activities made a number of recommendations. One recommendation was to create the Institute for Environmental Monitoring and Research (IEMR). Established in December 1995, its purpose is to investigate the impact of allied low-level flight training in Labrador and Northeastern Québec conducted from the Canadian Forces Base at Goose Bay.

The In-Town Mitigation Working Group (Working Group) of the Institute as well as several groups, including local town councils and development corporations, have emphasized the significance of the economic impact of military flight training to the economy of Labrador and Northeastern Québec, in general, and the Upper Lake Melville area, in particular. The Working Group recommended to the Scientific Review Committee of the Institute that an initial study on the economic factors associated with low-level flying be undertaken to determine the effects on the local economy.

The Review Committee approved proceeding with the study in May 1998, Terms of Reference were prepared, a competitive public bidding process occurred and a contract was awarded. The initial report was submitted to, and accepted by, the Working Group in November 2000. Shortly after, the Working Group recommended that a follow-up study, based on a competitive bidding process, occur approximately every two years. As a result, a Request for Proposals was made public and on November 14, 2001 a second study was awarded and was submitted to and approved by IEMR in August 2002. Because these studies provide the only comprehensive objective view of the Labrador economy and to a lesser degree the economy of the province and Northeastern Quebec, they have been in considerable demand by government departments, organizations and businesses. As a result, IEMR has decided to update these studies on an annual basis. This study is a result of that decision and was also based on a competitive bidding process. This study notes any changes that have occurred since the 2000 and 2002 studies. The report's authors recommend that anyone interested in the economy of the area refer to all three studies.

In 1994, military flight training activities in the Happy Valley-Goose Bay area underwent significant changes through cost reduction, additional downsizing and alternative service delivery (ASD). These changes had a significant psychological and economic impact on Upper Lake Melville and some economic impact on the economy of Labrador and

Northeastern Québec as well as on the province of Newfoundland and Labrador. These three studies quantitatively and qualitatively measure and assess the economic impact of military flight training activities on the Upper Lake Melville Study Area; they also document and assess other changes that have occurred to the economy of the Study Area as well as to Labrador (in less detail) since 1993.

These three studies are also important in that they depended on and received cooperation from numerous individuals representing various constituencies including the military, aboriginal groups, municipalities, business, education and community services, to name a few. Thus, these studies establish a method, template and data for on-going socio-economic research, provide an informational basis for future programs and policies as well as future research for members of the Working Group.

## **1.2 OBJECTIVES**

The objectives of this study are to update the 2000 and 2002 study data with regard to:

- employment patterns (military and civilian) at CFB Goose Bay;
- direct expenditures authorized by the Department of National Defence (DND) to businesses in Central Labrador and Northeastern Quebec;
- indirect expenditures (i.e. income expenditures) expended by Base personnel including the military trainees in Central Labrador, and
- induced benefits of the project, if any, from military activities in terms of economic diversification and training in Central Labrador.

In addition, this study:

- provides a comprehensive statement describing the past and current economy of the region against which project impacts are identified and evaluated including primary, secondary and service industries, and
- reviews DND's policies, procedures and practices to determine whether they have met the spirit and intent of the 1994 EIS Panel recommendations 16-18 as well as labour requirements of the Base, labour supply sources, imbalances between the requirements and supply sources and the success of strategies implemented by DND to address such imbalances including training and recruitment objectives.

## **1.3 METHODOLOGY**

### **1.3.1 Issues Identification and Methodology Review**

The first step in this economic impact assessment was to review the 2000 and 2002 studies to:

- determine the range of economic data and issues to be addressed;
- identify weaknesses in the previous data collection and analysis; and

- identify previous data and analysis that would be important in understanding the economy of the study area.

### 1.3.2 Baseline Description

Baseline data was obtained from the following sources:

- secondary data primarily from Statistics Canada, the Newfoundland Statistics Agency, and government departments on each of the principal economic sectors, and
- primary data from more than 40 people in the Study Area and almost 40 individuals outside the Study Area, each representing a government agency, and industry sector or a community agency. This approach not only helped to ensure accuracy in the reporting and verification processes, but also facilitated the incorporation of valuable anecdotal information.

Wherever possible, data was collected for the period 2001-2002. However, because of differing methods for collecting economic data, not all-economic sectors can be treated the same.

### 1.3.3 Effects Assessment

The economic effects of military flight training were assessed primarily through the use of an Input/output (I/O) model. The computer-based I/O model uses data collected on direct impacts (purchases of goods and services by 5 Wing Goose Bay and direct employment on the Base), and uses an algorithm to estimate indirect impacts (those resulting from inter-industry purchases of goods and services) and induced impacts (consumer spending of incomes earned in both direct and indirect activities). The economic impact is assessed for both Labrador and the province of Newfoundland and Labrador.

The I/O model estimates the gross-output and income flows associated with a specified economic activity by tracing the transmission of a demand shock throughout the economic system. The impacts are usually estimated in terms of increases in industry output, incomes earned by resource owners and employment. A full description of the I/O process is provided in Appendix D.

In addition, key informants knowledgeable about both the military and their community were consulted. Their information helped in assessing economic effects of military flight training on various economic indicator sectors.

In most cases involving the primary, secondary and service sectors, the measured impact as calculated by the I/O model as well as the qualitatively baseline information and impact assessment have not changed appreciably since the 2002 report. However, all quantitative data as calculated by the I/O model and all qualitative descriptions have been updated to reflect 2002 conditions.

#### **1.3.4 Limitations**

Most of the statistical data has been obtained from Statistics Canada and relies heavily on census data collected once every five years, which precludes using interim milestones by which to assess short-term changes in economic indicators. Where possible, interim milestones have been collected from other sources such as provincial government departments. Much of the 2001 census data was unavailable for the 2002 study. The situation has been corrected for this study resulting in all Selected Economic Performance Indicators (See Appendix A) being based on information from the 2001 census.

As requested in the original Terms of Reference, the 2000 report contained qualitative information about the non-wage economy. However, the methodology for the baseline information in the 1994 EIS with regard to the non-wage economy was not rigorous enough to produce good data. While maps showed distribution of resource use, they did not account for other areas, which may have been missed because of lack of informants. Because of the unreliability of the baseline information, it was problematic to measure changes against it. Even if the baseline data were adequate, a full harvest study with proper methodology would be required to ascertain change that has solid quantitative data and credibility.

Therefore, no information is provided on the non-wage economy or for resource harvesting sector by the Inuit, Inuu and Metis as this information is unavailable from any source other than anecdotal ones.

### **1.4 STUDY APPROACH**

Both geographic and temporal approaches were used in this study to define the impacts of military activities. For ease of reading of the report, the Upper Lake Melville Study Area is referred to as the Study Area and 5 Wing (or CFB) Goose Bay is referred to as the Base.

#### **1.4.1 Areas Affected by Low Level Flying Activity at CFB Goose Bay**

As a military installation, Canadian Forces Base Goose Bay (the Base) has a distinct area of operation. At the Base, ground facilities, staff accommodations and support services are located at Happy Valley-Goose Bay. In the air, flight activity occurs over the Low Level Training Area (LLTA) and the Practice Target Area (PTA). As an economic installation, one that purchases goods and services, and pays employee wages and salaries that are, in turn, used to purchase goods and services, its area of operation is less well defined. While many benefits accrue to the local economy, the Base generates economic effects throughout the rest of the province of Newfoundland, parts of Québec, and the rest of Canada.

Financial expenditures at the Base occur to meet operating and maintenance costs. This money can originate from outside the community, used to purchase local goods, and hence enter the local economy as a 'new' dollar. Conversely, money spent for specialized items not locally produced is considered a 'leakage' from the local economy. The impact of these expenditures is assessed in this study using an Input-Output model (described in 2.2). It tracks direct, indirect and induced Base effects in Labrador, and allows for leakage

by attributing those benefits to either the rest of the province of Newfoundland and Labrador or the rest of Canada.

## **1.4.2 Geographic and Temporal Scope**

### **1.4.2.1 Geographical Boundaries**

The study boundaries were established to ensure that all areas economically affected by low-level flying and training activities were included. The level or intensity of the effect determined the scope of this particular assessment (i.e. where the impact of the Base is strongest, the area received the closest scrutiny, and where the impact was low to minimal, the area received less attention). This approach reduces the possibility of overlooking areas where 'trickle-down' effects might occur, despite the sometimes-distant location of dedicated LLTA zones.

Accordingly, four impact areas are identified and described in decreasing level of detail prescribed for the study. Accompanying maps indicate their location.

#### **1. Upper Lake Melville**

When a runway was first installed on a plateau in Goose Bay, the accompanying community of Happy Valley was created as a residential and commercial service centre. As the Base became established in the community, its effects spread over a slightly wider area of the upper portion of Lake Melville. Therefore, the first impact area includes the incorporated towns of Happy Valley-Goose Bay and nearby North West River. The towns of Mud Lake and Sheshatshiu, also on the banks of Upper Lake Melville, complete this first impact area.

The population of Upper Lake Melville is estimated at 9,654. The population of Happy Valley-Goose Bay and North West River are 7,969 and 551 respectively (2001 Census). The 2001 Census does not release the population for Sheshatshiu, but gives the unorganized subdivision of 10c, which includes Sheshatshiu and Mud Lake, as 1,134. The 1996 Census gave the population of Mud Lake as 77 and in all likelihood the population of Mud Lake has decreased between 1996 and 2001. Although the Upper Lake Melville area encompasses nearly 73,000 square kilometres, the economic activity is concentrated in the 500 km<sup>2</sup> surrounding HV-GB (See Map 1).

The study of effects and impacts was focused on the Upper Lake Melville Study Area, and much of the baseline data and supporting qualitative information is supplied at this level. Because the accuracy of an I/O model diminishes considerably at the sub-provincial level, the quantitative economic assessment centres on the economy of Labrador. Given the concentration of activity in and around Happy Valley-Goose Bay, and to a lesser extent around Labrador City-Wabush, one can assume that much of the impact attributed by the I/O model to Labrador rests in the Upper Lake Melville Study Area.

#### **2. Labrador**

Labrador, that portion of the province of Newfoundland and Labrador that is attached to mainland Canada, is composed of five sub-areas: Labrador North Coast, Western

Labrador, Upper Lake Melville, Eastern Labrador and Labrador Straits. Totalling 265,400 km, Labrador is a sparsely populated and remote region of the country. The LLTA overpasses portions of Labrador (See Map 2).

As mentioned above, the I/O model quantifies the economic impact of low level flying activity on Labrador.

### **3. Province of Newfoundland and Labrador**

Canada's newest province includes both Labrador and the Island of Newfoundland. The impact of Base operations on all the province of Newfoundland and Labrador forms the third study area. The I/O model used in this study assesses the economic impact on the province of Newfoundland and Labrador.

