



**ECONOMIC IMPACT OF 5-WING GOOSE BAY
ON LABRADOR AND NEWFOUNDLAND AS A WHOLE
USING THREE SCENARIOS**

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TF18804

September 2004

Executive Summary

Since 1941, a Canadian military air base has been in operation at the confluence of the Churchill River and Lake Melville in central Labrador. Commonly known as the Goose Bay Military Base (officially called 5-Wing Goose Bay), it has changed its mandate several times to accommodate changing needs within the North Atlantic Treaty Organization (NATO) air forces. Originally, the Base operated as support to the Allied ferry command between Europe and North America. After World War II, its remote location became an attractive selling point for the United States (US's) preparation of air defence in combating the Cold War and more recently NATO Allied Units wanting to undertake low-level flying training. However, with the end of the Cold War in the early 1990s, the US withdrew from using the Base. European Allied Units continued with low-level flying training, but recently military flight training needs have changed (e.g., from low-level to medium-level operations and from day to night operations). This, coupled with a 10-year Memorandum of Understanding with four Allied Units (Dutch, British, Germans and Italians) expiring in 2006 and the rising cost of training have caused several of the Allied Units to rethink their program at 5-Wing Goose Bay. As a result, the following has recently occurred:

- in 2002, the Royal Air Force reduced the number of rotating personnel with families from 123 to 27;
- in early 2003, the Royal Netherlands Air Force notified the Canadian military that it would not return for the 2003 flying season and that it would cease all operations at 5-Wing Goose Bay effective March 1, 2004;
- in 2003, the German Air Force, responsible for approximately half of the activity on the airbase, confirmed that they would be leaving Goose Bay at the end of the 2005 flying season; and
- both the German and Italian Air Forces announced that they would have reduced flying schedules during the 2004 and 2005 flying season.

With such a reduction in low-level training activity, Base personnel, all levels of government, and all residents of the Upper Lake Melville area are concerned about the Base's future. As a result, the Institute of Environmental Monitoring and Research (IEMR), which produced three reports on the *Economic Impact of Military Flight Training on Labrador and Northeastern Quebec* (2004, 2002, 2000), decided, as part of the last study, to look at various scenarios regarding the Base's future and the economic impact of those various scenarios on the Upper Lake Melville area.

The three scenarios are as follows:

- **Scenario 1** – independent departure of each Allied Unit;
- **Scenario 2** – the training program closes, all Allied Units depart and the Base is decommissioned; and
- **Scenario 3** – the training program closes, all Allied Units depart and the Base is maintained at a minimal level (mothballed).

The assessment of each scenario includes the following:

- data on job losses;
- economic impacts on the Upper Lake Melville area; and
- cost of mothballing and decommissioning under each scenario as outlined above.

As this study examines the *potential* impact of *possible* future scenarios on various economic sectors in the Upper Lake Melville area, its results and commentary must be viewed in that light (e.g., this is a best guess at this time). Additionally, it must be remembered that these are *possible* scenarios and, in the cases of Scenarios 2 and 3, worst-case scenarios, and *none* of them may occur. The primary purpose of this study is to help people understand possible orders of magnitude regarding each of the scenarios, as well as to understand the economic ripple effect within the Upper Lake Melville area of any of these scenarios. In other words, this study should be considered as a planning tool and not as a statement of what will happen.

This report provides the measures of economic activity associated with the operation of 5-Wing 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 Input-Output (I/O) 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 Environmental Impact Statement (EIS) of the proposed NATO facility in the mid 1980s. It was then updated and expanded for use in the 1993 Technical Report 14 of the EIS, and again updated for the 2000, 2002 and 2004 studies.

Qualitative information regarding the economic impacts associated with the three scenarios was obtained from previous studies on the economic impact of military flight training in Labrador and northeastern Quebec as well as from interviews conducted with more than 50 people, the majority of whom live and work in the Upper Lake Melville Area. Each represent a government agency, industry sector, business or community agency.

This information was then integrated with the consultants' knowledge of the general impacts that occur on economic indicator sectors when any large-scale project is decommissioned or its activities are seriously reduced. Because the qualitative portion of the study is based on opinions about the future, it has been treated in format as a discussion piece rather than as a scientifically defensible research study.

SCENARIO 1

Independent departure of each Allied Unit, assuming minimum maintenance of hangars and other physical structures used by Allied Units.

The departure of each Allied Unit has been treated independently in this report since no knowledge exists as to whether all will depart simultaneously. A separate input-output run for

each Allied Unit leaving the Base independently was used to determine the economic impacts of their independent departures.

The estimated impacts associated with the independent departure of each of the Allied Units are measured in terms of employment and Gross Domestic Product (GDP) impacts. These impacts estimate the loss in GDP and employment (person-years, or PY) to the Labrador and Newfoundland economies. They are derived as a result of the loss in direct expenditures in the local economy as a result of the independent departure of each of the Allied Units. The estimated loss in direct expenditures is fed into the I/O model and used to generate the indirect and induced impacts related to the independent departure of each of the Allied Units.

Royal Air Force (RAF)

GDP

If the RAF departs, a decrease in GDP would occur in the amount of \$3.5 million per year (based on \$2002) in terms of direct GDP in Labrador as well as the province as a whole. There would be an additional annual indirect loss of \$8.8 million in GDP in Labrador (\$12.6 million in the province as a whole). Based on the loss in direct GDP, there would be a total estimated annual direct, indirect and induced loss of \$14.0 million in GDP in Labrador and \$19.7 million in the province as a whole as a result of the departure of the RAF.

Employment

In terms of the impact on employment, there would be a direct loss of an estimated 208 PY of employment per year in Labrador and in the province as a whole. There would be an additional annual indirect loss of 215 PY in Labrador and 265 PY in the province as a whole. Due to the loss of direct employment, there would be a annual total loss of an estimated 451 PY of direct, indirect and induced employment in Labrador and 531 PY of employment in the province as a whole due to the departure of the RAF.

German Air Force (GAF)

GDP

If the GAF departs, a decrease in GDP would occur in the amount of \$6.3 million per year (based on \$2002) in terms of direct GDP in Labrador as well as the province as a whole. There would be an additional annual indirect loss of \$10.6 million in GDP in Labrador (\$15.1 million in the province as a whole). Based on the loss in direct GDP, there would be a total annual estimated loss of \$19.5 million indirect, indirect and induced GDP in Labrador and \$26.5 million in GDP in the province as a whole as a result of the departure of the GAF.

Employment

In terms of the direct impact on employment, there would be a loss of an estimated 281 PY of employment per year in Labrador as well as in the province as a whole. There would be an additional annual indirect loss of 273 PY of employment in Labrador and 332 PY in the province

as a whole. Due to the loss of direct employment, there would be a total annual loss of an estimated 598 PY of direct, indirect and induced employment in Labrador and 694 PY of employment in the province as a whole due to the departure of the GAF.

Royal Netherlands Air Force (RNLAf)

GDP

As a result of the departure of the RNLAf in 2003, a decrease in GDP would occur in the amount of \$2.5 million per year (based on \$2002) in terms of direct GDP in Labrador and in the province as a whole. There would be an additional annual loss of \$4.4 million in indirect GDP in Labrador (\$6.2 million in the province as a whole). Based on the loss in direct GDP, there would be a total annual estimated loss of \$7.8 million in direct, indirect and induced GDP in Labrador and \$10.7 million in direct, indirect and induced GDP in the province as a whole due to the departure of the RNLAf.

Employment

In terms of the direct impact on employment, there would be a loss of an estimated 111 PY of employment per year in Labrador and in the province as a whole. There would be an additional annual loss of 108 PY of indirect employment in Labrador and 133 PY in the province as a whole. Due to the loss of direct employment, there would be a total annual loss of an estimated 235 PY of direct, indirect and induced employment in Labrador and 276 PY in the province as a whole due to the departure of the RNLAf.

Italian Air Force (ITAF)

GDP

If the ITAF departs, a decrease would occur in the amount of \$2.3 million per year (based on \$2002) in terms of direct GDP in Labrador as well as the province as a whole. There would be an additional annual loss of \$5.0 million in indirect GDP in Labrador (\$7.1 million in the province as a whole). Based on the loss in direct GDP, there would be a total estimated annual loss of \$8.3 million in direct, indirect and induced GDP in Labrador and \$11.6 million in the province as a whole as a result of the departure of the ITAF.

Employment

In terms of the direct impact on employment, there would be a loss of an estimated 129 PY of employment per year in Labrador and the province as a whole. There would be an additional annual loss of 119 PY of indirect employment in Labrador and 147 PY in the province as a whole. Due to the loss of direct employment, there would be a total annual loss of an estimated 265 PY of direct, indirect and induced employment in Labrador and 312 PY in the province as a whole due to the departure of the ITAF.



Table ES-1 summarizes the direct, indirect and induced impacts in terms of employment and GDP as a result of the independent departure of each Allied Unit.

Table ES-1
Summary of Economic Impacts of Scenario 1:
Independent Departure of Each Allied Unit

Allied Unit	Total* Employment (Labrador) (PY)	Total GDP (Labrador) (\$)	Total Employment (Newfoundland) (PY)	Total GDP (Newfoundland) (\$)
RAF	451	14.0	531	20.0
GAF	598	19.5	694	26.5
RNLAF	235	7.8	276	10.7
ITAF	265	8.3	312	11.6

Notes:

Total = direct, indirect and induced
 All dollar amounts in \$2002 millions.

SCENARIO 2

The training program closes and all Allied Units depart Goose Bay, without maintenance of physical structures and with complete decommissioning the Base. Under this scenario, there is no allowance for minimum maintenance of Base facilities or buildings.

In order to estimate this information, financial information based on direct expenditures was fed into the I/O model, and used to generate the indirect and induced impacts. The estimated impacts associated with the combined departure of the Allied Units are summarized in Table ES-2.

Table ES-2
Summary of Economic Impacts of Scenario 2:
Departure of Allied Units, with Base Closure

Region	Area of Impact	Direct	Indirect	Induced	Total
Labrador	Employment	729 PY	715 PY	106 PY	1,550 PY
	Gross domestic product	\$14.7	\$28.7	\$6.2	\$49.6
Newfoundland	Employment	729 PY	878 PY	207 PY	1,813 PY
	Gross domestic product	\$14.7	\$41.0	\$12.9	\$68.5

Note: All dollar amounts in \$2002 millions.

The economic impacts were also analyzed that would be associated with the resulting environmental clean-up expenditures if all the Allied Units leave the area and the decision is made to close 5-Wing Goose Bay. The summary of these impacts is provided in Table ES-3.



**Table ES-3
 Summary of Economic Impacts of Scenario 2 – Environmental Clean-Up
 (2005 to 2015)**

Region	Area of Impact	Direct + Indirect	Induced	Total
Labrador	Employment	1,245 PY	133 PY	1,378 PY
	Gross domestic product	\$57.3	\$8.0	\$65.3
Newfoundland	Employment	1,739 PY	283 PY	2,022 PY
	Gross domestic product	\$78.3	\$18.0	\$96.3

Note: All dollar amounts in \$2002 millions.

As a result of this analysis, a total of \$240 million in direct expenditures over the 10-year period 2005 to 2015 was used under Scenario 2 to estimate the economic impacts of the environmental clean-up of sites on the Base, clean-up of the Practice Training Area (PTA), and the additional cost of environmental issues such as building and tank demolition. This \$240 million in expenditures would result in \$57.3 million in direct and indirect GDP generated in total over the 10-year period 2005 to 2015 in Labrador, and \$78.3 million in the province as a whole. There is a corresponding employment impact associated with the environmental clean-up expenditures of 1,245 PY of employment in Labrador and 1,739 PY in the province as a whole (spread out over the 10 years). This impact represents a short-term impact associated with environmental clean-up expenditures, partially offsetting the foregone annual impacts associated with Base closure.

In order to properly compare the impact associated with Base closure and the offsetting short-term impact of Base closure, the annual impacts associated with Base closure can be projected over a 20-year period and compared with the offsetting impacts associated with environmental clean-up assumed to take place over a 10-year period.

SCENARIO 3

Training program closes and all Allied Units depart Goose Bay, assuming minimum maintenance of physical structures of the Base (mothballing).

The estimated impacts associated with closure of the training programs, all Allied Units departing Goose Bay and minimum maintenance of physical structures are summarized below.

Table ES-4 shows the economic impacts associated with the annual level of direct expenditure used for mothballing the Base. These expenditures are based on estimates of the level of operation required to maintain the Base at a minimal level. This information was provided by the Department of National Defence (DND).



Table ES-4
Summary of Economic Impacts of Scenario 3
Departure of Allied Units, with Base Maintained at Minimal Level

Region	Area of Impact	Direct	Indirect	Induced	Total
Labrador	Employment	23 PY	65 PY	7 PY	95 PY
	Gross domestic product	\$0.5	\$2.9	\$0.4	\$3.8
Newfoundland	Employment	23 PY	78 PY	15 PY	116 PY
	Gross domestic product	\$0.5	\$3.7	\$0.9	\$5.2

Note: All dollar amounts in \$2002 millions.

Table ES-5 shows the net loss to the economy as a result of mothballing the Base, compared to the existing situation.

Table ES-5
Summary of Net Loss in Economic Impacts of Scenario 3
Departure of Allied Units, with Base Maintained at Minimal Level

Region	Area of Impact	Direct	Indirect	Induced	Total
Labrador	Employment	706 PY	647 PY	99 PY	1,455 PY
	Gross domestic product	\$14.1	\$25.9	\$5.8	\$45.8
Newfoundland	Employment	706 PY	801 PY	192 PY	1,698 PY
	Gross domestic product	\$14.1	\$37.3	\$12.0	\$63.3

Note: All dollar amounts in \$2002 millions.

A total of \$215 million (Base clean-up of \$200 million over 10 years and clean-up costs of the PTA estimated at an additional \$15 million) in direct expenditures is used under Scenario 3 to estimate the economic impacts of the environmental clean-up of sites on the Base and clean-up of the PTA. As shown in Table ES-6, as a result of the estimated \$215 million in expenditures, there will be \$51.3 million in direct and indirect GDP generated in total over the next 10 years in Labrador and \$70.2 million in the province as a whole. There is a corresponding employment impact associated with the environmental clean-up expenditures of 1,115 PY of employment in Labrador and 1,557 PY in the province as a whole (spread out over 10 years). This impact represents a short-term impact associated with environmental clean-up expenditures, partially offsetting the foregone annual impacts associated with Base closure (with minimal maintenance of the Base).



Table ES-6
Summary of Economic Impacts of Scenario 3 – Environmental Clean-Up
(2005 to 2015)

Region	Area of Impact	Direct + Indirect	Induced	Total
Labrador	Employment	1,115 PY	119 PY	1,234 PY
	Gross domestic product	\$51.3	\$7.2	\$58.5
Newfoundland	Employment	1,557 PY	254 PY	1,811 PY
	Gross domestic product	\$70.2	\$16.1	\$86.3

Note: All dollar amounts in \$2002 millions.