### **4. Québec**

Québec has been included as a fourth study area for two reasons: first, the LLTA passes over parts of Québec, to the south and west of Labrador and, second, there are conceivably indirect or induced Base impacts on the economy of Québec. In trying to ensure all effects are captured, and given the dispersed nature of the population in this region of Québec, a large area was deliberately selected. It comprises two administrative regions. The first is Nord du Québec, an enormous tract of land (840,000 km<sup>2</sup>) north of the 49<sup>th</sup> parallel. With only 0.5% of the Québec population, it extends west to James Bay, east to the border with Labrador, and north to Ungava Bay. The second is Côte du Nord, a region that borders the St. Lawrence to the South, and Labrador to the North. Its coastline, from Tadoussac to Natashquan, extends for 1,300 km. Sparsely populated, 90% of the 106,000 habitants live on the shore of the St. Lawrence River. Half the population lives in either Sept-Îles or Baie-Comeau; both well removed from the LLTA. For the purpose of this study, this entire region is considered the Québec Study Area (See Map 3).

The province of Québec has divided Côte du Nord into six sub-regions, and where applicable, comments are made regarding MRC du Minganie, the sub-region that overlaps with the southern tip of the LLTA.

Québec is not included in the I/O model because insufficient details on the economy exist to accurately reflect direct, indirect and induced impacts.

#### **1.4.2.2 Temporal Boundaries**

The statistical work contained within this report has been assembled from numerous agencies and departments. Many of the background economic indicators rely on the Statistics Canada Census, done every five years.<sup>1</sup> The most recent Census was

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<sup>1</sup> Labrador is Census Division 10, while the Upper Lake Melville area is in Subdivision 10C. The Québec Study Area includes Subdivisions 95 through 99 inclusive, la Haute-Côte-Nord, Manicouagan, Sept-Rivières - Caniapiscou, Minganie - Basse-Côte-Nord, and Nord -du-Québec, respectively.

conducted in 2001 and that data, where applicable, has been included. For other areas, data is compiled annually, and in these cases the most recent available statistics are used.

## 1.5 PUBLIC CONSULTATION

In order to ensure that statistical information was balanced, enhanced and 'brought to life', a major interview process was established with key informants. In total, approximately 80 individuals were consulted, the majority of whom were from the Study Area and were knowledgeable about one or more of the key economic indicators as well as Base activities.

## 1.6 REPORT ORGANIZATION

The previous two reports provided information in the following order:

- selected performance indicators;
- sections that dealt separately with the wage sectors (i.e. primary, secondary and service) for the designated areas (i.e. the Study Area, Labrador, the province of Newfoundland and Labrador and Northeastern Quebec);
- economic impacts; and
- DND mitigation measures.

For ease of reading this report has been reorganized. It now contains only the qualitative and quantitative economic impacts of the Base on the economy of the Upper Lake Melville Study Area, Labrador, the province of Newfoundland and Labrador and Northeastern Quebec, where appropriate. The selected performance indicators and the baseline information regarding the various wage sectors are now found in Appendix A and B respectively.

Section 1 contains the background information and methodology.

Section 2 is the actual economic impact assessment of the Base on Labrador and the province of Newfoundland and Labrador. This section describes the economic impacts, measured in terms of Gross Domestic product (GDP) and employment (measured in person-years of employment) generated by the direct expenditures associated with the Base. The economic impacts are estimated as a result of a systematic breakdown of direct expenditures associated with the 5-Wing Goose Bay Base and allocating these expenditures to their respective industry sectors. This breakdown of expenditures information serves as the input into the economic input/output model, and the resulting output measures the estimated economic impacts, as presented in Section 2.

Section 3 provides qualitative information and quantitative information related to the indirect and induced impacts by sector of the Base on the Study Area and, to a lesser degree, on the rest of Labrador, the province and Northeastern Québec.

Section 4 reviews the success to date of DND's mitigation measures as outlined in the 1994 EIS as well as the panel's recommendations and the government's decision.

Section 5 contains the conclusion, which is based on the previous four sections.

Appendix A describes and analyzes pertinent economic indicators as well as past and present performances. Because the majority of effects are experienced in the Study Area, data, description and analysis is focused at this level. This information has broader application than just for this study and is useful for anyone wanting to obtain and understand changes to such economic performance indicators in Labrador as population, age, education, employment, income and transfer income.

Appendix B focuses on the wage economy of the Study Area, Labrador, the province of Newfoundland and Labrador and Northeastern Québec. This section contains both quantitative and qualitative information about the economy. As is the case for the selected performance indicators, this information has broader application than just for this study. It is useful for anyone wanting to obtain an up-to-date picture of the various sectors in Labrador, the province of Newfoundland Labrador and Northeastern Quebec and any changes to those sectors over the past three or more years.

Appendix C provides supporting data from which observations and conclusions were drawn for Labrador, the province of Newfoundland and Labrador and Québec Study Areas. Appendix D provides additional details on the I/O model. Appendix E is the bibliography of reports and information used to prepare this study. Appendix F provides a list of those persons contacted throughout the research component of this report. Appendix G contains the recommendations and their status of the *Environmental Impact Statement on Military Flight Activities in Labrador and Québec* (January 1994).

## 1.7 MILITARY BACKGROUND

Since September 1941, the Goose Bay military base has been located at the confluence of the Churchill River and Lake Melville. The area was first used as an airbase to support the Allied Ferry Command between Europe and the United States. In the 1950s, the Base became a support base for the Strategic Air Command and its population mushroomed to accommodate more than 12,000 military personnel and their dependents. In the 1960s, it was used for low level flight training, primarily for the Royal Air Force (RAF), but the Canadian presence was still very much felt.

By the 1980s, technology had advanced and the advantages of Goose Bay's location changed from being a mid-point between Europe and North America to being one removed from heavily populated areas. Low-level flight training escalated with the German Air Force (GAF) arriving in 1981 followed by the Royal Netherlands Air Force (RNLAf) in 1985. In 1986, a 10-year Multinational Memorandum of Understanding was signed between the Allies and the Canadian government, allowing the Allies to station aircraft and personnel at Goose Bay. Shortly afterward, the Canadian government proposed Goose Bay as a NATO Tactical Fighter and Weapons Training Centre, resulting in significant upgrading of the Base. However, when the Cold War abruptly ended in 1990, the NATO project was cancelled. From then on, activities on the Base were reduced.

The following lists the most significant Base related events during the last 13 years:

- 1991: the United States Air Force (USAF) withdraws.
- 1994: a 25% cost reduction is ordered at the Canadian Base.
- 1995: DND announces Alternative Service Delivery as the method for Base operations.
- 1997: DND issues a request for proposals for delivery of goods and services at 5 Wing Goose Bay. This contract is awarded to Serco Facilities Management Inc.
- 2000: The Italian Air Force begins training at the Base.
- 2001: The French Air Force begins training at the Base under GAF sponsorship. However, they soon indicate that they will not return until a broader range of training is available.
- 2002: The Royal Air Force downsizes from 123 families to 26.
- 2003: Royal Dutch Air Force notifies the Canadian military that it will not be returning for the 2003 flying season and that they will cease all operations at 5 Wing Goose Bay effective March 1, 2004 season (February 13)
- 2003: Public Works and Government Services Canada on behalf of DND, awards Serco its second contract to provide a range of base support activities. The contract will employ 290 and 350 personnel and is valued in the range of \$550 million Canadian dollars over eleven years (February).
- 2003: The German Air Force, responsible for approximately half of the activity on the airbase, confirms that they will be leaving Goose Bay in 2005 (September 2).
- 2006: MOU with Allies expires.

**Between 1994 and 1999, the number of DND employees was reduced from 1,500 to 113.**

Table 1 shows the number of DND and Serco employees for the time period 1999 – 2003.

	<b>1999/00</b>	<b>2000/01</b>	<b>2001/02</b>	<b>2002/03</b>
Military	91	94	94	94
Civilian Public funds	24	25	25	27
Civilian non-Public Funds	88	99	89	85
Serco permanent	412	419	414	340
Serco temporary	20	23	40	28
<b>Total</b>	<b>635</b>	<b>660</b>	<b>662</b>	<b>574</b>

(1) All employment in person year equivalents (Pys).

## **2.0 5 WING GOOSE BAY ECONOMIC IMPACT ASSESSMENT**

### **2.1 INDUSTRIAL PROFILE OVERVIEW**

Labrador as a whole has significant natural resources, many of which have yet to be developed. Between 1999 and 2002, the Labrador economy weakened as a result of decreased mineral exports from Labrador West and lack of progress in the development of the Voisey's Bay mine and the Lower Churchill Hydro-Development Project. However, new optimism and opportunities now exist in Labrador as a result of the Voisey's Bay project being given the green light by the provincial government on October 7, 2002. Immediately, the Labrador economy received a kick start as a result of the Voisey's Bay Nickel Company awarding more than in \$30 million in contracts by the end of 2002, much of which was for work in Labrador. In the long-term, more than 1,000 person years of employment will occur, again much of it in Labrador. Other positive signs for the Labrador economy include construction of the final link in the creation of a road from Labrador West to the Labrador Straits that will begin in 2004 with anticipated completion in 2010, thus providing:

- new opportunities for forestry on the southside of the Churchill River;
- cheaper transportation costs; and
- increased tourism opportunities.

Enthusiasm over these new opportunities was tempered somewhat by the decrease in scheduling activities by the Allies at 5 Wing Goose Bay in Happy Valley-Goose Bay and ongoing uncertainty regarding the fishery as well as the general concern over the long-term prognosis of the region as a result of Labrador being dependent on resource-based activities, making it vulnerable to fluctuations in the price of these commodities.

A more detailed description of the Study Area's economy, particularly "General Trade", can be found in Appendix B.7.3.2.

The economy of the Québec Study Area, especially Nord du Québec, is based largely on the industrial development of natural resources, usually with investment from outside

the region. This results in economic cycles, determined partly by commodity prices. This contributes to highs and lows over a relatively short period. For example, falling pulp prices, and export quotas to the U.S. cause temporary production halts.

Nord du Québec is regulated by the 1975 *Convention de la Baie-James et du Nord Québécois* (CBJNQ). In it, the Cree and Inuit gave up their ancestral rights in return for monetary compensation and exclusively held land (1.6% of the territory), as well as exclusive hunting and fishing rights over more than 18% of the land. Moreover, they obtained exclusive rights over certain game and fish in addition to preferential access to the rest of the territory. The Government of Québec made a commitment to promote the economic and social development of the Cree, Nascapi and Inuit, while guaranteeing their right to traditional means of subsistence.

Total investment in the Québec region, both public and private in 1995 was \$2.67 billion. Of this amount 46.5% was private and 51.5% was from the provincial government. 69.4% of the investment was in the tertiary sector.

In 2002, total capital expenditures (public and private ) in Quebec were \$38 billion. Total capital expenditure in the Côte du Nord Region was \$1.5 billion in 2002, representing 3.8% of total capital expenditure in the province of Quebec. Out of total capital expenditures in Côte-Nord, 25.7% was private sector capital expenditure and 74.3% represented public sector expenditure. Total capital expenditure in the Nord du Québec region of Québec was \$508.7 million, representing 1.3% of total capital expenditure in the province of Quebec. Of this amount, 30.2% was private sector capital expenditure and 69.8% was public sector expenditure.

Capital expenditures in the Côte du Nord region of Québec was largely in the services sector (81.5%), with the primary sector (8.9%), secondary sector (6.9%) and housing sectors (2.7%) receiving smaller shares individually.

In the Nord du Québec Region, the services sector received a slightly smaller share of capital expenditure in that region (79.9%), with the primary sector (13.1%), secondary sector (4.4%) and housing sectors (2.6%) also receiving smaller shares individually.

Baseline information regarding each of the economic sectors (primary, secondary and service) is found in Appendix B. The impact of 2002 Base activities on each of those sectors is found on the following pages.

## 2.2 5 WING GOOSE BAY ECONOMIC IMPACT ASSESSMENT

### 2.2.1 Economic Data

The following data was collected at 5 Wing Goose Bay for the operation of the input/output (I/O) model. In cases where direct information was not available, estimates were made using the best possible information coupled with the most logical inferences. All amounts are in 2000 dollars. A full list of the I/O data, complete with any assumptions detailed in full, is provided in Appendix D.

<b>Table 2 - Employment – 2002 Person Year Equivalent (PY)</b>		
Military	94	Department of National Defence.
Civilian (public funds)	27	
Civilian (non-public funds)	85	The non-public funds (NPF) employed on base, both full and part time are captured as indirect and induced PYs as their salaries result from expenditure of Base families.
Serco	368	Service provider selected by competitive bid.
Allied Permanent	240	Adjusted for being in Happy Valley/Goose Bay for 6-7 months of the year.
<b>Total</b>	<b>814</b>	

In the 2001 study, the total number of employees was 786.

<b>Table 3 – 2002 Salaries (\$ million)</b>		
Military Employee	5.93	
Civilian Employee	1.36	
Travel Allowance	0.49	
Non-Public Fund	0	Wages result from expenditure of military, civilian and allied wages already captured
Allied Permanent	7.37	Smaller number of allied permanent than in 1999. Uses estimates from 1999 study, adjusted for inflation and reduced to include only portion that remains in Canada.
<b>Total</b>	<b>\$15.15</b>	

In the 2001 study, the total amount of salaries was \$13.32 million.

<b>Table 4 – 2002 Transient Numbers and Spending</b>		
Allied Transients	7,085	
Allied Permanent		
RAF	\$455,467	Spending for transients uses same estimates as for 1993 study, adjusted for inflation
GAF	\$3,039,653	
RNLAF	\$569,942	
<b>Total spending (\$ million)</b>	<b>\$4.065</b>	

In the 2001 study, the total amount of spending was \$5.74 million.

<b>Table 5 – 2002 Operations, Maintenance and Construction (\$ millions)</b>		
Serco ASD Contract	31.132	Excludes wages and salary component.
CCC Contracts	1.43	Includes janitorial contracts for RAF, GAF and RCAF
Construction	6.426	Includes construction done by Serco, Defence Construction Canada and Canadian Forces Housing Agency
Other contracts	38.977	Includes aviation fuel, liquid oxygen, electricity, central heating power plant fuel, payments in lieu of taxes, janitorial and other miscellaneous.
<b>Total</b>	<b>\$77.97</b>	

In the 2001 study, the total amount of spending on operations and maintenance was \$61.67 million.

## 2.2.2 Input/ Output Model

### Characteristics

This section provides the measures of economic activity associated with the operation of CFB Goose Bay, measured as economic impacts. The economic impacts at the sub-provincial (Labrador) level are estimated using a privatized version of the Statistics Canada model. The impact run was custom designed for the Study Area. Many of its parameters were created from a survey of the local economy for the initial EIS of the proposed NATO facility in the mid 1980s. It was then updated and expanded for use in the 1993 Technical Report 14 and was updated for use for both the 2000 and 2002 studies. This model is calibrated for a very specific economy and situation, and drawing conclusions about other situations or studies based on its outputs is not recommended. Industries in the local economy are dependent upon other industries for the supply of intermediate goods. This relationship is captured in an input-output model. Since in an input-output model, industry production functions are linear and inputs are used in fixed proportions, economies and diseconomies of scale are not possible.

It should be noted that any significant rise in fuel prices, an important commodity for the Study Area, may affect inter-industry relationship. Since prices and wages in an input-output model assumes prices and wages are fixed, impact result may not reflect that reality.

An input-output model does not identify negative aspects associated with the impact of a project or activity in terms of scarcity of existing resources. The I/O model is not supply-oriented, and does not represent any increased costs associated with increased costs of inputs as output increases. It omits any consideration of pressures on resources, production bottlenecks, or input restrictions. The fixed price assumption and the lack of a dynamic time frame preclude any assessment of inflation impacts.

Two versions of the input-output model have been used in our analysis. The 'open model', where household incomes generated in the production process are not re-spent and treated as leakage from the system, is used to generate the indirect impacts. In the open model, only the inter-industry spending effects are analyzed. Alternatively, we also

used a 'closed model', where incomes generated in the production process are spent on goods and services, taxes and savings, to generate the induced impacts. The closed variant is generally 'closed' with respect to the household sector. Hence, incomes generated by final demands are re-spent by the household sector on consumer goods and services, and taxes, or are saved. In the closed model, personal income taxes and savings are leakages from the household sector.

The following assumptions and conditions form the basis of the model's operation:

- Total employment and income impacts are comprised of three components: *direct impacts* (direct purchases of goods and services and salaries of personnel at 5 Wing Goose Bay), *indirect impacts* (inter-industry purchases of goods and services), and *induced impacts* (consumer spending of incomes earned in both direct and indirect activities).
- The model is based on fixed coefficients since it is calibrated as a point-in-time estimate. Therefore, the relationship between income and employment is linear.
- All prices and wages are fixed and are measured in \$2002 in this analysis.
- The model assumes an increase in one industry's sales will result in the industry hiring more labour (In reality, an industry is unlikely to increase their labour in the same proportion as their sales have increase. In addition, if excess employment capacity is prevalent in the economic system, increased sales would really not require the same increased labour). Therefore, the employment impact estimates generated by the input-output model should be considered as potential or high-end employment estimates.
- Employment is expressed in terms of person-years (PY). One person-year is equivalent to year-round, full-time employment for one person. Two people who work for six months of the year, or two people who each work half-time for a full year, are each equal to 1 PY.
- Imports into the region create leakages of monies outside of the regional economy. In an economy such as central Labrador, most goods are imported from outside the region.
- Income is measured in terms of gross domestic product (direct and indirect GDP) and is defined as the value of the gross output of the economy in question.
- Military and civilian direct and indirect employees are treated in aggregate as a 'household'. The 5-wing Goose Bay Base purchases the labour "households" provide.

### 2.2.3 Economic Impacts

The financial information based on direct expenditures is fed into the I/O model and used to generate the indirect and induced impacts. Table 6 shows the estimated economic

and employment impacts for 2000 and 2002. From this table it can be seen that the direct, indirect and induced employment impacts have decreased between 2000 and 2002 in Labrador and the province of Newfoundland and Labrador as a result of decreased direct expenditures. Direct, indirect and induced contribution to the GDP in Labrador and for the province also decreased during that same time period. Government revenues in Labrador and for the province were also reduced between 2000 and 2002 as a result of reduced direct expenditures.

<b>Table 6 Comparison of Economic Impacts of 5 Wing Goose Bay, Labrador, Estimated Impacts for 2000 and 2002 for Labrador and province of Newfoundland and Labrador</b>									
	Estimated Impacts for 2000 (Amounts in \$2000, Millions)				Estimated Impacts for 2002 (Amounts in \$2002, Millions)				
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total	
<b>Labrador</b>									
Employment (PYs)	760	430	290	1,480	730	410	251	1,391	
Gross Domestic Product	\$50.62	\$4.01	\$18.01	\$72.64	\$50.09	\$4.20	\$16.01	\$70.30	
Government Revenues	-	\$7.81	\$18.99	\$26.80	-	\$7.52	\$15.08	\$22.60	
<b>Province of Newfoundland and Labrador</b>									
Employment (PYs)	760	620	500	1,880	730	595	480	1,805	
Gross Domestic Product	\$50.62	\$6.43	\$39.63	\$96.68	\$50.09	\$5.85	\$30.01	\$85.95	
Government Revenues	-	\$12.39	\$23.29	\$35.68	-	\$11.15	\$21.34	\$32.49	

The impact varies by industry. Table 7 indicates which sectors are affected and by how much; a detailed discussion is provided in Section 2.3.

<b>Table 7 Indirect and Induced Economic and Employment Impact on each Sector, 2002 (as Percentage of Total)</b>				
	Labrador		Province of Newfoundland and Labrador	
	GDP	Employment	GDP	Employment
Agriculture, Forestry, & Fishing	0.15%	0.10%	0.32%	0.20%
Oil, Quarries	0.13%	0.05%	0.17%	0.07%
Manufacturing	0.12%	0.03%	2.18%	0.98%
Construction	8.40%	10.44%	6.82%	8.68%
Transportation, Communications & Utilities	9.62%	4.48%	10.31%	5.86%
Wholesale and Retail Trade	4.48%	9.84%	4.74%	9.98%
Services <sup>(1)</sup>	40.40%	75.05%	39.60%	74.23%
Salary Expenditures <sup>(2)</sup>	36.71%	-	35.84%	0.00%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100.00%</b>	<b>100.00%</b>

- (1) Services include financial, travel and other services such as business and retail services.
- (2) This is a collection of 'dummy industries' used to capture expenditures made by various industries, such as salaries. The use of dummy industries is a Statistics Canada convention for input/output modeling.

Table 8 is a result of direct expenditures associated with 5-Wing Goose Bay. This table compares the employment impacts by industry sector in 2000 and 2002. Comparing employment impacts across year for each of the sectors provides a comparison of the relative employment impacts - that is the impacts relative to total employment impacts in that year. As highlighted in the comparison table below, the relative employment impacts across sectors are similar for 2000 and 2002. The relative employment impacts were slightly larger in the construction sector in 2002 than in 2000 for both Labrador and the province. Alternatively, the relative employment impacts in the services sector in 2002 are slightly lower than in 2000 for both Labrador and the province as a whole.

<b>Table 8 Comparison of Indirect and Induced Employment Impacts By Sector, 2000 and 2002 (as Percentage of Total Employment Impacts)</b>				
	Employment Impacts for 2000		Employment Impacts for 2002	
	Labrador	Province of Newfoundland & Labrador	Labrador	Province of Newfoundland & Labrador
Agriculture, Forestry, & Fishing	0.34%	0.44%	0.10%	0.20%
Oil, Quarries	0.43%	0.26%	0.05%	0.07%
Manufacturing	0.23%	4.35%	0.03%	0.98%
Construction	18.99%	13.37%	10.44%	8.68%
Transportation, Communications & Utilities	10.24%	8.89%	4.48%	5.86%
Wholesale and Retail Trade	33.74%	29.43%	9.84%	9.98%
Services(1)	36.03%	43.25%	75.05%	74.23%
Salary Expenditures(2)	-	-	-	0.00%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100.00%</b>

(1) Services include financial, travel and other services such as business and retail services.

(2) This is a collection of 'dummy industries' used to capture expenditures made by various industries, such as salaries. The use of dummy industries is a Statistics Canada convention for input/output modeling.

Table 9 indicates the changes between 2000 and 2002 in indirect and induced economic and employment impacts on each sector.