In order to properly compare the impact associated with Base closure and the offsetting short-term impact of Base closure, the annual impacts associated with Base closure can be projected over a 20-year period and compared with the offsetting impacts associated with environmental clean-up.

QUALITATIVE IMPACTS

Although the figures provided here speak volumes for the amount of impact that any one of these scenarios would have on Labrador and the province of Newfoundland, it is only when one begins to look behind those figures that the true magnitude of the impact is established. More than 50 people, representing all economic sectors of the economy, were interviewed in order to understand the ripple effect that any one of these scenarios would have on the Study Area. Although most sectors would be affected, the small manufacturing sector, the larger construction sector and most sub-sectors of the service sector, particularly general trade, would be the most affected by any one of the three scenarios.



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1.0 INTRODUCTION

1.1 Background

Since 1941, a Canadian military air base has been in operation near the confluence of the Churchill River and Lake Melville in central Labrador. Commonly known as the Goose Bay Military Base (officially called 5-Wing Goose Bay), it has changed its mandate several times to accommodate changing needs within the Northern Atlantic Treaty Organization (NATO) air forces. The Base was built for, and first used as, an airbase to support the Allied Ferry Command between Europe and the United States (US), resulting in an influx of Labradorians to the area from elsewhere to help build and operate the Base. In the 1950s, the Base became a support base for the Strategic Air Command, and the area's 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 Canadian and US presences were 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 (MOU) was signed between the Allied Units and the Canadian government, allowing the Allied Units 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. This resulted in the US Air Force withdrawing from the Base in 1991, after 50 years of use. With the US no longer paying some of the ongoing costs of the Base, a 25% operations' cost reduction was ordered in 1994.

In the last 10 years the Base has been in "cost reduction" mode, beginning with the announcement in 1995 by the Department of National Defence (DND) for Alternative Service Delivery (ASD) and the eventual outsourcing of much of the Base's non-military operations to a private company (Serco), using the tendering process. However, just when the area had begun to adjust to the latest cost reduction measures, it was dealt another blow.

Despite all the cost reduction measures, the Base was actively being used as a low-level flying training centre for certain members of the Allied Forces (i.e., British, Dutch, Germans and later the Italians). In 1996 a second 10-year MOU was signed with these member forces (the Italian Air Force (ITAF) began using the Base in 2000, and thus signed the MOU later).

By 2002, the needs of military flight training had begun to change (e.g., from low-level to medium-level operations and from day to night operations). This, coupled with the MOU

expiring in 2006 and the rising costs of training, caused several Allied Units to rethink their program at 5-Wing Goose Bay, and caused the following to happen:

- in 2002, the RAF reduced the number of rotating personnel with families from 123 to 27;
- in early 2003, the RNLAf notified the Canadian military that it would not return for the 2003 flying season and that it would cease all operations at 5-Wing Goose Bay effective March 1, 2004;
- in 2003, the GAF, responsible for approximately half of the activity on the airbase, confirmed that they would be leaving Goose Bay at the end of the 2005 flying season; and
- both the German and Italian Air Forces announced that they would have reduced flying schedules during the 2004 and 2005 flying seasons.

As a result of those changes, the fixed overhead costs for NATO operations at Goose Bay were re-allocated among the remaining Canadian Forces and other Allied Units.

Due to the changing nature of tactical military flight training, the high operational cost of the training program for a much reduced number of Allied Units, and the aging of a very extensive infrastructure, the future of the Base as it exists today is uncertain. Col Glynne Hines, Commander of 5-Wing Goose Bay, reinforced this at his annual address to the Labrador North Chamber of Commerce on January 6, 2004:

In today's economic environment, governments have to ensure their military operations are cost effective and relevant to their needs. Given the potential for further negative economic impact and the need to ensure the future of the Base is secure, a new approach is required to ensure the facilities are cost-effective and meet the needs of foreign militaries, and that the Base adopts an aggressive marketing plan. Negotiations on new training arrangements and operational enhancements have begun with our current Allied Units as the current MOU expires in 2006.

1.2 Study Rationale and Objectives

Base personnel, all levels of government and all residents of the Upper Lake Melville area (including Happy Valley-Goose Bay, Mud Lake, North West River and Sheshatshiu) are concerned about the Base's future. Several groups have been formed to proactively address these concerns, including the Citizens' Coalition of Happy Valley-Goose Bay. In the meantime, people are anxious to know what the impacts are of some of the possible changes at the Base and how these impacts will affect them. As a result, the Institute of Environmental Monitoring and Research (IEMR), which produced three reports on the *Economic Impact of Military Flight Training on Labrador and Northeastern Quebec* (2004, 2002, 2000), decided, as part of the last study, to look at various scenarios regarding the Base's future and the economic impact of those various scenarios on the Upper Lake Melville area.

No one is suggesting at this time that any of these scenarios will occur (except the RNLA has already left and the Germans have indicated they will leave in 2006), but in order to measure possible economic impacts, several scenarios had to be established and studied independently of each other in order to determine economic outcomes that made sense (e.g., a blending of scenarios and economic data would be extremely difficult to undertake, given the magnitude of the Base's activities). Thus, three extreme scenarios were established: a conservative approach in which Allied Units leave independently of each other, an extreme approach in which a complete Base closure occurs and a more middle approach in which mothballing occurs.

Specifically, the three scenarios are as follows.

1. **Scenario 1:** *Independent departure of each Allied Unit, assuming minimum maintenance of hangars and other physical structures used by Allied Units.* The departure of each Allied Unit will be treated independently at this time (since no knowledge exists as to whether all will depart simultaneously). A separate input-output (I/O) run for each Allied Unit leaving the Base independently is used to determine the economic impacts of their independent departures.
2. **Scenario 2:** *The training program closes and all Allied Units depart Goose Bay, without maintenance of physical structures and with complete decommissioning of the Base.* Under this scenario, there is no allowance for minimum maintenance of the Base facilities or buildings.
3. **Scenario 3:** *The training program closes and all Allied Units depart Goose Bay, assuming minimum maintenance of physical structures of the Base.* Discussions with Base officials indicated the type of expenditures and the magnitude of expenditures that would be undertaken in this scenario.

The assessment of each scenario includes the following:

- data on job losses;
- economic impacts on the Upper Lake Melville area; and
- cost of mothballing and decommissioning under each scenario as outlined above.

1.3 Methodology

1.3.1 Context

As this study examines the *potential* impact of *possible* future scenarios on various economic sectors in the Upper Lake Melville area, its results and commentary must be viewed in that light (e.g., this is a best guess at this time). Additionally, it must be remembered that these are *possible* scenarios and, in the case of Scenarios 2 and 3, worst-case scenarios, and *none* of them may occur. The primary purpose of this study is to help interested individuals, groups and agencies understand possible orders of magnitude regarding each of the scenarios, as well as to understand the economic ripple effect within the Upper Lake Melville area of any of these

scenarios. In other words, this study should be considered as a planning tool and not as a statement of what will happen.

1.3.2 Approach

This report describes the economic impact of the scenarios described above on employment and the Gross Domestic Product (GDP) as well as on major economic indicator sectors in the Upper Lake Melville Area (e.g., primary and secondary sectors as well as the service sector), Labrador, and the province as a whole using both quantitative and qualitative information.

1.3.2.1 Quantitative

This report provides the measures of economic activity associated with the operation of 5-Wing 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 I/O 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 Environmental Impact Statement (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 again updated for the 2000, 2002 and 2003 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. Data related to each scenario and the assumptions made for each scenario are outlined at the beginning of each scenario.

1.3.2.2 Qualitative

Information regarding the impact was obtained from the following sources:

- the 2004 study of the Economic Impact of Military Flight Training on Labrador and Northeastern Quebec; and
- interviews conducted with more than 50 people, the majority of whom live and work in the Upper Lake Melville area, each representing a government agency, industry sector, business or community agency.

This information was then integrated with the consultants' knowledge of the general impacts that occur on economic indicator sectors when any large-scale project is decommissioned or its activities are seriously reduced. Because the qualitative portion of the study is based on opinions about the future, it has been treated in format as a discussion piece rather than as a scientifically defensible research study. Therefore, no information has been attributed to any one individual. However, a list of those individuals interviewed for this study can be found in Appendix E.

1.3.3 Report Limitations

Statistics Canada changed some of its sector definitions in the 2001 census. Thus, sectors analyzed for previous reports no longer existed for the 2002 report and this report. However, for purposes of consistency, the original sectors are still described in the qualitative information. This has resulted in new sectors (e.g., administrative and support services that applies, in the case of this report, to companies such as Serco), which is discussed under the Defence category in the qualitative information section. Statistics Canada also combines several sectors (e.g., agriculture, forestry and fishing), which this reports describes separately in the qualitative section. Therefore, in several instances, no direct correlation exists between the qualitative and quantitative data.

1.4 Report Organization

This report assumes that the reader has some knowledge of the economy of Labrador and the Upper Lake Melville area through the previous three reports on the Economic Impact of Military Flight Training on Labrador and Northeastern Quebec, prepared by AMEC and Gardner Pinfold for IEMR, and therefore minimal effort has been spent on preparing baseline information on the Labrador economy. This document deals with the quantitative economic impact of the three scenarios previously described on Labrador and the province as a whole, as well as a qualitative assessment of the economic impact of the three scenarios on the Upper Lake Melville area.

Section 1 provides background on the study (i.e., why it is being undertaken), the study objectives (i.e., rationale for choosing the three scenarios), and the methodology for collecting and analyzing both the quantitative and qualitative information.

Section 2 includes quantitative information about the impact of the three scenarios, including the assumptions made for extracting and using certain expenditure data, the actual expenditure data used in arriving at the economic impact of each of the scenarios, and finally the economic impact (direct, indirect and induced) of each of the three scenarios on Labrador and the province as a whole, measured in terms of GDP and employment (measured in terms of person-years, or PY). The economic impacts are estimated as a result of a systematic breakdown of direct expenditures associated with each Scenario at 5-Wing Goose Bay and allocating these expenditures to their respective industry sectors. The breakdown of expenditure information serves as the input into the economic I/O model, and the resulting output measures the estimated economic impact, as presented in Section 2.

Section 3 provides qualitative information and some quantitative information related to the direct, indirect and induced impacts, by industry sector, of the three scenarios on the Study Area and, to a much lesser degree, on the rest of Labrador.

The appendices include information on:

- the actual data request sent to DND;
- the methodology in using the I/O model;
- a set of tables that indicate which sectors are affected by the three scenarios, and to what extent;
- the direct Base expenditures associated with each scenario; and
- a list of people interviewed for this study.

2.0 ECONOMIC IMPACTS – QUANTITATIVE

2.1 Scenario 1

Independent departure of each Allied Unit, assuming minimum maintenance of hangars and other physical structures used by Allied Units.

2.1.1 Assumptions

In this scenario, the departure of each Allied Unit is treated independently, since no knowledge exists as to whether all will depart simultaneously. A separate I/O run was done on the Base for each Allied Unit leaving the Base independently. Therefore, the expenditure information was collected for each Allied Unit separately.

For this scenario, data on the expenditures associated with the independent withdrawal of each of the Allied Units was utilized separately. Specifically, this includes expenditure data on items that each of the Allied Units withdrawing (independently) will be responsible for, in addition to the share of costs attributable to Canadian Forces at the Base.

2.1.2 Expenditure Data

2.1.2.1 Capital Project Costs

Expenditure data on each of the Allied Unit's financial share (as well as the Canadian Forces' financial share) of the approved capital project (as identified in the GAMTIC Infrastructure Plan and Project Status Report) is utilized. This includes a breakdown of the dedicated and common costs of capital projects attributable to each of the Allied Units, as well as to the Canadian Forces, including hangars, buildings, taxiways, parkways and runways (where applicable) for Fiscal Year (FY) 2002/2003.

2.1.2.2 Purchasing, Operations & Maintenance (P,O&M) Costs

Expenditure data on each of the Allied Unit's (as well as the Canadian Forces) financial share of the P,O&M costs is included. The breakdown of common costs and dedicated P,O&M costs

into line items, for the most recent fiscal year available (FY 2002/2003 or FY 2001/2002), is utilized.

The P,O&M cost expenditure categories attributable to each of the Allied Units and Canadian Forces has been broken down, and the Allied Unit's share of personnel and O&M expenditures (including jet fuel) is broken down as follows:

- number of employees:
 - military
 - civilian
- public funds (full-time and part-time)
- non-public funds (full-time and part-time)
- foreign military personnel and number of months at the Base each year (broken down by Allied Unit)
- total annual budget (excluding contracts)
- wages and salaries:
 - military
 - civilian
- gas and fuel
- contract – Serco (total amount)
- Aviation, Petroleum, Oil and Lubricants (AVPOL)
- Liquid Oxygen (LOX)
- electricity
- heating fuel
- Private Married Quarters (PMQ) furniture
- Other Government Department (OGD) purchases
- cleaning contract
- freight
- vacation travel
- temporary duty travel
- Payment In Lieu of Taxes (PILT)
- environmental
- capital expenditures
- other
- purchases made by Allied Units and DND from local suppliers and across Canada
- communications

- professional services
- rental
- maintenance and repair
- supplies
- miscellaneous

Since this scenario assumes minimum maintenance of hangars and other physical structures used by the Allied Units, an estimate of the cost of maintenance and heating of hangars and other physical structures used by each of the Allied Units independently (as noted above) has been utilized. This amount was then scaled down per the scale-down factor assumed in “minimum maintenance”.

2.1.2.3 Annual Construction Activity due to Allied Units

Cost information on construction cannot be broken out and provided due to the contract nature of this work and confidentiality of the contract price. However, descriptive information about the nature of ongoing construction activities, or other contract work during the most recent fiscal year attributable to each Allied Unit and the Canadian Forces for FY 2002/2003 or the most recent fiscal year, was provided by DND.

2.1.2.4 Preservation, Outstanding Construction, Contractual or Termination Costs

Data was utilized on each of the Allied Unit’s and Canadian Forces share of any preservation, outstanding construction, contractual or termination costs associated with infrastructure, and goods and services, unless otherwise approved by DND. These costs were broken down by line item.

2.1.2.5 Compensation for Residual Value of its Capital Investment

In addition, information was utilized on the amount the Allied Unit withdrawing from the MOU will be compensated for the residual value of its capital investment in infrastructure, and goods and services, to the extent its share is taken up by another Allied Unit.

2.1.2.6 Labour Adjustment Costs

As a result of closure, civilian employees on the Base, and some workers at businesses that provide goods and services to the Base and its personnel will become unemployed and collect Employment Insurance (EI). These and other adjustment costs are borne by the various levels of government.

Available information on adjustment costs associated with military personnel relocations, civilian reduction plans and retirement packages was utilized. This included data on labour adjustment

costs associated with declaring surpluses (including relocation, retirement, or other forms of being declared surplus) of DND personnel due to the departure of the Allied Units and Base closure.