**Table 9**  
**Indirect and Induced Economic and Employment Impact on each Sector**  
**(as Percentage of Total)**

	Estimated Impacts for 2000 (as Percentage of Total Impacts)				Estimated Impacts for 2002 (as Percentage of Total Impacts)			
	Labrador		Province of Newfoundland and Labrador	Province of Newfoundland and Labrador	Labrador		Province of Newfoundland and Labrador	Province of Newfoundland and Labrador
	GDP	Employment	GDP	Employment	GDP	Employment	GDP	Employment
Agriculture, Forestry, & Fishing	0.35%	0.34%	0.90%	0.44%	0.15%	0.10%	0.32%	0.20%
Oil, Quarries	0.72%	0.43%	0.50%	0.26%	0.13%	0.05%	0.17%	0.07%
Manufacturing	0.21%	0.23%	4.53%	4.35%	0.12%	0.03%	2.18%	0.98%
Construction	14.58%	18.99%	11.57%	13.37%	8.40%	10.44%	6.82%	8.68%
Transportation, Communications & Utilities	11.74%	10.24%	10.71%	8.89%	9.62%	4.48%	10.31%	5.86%
Wholesale and Retail Trade	9.09%	33.74%	9.23%	29.43%	4.48%	9.84%	4.74%	9.98%
Services(1)	13.79%	36.03%	17.88%	43.25%	40.40%	75.05%	39.60%	74.23%
Salary Expenditures(2)	49.22%	-	44.35%	-	36.71%	-	35.84%	0.00%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

(1) Services include financial, travel and other services (e.g., business and retail services.)

(2) This is a collection of 'dummy industries' used to capture expenditures made by various industries, such as salaries. The use of dummy industries is a Statistics Canada convention for input/output modeling.

## 2.3 ECONOMIC IMPACTS IN 2002 AS RESULT OF DIRECT EXPENDITURES ASSOCIATED WITH 5-WING GOOSE BAY

The economic impacts generated by direct expenditures associated with 5-Wing Goose Bay represent a healthy impact, both to the local economy and the economy of the province of Newfoundland and Labrador. The Base remains the most important economic driver to the local economy.

## 3.0 ECONOMIC IMPACT ON INDUSTRIAL SECTORS

### 3.1 PRIMARY INDUSTRIES

#### 3.1.1 Agriculture

With the exception of fur farming (see below), the situation has not changed since the 2000 and 2002 reports.

Because of the low volume of agricultural products produced in the Study Area, the Base does not buy products directly from local farmers. However, some civilian personnel may buy small quantities of farm products for their own use. Some locally produced

manure is sold to the Base for bio-remediation of spills from tanks storing petroleum-related products.

Fur farms in the Study Area have expressed a concern with low level flying. Their concerns have been primarily over the low level flying of SAR operations, which they feel have had a negative affect on the animals, especially during times of breeding and birthing.

### **3.1.2 Forestry**

The situation has not changed since the 2000 and 2002 reports.

Serco buys lumber for on-going needs on the Base. They source through three local lumber distributors who buy commodity lumber (2x3, 2x4, 2x6) locally whenever possible. Specialized and larger sizes, which are not available locally, come primarily from Québec, although some comes from the Island. The majority of the lumber companies sell to retailers who, in turn, make products or deliver services to Serco. The DND account is significant to these stores, but is not necessarily the largest. In 2003, one lumber company suggested that approximately 25-30% of his sales were directly Base related. Base related sales average between \$10-50,000 per month.<sup>2</sup>

### **3.1.3 Fishery**

This situation has not changed since the 2000 and 2002 reports. No commercial production of fish occurs in the Study Area. However, many civilians engage in a recreational fishery. Of the Allies, the German Air Force are the primary participants in the recreational fishery using the facilities at Alexander Lake approximately eight km from the Base and No Name Lake, approximately 52 air miles south of the Base. The latter employs one.

### **3.1.4 Hunting and Trapping**

This situation has not changed since the 2000 and 2002 reports.

Some civilians working and living on Base have hunting and/or trapping licenses. Approximately 20 members of the German Air Force have hunting licenses. Hunters require a Hunter's Identification Card issued by the Provincial Department of Forestry and Agrifoods after completion of a hunter safety course. Small game licenses are available from local vendors as are caribou and black bear hunting licenses. Posting to the Base automatically qualifies CF members as residents and, therefore, eligible to obtain hunting licenses. In total, approximately 50 individuals working and/or living on Base have caribou licenses. Members of the German Air Force are the primary buyers of furs, although the amount bought by them has decreased in recent years.

Because the economic impact of the Base on hunting and trapping is so small, it can not be measured using the I/O model.

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<sup>2</sup> Source: 5 Wing Goose Bay, local suppliers.

### 3.1.5 Hydro-electricity

The situation remains unchanged from the 2000 and 2002 reports.

If the Labrador Hydro Project proceeds, increased competition for both personnel and facilities could occur. However, given the recent downsizing at the Base, this is not anticipated to be a problem. Hydro-electrical issues that might impact the Base include:

- Evaluation of Base generation facilities by Quadratec Inc.;
- The 2002/3 Hydro rate hearing ruling;
- Hydro plans regarding transmission and generation upgrades in the Goose Bay area; and
- Labrador Hydro Project activities

Table 10 shows that the I/O model's calculations of the indirect and induced effects on electrical and other utilities to be:

<b>Table 10 - Summary of Indirect and Induced Economic and Employment Impact on Hydro-electricity, 1999, 2000, 2002</b>						
	1999		2000		2002	
	Labrador	NL	Labrador	NL	Labrador	NL
GDP impact	5.5%	6.0%	7.26%	5.72%	5.63%	4.58%
Total employment impact	2.8%	3.0%	3.66%	2.56%	2.00%	1.66%

A portion of the sales within household expenditure (induced impact) would also be attributed to electrical and other utilities.

### 3.1.6 Mining

The situation remains unchanged from the 2000 and 2002 reports.

Little direct economic impact on the mining industry occurs as a result of the military. Some use of sand and/or gravel pits might take place for road maintenance on the Base, but given the reduced level of Base related construction and maintenance activity, this is not likely to be significant. The Voisey's Bay Nickel project has had a positive indirect impact on Base activities in that some laid off Base personnel, as a result of ASD or downsizing, have found new opportunities for employment with the project or project related companies.

Table 11 shows that the I/O model's calculations of the indirect and induced effects on mining to be:

**Table 11 - Summary of Indirect and Induced Economic and Employment Impact on Mining, 1999, 2000, 2002**

	1999		2000		2002	
	Labrador	NL	Labrador	NL	Labrador	NL
GDP impact	0.0%	0.5%	0.72%	0.5%	0.13%	0.17%
Total employment impact	0.0%	3.0%	0.43%	0.26%	0.05%	0.07%

A portion of the sales within household expenditure (induced impact) would also be attributed to oil and mining operations.

### 3.2 SECONDARY INDUSTRIES

#### 3.2.1 Manufacturing (Crafts, Dimension Stone, Other)

Manufacturing remains a relatively underdeveloped sector in the Study Area. Some retail manufacturing (e.g. manufacturing of sewn good such as tents and uniforms; meat processing) and tank fabricators exist as well as a few businesses that manufacture directly for military needs (e.g. oxygen). The Base impacts on this industry through the direct purchase of manufactured goods and the indirect purchase of manufactured goods by Base personnel for personal use. As a small industry that depends directly and indirectly on the military for the purchase of a portion of its product, any reduction in military presence will negatively impact this industry. In 2002, these industries had begun to experience a decline in business directly related to a decrease in military personnel and expenditures. In 2003, the decrease in volume of business was between 20-30% from the previous year.

The Allies and related military personnel contribute to the craft industry. As was the case in the 2000 and 2002 reports, the Allies are primarily interested in buying souvenirs reflecting the northern culture rather than the more expensive "one-of-a-kind" items. They are also more interested in representations of the north than in whether or not items are locally made. Since approximately 50-60% of all crafts made in Labrador are sold outside of the region, the contribution of the military, while important, is not significant, except to the private galleries as well as to the retail sector, which brings in commercially made souvenirs.

Table 12 shows that the I/O model's calculations of the indirect and induced effects on manufacturing to be the following:

**Table 12 - Summary of Indirect and Induced Economic and Employment Impact on Manufacturing, 1999, 2000, 2002**

	1999		2000		2002	
	Labrador	NL	Labrador	NL	Labrador	NL
GDP impact	0.21%	4.53%	0.21%	4.53%	0.12%	2.18%
Total employment impact	0.23%	3.9%	0.23%	4.35%	0.03%	0.98%

A portion of the sales within household expenditure (induced impact) would also be attributed to manufacturing.

### 3.2.2 Construction

Between 1993 and 2000 all major construction projects in the Study Area were off Base. However, the value of the construction industry in the Study Area reached its second highest level in eight years in 2001 (approximately 42% of all Study Area construction activity), primarily as a result of upgrading and demolition activities on the Base. Because of the decrease in other construction activities in 2003, the upgrade and demolition on the Base have increased in importance.

2001 Infrastructure renovations/upgrades included:

- renovations to the Chapel, wing gym and bowling alley;
- upgrades of the Airfield lighting; and
- upgrades to the airfield ramp.

2002/2003 renovation/upgrade projects included:

- exterior of Wing MIR/Dental Clinic;
- Allied Mess and Wing headquarters;
- Vehicle Maintenance Garage, and
- interior of Canex,

Upgrades planned for 2004 include:

- Base electrical rehabilitation;
- Biting Fly Control program (ongoing);
- overhaul of the Arrestor Barrier System runway 16/34;
- renovations of the interior of the Wing theatre;
- an Asbestos survey;
- rehabilitation of the Base Water Distribution System; and
- interior of the Base Theatre.

Other construction projects for 2001-2002 involving outside contractors included:

- demolition of the hospital, heating plant, US NCOs Mess, five storage bunkers, buildings 58 and 1086, the Goose Hilton and the married quarters.

Four buildings have thus far been demolished in 2003 and four more are scheduled. As well, nine fuel tanks in the Survival Tank Farm will be demolished shortly.

Based on a standing offer procedure established through a competitive bid process at the beginning of each fiscal year, small local contractors carry out on-going repair and maintenance on the Base. Companies wishing to provide products or services to Serco are required to first submit to a Quality Assurance Supplier Evaluation questionnaire.

Once approved, these companies are incorporated into the Approved Suppliers List for products and services offered. For purchase up to \$2,000, suppliers/subcontractors may be selected from the Approved Suppliers List. Where possible, a minimum of three companies on the Approved Suppliers List will be asked to provide a quotation.

Serco also operates a formal tendering process involving a Tender Board. Tenders are used for engineering project valued in excess of \$5,000.00 except where sole sourcing is deemed appropriate. Invitation to tender is generally advertised in the local media, on the Internet or by direct invitation. Companies not on the Approved Supplier List may bid, but only after they successfully pass an evaluation to get on the Approved Suppliers List as part of the tender process.<sup>3</sup>

Between 1993 and 1999, home renovations in the Study Area increased as a result of the Base downsizing. Those who received 'the package' invested in renovations that they previously could not afford. By 2002, most of these renovations had been completed. In 2003 local home repair and lumber shops reported flat sales.

In 1996 residential construction began increasing in the Study Area and continued until 2001. This growth was partially attributed to DND employees living on Base who took early retirement, lost their jobs through Alternative Service Delivery, or who had been notified to move off the Base within the next 10 years. In 2002 housing construction continued in the Study Area. However, it was no longer directed at individuals formerly living on the Base, but rather at individuals moving in from the coast or young people taking advantage of low interest rates. In 2003, housing construction was flat.

Table 13 shows that the I/O model's calculations of the indirect and induced effects on construction to be the following:

<b>Table 13 - Summary of Indirect and Induced Economic and Employment Impact on Construction, 1999, 2000, 2002</b>						
	1999		2000		2002	
	Labrador	NL	Labrador	NL	Labrador	NL
GDP impact	14.9%	11.7%	14.58%	11.57%	8.4%	6.82%
Total employment impact	12.4%	9.6%	18.99%	13.37%	10.4%	8.68%

A portion of the sales within household expenditure (induced impact) would also be attributed to construction.

### 3.3 SERVICE INDUSTRIES

#### 3.3.1 Overview

The situation for the service industries has changed since the 2000 and 2002 reports. In the context of the entire economy, the Base continues to have limited direct economic

<sup>3</sup> Serco website: [www.serco-goosebay.com](http://www.serco-goosebay.com).

impact on the service industry. The two exceptions noted in the 2000 and 2002 reports were: local companies that aggressively sought to service the Base and companies that had targeted military personnel to supply specific goods and services. As a result of ASD and downsizing during the late 1990s, the volume of goods and services provided to the Base by local companies was reduced in some cases, but in other cases it remained stable. However, with the decision by the Dutch not to return for the 2003 flying season, some of the service companies directly supplying the Dutch began to see a reduction in their volume and gross profit.

Other service companies may not depend on the Base, but it has an indirect economic impact on them (i.e. it contributes significantly to the profitability of these businesses). These service companies include taxis, local bars, real estate, some restaurants and retail stores. For the most part, despite ASD and related downsizing, these businesses had not experienced a significant drop in sales during the study period for both the 2000 and 2002 reports for the following reasons:

- the number of Allies had, in fact, increased with the arrival of the Italians;
- ASD resulted in the mix of companies supplying the Base changing, but not necessarily the volume of business;
- those employees who had been laid off or retired received financial packages resulting in ongoing local spending; and
- the Base consolidated the housing situation resulting in employees moving from the Base into the Study Area causing a small boom in the construction and service industries.

However, the service sector picture began to change in 2002 when the RAF announced they were reducing the number of onsite families from 123 to 26. Since many of the RAF families were buyers of local goods and services, this action caused a negative indirect impact on some of the service sector. The situation was exacerbated in 2003 when the Dutch Air Force announced it would not be returning for the 2003 flying season.

Table 14 shows that the I/O model's calculations of the indirect and induced effects on services (excluding transportation, communication and financial services) to be:

<b>Table 14 - Summary of Indirect and Induced Economic and Employment Impact on Services (excl. Transportation, Communication and Financial Services) 1999, 2000, 2002</b>						
	1999		2000		2002	
	Labrador	NL	Labrador	NL	Labrador	NL
GDP impact	7.0%	9.7%	8.21%	11.72%	33.5%	31.5%
Total employment impact	38.0%	40.1%	30.07%	37.20%	48.6%	45.2%

The increase may be due more to changes in subsector definition than in a major increase of activity.

A portion of the sales within household expenditure (induced impact) would also be attributed to these services.

### 3.3.2 Transportation, Communications and Other Utilities

The Base has little impact on the Labrador Highway road system, except that it benefits from cost savings due to reduced road transportation costs. Most trucking companies report little direct freight for the military, but do acknowledge that much of the goods and services brought to Happy Valley-Goose Bay are for individuals and households directly or indirectly related to the military. One trucking company said that approximately 20% of all freight destined for the Study Area is directly or indirectly for the military.<sup>4</sup>

The volume of air traffic is dependent on a number of factors including: the number of airlines servicing the region; the amount of available disposable income; the degree of military or economic activity in the area; budget restraints within governments and climatic factors resulting in delays to marine shipping. During 2002, the airport handled an average of 68,000 civilian passengers compared with 98,266 civilian passengers for the same time period 2000-2001. The volume of air passenger traffic in the Study Area decreased significantly in 2003 due to changes in airlines, use of smaller planes, and changes in schedules as well as the Voisey's Bay Project whose charters do not use the commercial airport, thereby siphoning off potential passengers.

As a result of downsizing on the Base, military flights, other than 'sorties', have been reduced. With reduced personnel on Base, the number of Temporary Duty (TD) personnel and military related personnel traveling to and from the Study Area on business, especially between Ottawa and Winnipeg and the Study Area, and Leave Travel Allowance (LTA) has been reduced. Additionally, the elimination of the Hercules cargo planes in 2002, in turn, eliminates the need for staff to service these planes.

Although figures are difficult to quantify, airport personnel estimate that in 1993 the ratio of military to civilian traffic was 55%-50% to 45%-50%. In 1999, this figure changed to approximately 32%/68%. In 2003, as a result of changes to both civilian and military traffic, the ratio is approximately 35%/65%.

In 2002 one travel agency stated that approximately 25% of its business was based directly on the military and approximately 50-60% was indirectly related to the military. In 2003 another travel agency reported that none of its travel was directly related to the Base, but indirectly much of its business is Base related. If the Base did not exist, in all likelihood neither would the travel agency.

In Happy Valley-Goose Bay, military personnel use taxis to buy goods and local services including food and souvenirs as well as to dine, visit night clubs, get a hair cut or sight see to North West River. The military directly represents about 10% of the total taxi business; the indirect impact is unknown. The taxi business in North West River/Sheshatshiu is not military dependent.

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<sup>4</sup> Source: TST Overland Express

Telephone service is provided through Aliant and Internet service is provided through Labrador Speciality Services Inc. and Aliant. Any significant negative change in the number of customers affects the profitability of both companies in Labrador.

The I/O model calculates the indirect and induced effects on transportation and communication to be the following:

Table 15 shows that the I/O model's calculations of the indirect and induced effects on transportation and communication to be the following:

<b>Table 15 - Summary of Indirect and Induced Economic and Employment Impact on Transportation and Communications, 1999, 2000, 2002</b>						
	1999		2000		2002	
	Labrador	NL	Labrador	NL	Labrador	NL
GDP impact	4.1%	4.5%	4.48%	4.98%	3.99%	5.73%
Total employment impact	5.1%	5.3%	6.58%	6.33%	2.48%	4.20%

A portion of the sales within household expenditure (induced impact) would also be attributed to transportation and communication.

### 3.3.3 General Trade

The situation described in the 2000 and 2002 reports has changed. As discussed in the two previous reports, Canex, the military supply store, sells goods to both military and civilian personnel. Nonetheless, many military personnel buy off Base in order to purchase a greater variety of items and take advantage of sales. Some retailers have found, and subsequently strengthened, certain niche markets as a result of the military. As an example, some goods such as blue jeans and baseball bats are more costly in the Allies' countries and, therefore, military personnel buy significant quantities of these items in the Study Area during their rotations. Permanent members of the Allied detachment, who are posted to the Study Area for approximately three years, buy larger items such as snowmobiles, cars and trucks and also have these items serviced locally. Some stores, such as Burger King, employ children or spouses of Canadian military personnel. Since the Allies participate in a two-week rigorous training schedule with only one day off a week, local purchases generally consist of phone calls, blue jeans, theatre tickets, coffee, drinks, food, personal items and small souvenirs. Although each Allied Air Force has its own bar on Base, occasionally members frequent some of the more than 13 local nightclubs. Some nightclubs, stores and restaurants are more frequented by the Allies than others and, therefore, experience significant seasonal variations in sales. In both 2002 and 2003 many of the bars reported between 25-50% of their income as directly military related.

In 2002 and 2003 other retailers reported anywhere from 5-15% of direct sales and 15-30% indirect sales were military related. Therefore, any reduction in the number of Allies rotating through the Base primarily impacts the service sector. With the Dutch gone, the RAF reducing the number of personnel and their families stationed at the Base, and the

Germans planning on leaving in 2006, retailers, particularly fast food operations, convenience stores, and bars, are already feeling the economic pinch. A reduction in the number of permanent staff assigned to each Allied Air Force (e.g. the RAF) has a more significant impact on the local economy than the rotating Allies in that the former are more likely to buy larger ticket items, participate in community activities and take local holidays.

Several retailers commented that if the present situation continues, they will be reduced to family operations and the Study Area will become a place for the elderly. With less disposal income available, individuals will shop at retail operations less frequently, particularly for optional or luxury goods and services such as going to restaurants and bars or buying high-end ticket items. Despite this rather gloomy forecast, in the short-term, many retailers are experiencing labour shortages as a result of young people leaving for opportunities elsewhere or to work at Voisey's Bay.

Wholesale and retail trade decreased in sales from 9.09% in 2001 to 4.48% in 2002 and employment decreased from 33.74% to 9.84% for the same time period. Services are now defined differently by Statistics Canada and, therefore, any comparison with the previous year's study figures would be invalid. However, as defined by Statistics Canada in 2002, services make up 40.40% of all indirect and induced sales impacts in 2002 from military activities and 75.05% of all indirect and induced employment impacts in 2002. Therefore, any changes to Base activities would directly impact these services. On a qualitative note, the real estate sector benefited less in 2002 since the town had readjusted to the new housing mix. Tourism and recreation are also affected by changes in the Base's activities since hotels benefit indirectly from military related traffic.

Table 16 shows that the I/O model's calculations of the indirect and induced effects on wholesale and retail trade to be the following:

<b>Table 16 - Summary of Indirect and Induced Economic and Employment Impact on Wholesale and Retail Trade, 1999, 2000, 2002</b>						
	1999		2000		2002	
GDP impact	Labrador	NL	Labrador	NL	Labrador	NL
	9.2%	9.3%	9.09%	9.23%	4.48%	4.74%
Total employment impact	34.9%	30.8%	33.74%	29.43%	9.84%	9.98%

A portion of the sales within household expenditure (induced impact) would also be attributed to wholesale and retail trade.

### 3.3.4 Finance, Insurance and Real Estate

In 2000 and 2002, the slow down in loan requests had more to do with lack of other economic activity than to any changes in the military. In 2003, the downsizing of Base activities is the cause of lack of loan requests. Funding agencies report minimal to no new business initiatives and economic development agencies report minimal to no recent new businesses start-ups.

In 2000, despite military personnel leaving the area, real estate activity increased. This was due to several reasons:

- Some DND employees living on Base took early retirement or lost their jobs through Alternative Service Delivery. Using money from the severance packages they received, many of them built or bought houses in the Study Area.
- Until 2000 approximately 300 civilian personnel lived on Base and qualified for subsidized housing. After many of the DND services were restructured for Alternative Service Delivery, rent significantly increased on the Base resulting in some families moving to the town.
- In 2000, the Base Commander announced the consolidation of housing on the Base. Civilians in "preferred" housing were asked to move to less expensive "row" housing and then off the Base within the next ten years.