2.1.3 Economic Impacts for Each Allied Unit

The estimated impacts associated with the independent departure of each Allied Unit are summarized below. The resulting economic impact is measured in terms of employment and GDP impacts. These impacts, as shown in the tables below, estimate the loss in GDP and employment (person-years) to the Labrador and provincial economies as a result of the departure of each Allied Unit from 5-Wing Goose Bay. These impacts are derived as a result of the loss in direct expenditures in the local economy because of the independent departure of each Allied Unit. The estimated loss in direct expenditures is fed into the I/O model, and used to generate the indirect and induced impacts related to the independent departure of each Allied Unit.

2.1.3.1 Royal Air Force

It should be noted that the economic impacts outlined in the tables below represent annual impacts accruing to the economy of Labrador and to the province as a whole as a result of the independent departure of the Allied Units from 5-Wing Goose Bay. The GDP impacts are measured in terms of \$2002.

Table 1 indicates that as a result of the departure of the RAF, there will be a decrease in GDP in the amount of \$3.5 million per year (based on \$2002) in terms of direct GDP in Labrador and the province as a whole. There will be an additional annual indirect loss of \$8.8 million in GDP in Labrador and \$12.6 million in the province as a whole, and an annual induced loss of \$1.7 million in Labrador and \$3.6 million in the province as a whole. Based on the loss in direct GDP, there will be a total estimated annual loss of \$14 million in GDP in Labrador and \$19.8 million in the province as a whole as a result of the departure of the RAF.

In terms of the impact on employment, there will be a loss of an estimated 208 PY of employment per year in Labrador and in the province as a whole. There will be an additional annual loss of 215 PY in indirect employment in Labrador and 265 PY in the province as a whole, and 28 PY of induced employment in Labrador and 58 PY in the province as a whole. Due to the loss of direct employment, there will be a total annual loss of an estimated 451 PY of employment in Labrador and 531 PY in the province as a whole due to the departure of the RAF.



Table 1
Summary of Economic Impacts of Scenario 1:
Independent Departure of the RAF

Region	Area of Impact	Direct	Indirect	Induced	Total
Labrador	Employment	208 PY	215 PY	28 PY	451 PY
	Gross domestic product	\$3.5	\$8.8	\$1.7	\$14.0
Newfoundland	Employment	208 PY	265 PY	58 PY	531 PY
	Gross domestic product	\$3.5	\$12.6	\$3.6	\$19.7

Note: All dollar amounts in \$2002 millions.

2.1.3.2 German Air Force

Table 2 below indicates that as a result of the departure of the GAF, there will be a decrease in direct GDP in the amount of \$6.3 million per year (based on \$2002) in Labrador and the province as a whole. There will be an additional indirect annual loss of \$10.6 million in GDP in Labrador and \$15.1 million in the province as a whole, and an induced annual loss of \$2.6 million in Labrador and \$5.0 million in the province as a whole. Based on the loss in direct GDP, there will be an additional estimated annual total loss of \$19.5 million in Labrador and \$26.5 million in the province as a whole as a result of the departure of the GAF.

In terms of the impact on direct employment, there will be a loss of an estimated 281 PY of employment per year in Labrador and the province as a whole. There will be an additional annual loss of 273 PY of indirect employment in Labrador and 332 PY in the province as a whole, and an annual loss of 44 PY of induced employment in Labrador and 81 PY in the province as a whole. Due to the loss of direct employment, there will be a total annual loss of an estimated 598 PY in Labrador and 694 PY in the province as a whole due to the departure of the GAF.

Table 2
Summary of Economic Impacts of Scenario 1:
Independent Departure of the GAF

Region	Area of Impact	Direct	Indirect	Induced	Total
Labrador	Employment	281 PY	273 PY	44 PY	598 PY
	Gross domestic product	\$6.3	\$10.6	\$2.6	\$19.5
Newfoundland	Employment	281 PY	332 PY	81 PY	694 PY
	Gross domestic product	\$6.3	\$15.1	\$5.1	\$26.5

Note: All dollar amounts in \$2002 millions.



2.1.3.3 *Royal Netherlands Air Force*

Table 3 indicates that as a result of the departure of the RNLAF, there will be a decrease in direct GDP in the amount of \$2.5 million per year (based on \$2002) in Labrador and the province as a whole. There will be an additional annual loss of \$4.4 million in indirect GDP in Labrador and \$6.2 million in the province as a whole, and an annual loss of \$1.0 million in induced GDP in Labrador and \$2.0 million in the province as a whole. Based on the loss in direct GDP, there will be an additional estimated annual total loss of \$7.8 million in GDP in Labrador and \$10.8 million in the province as a whole as a result of the departure of the RNLAF.

In terms of the impact on direct employment, there will be a loss of an estimated 111 PY of employment per year in Labrador and the province as a whole. There will be an additional annual loss of 108 PY of indirect employment in Labrador and 133 PY in the province as a whole, and 16 PY of induced employment in Labrador and 32 PY in the province as a whole. Due to the loss of direct employment, there will be a total annual loss of an estimated 235 PY of employment in Labrador and 276 PY in the province as a whole due to the departure of the RNLAF.

Table 3
Summary of Economic Impacts of Scenario 1:
Independent Departure of the RNLAF

Region	Area of Impact	Direct	Indirect	Induced	Total
Labrador	Employment	111 PY	108 PY	16 PY	235 PY
	Gross domestic product	\$2.5	\$4.4	\$1.0	\$7.8
Newfoundland	Employment	111 PY	133 PY	32 PY	276 PY
	Gross domestic product	\$2.5	\$6.2	\$2.0	\$10.7

Note: All dollar amounts in \$2002 millions.

2.1.3.4 *Italian Air Force*

Table 4 indicates that as a result of the departure of the ITAF, there will be a decrease in GDP of \$2.3 million per year (based on \$2002) in terms of direct GDP in Labrador and the province as a whole. There will be an additional annual loss of \$4.9 million in indirect GDP in Labrador and \$7.1 million in the province as a whole, and \$1.0 million in induced GDP in Labrador and \$2.1 million in the province as a whole. Based on the loss in direct GDP, there will be an estimated annual loss of \$8.3 million in GDP in Labrador and \$11.6 million in the province as a whole as a result of the departure of the ITAF.

In terms of the impact on direct employment, there will be a loss of an estimated 129 PY of employment per year in Labrador and the province as a whole. There will be an additional annual loss of 119 PY of indirect employment in Labrador and 147 PY in the province as a whole, and 17 PY of induced employment in Labrador and 35 PY in the province as a whole. Due to the loss of direct employment, there will be a total annual loss of an estimated 265 PY of

employment in Labrador and 312 PY employment in the province as a whole due to the departure of the ITAF.

Table 4
Summary of Economic Impacts of Scenario 1:
Independent Departure of the ITAF

Region	Area of Impact	Direct	Indirect	Induced	Total
Labrador	Employment	129 PY	119 PY	17 PY	265 PY
	Gross domestic product	\$2.3	\$5.0	\$1.0	\$8.3
Newfoundland	Employment	129 PY	147 PY	35 PY	312 PY
	Gross domestic product	\$2.3	\$7.1	\$2.1	\$11.6

Note: All dollar amounts in \$2002 millions.

2.2 Scenario 2

The training program closes and all Allied Units depart Goose Bay, without maintenance of physical structures and with complete decommissioning of the Base.

2.2.1 Assumptions

This scenario assumes the training program closes and all Allied Units depart 5-Wing Goose Bay (without maintenance of physical structures). This scenario deals with the departure of all Allied Units and complete Base closure, assuming complete decommissioning of the Base.

For this scenario, the analysis of economic impacts is based on the data on direct expenditures associated with closure of the training program and withdrawal of the Allied Units (obtained in Scenario 1 above), in addition to any additional expenditures related to deconstruction of buildings and other physical structures, labour adjustment, and environmental clean-up.

This scenario requires empirical estimates of the socio-economic impacts on Canada of the termination of Allied training at 5-Wing Goose Bay and Base closure, and the costs to Canada of having to close the Base without maintaining physical structures.

Specifically, the analysis under this scenario is based on expenditure data received from 5-Wing Goose Bay for each of the Allied Units and Canadian Forces as in Scenario 1, as well as additional expenditures made by the Base (over and above the agreed amounts by the Allied Units), according to the costs of construction, environmental clean-up, labour adjustment costs and site closure.

This assumption also assumes zero maintenance of hangars and other physical structures used by the Allied Units.

2.2.2 Expenditure Data

2.2.2.1 Capital Project Costs

The analysis of economic impacts under this scenario is based on direct expenditure estimates provided by DND on each of the Allied Unit's financial share (as well as the Canadian Forces' financial share) of the approved capital project (as identified in the GAMTIC Infrastructure Plan and Project Status Report). The direct expenditures on capital costs are based on a breakdown of the dedicated and common costs of capital projects attributable to each of the Allied Units, including hangars, buildings, taxiways, parkways and runways (where applicable) for FY 2002/2003.

2.2.2.2 P,O&M Costs

The analysis of economic impacts under Scenario 2 are based on the direct expenditure estimates for each of the Allied Unit's financial share of the P,O&M costs provided by DND. The common costs and dedicated P,O&M costs are broken down into line items for the most recent fiscal year available (FY 2002/2003). The P,O&M expenditures are broken down according to the categories attributable to each of the Allied Units and Canadian Forces. In addition, expenditure data related to each Allied Unit's share of personnel and operating and maintenance expenditures (including jet fuel) is broken down by detailed line item.

2.2.2.3 Labour Adjustment Costs

As a result of Base closure, civilian employees on the Base and some workers at businesses that provide goods and services to the Base and its personnel will become unemployed and collect EI. These and other adjustment costs are borne by the various levels of government.

Data on adjustment costs associated with military personnel relocations, civilian reduction plans and retirement packages are provided by 5-Wing Goose Bay, and broken down by Allied Unit. This includes data on labour adjustment costs associated with declaring surpluses (including relocation, retirement, or other forms of being declared surplus) of DND personnel due to the departure of the Allied Units and Base closure.

2.2.2.4 Environmental Clean-up

The analysis of economic impacts under this scenario incorporates direct expenditure estimates associated with the environmental clean-up due to the exit of each of the Allied Units and Base closure. Environmental clean-up costs generate economic benefits that, to a small degree, offset the decline in employment, production and tax revenues resulting from Base closure. Direct expenditure estimates related to the environmental clean-up requirements, as outlined by DND or other government agencies, for all areas on the base are utilized in this analysis.



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. The estimated impacts associated with the combined departure of the Allied Units are summarized below.

Table 5
Summary of Economic Impacts of Scenario 2

Region	Area of Impact	Direct	Indirect	Induced	Total
Labrador	Employment	729 PY	715 PY	106 PY	1,550 PY
	Gross domestic product	\$14.7	\$28.7	\$6.2	\$49.6
Newfoundland	Employment	729 PY	878 PY	207 PY	1,814 PY
	Gross domestic product	\$14.7	\$41.0	\$12.9	\$68.5

Note: All dollar amounts in \$2002 millions.

2.2.4 Economic Impacts of Environmental Clean-up Costs

This section provides a summary of the economic impacts associated with the environmental clean-up expenditures undertaken due to the exit of the Allied Units and the closure of 5-Wing Goose Bay under Scenario 2. The estimated direct expenditures related to the environmental clean-up requirements for all areas on the Base were provided by DND.

The results of the environmental clean-up expenditure estimates provide economic impacts slightly differently than those that accrue due to the direct expenditures at the Base that result from ongoing operations of the Base—known wages and salaries of personnel generated on an annual basis. In other words, when examining the economic impacts associated with the ongoing operations at the Base, the direct employment impacts are known, and the corresponding indirect and induced impacts are based on the direct impacts. In the case of the estimated environmental clean-up expenditures, these expenditures are estimated based on the future clean-up requirements at the Base, in the absence of the known current direct impacts associated with environmental clean-up.

As a result, the direct economic impacts associated with environmental clean-up are reported together with the indirect impacts. Expenditures on environmental clean-up are estimated expenditures in the future. For these estimates, there is no level of certainty regarding the direct impacts. This makes the disaggregation of direct and indirect impacts difficult.

Due to these differences, one should not make direct comparisons between the direct and indirect impacts of the ongoing direct expenditures associated with the Base and its operation, and those associated with estimated future expenditures of environmental clean-up. One can, however, compare total impacts. This methodology is consistent with previous economic impact studies conducted by this study team for the military flight training at 5-Wing Goose Bay.



Environmental clean-up costs generate economic benefits that, to a small degree, offset the decline in employment, production and tax revenues resulting from Base closure. Expenditures on environmental clean-up are assumed to take place over the next 10 years (2005 to 2015), and are shown in Table 6.

Table 6
Summary of Direct Expenditures for Scenario 2 – Environmental Clean-Up
(2005 to 2015)

Commodities:	Expenditures (\$)
Professional services	85.2
Construction	50.4
Other capital expenditure	23.23
Nonprofessional services	35.8
Supplies	30.8
Miscellaneous	14.5
Total	240.0

Note: All dollar amounts in \$2002 millions.

For the environmental clean-up of the Base, it is assumed that the total cost for each of the scenarios will ultimately remain the same. As per information provided by DND, whether the Base remains open or closes, the contaminated sites must be cleaned up eventually. The best estimated cost for proper Base clean-up is \$200 million (\$2004) over 10 years. It is also assumed that Allied contribution to this cost would be minimal as the majority of contaminated sites at 5-Wing Goose Bay are legacy sites from before the Allied Units arrived in Goose Bay. However, there are some smaller sites that can be attributed to Allied operations; for example, crash sites and fuel spills associated with Allied buildings. These types of sites have not been totally costed and this portion of the total cost is assumed to be relatively small.

The estimated \$200 million for environmental clean-up does not include the costs of clean-up of the PTA. This cost is estimated to be an additional \$15 million. At this point it is difficult to put a final price tag on the cost to clean the PTA since the DND does not know what the province will require at the end of the current agreement. DND is currently going through this with the RNLAFF departure.

The environmental clean-up figures above do not include the cost of environmental issues associated with building and tank demolition, as would be required in the case of Base closure (as in Scenario 2). These processes deal with environmental issues such as asbestos, lead paint, etc. Further investigation was conducted to determine the costs of these processes. It was assumed that the cost of the environmental issues associated with building and tank demolition and other unanticipated costs associated with environmental issues would be in the order of \$25 million.



As a result of this analysis, \$240 million in direct expenditures over the 10-year period of 2005 to 2015 is used under Scenario 2 to estimate the economic impacts of the environmental clean-up of sites on the Base, clean-up of the PTA, and the additional cost of environmental issues such as building and tank demolition. Table 6, above, provides a breakdown of the expenditures associated with environmental clean-up in Scenario 2 with departure of Allied Units and Base closure. It also provides a breakdown of the percentage of expenditures that are assumed to remain in the local economy.

Table 7 outlines the economic impacts associated with environmental clean-up expenditures for 2005 to 2015 under the assumptions of Scenario 2. As indicated in the table, as a result of the estimated \$240 million in expenditures associated with environmental clean-up under Scenario 2, there is a resulting \$57.3 million in direct and indirect GDP generated in total over the 10-year period of 2005 to 2015 in Labrador and \$78.3 million in the province as a whole. There is a corresponding direct and indirect employment impact associated with the environmental clean-up expenditures of 1,245 PY of employment in Labrador and 1,739 PY in the province as a whole (spread out over the 10 years). This clean-up activity will create an additional 133 PY of induced employment in Labrador and 283 PY in the province as a whole. This represents a short-term impact associated with environmental clean-up expenditures, partially offsetting the foregone annual impacts associated with Base closure.

Table 7
Summary of Economic Impacts of Scenario 2 – Environmental Clean-Up
(2005 to 2015)

Region	Area of Impact	Direct + Indirect	Induced	Total
Labrador	Employment	1,245 PY	133 PY	1,378 PY
	Gross domestic product	\$57.3	\$8.0	\$65.3
Newfoundland	Employment	1,739 PY	283 PY	2,022 PY
	Gross domestic product	\$78.3	\$18.0	\$96.3

Note: All dollar amounts in \$2002 millions.

In order to properly compare the impact associated with Base closure and the offsetting short-term impact of Base closure, the annual impacts associated with Base closure can be projected over a 20-year period and compared with the offsetting impacts associated with environmental clean-up.

2.3 Scenario 3

Training program closes and all Allied Units depart Goose Bay, assuming minimum maintenance of physical structures of the Base.

2.3.1 Assumptions

This scenario assumes the training program closes and all Allied Units depart Goose Bay (assuming minimum maintenance of physical structures of the Base). This assumption also assumes minimum maintenance of hangars and other physical structures used by the Allied Units.

The analysis under this scenario is based on data on the expenditures associated with closure of the training program and withdrawal of the Allied Units (obtained in Scenario 2 above). However, this scenario assumes a minimum maintenance of the physical structures of the Base, rather than closure and decommissioning. The expenditures associated with the minimum maintenance of the Base would provide partially offsetting economic impacts against the loss of expenditures associated with Base closure. In addition, expenditures associated with environmental clean-up would also provide temporary offsetting economic impacts against the loss of expenditures associated with Base closure. Direct expenditures made by the Base to maintain minimal maintenance of physical structures are utilized.

The analysis under this scenario also included information relating to differences in environmental clean-up procedures for maintaining the Base under minimal maintenance of the physical structures versus complete decommissioning of the Base.

2.3.2 Expenditure Data

2.3.2.1 Capital Project Costs

Expenditure data on each of the Allied Unit's financial share (as well as the Canadian Forces' financial share) of the approved capital project (as identified in the GAMTIC Infrastructure Plan and Project Status Report) is utilized. This includes a breakdown of the dedicated and common costs of capital projects attributable to each of the Allied Units, as well as to the Canadian Forces, including hangars, buildings, taxiways, parkways and runways (where applicable) for FY 2002/2003.

2.3.2.2 P,O&M Costs

Expenditure data on each of the Allied Units' (as well as the Canadian Forces) financial share of the P,O&M costs is included. The breakdown of common costs and dedicated P,O&M costs into line items, for the most recent FY available (FY 2002/2003 or FY 2001/2002), is utilized.

The P,O&M cost expenditure categories attributable to each of the Allied Units and Canadian Forces have been broken down. The Allied Unit's share of personnel and O&M expenditures (including jet fuel) has been broken down by detailed line item.

Since this scenario assumes a minimum maintenance of hangars and other physical structures used by the Allied Units, an estimate of the costs of maintenance and heating of hangars and

other physical structures used by each of the Allied Units independently (as noted above) has been utilized. This amount was then scaled down as per the scale-down factor assumed in "minimum maintenance".

2.3.2.3 Annual Construction Activity due to Allied Units

Cost information on construction cannot be broken out and provided due to the contract nature of this work and confidentiality of the contract price. However, descriptive information was provided by DND about the nature of ongoing construction activities, or other contract work during the most recent fiscal year attributable to each Allied Unit and the Canadian Forces for FY 2002/2003 or the most recent fiscal year.

2.3.2.4 Preservation, Outstanding Construction, Contractual or Termination Costs

Data was utilized on each of the Allied Unit's and Canadian Forces' share of any preservation, outstanding construction, contractual or termination costs associated with infrastructure, and goods and services, unless otherwise approved by DND. These costs were broken down by line item.

2.3.2.5 Compensation for Residual Value of its Capital Investment

In addition, information was utilized on the amount the Allied Unit withdrawing from the MOU would be compensated for the residual value of its capital investment in infrastructure, and goods and services, to the extent its share is taken up by another Allied Unit.

2.3.2.6 Labour Adjustment Costs

As a result of closure, civilian employees on the Base and some workers at businesses that provide goods and services to the Base and its personnel would become unemployed and collect EI. These and other adjustment costs are borne by the various levels of government.

Estimated direct expenditures related to the adjustment costs associated with military personnel relocations, civilian reduction plans and retirement packages is provided by DND. This includes data on labour adjustment costs associated with declaring surpluses (including relocation, retirement, or other forms of being declared surplus) of DND personnel due to the departure of the Allied Units and Base closure.

2.3.2.7 Environmental Clean-Up

This scenario incorporates information associated with environmental clean-up due to the exit of the Allied Units and closure of 5-Wing Goose Bay (assuming a minimal maintenance of the Base). Environmental clean-up costs generate economic benefits that, to a small degree, offset the decline in employment, production and tax revenues resulting from Base closure. The



estimated direct expenditures related to the environmental clean-up requirements for all areas on the Base were provided by DND.

2.3.3 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. The estimated impacts associated with the independent departure of each of the Allied Units are summarized below.

Table 8 shows the economic impacts associated with the annual level of direct expenditure used for mothballing the Base. These expenditures are based on estimates of the level of operation required to maintain the Base at a minimal level. This information was provided by DND.

Table 8
Summary of Economic Impacts of Scenario 3

Region	Area of Impact	Direct	Indirect	Induced	Total
Labrador	Employment	23 PY	65 PY	7 PY	95 PY
	Gross domestic product	\$0.5	\$2.9	\$0.4	\$3.8
Newfoundland	Employment	23 PY	78 PY	15 PY	116 PY
	Gross domestic product	\$0.5	\$3.7	\$0.9	\$5.2

Note: All dollar amounts in \$2002 millions.

Table 9 shows the net loss to the economy as a result of mothballing the Base, compared to the existing situation.

Table 9
Summary of Net Loss of Economic Impacts of Scenario 3

Region	Area of Impact	Direct	Indirect	Induced	Total
Labrador	Employment	706 PY	650 PY	99 PY	1,455 PY
	Gross domestic product	\$14.1	\$25.9	\$5.8	\$45.8
Newfoundland	Employment	706 PY	801 PY	192 PY	1,698 PY
	Gross domestic product	\$14.1	\$37.3	\$12.0	\$63.3

Note: All dollar amounts in \$2002 millions.

2.3.4 Economic Impacts of Environmental Clean-up Costs

This section provides a summary of the economic impacts associated with the environmental clean-up expenditures undertaken due to the exit of the Allied Units and closure of 5-Wing Goose Bay (assuming a minimal maintenance of the Base). The estimated direct expenditures related to environmental clean-up for all areas on the Base were provided by DND. These



expenditures were estimated based on the future clean-up requirements at the Base, in the absence of the known current direct impacts associated with environmental clean-up.

Table 10 provides a breakdown of expenditures for environmental clean-up that are assumed to take place over the 10-year period of 2005 to 2015 under the assumptions of Scenario 3. Information provided by DND estimates the cost for Base clean-up at \$200 million over 10 years. The costs of clean-up of the PTA is estimated to be an additional \$15 million.

Table 10
Summary of Direct Expenditures for Scenario 3 – Environmental Clean-Up
(2005 to 2015)

Commodities	Expenditures (\$)
Professional services	76.3
Construction	45.1
Other capital expenditure	20.8
Non-professional services	32.0
Supplies	27.6
Miscellaneous	13.0
Total	215.0

Note: All dollar amounts in \$2002 millions.

Table 11 indicates that, as a result of the \$215.0 million of environmental clean-up expenditures under Scenario 3, there would be \$51.3 million in direct and indirect GDP generated over the next 10 years in Labrador, and \$70.2 million in the province as a whole. There is a corresponding employment impact associated with the environmental clean-up expenditures of 1,115 PY of direct and indirect employment in Labrador and 1,557 PY in the province as a whole (spread out over the next 10 years). In addition, the environmental clean-up will generate 119 PY of induced employment in Labrador and 254 PY in the province as a whole. This impact represents a short-term impact associated with environmental clean-up expenditures, partially offsetting the foregone annual impacts associated with Base closure, with minimal maintenance of the Base.

Table 11
Summary of Economic Impacts of Scenario 3 – Environmental Clean-Up
(2005 to 2015)

Region	Area of Impact	Direct + Indirect	Induced	Total
Labrador	Employment	1,115 PY	119 PY	1,234 PY
	Gross domestic product	\$51.3	\$7.2	\$58.5
Newfoundland	Employment	1,557 PY	254 PY	1,811 PY
	Gross domestic product	\$70.2	\$16.1	\$86.3

Note: All dollar amounts in \$2002 millions.

In order to properly compare the impact associated with Base closure and the offsetting short-term impacts of Base closure, the annual impacts associated with Base closure can be projected over a 20-year period and compared with the offsetting impacts associated with environmental clean-up.

3.0 ECONOMIC IMPACTS – QUALITATIVE

3.1 Primary Industries

3.1.1 Agriculture

Agriculture is a small sector in the Study Area consisting of approximately seven farms. Nonetheless, a reduction in the number of Allied Units rotating through the area impacts this sector. As an example, one organic farm, based on the European style of picking your own crops, was partially established to cater to the cultural preferences of the European Allied Units. Since its growing and harvesting season coincides with the arrival of the Allied Units, this farm has counted on weekly visits and purchases from families of each of these Units. Removal of any of the Allied Units, along with the recent closure of the hennery from which this farm received its organic manure, has forced the owners of this farm to rethink their future. Another farm sells produce wholesale to the local supermarkets. If the population of the Study Area decreases significantly as a result of reduced training activity at the Base, the supermarkets and their abilities to buy locally could be affected.

3.1.2 Forestry

3.1.2.1 Scenario 1

The major logging operation in the Study Area sells 85% of its logs to Abitibi Price in Stephenville; the remaining 15% is sold to the local lumber mill which, in turn, sells to the three local lumber stores. A small portion of the logs is sold along the coast and to Labrador West. That portion of the logging business that sells logs to the local sawmill mill, as well as that portion of the sawmill's business (approximately 60%) that sells commodity lumber (e.g., 2x3s, 2x4s, 2x6s) to the three local lumber dealers, would be negatively affected if any of the Allied Units withdraws from the training program, as each of them uses some local wood for ongoing operations and maintenance.

3.1.2.2 Scenario 2

If the Base is completely decommissioned, a small amount of local commodity lumber sold through the local lumber stores would be used in closure (e.g., temporary structures during environmental clean-up). After a few years, none would be used. Unless the individuals

employed on the Base find other jobs in the Study Area, they are likely to leave the area to find employment elsewhere. Thus, the demand within the Study Area for lumber for new construction or renovations would be reduced, although some lumber might be used for ongoing maintenance of vacant residential and commercial structures.

3.1.2.3 Scenario 3

If the training program closes, all Allied Units depart and some minimum maintenance of physical structures of the Base is maintained, a direct need would exist for a small amount of local commodity lumber for ongoing maintenance. If the above scenario occurs, the need for people to support the Base's training program would be drastically reduced and, unless they find other jobs in the Study Area, they would likely leave the area to find employment elsewhere. Thus, the need for lumber for new construction or renovations in the Study Area would be reduced, although some lumber might be used for ongoing maintenance of vacant residential and commercial structures.

3.1.3 Fishery

3.1.3.1 Scenario 1

The commercial fishery would not be affected by the departure of any one of the four Allied Units. The withdrawal of each of the Allied Units would not seriously impact the recreational fishery, with the exception of the Germans who are planning on withdrawing in 2006. They buy fishing equipment in the Study Area, occasionally use local guides and fish at No Name Lodge approximately 80 km south of the Base. This lodge employs one person seasonally.

3.1.3.2 Scenario 2

The commercial fishery would not be affected directly. It could be slightly affected indirectly in that some families might have previously moved into the Study Area from the coast to obtain employment at the Base. If the Base is decommissioned, these individuals might look for employment elsewhere or return to their coastal community to look for employment in the fishing industry. The recreational fishery could be affected if a number of families who worked on the Base and some families who provided specific services to the Base leave the area. They would no longer buy boats, motors, gasoline or fishing equipment.

3.1.3.3 Scenario 3

The commercial fishery would not be affected directly if the Base is mothballed. It could be slightly affected indirectly in that some families might have moved into the Study Area from the coast to obtain employment on the Base. If the Base is mothballed or these individuals are retained to provide ongoing maintenance of Base infrastructure, they might look for employment elsewhere or return to their coastal communities to look for employment in the fishing industry. The recreational fishery could be affected if a number of families who worked on the Base and

some families who provided specific services leave the area. They would no longer buy boats, motors, gasoline or fishing equipment.

3.1.4 Hunting and Trapping

3.1.4.1 Scenario 1

The withdrawal of each of the Allied Units would not seriously impact the hunting or trapping sector, with the exception of the Germans who are planning on withdrawing in 2006. They are the largest owners of hunting licenses and the biggest buyers of furs. When they withdraw, they will not be spending money locally to buy hunting licenses; hunting equipment, including ski-doods, all-terrain vehicles and trucks; clothing; guns and ammunition, tents; and/or accommodations. Since some of the hunters use guides, the guide business could be negatively affected. Since some of the German hunters have their meat butchered locally, the butcher shops could experience a loss in business. However, if the Germans no longer buy hunting licenses, these licenses would be available for other individuals, but since some families who work on the Base might leave the area, the uptake on licenses could be reduced overall.

Those trappers who sell furs directly to the Germans would also be negatively affected.

3.1.4.2 Scenario 2

Under this scenario, hunting and trapping would not be affected directly in the short-term if the Base is decommissioned because those individuals who are employed on the Base for the decommissioning phase and who hunt would continue to obtain hunting licenses and buy hunting equipment. In the long term, unless those individuals found employment in the area or at Voisey's Bay, they might look for employment elsewhere. This would result in these individuals neither buying hunting licenses nor clothing and equipment. Additionally, if some hunters from families who provide specific services to the Base leave the area, they would no longer buy licenses, equipment or clothing for hunting big game.

3.1.4.3 Scenario 3

In this scenario, hunting and trapping would not be affected directly in the short-term if the Base is mothballed because those individuals who are employed on the Base for the mothballing phase and who hunt would continue to obtain hunting licenses and buy hunting equipment. In the long term, unless those individuals found employment in the area or at Voisey's Bay, they might look for employment elsewhere. This would result in these individuals neither buying hunting licenses nor clothing and equipment. Additionally, if hunters from some families provide specific services to the Base leave the area, they would no longer buy licenses, equipment or clothing for hunting big game.