Anticipating a demand for housing, the Town of Happy Valley-Goose Bay began rapidly building sub-divisions starting in 1996. As a result, real estate activity related to new housing developments was buoyant up until 2000. Low interest rates and people moving into the town from the coast aided this buoyancy. By 2001 the demand for new housing had begun to decrease as most people had moved off the Base. The 7.9% drop in population between 1996 and 2001 also indicates that the demand for future housing will be limited. However, real estate activity will continue as individuals involved in other sectors of the economy (e.g. government) move in and out of the area. Because of the previous demand for new housing, real estate prices became inflated and have continued to be so making it difficult for those individuals on low or fixed incomes to buy housing.

In 2000, significant excess housing existed on the Base including 750 private married quarters (PMQs), many of which were beyond repair. The Base has a need for less than 300, but will retain a little more than 400 at the end of their four phases married quarters rationalization program. DND is also conducting a Land Rationalization study that will determine its future land requirements and what lands can be transferred to the province or the town of Happy Valley-Goose Bay. It is anticipated that the study will be completed in 2004 and surplus properties will be offered to the provincial and municipal governments prior to being offered for public disposal.

Table 17 shows the I/O model's calculation of the indirect and induced effects on financial services to be the following:

<b>Table 17 - Summary of Indirect and Induced Economic and Employment Impact on Financial Services, 1999, 2000, 2002</b>						
GDP impact	1999		2000		2002	
	Labrador	NL	Labrador	NL	Labrador	NL
		5.4%	6.2%	5.58%	6.16%	6.94%

Total employment impact	6.2%	6.9%	5.96%	6.05%	26.45%	29.00%
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Given that changes occurred in Statistics Canada’s definition of the service industries, it is difficult to draw any conclusions about the changes in impacts for financial services. A portion of the sales within household expenditure (induced impact) would also be attributed to financial services.

### 3.3.5 Public Administration

Military activities have had minimal impact on public administration with the exception of the grant in lieu of taxes to the Town of Happy Valley-Goose Bay that has decreased from a high of \$960,000 in 1992 to \$870,702.11 in 2003.

In the last three years HRDC and HRE have not reported any significant changes to their programs, number of EI claimants or caseloads as a direct result of Base activities (See Section 3.3.7). However, an economic slowdown has occurred in the Study Area because of the cumulative effect of the following activities:

- a decrease in Base activities;
- Voisey’s Bay essentially by-passing the Town as a service centre;
- the Lower Churchill Hydro Project not proceeding;
- fewer people moving off Base to the town resulting in a slowdown in housing starts and real estate; and
- the impact of spending from severance packages no longer being felt in the Study Area.

Indirect impacts are being experienced as a result of these activities at government agencies, but this is difficult to quantify.

The town would like to renegotiate the payment arrangements between DND and the Town, replacing the grant in lieu of taxes to 2% of the Base’s operational costs. However, other major issues facing the town (e.g. infrastructure needs) have little or nothing to do with the military. Administration and support services account for 32.1% of indirect and induced employment on Labrador and 32.78% on the province; and 28.22% economic impact on Labrador and 25.13% on the province. Government accounts for 23.71% indirect and induced employment on Labrador; no figure was given for economic impact. The Base is included in the latter subsector.

### 3.3.6 Defence

Significant changes to the Base since the 2002 report are:

- the downsizing by the RAF of its permanent staff in 2002 from 123 families to 26;
- the decision by the Dutch not to return for the 2003 flying season, thereby eliminating the need for 10 local full-time Canadian civilian positions and 40 seasonal jobs as well as 14 permanent Dutch military staff and their families

and eliminating between \$12 to \$15 million annually in expenditures at the Base;

- the decision by the Germans not to renew their MOU in 2006; and
- the renewal in March 2003 of Serco as the ASD contractor.

The decision by the Allies to either not participate in future training or to reduce their training schedule significantly is a result of a number of factors including:

- Overall downsizing and defence budget cuts by some of the Allies;
- The cost of maintaining families abroad;
- Changes to military training operations (e.g. emphasis now placed on medium-level as opposed to low-level operations; growing emphasis on night operations that makes Goose Bay's long summer daylight light hours a negative feature);
- The rising Base costs to provide services to the Allies including:
  - Wage increases related to successor rights
  - Need to provide start-of-the-art facilities
  - General construction and maintenance costs related to upkeep a 60 year old facility.

The decision of some of the Allies to either not participate in future training or to reduce their training schedule also means that the fixed overheads costs for NATO operations at Goose Bay has to be re-allocated among the Canadian Forces and the other Allies training there. This increase cost has resulted in DND undertaking a number of corrective steps including a marketing group, a review of operations in order to realize cost savings and a high level meeting with the Allies to prioritize their training needs. These steps are described in more detail below.

A Working Group on marketing 5 Wing Goose Bay was established in 2002 to actively market the facilities to other Canadian allies. It met for the first time in May 2003. The group is looking at a number of activities and facilities that the Base can provide and they are targeting potential users of those activities and facilities.

Additionally, DND, in partnership with the Province of Newfoundland and Labrador and in consultation with stakeholders at the Federal, Provincial and municipal level as well other local stakeholders, is looking at a number of ways to enhance the viability of GB-FMT. One step, on an extensive list to enhance the training program, is to improve the management of services and the actual delivery of services at the Base.

The management and service delivery review, commenced on January 14, 2003, when DND contracted Ajilon Consulting to assist Chief of the Air Staff/Goose Bay Office (CAS/GBO) with the development of organizational models and to conduct a staffing review of the CF/DND elements at 5 Wing Goose Bay.

The aim of the Ajilon review is to provide recommendations for improved governance and management of 5 Wing service delivery, while becoming more efficient and cost effective. 444 (Combat Support) Squadron was excluded from this review, as the Allies are sensitive about making efficiencies in areas where life is at risk. This was an

important exemption, because 444 (CS) Sqn represents half of the CF personnel establishment at Goose Bay, thereby limiting what could be accomplished in the way of cost reductions.

5 Wing has not been subject to a thorough organization and establishment review since being formed from the integration of the Department of Public Works, Department of Transport and CFS Goose Bay organizations in 1991. Additionally, the implementation of alternate service delivery (ASD) has realized some economies and stability upon which further establishment changes can be based.

Additionally, as a result of downsizing of the Allies activity at the Base, a review of the overall operations of 5 Wing becomes a necessity. Instituting ASD and awarding Serco the contract to be the Base's service provider were cost saving measures, but a significant number of DND, CF and other personnel, still deliver services at the Base. These present a large "target" when being reviewed by, and cost-shared with, the Allies. The roles and responsibilities of CF members are now being reviewed.

According to DND, it has also committed to convening a high level meeting with the Allies at the General Officer level to review a list of requirements that the Allies might have for a new training agreement to begin in 2006. After this meeting, DND will establish a work schedule to progress the training items through environmental and other provincial and federal regulatory reviews including consultation with regional stakeholders. Preliminary discussions have taken place and an Allied Requirements List is presently under review. The list includes in the near term the following:

- Supersonic flight
- Deployment of Chaff and Flares
- Access to dedicated airspace blocks from the surface to 60,000 ft.
- Extended night flying hours.

Additionally, the director of the Canadian Aerospace Training Project – International Training Programs - is assessing the viability of the area to conduct tactical transport, helicopter and ground troop training.

The impact of 5 Wing Goose Bay, including the Allies, on the various sectors has been described in previous sections. Upgrades to existing facilities and rationalization of the extensive on Base Private Married Quarters (PMQ) housing has also been described in Section 3.3.4. Most of the impact of individuals moving off the Base and into Happy Valley-Goose Bay as a result of the PMQ housing rationalization has already been experienced. The major impact from ongoing housing removal is in demolition construction. DND's Land Rationalization study is briefly discussed in Section 3.3.4. It is anticipated that the study will be completed in 2004 and surplus properties will be offered to the provincial and municipal governments prior to being offered for public disposal. This may have an impact on future land values.

Additionally, DND provides \$1.1 million annual grant to the Institute of Environmental Monitoring and Research for effects research and \$1.5 million annual expenditure to the

Goose Bay Office to conduct monitoring and mitigation programs.<sup>5</sup> DND also provides \$870,702.11 to the Town of Happy Valley-Goose Bay as a grant in lieu of taxes. DND and the Allies also help support directly and indirectly through grants and in kind services a number of volunteer agencies and/or services such as the Amaruk Golf Club, the Mokami Players Theatre Group, Grand River Snowmobile Club, Community Concerts, Block Parents, Weight Watchers, the Melville mantas Swim Club, the E. J. Broomfield Arena, Lake Melville Area Ground Search & Rescue Team, Scouts, Guides and Cadets to name a few plus attend and participate in a variety of religious and service groups.

Many clubs and activities on the Base are staffed by local individuals. The Canex Retail Store and grocery Store as well as the Library, Beauty Salon and Barber Shop and Tim Horton's are either owned or operated by local individuals.

Any downsizing or rationalizing of military activity on the Base will negatively impact the ability of these agencies/businesses to maintain their current level of service. This will be especially true for agencies that help those on fixed income as these numbers are likely to increase as a result of cutbacks of military activities on the Base (e.g. there will be greater likelihood of people becoming unemployed, being placed on social assistance or being treated for health and mental problems).

### **3.3.7 Assistance to Business**

Despite the October 7, 2002 announcement regarding the formal agreement between the province and Voisey's Bay for the development of the nickel project in Labrador, the major government development agencies reported few Study Area uptakes on programs. These agencies still feel that the "Base is the glue that holds everything together," although Aboriginal economic initiatives and infrastructure as well as the road link between the Town and Cartwright, thereby closing the "circle route", will provide new long term opportunities particularly in forestry and tourism.

### **3.3.8 Social Infrastructure and Services**

Activities associated with military flight training continue not to impact on income support caseloads. In the estimation of the Department of Human Resources and Employment, no one significant event has caused residents to seek income support assistance in the Study Area. The caseload numbers increased during the fiscal year 2001-2002, but can be attributed to in-migration to the Study Area from both coastal Labrador and the island, an increase in single persons requesting assistance, and again a higher portion of residents engaging in seasonal employment and availing of income support during periods of unemployment. The 2002-2003 income support expenditures and case loads for the Study Area dropped from the previous year and the caseload is on par with 2000-2001, although the cost per case is higher. Neither Human Resources Development Canada (HRDC) nor HRE have administered programs as a result of military activities since 2000. However given the significant reduction in Base activities that occurred in 2003 and with the Germans anticipated to leave in 2005, there may be a negative impact on the caseload by the year 2006 if other plans are not made.

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<sup>5</sup> Source: DND

### 3.3.9 Medical and Health Services and Facilities

The situation remains unchanged since the 2000 and 2002 reports.

Because of the age distribution of military personnel and their families (ages 20s and 30s with children), they are not frequent users of the hospital. Relatively few births occur among military families while staying on Base and because of the age of the military personnel and their families, health issues related to aging are not a factor. Since 1993, the percentage of military personnel of the hospital's case load has decreased from approximately 15-20% to less than 5% as a result of restructuring of the Base. The Allies bring their own medical personnel with them and, therefore, make no demands on the HLC. However, in the future, if military activities continue to decrease, unemployment in the Study Area could increase resulting in individuals experiencing various mental and physical health problems that require medical care.