3.1.5 Hydroelectricity

Hydroelectricity is supplied to the Study Area from the Churchill Falls 300-megawatt block that has been negotiated for domestic use. Additionally, Labrador is divided into two distinct electrical areas: an interconnected grid and isolated systems. For purposes of rate setting, the two systems are treated separately. Happy Valley-Goose Bay is part of the interconnected grid (as is Labrador West). The Board of Commissioners of Public Utilities (PUB) sets the rates applied to the regulated portion of the electricity system. The rates are derived from a determination of the total cost of service and the allocation of proportionate amounts across the various rate classes. The rates in Labrador West are lower than those in Happy Valley-Goose Bay, but the PUB has approved a plan to move towards common rates for the interconnected system, which should have a lowering affect on the Happy Valley-Goose Bay rates.

3.1.5.1 Scenario 1

Hydroelectricity would probably not be affected either directly or indirectly as a result of any one of each of the four Allied Units leaving.

3.1.5.2 Scenario 2

If the Base is decommissioned, hydroelectricity would not be affected in the short-term as it would be required for decommissioning of the Base. However, in the long term, hydroelectricity could be impacted in that it is supplied to the Base under contract at a rate of \$3 million annually, although the actual cost of electricity is significantly less. If the PUB implements uniform rates across the interconnected Labrador system, the impact of reduced revenue from the Base would be absorbed by the interconnected rate payers to pay for the combined infrastructure financing and upkeep. Because a smaller customer base would exist, the rates could increase in the 10–15% range. However, this would be dependent on how the PUB allocates the cost across the classes, and assumes that the current treatment of CFLCo energy sales as unregulated remains.

3.1.5.3 Scenario 3

If the Base is mothballed, hydroelectricity would not be affected in the short-term as it would be required for mothballing of the Base. However, in the long term, hydroelectricity could be impacted in that less power would be required to maintain the Base than to operate it. The \$3 million paid annually to Newfoundland and Labrador Hydro would be renegotiated, and any changes to the power rate within the Study Area would be subject to review by the PUB.

3.1.6 Mining

3.1.6.1 Scenario 1

Mining would not be affected directly or indirectly other than that some individuals who are employed by each of the Allied Units might lose their jobs and seek, but not necessarily find, employment at Voisey's Bay.

3.1.6.2 Scenario 2

Mining would not be affected directly or indirectly other than that some individuals who are employed on the Base might lose their jobs and seek, but not necessarily find, employment at Voisey's Bay.

3.1.6.3 Scenario 3

Mining would not be affected directly or indirectly other than that some individuals who are employed on the Base might lose their jobs and seek, but not necessarily find, employment at Voisey's Bay.

3.2 Secondary Industries

3.2.1 Manufacturing (Crafts, Dimension Stone, Other)

3.2.1.1 Scenario 1

Manufacturing remains a relatively underdeveloped sector in the Study Area. However, all manufacturing businesses would be negatively affected if any of the Allied Units leave. For those manufacturers supplying the Base directly with products, the production costs generally remain the same regardless of the number of Allied Units that leave the Study Area. These costs would then have to be either shared by the remaining Allied Units or else the companies would need to significantly cut costs (e.g., lay off personnel on a seasonal basis). Since many of these employees are highly skilled, they might leave the Study Area to find full-time and higher paying employment elsewhere.

For those manufacturing companies supplying the Base indirectly with products (i.e., supplying products to companies that directly contract with the Base), there would be a reduced demand for their products if any of the Allied Units leaves.

Described below are three examples of manufacturing businesses within the Study Area that would be impacted directly by any of the Allied Units leaving the Study Area.

1. A local manufacturer custom sews items (e.g., tents, jackets, all-weather covers). In 1999, one third of its business was directly related to the military, particularly the GAF who

purchased custom-made footwear, jackets and covers for their trucks. In 2003, this figure dropped to 25% as a result of a decrease in military personnel.

2. A food processing business buys and butchers local game and fish (e.g., caribou, salmon) and sells it to customers. Approximately 35% of sales are attributed to the Allied Units (primarily the Germans, followed by the Dutch), who buy in bulk quantities such items as smoked salmon and caribou steaks. When the Dutch left the Study Area in 2003, the demand for meat and fish decreased about 20%. With the impending departure of the Germans, business is anticipated to decrease an additional 35%.
3. A liquid oxygen company established 15 years ago for the sole purpose of supplying the Base is totally dependent on the Allied Units to buy its product. If any one of the Allied Units leaves, the other Allied Units have to offset the cost of supplying the product since the same number of employees (five) are required to produce the product, regardless of the number of Allied Units buying it. Since these are highly skilled employees, some of them may choose to leave the Study Area for work elsewhere, if the prospects for ongoing employment remain uncertain.

The local craft production industry would not be directly negatively affected if the Allied Units leave in that most small souvenirs purchased by members of the Allied Units are made elsewhere.

3.2.1.2 Scenario 2

If the low-level flying training program closes, all Allied Units leave and the Base is decommissioned, the manufacturing businesses described above would lose 35–50% of their direct sales, with the exception of the liquid oxygen business (see below). As well, many of the individuals who are employed on the Base and their families, as well as other individuals and their families who supply the Base directly with specific services, would also leave the Study Area unless they find other employment. These individuals represent a significant portion of business for most local manufacturers. In the short-term, some individuals would be employed on the Base undertaking decommissioning activities and would continue to buy products from these manufacturing companies. In the long term, sufficient demand might not exist for these products, forcing their manufacturers to close.

If the Base is decommissioned, the liquid oxygen company would close and five employees would lose their jobs, some of who are highly skilled and relatively high income earners.

A majority of the locally made crafts are sold outside of Labrador, and therefore the industry would not be seriously affected directly by decommissioning of the Base. The craft industry would be negatively impacted indirectly in that some of the locally made crafts are bought by local people who might work on the Base, and if they cannot find work in the Study Area, they might move to find work elsewhere.

3.2.1.3 Scenario 3

If the low-level flying training program closes, all Allied Units leave and the Base is mothballed, the manufacturing businesses described above would lose 35–50% of their direct business, with the exception of the liquid oxygen company (see below). As well, many of the individuals who are employed on the Base and their families, as well as other individuals and their families who supply the Base directly with specific services, would also leave the Study Area unless they find other employment. These individuals also represent a significant portion of business for most of these manufacturing operations. In the short-term, some individuals would be employed on the Base to undertake mothballing activities and would continue to buy products from these manufacturing companies. In the long term, sufficient demand might not exist for these products, forcing the business to close.

If Scenario 3 occurs, the liquid oxygen company described in Scenario 1 would not likely operate.

The situation described for crafts in Scenario 2 would likely occur under Scenario 3.

3.2.2 Construction

Several years ago during ASD and the subsequent downsizing of the Base, many former Base employees spent their severance money by buying and renovating older homes or buying land in the Study Area and building new homes. As a result of a rationalization of on-Base housing, some employees were also asked to move off Base. They either bought and renovated older homes or bought land in the Study Area and built new homes. This resulted in several contractors either locally or from away establishing themselves in the Study Area to work either directly on the Base or to take advantage of the local house building and renovation boom.

With the start-up of the mega project, Voisey's Bay nickel, near Nain, Labrador, many Study Area contractors hoped the boom would be sustained, but essentially the project by-passed the community. When the local economy began to falter about two years ago, some contractors built houses on speculation and the larger companies began competing for smaller jobs at reduced cost, forcing the smaller companies to either move away or close up. As the local economy weakens further as a result of any of the scenarios described below, this situation would be exacerbated. It would result in a downward spiral in which fewer construction opportunities would exist, causing local construction companies not already working elsewhere to either close down or move away. As a consequence, their employees may either move away or seek government assistance.



3.2.2.1 Scenario 1

A number of construction contractors supply either the Allied Units directly or else DND and/or Serco with a variety of services. Depending on their speciality and the varying ways in which the Allied Units manage their operations, the contractors have a greater or lesser involvement with each of these Allied Units. (For example, an Allied Unit becomes familiar with certain contractors and uses them on a regular basis for jobs under a certain contract limit. If that particular Allied Unit leaves, it seriously affects the profitability of those contractors.) Because of the sheer size of their Unit, the Germans represent the largest volume of work for the majority of contractors. However, for some contractors, the Dutch represented a major portion of their business and so the impact of the Dutch leaving the Study Area is already being experienced.

With the exception of one or two companies, most contractors are involved in building or repairs rather than demolition. Therefore, if any of the Allied Units leave, construction or renovations would not occur unless another Allied Unit arrives or another tenant is found. This means that ongoing construction or maintenance would not occur unless it is for communal properties (e.g., the runway). Since the Base was (and is) a large ongoing project requiring ongoing construction and maintenance, and since any other major construction project would be short-term, most contractors plan to either move or close down if any of the other major Allied Units leave or unless a program of ongoing maintenance and renovations occurs.

Table 12 shows the total GDP and employment impact on the construction sector in Labrador and the province as a whole, if each of the Allied Units leaves independently.

Table 12
Total GDP and Employment Impact by Sector Indicator (Construction) for Scenario 1

Unit	Labrador		Newfoundland	
	GDP (%)	Employment (%)	GDP (%)	Employment (%)
RAF	12.1	19	9.8	17
GAF	10.1	15	2.1	1
RNLAF	8.7	13	7.3	11
ITAF	12.6	20	7.3	10

Note: Percentage of each Allied Unit's total.

3.2.2.2 Scenario 2

If the low-level flying training program closes, all Allied Units leave and the Base is decommissioned, a significant amount of demolition work will occur for several years for those companies involved in, or providing services to, the demolition and environmental businesses, and then there will be no work. Those contracting companies that have relied on the Base for the majority of their work and are unable to find contracting work elsewhere would face significant challenges, especially since Scenario 2 could cause the departure of many residents from the Study Area, resulting in no new or renovation house construction. Additionally, many

of the larger infrastructure projects in the Study Area and northern Labrador have now been completed (e.g., Natuashish at Sango Bay, the high school, court house, RCMP building in Sheshatshiu) and the larger contracting companies with more resources might bid on future projects at a reduced cost, thereby forcing the smaller companies to either close down or move away.

Many of the contracting/construction companies in the Study Area attribute 10–20% of their business directly to the Base, but more than 50% indirectly (i.e., they construct and repair houses for people who are employed on the Base or who provide a majority of goods and services to the Base). If the Base closes, an exodus could occur of individuals who worked on the Base and their families, if they are unable to find work in the Study Area. Since many of these individuals had well-paying, stable jobs on the Base, they would be taking with them a significant amount of spending power that was previously used for buying, building or renovating homes.

Since the Base’s infrastructure is extensive it requires ongoing maintenance and renovation, and since any other major construction project would be short-term, most contractors think they could survive a year or two to undertake Base-related environmental and demolition work. However, they would then plan to either move or close down.

Table 13 shows the total GDP and employment impact on the construction sector in Labrador and the province as a whole, if each of the Allied Units leaves and complete Base closure occurs.

Table 13
Total GDP and Employment Impact by Sector Indicator (Construction) for Scenario 2

Unit	Labrador		Newfoundland	
	GDP (%)	Employment (%)	GDP (%)	Employment (%)
Excluding environmental clean-up	10.0	20	8.1	10
Including environmental clean-up	43.8	48	26.9	33

Note: Percentage of each Allied Unit’s total.

3.2.2.3 Scenario 3

If the low-level flying training program closes, all Allied Units leave and the Base is mothballed, significant construction-related work would occur on the Base in the short-term for those companies involved in ongoing maintenance and demolition. There would also be some ongoing maintenance and repair work in the long term.

If the Base is mothballed, an exodus from the Study Area could occur of individuals who worked on the Base and are no longer needed for ongoing maintenance and renovation, if they are unable to find other local work. Since many of these people have well-paying, stable jobs on the Base, they would be taking with them a significant amount of spending power that was previously spent on buying, building or renovating homes.

Since the Base is a large project requiring ongoing maintenance and since any other major construction project would be short-term, most contractors would plan to either move or close down if Scenario 3 occurs.

Table 14 shows the total GDP and employment impact on the construction sector in Labrador and the province as a whole, if each of the Allied Units leaves and the Base is maintained at a minimal level.

Table 14
Total GDP and Employment Impact by Sector Indicator (Construction) for Scenario 3

Unit	Labrador		Newfoundland	
	GDP (%)	Employment (%)	GDP (%)	Employment (%)
Construction	11.3	15	17.9	12

Note: Percentage of each Allied Unit's total.

3.3 Service Industries

The reduction in the number of Allied Units, coupled with the provincial deficit and review of promised infrastructure in the Study Area, paints a bleak picture for the Study Area's service sector, if no other large-scale (or a number of small-scale) projects come to the area.

3.3.1 Transportation, Communication and other Utilities

3.3.1.1 Scenario 1

Airport

As each Allied Unit leaves, the cost of maintaining the airport and its services would be redistributed among the other Allied Units.

Airlines

Allied Unit personnel use commercial airlines when travelling to the Base prior to the flying season. Allied Unit families assigned to the Base on a long-term (three-year) rotation basis are entitled to paid airline travel outside of the Study Area several times a year. Serco employees are also entitled to personal airline travel outside the Study Area. This represents, at a minimum, about 5% of one airline's business per year.

As a general rule, the Allied Unit with the largest number of sorties and families (i.e., RAF followed by the GAF) uses the airport and related services the most frequently. Thus, the largest single impact to the airport, if Scenario 1 occurs, would be if the RAF leaves.

Helicopters

Two helicopter companies operate within the Study Area. One company, that worked with the Dutch directly, reported a direct loss in revenue of \$120,000–150,000 when they left. This company contracts its services to other Allied Units through DND, and therefore the departure of any of the Allied Units represents a loss in business.

Road Transport

Several trucking companies transport supplies and equipment to the Base (e.g., Serco). One company reported that approximately 40% of its business was directly and indirectly related to the Base, but could not differentiate between the Allied Units.

Taxi

As a general rule, the taxi company does little business with the Base directly, but significant business indirectly. If any of the Allied Forces leave and employees directly employed by those Allied Units are laid off, they might leave the Study Area, causing a potential loss of some business to the taxi company.

3.3.1.2 Scenario 2

Airport

Much of the airport infrastructure is a result of Base activities. If the Base closes, this infrastructure and the related services (e.g., tower services, runway and ramps, hangars, snow clearing, etc.) would not likely be in service. Additionally, the ability to maintain the 11,000-foot runway would be unlikely, resulting in only smaller planes being able to land. It is also likely that the status of the airport would be downgraded to a remote site, similar to the Wabush airport. With the return of the airport to civil aviation authorities, the following could occur:

- Category 8 crash rescue services would be downgraded to Category 6, resulting in fewer specialized services; or
- specialized personnel would be reassigned to other locations, and much of the sophisticated instrumentation required to service the Allied Units would be removed.

Additionally, the airport is located several kilometres from town. Some of the cost of maintaining the road to the airport, the water and sewer system, electricity, and communications systems would be borne by the airlines through higher landing fees, which would then be passed on to the consumers. Other costs would be borne by the Town, possibly resulting in higher taxes.

Airlines

The Study Area is a relatively affluent region. As a result of generally good, stable employment over the years, relatively high incomes and paid airline travel for Allied Units and Serco families,

coupled with the Study Area being the Aboriginal and government centre of Labrador, airline schedules and services have been relatively good. However, if the Base closes, airline service to the Study Area could be significantly impacted. The cost of shared (Base and Goose Bay Airport Corporation) activities (e.g., snow clearing, firefighting, overall safety, air traffic control) could increase, resulting in higher airline ticket prices and/or reduced passenger and freight service. Paid personnel travel by Allied Units and Serco families would be eliminated, although the initial exodus by these individuals, as well as an increase of decommissioning personnel to area, could result in a temporary increase of airline-related activity.

Helicopters

One helicopter company reported undertaking two types of work directly related to the military: transporting Allied Units in and out of the practice area, and environmental work related to military activities. Two of these company's biggest clients are directly related to the military. Thus, Base closure would result in the loss of a significant amount of business for this company. As a result, it might decrease the number of staff, all of whom are highly skilled and well paid, resulting in them leaving the Study Area if they cannot find other employment. While the company does not require air traffic control services, the services and infrastructure supplied at the airport as a result of Base activities help maintain the Study Area as a central aviation location for all types of air transportation, including helicopters.

Road Transport

It is difficult to quantify the impact of Base closure. In the short-term, an increase in activity could occur if specialized goods are required for decommissioning the Base, and if infrastructure and household effects are trucked out of the Study Area. In the long term, as residents leave the area and businesses close or down size, the negative impact on the trucking business could be significant, unless other developments occur in the area or the Labrador road network is completed from Labrador West to the Straits.

Taxis

About 10% of the local taxi business is directly attributable to the Base and a significant volume of business is indirectly attributable to the Base, although that is difficult to quantify. If the Base closes down, in the short-term an increase in activity could occur as experts in decommissioning visit the area and residents leave the area looking for work elsewhere. In the long-term, as a result of a depressed economy, people would continue to leave the area, resulting in fewer taxi requests. Those that stay could be on reduced incomes, resulting in less discretionary money for travel (e.g., fewer trips to the airport).

3.3.1.3 Scenario 3

Airport

The situation described in Scenario 2 would most likely occur for Scenario 3. Essentially, if the Base closes down, the airport services now used for training would no longer be required.

Airlines

The situation described in Scenario 2 would most likely occur. Any additional airline business associated with mothballing the Base (e.g., arrival of new people, exodus of individuals and their families who are laid off) would be similar in activity to the airline traffic caused by decommissioning the Base, although in the short-term Scenario 2 would likely cause more airline traffic.

Helicopters

It is not likely that environmental clean-up would require helicopter services under Scenario 3, and the Base would have no other direct requirements for helicopter services.

Road Transportation

It is difficult to quantify the impact of Base closure. In the short-term, an increase in activity could occur if specialized goods are required for decommissioning the Base, and if infrastructure and household effects are trucked out of the Study Area. In the long term, as residents leave the area and businesses close or down size, the negative impact on the trucking business could be significant, unless other developments occur in the area or the Labrador road network is completed from Labrador West to the Straits.

Taxis

In the short-term, there might be an increase in taxi services as mothballing experts visit the Study Area, but in the long term, the situation described in Scenario 2 would most likely occur.

3.3.2 General Trade

Happy Valley-Goose Bay traditionally has had a more diverse, cosmopolitan and entrepreneurial economy than other isolated towns of its size, partially because the Allied Units have requested these services (e.g., recreation and tourism facilities, restaurants, dry cleaning, massage therapy). Thus, if the Allied Units leave or if the Base closes, the remaining local population would place insufficient demand on these services for them to survive. As well, many of the specialists living in the Study Area as a direct or indirect result of Base activities would most likely leave, taking with them their high spending power. Added to this situation is the false economy "bubble", which began to deflate about three years ago as there had been too much expansion in the economy in the late 1990s because of the Base's severance and retirement packages, the hope of the Voisey's Bay project using Happy Valley-Goose Bay as a service centre, and the promise of the Lower Churchill Power Project proceeding. The money from the Base's severance and retirement packages dried up by 2001 as Voisey's Bay did not deliver on anticipated expectations, resulting in difficult times for those businesses that had geared up for increased activity, and the Lower Churchill Power Project did not materialize. Without any changes on the Base, businesses that incurred costs to expand had to drastically cut back.

If the level of activity on the Base is reduced, the local economy would shrink even further. As the confidence level in the local economy erodes, a number of outcomes could occur, including the following:

- trained specialists in demand at speciality stores and businesses would begin to leave the area, taking their higher-than-average income with them; this could result in an over-supply of semi- and un-skilled workers in some sectors of the economy; and
- some of the fast food and other retail operations that pay minimum wage would have to cut back their operations, resulting in these workers leaving the area (e.g., a shortage already exists in the Study Area for unskilled workers for these types of operations).

Today, many stores and businesses still linked to the Base are seeing a slow down in activity. Aboriginal groups (e.g., Labrador Inuit Association, Innu Nation, Labrador Métis Nation) have injected money into the economy through major infrastructure projects in Natuashish and Sheshatshiu, but it has all but stopped in the former and will stop in the latter in the near future. Voisey's Bay and an infusion of money from the three Aboriginal groups will not make up for the loss of Base revenue in the Study Area.

3.3.2.1 Scenario 1

From a local perspective, each Allied Unit had a different culture and way of approaching outsourcing of services and individual buying. In general, the Dutch were considered very self sufficient and cost effective. They did not invest significantly in the local economy. Therefore, their departure in 2003 was felt by some individual businesses, but not to the overall local economy. The Germans will have no capital assets after 2005 and are already reducing their activities. Their departure would significantly impact the entire Study Area. The RAF have begun to cut back on their activities, and given their long and positive history with the Study Area, their departure would have a significant negative impact on the services industry.

The biggest general trade impact would be felt by speciality (e.g., souvenirs) and sporting good stores, as well as by some bars and restaurants. In the case of bars, approximately 2,500 members of Allied Units rotated through the Base in 2003. Assuming that each spent a minimum of \$25 at any one club during a rotation, that equates to \$62,500. Voisey's Bay activity could not replace that amount of money.

Table 15 shows a sample of some general and speciality trade businesses, and the impact that the departure of each of the Allied Units would have on those businesses.

Table 15
Impact on General Business in Scenario 1

General Trade	RAF	GAF	RNLAF	ITAF	Notes
Dry cleaners	–	1 *	–	–	Would close if Germans left.
Bar A	1	2	3	4	About 15% of business directly related to RAF. When the Dutch left, sales were down for the first time in five years.
Bar B	1	2	3	4	Bar recently doubled in size to service the military. Germans are the best customers; they fill the club and eat more than other Allied Units, but the RAF spend more. Italians don't spend, but they fill the club and add to the atmosphere, causing others to spend more. In 2003, approximately 2,500 Allied Units visited the bar, each of whom spent \$25.
Bar C	1	2	3	4	
Courier service	2	1	3	4	
Sports retail A	2	1	3	4	
Sports retail B	–	–	1	–	
Holding company (retail operations)	1	2	3	4	Allied Units buy large quantities of items they can't get at home. Therefore, the impact of any one of the major Allied Units leaving would be greater than most any other business leaving.
Convenience store	–	–	–	–	Sales down 12% already as result of Dutch leaving and the Base downsizing; profits down significantly more.
Hardware store	1	–	–	–	RAF buy flooring.
Restaurant A	3	1	2	4	Germans eat; Dutch and British drink non-alcoholic beverages; Italians don't leave the Base often.
Restaurant B	2	1	3	4	Germans are by far the biggest spenders. Italians eat on the Base.

Notes:

1 to 4 = ranking of Allied Unit patron expenditures in order; 1 = most important and 4 = least important.

* 80% commercial contract.

3.3.2.2 Scenario 2

In general, if the Base closes and a significant portion of the population moves out or is placed on a fixed income, some smaller “Mom and Pop” stores and speciality stores would most likely not survive. The larger chain stores, if they have greater financial resources, could downsize until the economy stabilizes and/or expands again.

Table 16 outlines the impact that Base closure would have on a small sample of general trade businesses within the Study Area.

Table 16
Impact on General Business in Scenario 2

General Trade	Impact
Dry cleaners	Would close if the Germans left.
Bar A	If the Base closes, 50% of business would go.
Bar B	Base was 60% of 2002 business; 40% of a much reduced 2003 business. If the Base closes, the business would need to reorganize. Some Allied Units get extraordinary day rates, much of which is spent in a bar. This money cannot be replaced.
Bar C	Allied Units and Serco represent about 80% of business during flying season. Unless other customers are generated, the future is uncertain.
Courier service	Base represents 40–50% of business, directly and indirectly. Would have to re-evaluate business.
Sports retail A	Base represents 25% of business directly and indirectly. Base closure would negatively affect the entire business (e.g., property value, taxes, wages, profits).
Sports retail B	If any more people leave the Study Area, might just as well lock the door and leave as well.
Retail holding company	Would not close, but would downsize.
Hardware store	Base is 25–30% of business directly. If Base closes, would return to just a family operation (now has 20 employees).
Restaurant A	Approximately 25% of business directly related to the Base. If the Base closes, one retail branch would close, minimum wage earners would leave because see no future and operators would take on more of role. Dairy products ordered locally; reduced business would affect that supplier.
Restaurant B	30% of business directly attributed to the Base. If the Base closes, restaurants won't survive. There's not a culture of eating out as there is in Labrador West.

3.3.2.3 Scenario 3

Table 17 outlines the impact that mothballing the Base would have on a sample of general trade businesses within the Study Area.

Table 17
Impact on General Business in Scenario 3

General Trade	Impact
Dry cleaners	Would close.
Bar A	Same as Scenario 2.
Bar B	Same as Scenario 2.
Bar C	Same as Scenario 2.



Courier service	In short-term, some business loss.
Sports retail A	Same as Scenario 2.
Sports retail B	Same as Scenario 2.
Retail holding company	In short-term, some business loss, but basically same as Scenario 2.
Hardware store	In short-term could get by since mothballing expenses would occur (e.g., purchase of plywood).
Restaurant A	Same as Scenario 2.
Restaurant B	Same as Scenario 2.

No mention of the impact on general trade should exist without some discussion of the largest private employer in the area, Woodward's (approximately 800 people). Although a diversified company, it primarily focuses on transportation-related businesses (e.g., aviation fuel, automobiles, container and marine services, aircraft sales, garage, service station). It also supplies heating fuel to the Labrador coastal communities and to Nunavut. Locally, it supplies fuel to the Base and to commercial aircraft. As a result of Base closure, 50 people could lose jobs and the other businesses would need to be re-evaluated in terms of ongoing profitability. The shipping company could be operated from anywhere.

3.3.3 Defence

The following qualitative discussion focuses on Serco's activities, as DND information forms the basis of the quantitative information found in this report.

3.3.3.1 Scenario 1

In understanding the following information, it is important to note that if the number of Base personnel drops below a threshold level, there is no longer a requirement to provide some types of support services (e.g., the theatre, gym, Canex). Already the skating rink has closed because the decrease in Base personnel could not justify its operating costs.

Table 18 outlines the number of personnel associated with each of the Allied Units using the Base for training activities. The rotating members of the Allied Units generally contribute directly to the local economy (e.g., they spend money in local bars or restaurants, buy souvenirs and participate in local recreational activities). Other personnel listed in Table 18 all live within the Study Area. They are either local hires or a member of the Allied Units assigned to the Base for approximately three years. They have significant spending power because they are generally well paid, buy local goods and services, and own or rent a house (if not a member of the Allied Forces). They are also important contributors to the community (e.g., their children attend local schools, they volunteer in community activities, and they participate in local recreational and sporting events). If any of the Allied Units leave, all of the associated jobs would be eliminated and most of the local expenditures would disappear. If these individuals leave the Study Area, they would take their skills and community contributions with them.



Table 18
MOU Nations – Participating Personnel
(2002 to 2003)

Personnel	RAF	GAF	RNLAF*	ITAF
Sorties	?	5,500	1,375	1,215
Assigned Allied Unit personnel	20**	50	16	16
Local hires	?	18	10 FT, 40 PT	?

Notes:

* Left in 2003.

** Down from 123 in 2002.

Serco employees supply approximately 30 different services to DND and the Allied Units, including management, supply, aviation weather services, air traffic control, crash fire rescue and domestic firefighting, hazardous waste disposal, transportation, security, food services, billeting, cleaning/janitorial, electrical generation and distribution, storm/sanitary systems, potable water, and building and facility maintenance.

The departure of the RNLAF in 2003 had a minimal impact on the scope of Serco's activities. The departure of the Italians would also minimally affect the scope of Serco's activities. However, the departure of either the RAF or GAF would significantly impact the scope of Serco's activities because of the number of individuals rotating through the training program and the extent of their training activities. To put this in perspective, in terms of apportioning the percentage cost of running the Base's training facilities in 2002/2003, the RAF paid 35%, the Germans 27%, the Dutch 19% and the Italians 17%.

3.3.3.2 Scenario 2

During the years 2002 and 2003, 814 people were employed directly on the Base, 94 of whom were military and would most likely be reassigned to other Bases, if 5-Wing Goose Bay closes down. Approximately 85 additional people were employed directly by the Allied Units; their jobs would disappear if all the Allied Units leave and the Base is decommissioned. There were another 27 civilian publicly funded DND positions; these positions would be eliminated, although some members of Public Sector Alliance of Canada (PSAC) might be eligible for local federal positions. Serco employs approximately 550 people. (A more detailed description of the impact on Serco employees of decommissioning the Base is provided below.)

If the Base closes, in the short-term, Serco would experience an increase in activity due to decommissioning activities related to demolition and environmental remediation. However, other jobs would no longer be required (e.g., snow removal of the Base portion of the runway, cleaning of target range and buildings, maintenance and cleaning of site infrastructure used by the Allied Units, weather service, message control centre, ground electrical service, navigational aids), with the exception of instrument landing and power, which would remain at the airport.

Serco now provides a Category 8 firefighting and rescue service, but with Base closure and a return of the airport to civil aviation, Category 6 service would be in place, requiring fewer skilled personnel.

Each Serco employee as well as his/her dependents is provided with an annual \$350 travel allowance plus a \$.50 an hour isolated post benefit amount (effective April 1, 2004). There is also a performance incentive fee that varies, but is worth up to \$1,575 per full-time employee. Fifty percent (50%) of this fee goes to Serco, 50% to the employee and 5% of the total amount goes to the humanitarian fund, which directly helps organizations within the community. In April 2003 and 2004 employees received a 4% pay increase, in 2005 and 2006 they will receive a 3% pay increase, and in 2007 they will receive a 2.5% pay increase. If the contract is extended beyond 2007, the employees will receive a 2.5% pay increase or a percentage based on the annual cost-of-living increase, whichever is higher. The value of the collective agreement is \$28–30 million annually for salaries and benefits (e.g., medical and travel). In 2007/2008, the escalation clause will come into effect and the value of the contract could increase to \$40-45 million.