### 3.3.10 Educational Services and Facilities

Resource dependent regions are highly mobile and the Study Area is no exception. Families transfer in and out as a result of forestry and mining as well as military activities. Downsizing of the military has been countered with other families moving into the area. Three nursery/day schools operate within Happy Valley-Goose Bay, two of which are on Base and are affected with any change in the status of the Allies. St. Michael's (K-9), located on the Base, was the main school to which military families sent their children.<sup>6</sup> However, as a result of restructuring of the denominational school system, another school has closed and St. Michael's has absorbed those students. It now provides education to students from the neighbourhoods of Spruce Park, Hamilton Heights and the Base. If the military had not reduced in size, St. Michael's could not have accommodated the students from other schools.

The College of the North Atlantic is economically impacted by military activities in a number of ways. Graduates of the college are not only employed on the Base, but are also employed by businesses from the community that deal directly with Base operations. In addition, CONA offers general interest courses at the college related to the military such as Conversational German and Italian. Finally, the College contracts courses to Serco employees. Between 1998 and 1999, 286 Serco employees were trained for a total contract amount of approximately \$17,500.<sup>7</sup> Between 2000 and 2001, three hundred Serco employees were trained for a total contract amount of approximately \$18,000. The 2002-2003 figures have not yet been compiled, but a large number of employees have been trained in such subjects as: Power Line hazards, Welding, Asbestos Removal, Transportation and Handling of Dangerous Goods, Computer Training and Occupational Health and Safety Training. The College now has

<sup>6</sup> Note: French program was offered at the Peacock Elementary School and Queen of Peace Elementary.

<sup>7</sup> Source: College of the North Atlantic

enrolled four full-time students who have left the military service, made Labrador their home and are pursuing academic upgrading. In the past, the College has occasionally hired spouses of military personnel for short term employment in continuing education.

### **3.3.11 Tourism and Recreation Services and Facilities**

Generally, military personnel do not use the services of Labrador outfitters with the occasional exception of the German Air Force. However, many of their personnel use the German Air Force Camp, located 10 km from the Base. Built on crown land, it houses up to 25-30 people; has a complete kitchen, boats and other recreational equipment, and employs one person. Allied personnel on short-term training rotations have limited free time to sight see. Each Allied air force has its own recreational facility and club. Administrative personnel occasionally sightsee, but primarily to other parts of Canada. In 2002 – 2003 local hotels were occasionally used when the barracks were full. The military accounts for approximately 5-15% of total hotel sales. Late starting and early ending of the sorties negatively affect hotel occupancy.

As discussed in Section 3.3.5, any changes to the number of Canadian military or Allies assigned to the Base will affect the many volunteer and community organizations operating within the Study Area. Two examples are the ski facilities and the Labrador Training Centre. Mont Shana, the locally operated downhill ski facility and the Birch Brook Nordic Ski club receive approximately 60% of their revenues from Base activities.

In 2003, military bookings at the Labrador Training Centre in Happy Valley-Goose Bay amounted to approximately \$18,000 year, an amount that has not varied since the first study in 2000. The Canadian military followed by the Dutch were the primary users.

The Base accounts for 3.45% of indirect and induced economic impact on tourism and recreation in Labrador and 3.57% on tourism and recreation in the province. It accounts for 8.60% of indirect and induced impact on employment in Labrador and 8.92% of indirect and induced impact on employment in the province.

### **3.3.12 Labrador**

As discussed in Section 1.4.2 (Scope), economic impact emphasis has been placed on the Upper Lake Melville Study Area and, therefore, qualitative impact information for this area is described in detail. However, economic impact information for all of Labrador, excluding the Study Area, is not described because the direct, indirect and induced impacts on most sectors are too small to be meaningful except where otherwise noted.

### **3.3.13 Northeastern Quebec**

Based on the data collected, the economic impacts on Northeastern Quebec are minimal, except where noted.

## **4.0 DND MITIGATION MEASURES**

### **4.1 INTRODUCTION**

#### **4.1.1 Purpose**

The study reviewed DND's mitigation measures in respect to the Panel recommendations (#16, 17 & 18) and the Government's response.

#### **4.1.2 Background**

Since 1994, DND has downsized by 25% and the Base was the first in Canada to undergo the Alternate Service Delivery Process which resulted in a private contractor, Serco Facilities Management Inc., replacing DND as the major provider of support services on the Base.

Significant changes in the employment structure in Central Labrador have overshadowed and taken precedence over mitigation efforts recommended by the Panel and accepted by government. Moreover, these recommendations were prior to equity employment measures becoming mandatory. In 1996, the Equity Employment Act came into force with the following purpose:

*The purpose of this Act is to achieve equality in the workplace so that no person shall be denied employment opportunities or benefits for reasons unrelated to ability and, in the fulfillment of that goal, to correct the conditions of disadvantage in employment experienced by women, aboriginal peoples, persons with disabilities and members of visible minorities by giving effect to the principle that employment equity means more than treating persons in the same way but also requires special measures and the accommodation of differences.*

#### **4.1.3 Methodology**

In order to ascertain to what degree the EIS recommendations have been acted upon, in the context of downsizing and the ASD process, this study contacted the Base and interviewed several agencies and businesses.

### **4.2 REVIEW OF EIS RECOMMENDATIONS**

#### **4.2.1 Recommendation 16: Training, Recruitment and Promotion**

##### **4.2.1.1 Training**

In order to identify and meet training needs of displaced employees in 1997, DND and Serco worked with other agencies in the area through two committees: the Joint Federal Council for Training, which included HRDC, RCMP, ACOA, the Coast Guard, DFO, and Customs, and the Community Adjustment Committee (CAC), which included the same membership minus the RCMP and with the addition of the two locals of the Union of National Defence Employers (UNDE), which are components of PSAC. The purpose of the committee was to ease in the transition of DND downsizing and the ASD process. CAC lasted two years (1997-1999), helped with job search techniques and assisted

employees in finding other job placements.<sup>8</sup> The Joint Federal Council for Training continues to meet on an "as need" basis to discuss common issues including training.

In addition to sitting on these committees, Serco consulted with both HRDC and CONA in its early years at the Base to help establish training programs for the development of required skills for local employees who lacked the necessary qualifications. Initially, Serco worked with HRDC and CONA to develop training programs to meet specific needs. With the staffing requirements stabilized, this training need no longer exists to the same degree.

Although attempts have been made to develop training programs for specific job descriptions, to date, Serco has put no special training program initiatives in place for aboriginal people or women. The Serco training program does not distinguish by type of person; it is based on "Best Practices".

#### **4.2.1.2 Recruitment**

Local quantitative data on equity employment figures is unavailable for both DND and Serco. However, corporate figures can be obtained for DND as a whole or for Serco's global operations. Serco does not record in any employee file, nor ask any employee whether they are of aboriginal descent. However, Serco does collect Employment Equity statistics, based on employee self-declaration, which identify that Serco's average is higher than the Provincial average. The number of Aboriginals employed by DND is known. However, the data is sensitive and, therefore, cannot be released. Employment Equity statistics identify that DND's average is high.

There are no special initiatives targeted at employing Aboriginal people.

Serco, an international service company, is an equal opportunity employer and implemented a Canadian across the board employment Equity Plan in 2002.

According to the Labrador Metis Nation (LMN), there has been no change in the recruitment and retention of Aboriginal people since 2000. Serco employs Metis, but this is through general recruitment procedures. No specific initiatives have been taken to recruit Aboriginal people.

#### **4.2.1.3 Promotion**

Both the LMN and the Labrador Inuit Association (LIA) acknowledge that DND and Serco employ a substantial representation of their membership.

Mokami Status of Women's Council said that present representation of women in Serco and its sub-contractors has not changed substantially since 2000. No one has complained about Serco's practices towards the hiring and retention of women. The representation of women is considered adequate, but no specific initiatives have been made by Serco in the past three years. In the past the Council was concerned that gender equality was not increasing proportionally in new or more advanced positions. In

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<sup>8</sup> Source: HRDC, Happy Valley-Goose Bay

general, the organization views the Collective Agreement with Serco as very good with respect to maternity benefits, sexual harassment and equity benefits including pay equity. They also believe that gender equality and respect for women are better in Serco than has been traditional in the military environment of DND. Their main concern is equal gender access for new employees. The organization also believes that aboriginal issues are important and that priority needs to be given to gender as it relates to these issues.

#### **4.2.1.4 Other Targeted Groups**

Persons of disability and visible minorities are also included in the Employment Act. Few visible minorities exist in the Study Area (Aboriginal people are considered separately). However, Lake Melville Community Employment, Inc. has approximately 20 clients, eight less than in 2000 and the same as in 2002. Additionally, the Canadian Paraplegic Association has 60 to 70 clients in the Study Area, which is approximately the same number of clients they had in 2000 and 2002. Many of these clients are income support recipients, have minimal higher education and few specialized skills. LMCE has had one client employed by Serco for a number of years, and another client was employed by DND for at least 8-10 years. LMCE feels that Serco has been responsive to their initiatives. The Canadian Paraplegic Association has one client working permanently with Serco and another that is seasonal. The Association feels that Serco and DND have been fairly receptive to their initiatives given that there are limited openings for new entrants.

#### **4.2.2 Recommendation 17: Cooperation with Local and Regional Business Representatives**

DND and its contractors use and want to continue to use local businesses when it is efficient, cost effective and practical. The Labrador North Chamber of Commerce reported in 2000 and 2002 that no local businesses had complained to the Chamber about Serco's business practices. However, since Serco was awarded their second long term contract in 2003 to provide services to the Base, it has been under increasing pressure to become more cost effective. In many cases this means buying in bulk from outside distributors. Serco is in the process of reviewing its procurement policy and is encouraging local businesses to become more cost competitive and to develop joint ventures with outside companies where feasible. Local businesses have verbally expressed concern to the Chamber that they may be cut out of doing business on the Base.

Aboriginal suppliers of services and goods are allowed a 3% advantage in pricing, when carrying out the quotation assessment process and providing that it meets the definition of an aboriginal company as defined by the Department of Indians and northern affairs and Aboriginal Business Canada. The Innu Development Corporation is in the process of establishing joint venture businesses in most of the major sectors and will be focusing many of their business development initiatives at the Base.

As a result of the opening of the Trans Labrador Highway in the winter, procurement of goods from Québec has become common practice. DND also states that procuring goods and services locally makes good business sense, assuming competitive pricing,

but it was not bound to do so, if substantial savings could be produced from contracting outside of the area.

Local outfitters all agreed that their clients are recruited from outside of Labrador and that DND and its Allies do not contribute to their businesses. DND has its own fishing lodge on No Name Lake, where military personnel fish.

#### **4.2.3 Recommendation 18: Avoidance of Non-consumptive Adventure Tourism**

The situation has not changed since the 2000 and 2002 reports. Local outfitting and adventure tourism businesses contacted for this report said that DND has cooperated in altering flight training paths which impinged on their activities in the country. Furthermore, seeing low flying aircraft has not disturbed their international clients, many of whom are from the United States. Anecdotally, some of the Americans report, "this is the sound of freedom."