Approximately 50% of the unionized Serco workers worked for DND prior to ASD. As described previously, the following would most likely occur:

- some individuals would be given severance packages;
- those individuals close to retirement would be offered packages and depending on the attachment to the Study Area, they might stay in the area; and
- those individuals with specialized services and who are not close to retirement age would relocate elsewhere (e.g., air traffic controllers).

Serco employs approximately 575 people, of which approximately 400 (winter - 350) are members of the Union of National Defence Employees. Many of these union jobs are skilled and well paying. Many of these individuals have mortgages or pay rent in the Study Area, are married with spouses who work in the Study Area, and have children who attend local schools. All Serco staff use the local medical services. Many volunteer with local organizations and/or participate in local recreational services. All buy local goods and services.

If the Base closes, the majority of the jobs and the incomes they represent would be lost to the Study Area, as would be the skills and community contributions of the Serco employees.

3.3.3.3 Scenario 3

If the Base is mothballed, certain functions would need to be maintained (e.g., on-site heat, water, basic maintenance, snow removal and security as well as a minimal level of fire safety and technical services). Individuals involved in these activities would likely be retained; all others would be faced with one of the three alternatives described in Scenario 2.

3.3.4 Finance, Insurance and Real Estate

3.3.4.1 Scenario 1

No specific Allied Unit impacts the finance, insurance and real estate business any more than another. Rather, each time an Allied Unit leaves, it affects this sector, particularly real estate because it is a major indicator of consumer confidence. As described earlier, during ASD and the subsequent rationalization of housing and downsizing of the Base, some people left the Study Area, but others spent their severance money on renovating their homes or buying land and building new homes within the Study Area. Some went back to work for Serco. As a result, during the late 1990s and early 2000, the Study Area experienced a mini-boom. Housing and land prices increased, contractors were fully employed and new businesses opened. However, the boom was artificial, based on movement and money within the Study Area, not new people, money or jobs coming to the Study Area.

By 2001, the mini-boom was over. Since then the RNLAFF has left, the RAF has reduced the number of families permanently assigned to the Base and the Germans have announced their departure in 2006. No houses have been built, few houses have sold and minimal renovations are occurring (but the prices remain high as owners try to recoup their investment). About the only real estate activity occurring is leasing houses to people moving into the area as a result of ongoing services (e.g., utility, government). Defaults on loans and mortgages are now occurring.

3.3.4.2 Scenario 2

If the low-level flying training program closes, all Allied Units leave and the Base is decommissioned, former Base employees, employees of businesses directly providing goods and services to the Base and some employees indirectly providing goods and services to the Base would most likely leave the Study Area, if they are unable to find local employment. If this exodus occurs and no other sustaining large-scale project or business occurs, many people would be unable to sell their homes, resulting in them defaulting on loans or mortgages, which would cause personal bankruptcies, and a host of other financial and social problems. This causes a severe trickle-down effect, including the inability of the Town to collect property and business taxes, and an increase in the number of vacant homes that become a magnet for vandalism.

3.3.4.3 Scenario 3

If the low-level flying training program closes, all Allied Units leave and the Base is mothballed, former Base employees who are not required for ongoing operations and maintenance, employees of businesses directly providing goods and services to the Base and some employees indirectly providing goods and services to the Base would most likely leave the Study Area, if they are unable to find local employment. If this exodus occurs and no other

sustaining large-scale project or business occurs, the results would be similar to those described in Scenario 2.

3.3.5 Public Administration

The impact of one or all of the scenarios occurring would affect all levels of government. Regardless of whether or not a change in population occurs as a result of any one of the three scenarios, the government would still have to offer approximately the same level of service (e.g., Canada Revenue Agency, Correctional Service of Canada, Transport Canada), but it would be receiving less federal tax from the area. The provincial government would also be affected in a similar way, except other departments (e.g., Environment and Labour; Tourism, Culture and Recreation; Forest Resources and Agrifoods; Government Services and Lands; Works, Services and Transportation) would still have to offer approximately the same level of service as before any one of the three scenarios occurs, regardless of the change in population. In the short term, both levels of government would be affected directly through an uptake in activities and benefits associated with departments dealing in EI, Social Assistance, Canada Pension Plan, Harmonized Sales Tax Credit, child tax benefits and retraining programs.

The Town of Happy Valley-Goose Bay would be the level of government most directly affected by changes to the Base structure. Based on figures supplied by AMEC and Gardner Pinfold (2004), the Base represents 730 direct jobs and 1,655 indirect and induced jobs, many of which are located within the Study Area. Since 4,800 of Happy-Valley-Goose Bay's residents over the age of 15 are employed, a maximum of 50% of them will be affected as a result of Base activities, either directly, indirectly or induced. Realistically, the figure is lower since some of the Base employees live elsewhere within the Study Area (e.g., North West River) and some of the indirect and induced employment is located throughout Labrador and the province. Regardless of the figure, a majority of these direct Base employees and businesses pay taxes to the community, and many of them hold highly skilled and unionized positions. Therefore, they represent an economic value to the community greater than the simple percentage of the employment numbers.

3.3.5.1 Scenario 1

Royal Netherlands Air Force

The departure of the RNLAF resulted in a job loss of approximately 50 positions (direct, full-time and seasonal) that were filled by individuals from the Study Area. Although that number represents less than 1% of the Town workforce, the impact was far greater as it represented to the Study Area residents and Town officials, the "thin end of the wedge". Additionally, the action by the RNLAF prompted DND to begin an overall review to identify cost-saving measures. This review included analyzing some facilities used by the community (e.g., Canex, theatre, bowling alley, gym). The Town views any reduction in use of these facilities as having an irreversible long-term negative impact on the ability of the Town to sustain existing taxpayers and to attract new ones.



German Air Force

Since the GAF is a larger local employer and a bigger consumer of local goods and services, it is more of an established presence in the Town. Aside from the fact that its departure would result in the loss of stable, well-paying jobs for local people who pay taxes, and the loss of millions of dollars into the local economy, the GAF leaving could result in the inability of the remaining Allied Units to sustain the cost of their portion of operating a training facility. This could result in Scenario 2 or 3 occurring within a short time frame, as well as causing a lack of consumer and investor confidence that could cripple the local economy.

Royal Air Force

The same types of impacts as described above would occur if the RAF left. However, as the senior Allied Unit, the departure of the RAF would call into question the entire training program. According to a Town official, “the loss of either the German or Royal Air Force cannot be separated from the potential loss of the total program and the complete collapse of the local economy for several years at best and an inability to recover to today’s level at its worst.”

Italian Air Force

As the “new kid on the block”, and a relatively small one at that, the departure of the Italians would not drastically impact the Town. However, since the Dutch have already left, if the Italians were the next to leave, this could impact the entire program if other cost-saving measures are not taken.

Table 19 shows the total GDP and employment impact on the government sector in Labrador and the province as a whole, if each of the Allied Units leave independently.

Table 19
Total GDP and Employment Impact by Sector Indicator (Government) in Scenario 1

Unit	Labrador		Newfoundland	
	GDP (%)	Employment (%)	GDP (%)	Employment (%)
RAF	42.0	19	41.1	16
GAF	46.9	26	45.2	22
RNLAF	48.1	26	46.1	22
ITAF	42.1	22	46.1	41

Note: As percentage of Allied Unit’s total.

3.3.5.2 Scenario 2

According to a Town official, this scenario would result in a complete collapse of the local economy. “Notwithstanding that retirement packages, readjustment investments and significant short-term work for a limited workforce involved in the decommissioning process would exist, these would be of a limited impact to offset the loss of the Base”.

“Directly, the Town could anticipate a significant drop in property values, closure of significant businesses and an extreme number of homes being placed on the market simultaneously. The result would be a Town short on resources to meet the level of service the remaining population has come to expect.”

With a significant loss of population, a critical mass would no longer exist to supply the delivery of some services offered by the Town (e.g., recreation programs, water treatment plant). Additionally, vacant houses and businesses would occur randomly. Since the Town could not designate the closure of streets, all existing infrastructure (e.g., roads, water, sewerage, lighting, garbage, snow clearing) would have to be maintained, albeit with significantly reduced resources.

The Town would also lose the grant in lieu of taxes that it now receives (\$870,702) and the individual revenues that it receives for use of Town facilities by members of the Allied Units.

According to a Town official, “The impacts are likely to be long term and deep rooted.” The Town, as a result of analyzing other regional economic opportunities, holds the view that no other developments can replace the Base’s economic value. The Town believes that “given the isolated position of the community, the type of federal and provincial aid that may be anticipated should not be as effective as it would be in a region with access to other investment opportunities.” The isolated location that makes the Study Area attractive for military flight training is the impediment to attracting other developments of a similar scale.

The Town would have limited direct involvement in or gain much from decommissioning activities. Politically significant effort would have to be exerted by the Town to stop the process and retain infrastructure for future opportunities. Companies related to demolition and environmental clean-up, and agencies involved in human resources issues would experience a significant uptake in activities. Environmental clean-up would most likely occur over a number of years, depending upon the amount of money earmarked annually by the federal government for that activity. As a result, a mini-boom in certain occupations could occur, but unlike the mini-boom of the late 1990s, individuals would be more likely to seek employment elsewhere than to move from the Base into Town. The Town could experience significant activity for a year or two as it tries to fill the economic void left by the Allied Units. However, with depleted resources as a result of a diminished tax base, the Town could experience difficulty in undertaking this task.

The impact to Northwest River would be similar to that experienced in Happy Valley-Goose Bay, but a more significant negative impact might occur, given the community’s limited economic base. In Sheshatshiu, the impact might be less pronounced, but nonetheless it would be felt, particularly if businesses and agencies that service these communities downsize or close in Happy Valley-Goose Bay.

Table 20 shows the total GDP and employment impact on the government sector in Labrador and the province as a whole, if each of the Allied Units leave and complete Base closure occurs.

Table 20
Total GDP and Employment Impact by Sector Indicator for Scenario 2

Unit	Labrador		Newfoundland	
	GDP (%)	Employment (%)	GDP (%)	Employment (%)
Excluding environmental clean-up	41.1	22	39.3	41
Including environmental clean-up	16.9	0	21.7	0

Note: As percentage of total.

3.3.5.3 Scenario 3

Scenario 3 would have an impact on the Town similar to Scenario 2, except the mini-boom would be less pronounced. Mothballing would create less of an increase in activity than environmental clean-up, assuming that the latter would only occur for high-risk activities in Scenario 3 rather than the more complete environmental clean-up required for Scenario 2. If the Base infrastructure remains intact as a result of Scenario 3, the Town has some potential to attract new business to the area. Nonetheless, the Town is very aware of the challenge of attracting new, large-scale investment into a remote area.

Table 21 shows the total GDP and employment impact on the government sector in Labrador and the province as a whole, if each of the Allied Units leave and the Base is maintained at a minimal level.

Table 21
Total GDP and Employment Impact by Sector Indicator (Government) for Scenario 3

Unit	Labrador		Newfoundland	
	GDP (%)	Employment (%)	GDP (%)	Employment (%)
Government	11.3	15	17.9	12

Note: As percentage of total.

3.3.6 Assistance to Business

In the Study Area, the federal Atlantic Canada Opportunities Agency (ACOA) and Human Resources and Skills Development (HRSD) as well as the provincial Department of Innovation, Trade and Rural Development (ITRD), and Human Resources and Employment (HRE) are the four major government agencies providing support to business and employment. In addition, the Labrador Community Development Corporation, the Central Labrador Economic

Development Board, the Innu Development Corporation, the Labrador Métis Nation and the Labrador Inuit Development Corporation provide support to various sectors as well as specific Aboriginal business development. Additionally, several community organizations promote the region, including the Labrador North Chamber of Commerce, the Labrador Lake Melville Tourism Association and the Town Economic Development Office.

Consumer confidence and business start-ups usually go hand in hand. Already the impact of a decrease in military flight training activity has caused a decrease in requests for economic assistance. With the exception of those companies involved with Aboriginal economic development initiatives, most companies are now looking for advice on how to downsize, close or move. Most local economic development organizations are putting concerted effort into pressuring all levels of government to ensure that the Base stays, while at the same time trying to focus on new initiatives based on the strengths and competitive advantages within the Study Area. Unless major new opportunities open up within the Study Area, requests for assistance to businesses will remain negligible, regardless of the scenario. Nonetheless, because Labrador is a vital contributor to the province's economy and the Study Area acts as a government service centre and, to a lesser degree, a financial centre for all of Labrador, no agency or institution that provides assistance to business is likely to close.

3.3.7 Social Infrastructure and Services

3.3.7.1 Scenario 1

The greater the number of direct hires by the Allied Units, the greater the likelihood that some individuals who are laid off as a result of this Allied Unit's departure would eventually use some aspect of social and human resource services. Those agencies involved in employment and social programs would feel the greatest impact if the RAF left, since it employs the greatest number of individuals.

3.3.7.2 Scenario 2

If all of the Allied Units leave and the Base is decommissioned, most laid-off employees would receive a severance package, varying in size depending on salary and length of service. Once the severance packages expire and if these former Base employees find no other employment, they would apply for EI approximately two years after Base closure. When EI runs out and if they find no other employment, these former Base employees would use the provincial social services system approximately three years after the Base closes. In the interim, all former Base employees could use the numerous federal and provincial government career counselling and job training programs (e.g., skills development programs, Targeted Wage Subsidy, Return to Work Action Plan, and programs under the Labour Market Development Agreement) as well as obtain a portion of their moving expenses, after all other options had been exhausted. The Town might also participate in the Local Labour Market Program offered by the federal government. Additionally, members of PSAC employed on the Base would have priority for any

local federal government jobs for which they are eligible, including at HRSD. The local office of HRSD would receive an immediate impact in that most employees laid off would file an EI claim, although it would not likely become effective until the end of their severance period. Those individuals indirectly affected by Base closure would most likely use the resources of HRSD and the HRE before those directly employed on the Base, unless they belonged to a union. In any case, HRSD rather than HRE would receive the greatest impact first because of the nature of the services they perform.

3.3.7.3 Scenario 3

If the Base training program is closed, the Allied Units depart and the Base facilities are mothballed, the process described in Scenario 2 would most likely occur.

3.3.8 Medical and Health Services and Facilities

3.3.8.1 Scenario 1

The Labrador Health Corporation serves the entire region of Labrador. Within the Study Area, a significant number of individuals who use the medical facilities are not dependent on the Base for their economic livelihood and would in all likelihood continue to live in the Study Area (e.g., residents of Sheshatshiu and North West River, individuals within Happy Valley-Goose Bay who supply goods and services throughout Labrador). No one Allied Unit affects the medical and health sector any more than another, except based on sheer numbers (e.g., the Germans have the largest number of employees, and therefore all things being equal, they would use the medical and health services and facilities on an emergency basis more than the other Allied Units).