### **5.0 CONCLUSIONS**

As noted in Appendix D, Table D-3, nine reports over the past 15 years have estimated the economic impact of military operations in Happy Valley-Goose Bay. Some have focused on the Allies; others on the Department of National Defence. Some assess the impact on the host community, while others examine the national impact. Studies either assess the Base as it was at the time, or the estimated impact with added activity (through the NATO training expansion), or less activity (base reduction). This has ensured that many numbers have been generated, none easily comparable to the others.

In 2000, IEMR commissioned a study to examine a military base that had undergone radical change, first from a cost reduction program, then following the instituting of Alternative Service Delivery. That study was the first to estimate the impact of the Base under new circumstances and went considerably further than the provision of the outputs that result from base inputs. A suite of industries was each described in turn, and the effect of the Base on each of those industries was estimated. The non-wage economy was also included, to gauge the importance of activities that are not ordinarily revealed by a straight economic analysis.

In order to measure the change in impact that the Base might have on the region, IEMR decided that they would conduct a similar study approximately every two years. Thus, in 2001, a second contract to measure the economic impact of Military Flight Training in Labrador and Northeastern Québec was awarded. Because of the difficulty in obtaining good data on the non-wage economy in the Study Area as well as data on the outfitting industry in Northeastern Québec, neither of these areas of study was included in the 2001/2002 study.

IEMR and others associated with the economy of Labrador determined that these studies were so important in measuring the economic impacts of the Base that they decided to institute a bi-annual economic study. However, since Statistics Canada 2001 census data was unavailable for the 2002 study, IEMR decided to conduct a third study

in 2003 in order to include this data. Thus, this report is the third to be conducted in four years.

## 5.1 ECONOMIC SITUATION AND CONTEXT

It is important to recognize the changing circumstances on the Base since the last environmental impact statement was prepared on military flight activities (1994) as well as the first two AMEC studies (2000 and 2002). Changes between 1994 and 2000 included a downsizing of the Base and an outsourcing of goods and services previously undertaken by DND. Although these changes resulted in the movement of numerous military and civilian personnel away from the area, they also resulted in significant severance packages and movement by locals from the Base to the town of Happy Valley-Goose Bay. This resulted in abnormal economic activity, which triggered increased consumer spending on large ticket items as well as home construction and renovation. However, in the longer term, these changes, if examined in isolation from other changes in the Study Area, will result in a decrease in economic activity and a drain of human resources from the Study Area.

Between 2000 and 2002 downsizing on the Base had stabilized and ASD had become an accepted way of doing business on the Base. Severance packages were no longer provided in large numbers and individuals moving from the Base to town or to other parts of Canada had pretty much ceased. On the other hand, demolition of housing and buildings and some improvements on the Base had escalated providing a source of local construction at a time when other construction activities in the Study Area had begun to slow down.

Although this report covers information for the year 2002, it is important to provide a commentary on events that have occurred during 2003 because they have serious repercussions for the Study Area. Just as the situation on the Base and in the Study Area had began to stabilize after the “shock” to the community caused by previous Base activities, the Royal Air Force announced in late 2002 that they were downsizing their full-time family support on the Base. In February 2003, the Royal Dutch Air Force notified DND that they would not be returning for the 2003 flying season and in September 2003 the German Air Force informed DND that they would not be returning to Goose Bay in 2005. Because the construction and service sectors are highly dependent on Base activities and, to a lesser degree, the Town of Happy Valley-Goose Bay has come to expect the Base’s grant in lieu of taxes, any reduction in military presence negatively impacts these sectors. Although the indirect and induced percentage of impacts from the military for other sectors are low, any change to the Base’s activities impacts these sectors as the Study Area has a fairly high rate of employment and often spouses work in different industries, one of which may be dependent on the Base for a significant portion of income.

Between 1994 and 2000, the promise of the development of both Voisey’s Bay Nickel and the Lower Churchill Hydro Projects was held out as an economic carrot to the people of Labrador. The Trans-Labrador Highway and the Red Bay-Cartwright Highway were announced and partially constructed, resulting in new construction jobs. The Trans-Labrador Highway also resulted in increased volumes of goods and services being transported to and from the Study Area at lower costs. All these factors resulted in

increased consumer confidence, which translated into an increase in consumer spending, despite the fact that the military had downsized.

Between 2000 and June 2002, consumer confidence stalled as a result of neither the development of the Voisey's Bay Nickel nor the Lower Churchill Hydro projects proceeding coupled with no new activity on the Base and the end of major road construction projects. However, by the fall of 2002, Inco and the Government of Newfoundland and Labrador had signed an Agreement in Principle for the development of Voisey's Bay. The Study Area expected to be the service centre for this major construction project. While they have provided some goods and services and many people from the area are employed there, the Study Area has not received all of the benefits for which they had hoped. On the other hand, the Innu Nation and the Labrador Inuit Association are becoming a growing economic force in the Study Area bringing many millions of dollar of new construction and services to the region. As well, construction will begin in 2004 on the last link of the Trans Labrador Highway, thereby decreasing transportation costs, opening up new opportunities for the forest industry on the southside of the Churchill River, and bringing new tourists to the area.

It is important to take all these factors into consideration when assessing the economic impact of the Base on the Study Area as well as on Labrador, the province of Newfoundland and Labrador and Northeastern Québec.

## **5.2 OVERALL ECONOMIC IMPACT**

Low level flying activities at 5 Wing Goose Bay in 2002 accounted for 1,391 person-years of employment (direct, indirect and induced) in Labrador which is a decrease over the 2000 figure of 1,480 and the 1999 figure of 1,350; adds \$70.30 million (direct, indirect and induced) to Gross Domestic Product (GDP) which is a decrease over the 2000 figure of \$72.64, and contributes \$22.60 million to government revenues which is a decrease over the 2000 figure of \$26.80 million.

Considering the province as a whole, the Base generates 1,805 person-years of direct, indirect and induced employment which is a slight decrease over the 2000 employment impact of 1,880 person years; adds \$85.95 million (direct, indirect and induced) to GDP which is a decrease over the 2000 figure of \$96.68 million, and contributes \$32.49 million to government revenues which is a slight decrease over the 2000 estimate of \$35.68.

## **5.3 PRIMARY INDUSTRIES**

With the exception of hydro-electricity, the Base has limited economic impact on primary industries because of low production volume. As expected, the I/O model attributes less than 1% of the Base's GDP and employment impacts to the primary industries' GDP and employment in Labrador, excluding hydro-electricity. The percentage share of the Base's contribution to the latter's GDP, as a percentage share of all of the Base's GDP impacts in Labrador, increased between 1999 and 2001, but decreased in 2002, and it has continued to decrease slightly for the province as a whole for the same time period.

Employment impacts on primary industries as a percentage of total employment impacts decreased in Labrador and for the province as a whole between 2000 and 2002.

#### **5.4 SECONDARY INDUSTRIES**

The 2000 and 2002 studies pointed out that the Base had limited economic impact on the manufacturing sector within Labrador and the province as a whole because of low production volume. This is still true. Nonetheless, the percentage share of the Base's impact on manufacturing GDP, as a percentage share of all of the Base's GDP impacts, has decreased since the 2002 study.

The 2000 study noted that recent downsizing at the Base had resulted in one-time severance packages as well as civilians moving off Base. This, in turn, resulted in a short-term escalation of residential construction and renovation. The 2002 study noted that this activity had ceased. However, construction on the Base in the form of demolition and upgrades had increased. Both studies indicated that other major construction projects in the Study Area were also contributing to the economy (e.g. construction of the new hospital, high school, hotel, etc.). This study shows that some demolition and upgrading is continuing on the Base, but no indirect construction activity is occurring and only a limited amount of non-base related construction activity is taking place (e.g. construction in Sheshatshiu and the promise of the final phase of the Labrador highway from Cartwright to the Study Area).

The Base's estimated percentage share of impacts on the construction sector's GDP and employment, as a percentage share of all the Base's impacts in Labrador, decreased between the 2000 and 2002 studies. The Base's estimated percentage share of impact to the construction sector's GDP and employment in the province of Newfoundland and Labrador decreased for the same time period.

#### **5.5 SERVICE INDUSTRIES**

The situation for the service industries has changed since the 2000 and 2002 reports. In the context of the entire economy, the Base continues to have limited direct economic impact on the service industry with the exception of local companies that aggressively sought to service the Base and companies that had targeted military personnel to supply specific goods and services. These companies have been negatively impacted by the decision of the Dutch not to return for the 2003 flying season.

Other service companies (e.g. taxis, bars, real estate, some restaurants and retail stores) are indirectly impacted by Base activities. For the most part, despite ASD and related downsizing, these businesses had not experienced a significant drop in sales during the study period for both the 2000 and 2002 reports. However, the service sector picture began to change in 2002 when the RAF announced they were reducing the number of onsite families from 123 to 26. Since many RAF families bought local goods and services, this action caused negative indirect and induced impacts on some of the service sector. The situation was exacerbated in 2003 when the Dutch Air Force announced it would not be returning for the 2003 flying season.

The Base's estimated percentage share of contribution to the wholesale and retail trade's GDP and employment decreased in Labrador between 2000 and 2002. Services are now defined differently by Statistics Canada and, therefore, any comparison with the previous year's study figures would be invalid. However, the Base's estimated percentage share of contribution to the service sector's GDP (including the financial services GDP) in Labrador in 2002 was 40.44% and the Base's estimated percentage share of contribution to employment was 75.05% of for the same time period. Therefore, any changes to Base activities would significantly impact these services. On a qualitative note, the real estate sector benefited less in 2002 since the town had readjusted to the new housing mix. Tourism and recreation are also affected by changes in the Base's activities since hotels benefit indirectly from military related use and indirectly as a result of contractors staying there. The Base also pays for the use of local recreational facilities.

Public administration; assistance to business; social infrastructure and services; medical and health services and facilities do not depend on the military and, therefore, are not directly impacted by Base activities. The exception is the annual grant in lieu of taxes that the Base pays directly to the Town of Happy Valley-Goose Bay (approximately \$871,000, 2003). Post secondary education continues to be directly and positively affected as the military out sources some of its training and extra curricular needs.

All of these services will be negatively affected if the Base reduces its activities, thereby causing unemployment. Unless other employment is found locally for former Base employees, there could be increased demand for both social and medical services, and possible out-migration would result in a diminished tax base and limited business opportunities.

Based on discussions with recreational outfitters in Labrador and Québec, it was determined there were no negative impacts associated with low level flights in both Labrador and Québec. No evidence was found of negative impact on tourism and recreation services (hunting, fishing, trapping, hiking, etc.) and facilities resulting from the flight training activities of Goose Bay.

In conclusion, the Study Area has recovered from the psychological and economic "shock" that it experienced as a result of downsizing and ASD, but it is now about to enter a new period of readjustment with the downsizing or leaving of the Allies. Unless an alternative is found, this next shock, both psychologically and economically, will be far greater than the previous one.