3.3.8.2 Scenario 2

If the low-level flying training program closes, all Allied Units leave and the Base is decommissioned, a number of residents and their families would leave the Study Area. This would reduce the need for medical services, but it would also reduce the number of specialists servicing the area since a critical mass is required for many of these specialists. Additionally, some specialists, including nurses and technicians, are attracted to the Study Area because of its culturally diverse population. Given the population and its service area, the hospital has been able to acquire some expensive and critical equipment (e.g., CT scan). Thus the ability to attract and keep trained staff and service specialized equipment would be called into question if the population significantly decreases. According to senior hospital officials, the hospital now operates on a "bare bones" basis. If it loses any more ground, the viability of the entire operation would be called into question.

3.3.8.3 Scenario 3

The same situation as described in Scenario 2 would essentially occur under Scenario 3.

3.3.9 Educational Services and Facilities

Over the past 10 years, school enrollments have been decreasing, with the exception of in Labrador. However, last year Labrador experienced a decrease in enrollment (e.g., between Black Tickle and Nain, the school population decreased by 140 students). This was partially caused by some of these families moving into the Study Area, but this still wasn't enough to offset the declining enrollment within the Study Area. With a reduction in the number of enrolled students, the allocation of money to the Labrador school system would be reduced, which would affect the overall operating budget (i.e., \$80 per student), including maintenance and repair.

The loss of a substantial number of students has a serious trickle-down effect. For example, if 100 Base jobs are lost, 100 families, many with children, are likely to leave the Study Area, resulting in the loss of five to eight teaching units. This translates into the loss of some specialized courses or offering them on a less frequent basis. With a reduction in the number of families, it would be harder to get community support for special events, and in a depressed economy, more difficult to raise money for educational special needs. Since primary and secondary school enrollment is down throughout the province, it is harder to get overall budgetary support for teachers, curriculum and operations and maintenance. If the Study Area dramatically loses its school-age population, it would be harder to make the case for educational support within a system that is losing students overall. A depressed school system leads to other social problems.

3.3.9.1 Scenario 1

When the RNLAF families left the area in 2003, they took their children with them, but other families unrelated to the military offset this by moving into the area. Since the RAF and Germans have the most direct hires, their leaving could affect the number of children in the primary, secondary and post-secondary educational system. This, in turn, would result in fewer teachers as a result of a reduced student/teacher ratio and a reduced operating budget, although the level of operations and maintenance technically remains the same (i.e., the educational facilities would not become any smaller as a result of any one of the Allied Units leaving the area). Indirectly, individuals employed at Serco who have school-age children could be laid off, causing them to leave the Study Area in search of work. This could result in fewer teachers because of a reduced student/teacher ratio and a reduced operating budget.

3.3.9.2 Scenario 2

If the low-level flying training program closes, all Allied Units leave and the Base is decommissioned, the educational system would be drastically affected at all levels for the reasons discussed at the beginning of Section 3.3.9 and in Scenario 1. In fact, the entire educational system for the Study Area, as well as for Labrador, would probably come under review.

The College of the North Atlantic (CONA) delivers a number of contract services for the Base, including services for the Family Military Resource Centre as well as specific courses for Serco. Although much of the college's current delivery contracts are for Voisey's Bay and the Aboriginal community, any potential loss of long-term contracts would impact on the number of instructors hired, unless those services could be replaced by other contracts. Additionally, if a significant number of direct and indirect Base employees with college-age children leave the Study Area, the number of potential students at the college could decrease. These are students who also contribute to the service economy by buying fast foods, drinks and other items. If the Base closes, employment opportunities would diminish for some graduates of the College.

In the short-term, the college could offer specific training in environmental remediation.

3.3.9.3 Scenario 3

If Scenario 3 occurs, the impact on the primary, secondary and post-secondary systems would be approximately the same as in Scenario 2, but programs in environmental remediation might not be required.

3.3.10 Tourism and Recreation Services and Facilities

Most local tour boat companies offer services to anyone who is interested, but not to any Allied Unit more than another. The Allied Units make arrangements with tour boat operators for individual tours during non-working time. The Germans have contracted one tour boat operator to provide special guide services for specific training drills. This company also provides services indirectly related to the Base, such as help in providing Search and Rescue training.

In order to attract tourists and new residents, a core of tourist and recreational services are required. If any one of the Allied Units leave and if the associated employees leave, it would become increasingly difficult to maintain the recreational services.

3.3.10.1 Scenario 1

Royal Netherlands Air Force

The Dutch were one of the two driving forces behind operation of the ski hill. They, along with the RAF, used it for skiing survival training. Together, both Allied Units represented approximately 60% of total ski revenues. Without their use and support, it would be difficult for the ski hill to continue to operate.

The Dutch were the primary Allied user of the Training Centre (other than the Canadians). Their departure has resulted in less use of, and revenue for, this facility.

German Air Force

The impact of the Germans leaving would be very great for the Study Area. The permanent GAF members are very community minded, and the heart of many volunteer organizations, recreational events and cultural festivals (e.g., fundraisers like Canadian Cancer Unit; cultural festivals such as the October Fest, Hanger Fest; cultural events such as the German Club). They buy quads and ski-doo's, and are active in Search and Rescue. Many residents commented, "If you want something done, go ask the Germans".

Royal Air Force

The impact of the RAF leaving would be similar, but of greater magnitude, to the Dutch leaving.

3.3.10.2 Scenario 2

In the short-term, transient business tourism would increase due to an increase in outside businesses and agencies working with demolition, remediation and environmental clean-up of the Base. Local hotels would see an increase in demand, and the arrival of individuals from outside the Study Area involved in demolition, remediation and environmental clean-up of the Base would help mitigate the departure of the Allied Units. There would also be related direct and indirect hires in the short term to accommodate those who frequent restaurants and bars. Other tourism and recreational services (e.g., skiing, touring, fishing) would see a dramatic decrease in demand. Tourism operations would also be affected in that airline schedules to the Study Area might be reduced, making it more difficult for tourists to make airline connections. Reduced schedules would also affect the ability to bring in the necessary tourism supplies. Recreational businesses that supply snowmobiles, four wheelers, fishing and hiking gear would also see a significant drop in sales. Some individual guide and tour operators who have directly contracted with the military in the past would see a decrease in demand for services, but overall this segment of the tourism industry would not be dramatically affected. Recreational facilities such as the ski hill would most likely close, and other recreational services within the Study Area would either have to substantially increase their fees, reduce their operations or close. Without a core of tourism and recreational facilities, the Town, given its remote location, could have greater difficulty in attracting tourists, although completion of the Trans-Labrador Highway would help mitigate this to some degree.

3.3.10.3 Scenario 3

If Scenario 3 occurs, the impact on tourism and recreation would be approximately the same as in Scenario 2, except that instead of demolition and environmental clean-up experts, a smaller number of businesses involved in mothballing would be using the tourism business facilities (e.g., hotels, restaurants, bars).

4.0 CONCLUSIONS

Over the past five years the economic impact of 5-Wing Goose Bay on Labrador, the province of Newfoundland as a whole and northeastern Quebec has been well documented by the IEMR. Given the recent uncertainty surrounding the future of the Base, government departments, local businesses, economic development agencies and residents are becoming increasingly interested in the order of magnitude of impacts if certain scenarios occur regarding the Base's future. This study takes three scenarios (i.e., each Allied Unit leaves independently, all Allied Units leave and the Base is decommissioned, and all Allied Units leave and the Base is mothballed) and examines the possible impacts of those scenarios on Labrador and the province as a whole. The study also provides qualitative information on the ripple effect on local economic indicator sectors.

Although this study does not compare the Base's three scenarios with the same three scenarios of another major industry closure in the province, it can be safely said that the impact of any of the three scenarios occurring would be a huge economic blow in terms of GDP and employment to Labrador and the province as whole, but particularly to the economy of the Upper Lake Melville area. By way of example, when the Germans leave in 2006, they will be reducing the amount of direct, indirect and induced employment within Labrador by 598 PY (694 PY in the province as a whole) and reducing the contribution to Labrador's GDP by \$19.5 million (\$26.5 million in the province as a whole).

If all Allied Units leave and the Base is closed, 1,550 PY of direct, indirect and induced employment within Labrador would be affected (1,814 in the province as a whole) and a \$45.0 million contribution to Labrador's GDP would be lost (\$68.5 in the province as a whole). However, this would be partially offset, in the short-term, by expenditures of \$240 million over a 10-year period (2005 to 2015), resulting in 1,378 PY of direct, indirect and induced employment in Labrador (2,022 PY in the province as a whole) and \$65.3 million contribution to Labrador's GDP (\$96.3 contribution to the province as a whole).

If all Allied Units leave and the Base is mothballed, 95 PY of direct, indirect and induced employment in Labrador (116 PY in the province as a whole) would be used to maintain the Base, and \$3.8 million of direct, indirect and induced contribution to the GDP would occur in Labrador (\$5.2 in the province as a whole) as a result of the Base being mothballed. However, this would be offset by 1,455 PY of direct, indirect and induced employment being lost in Labrador (1,698 in the province as a whole) and \$45.8 million contribution to Labrador's GDP (\$63.3 in the province as a whole).

APPENDIX A
DATA REQUESTS

Appendix A – Data Requests

In order to successfully run the input-output (I/O) simulations, information relating to the expenditures made at 5-Wing Goose Bay related to each of the three scenarios described in this report was obtained directly from 5-Wing Goose Bay.

The data request was made within the context of the Memorandum Of Understanding (MOU) between the Department of National Defence (DND) of Canada, the Secretary of State for Defence of the United Kingdom of Great Britain and Northern Ireland, the Federal Ministry of Defence of the Federal Republic of Germany, the Minister of Defence of the Kingdom of the Netherlands, and the Minister of Defence of the Italian Republic Concerning Allied Military Activity at Goose Bay, Canada (as Amended by Addendum No. 9, dated 26 Jun 03, Ottawa, Canada).

The data required to estimate the extent of expenditures under each scenario considered is consistent with Sections 6 and 7 of the above-mentioned MOU with respect to the Reduction, Withdrawal, Suspension, and Termination of an Allied Unit from its Activities at Goose Bay. (As per Section 7.5 of the MOU, if an Allied Unit proposes to withdraw from this MOU, the financial consequences of reduction, withdrawal, suspension, and termination are determined in accordance with Section 6 of MOU.)

As per Section 6 of the MOU, the Full Cost of Infrastructure, and Goods and Services provided in support of Allied Units' training programs is recoverable from Allied Units. All costs are identified and recovered in accordance with the DND policy as contained in the Foreign Military Training Recovery Policy Manual (FMT RPM), A-FN-005- 000/AG-001, dated 1 April 1995, or as amended by DND in consultation with Allied Units.

As per Section 6.2, any costs that cannot be identified and allocated to a specific Supported Unit will be recovered using the Common Support Activity Indicator (CSAI) for the Domestic Site, or the applicable Operations and Training Activity Indicator (O&TAI) for Operations and Training Facilities. The calculation of Activity Indicators (AI) includes the following.

Unit Aircraft

Personnel include all personnel and aircraft operated under the appropriate authority of the Unit. (All personnel are classified as either Supported or Supporting. All personnel who are not Supported are Supporting.)¹

¹ All infrastructure, and goods and services are classified as either Operations and Training or Domestic Common costs as infrastructure, and goods and services are recovered using the applicable AI.

Annual Cost Estimates

Annual cost estimates are based on the capital and Purchasing, Operations and Maintenance (P,O&M) annual cost estimates (as per Section 6.6 of the MOU), prepared and confirmed by DND by quarter, for the next fiscal year, as well as the appropriate capital and P,O&M annual estimates for the subsequent three fiscal years to the Finance, Logistics and Administration Sub-Committee meeting (FLASC), based on the forecast requirements presented at the Operations Sub-Committee (OSC) and the Infrastructure Sub-Committee (ISC) meetings.

These costs are based on the Statement of Account forwarded by DND, summarizing the total recoverable costs incurred by each Allied Unit during the previous quarter to each Allied Unit. Any over- or under-payment is reconciled at the end of each fiscal year. Each Allied Unit is advised of the debit or credit adjustment due as part of the next quarterly period.

Cost-Sharing of Capital and O&M Projects Listed in the Infrastructure Plan and Project Status Report

As per Section 6.24, the O&TAI or CSAI used to calculate these cost shares will be the average of each Allied Unit's last two years plus the estimate for the current fiscal year.

Financial Implications on Withdrawal or Reduction in Activity

The financial provisions of withdrawal and the settlement of residual values are determined in accordance with Section 6.29 of the MOU and are the subject of separate negotiations.

The Allied Unit withdrawing or reducing its activities will be responsible for the following.

- Its financial share of the approved capital project as identified in the GAMTIC Infrastructure Plan and Project Status Report, to the extent expenditures have been made or are irreversibly committed on the date on which notice is received, unless the remaining Allied Units unanimously decide to reduce or eliminate such share.
- Its financial share of the P,O&M costs until the effective date of its withdrawal as indicated in its notification. The remaining Allied Units will endeavour to reduce the P,O&M cost as quickly as possible to reflect the reduction in activity.
- Any preservation, outstanding construction, contractual or termination costs associated with infrastructure, and goods and services, unless otherwise approved by DND, are also included. Dedicated infrastructure, and goods and services will revert to DND control. In accordance with the respective EOL/EONs, on withdrawal of an Allied Unit, the Allied Unit will not be obliged to remove that infrastructure, and/or improvements thereto, which has been constructed with its own funds, unless such an obligation was stipulated by DND at the time of construction.

The Allied Unit withdrawing from the MOU will be compensated for the residual value of its capital investment in infrastructure, and goods and services, to the extent its share is taken up



by another Allied Unit. Circumstances under which an Allied Unit terminates participation under this MOU and the actual benefits to be derived by the remaining Allied Units from vacated infrastructure will be the prime factors in assessing compensation. This compensation will be applicable to capital investment for infrastructure, and goods and services.

Direct expenditure information related to the departure of the Allied Units was obtained from the Comptroller's office at 5-Wing Goose Bay for the scenarios listed above.

APPENDIX B
INPUT/ OUTPUT MODEL

Appendix B – Input-Output Model

Characteristics

This appendix provides the measures of economic activity associated with the operation of 5-Wing 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 Environmental Impact Assessment (EIS) of the proposed Northern Atlantic Treaty Organization (NATO) facility in the mid 1980s. It was then updated and expanded for use in the 1993 Technical Report 14, and updated 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 (I/O) model since industry production functions are linear and inputs are used in fixed proportions—economies and diseconomies of scale are not permitted. The other generally strict assumption of input-output models is that prices and wages are fixed, and the supply of intermediate goods and final goods is unlimited.

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 I/O model have been used in this analysis.

- **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.
- **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 of salaries to personnel);
- **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 its labour in the same proportion as sales 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 I/O 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.

APPENDIX C

ECONOMIC IMPACTS BY INDUSTRIAL SECTOR



Appendix C – Economic Impact by Industry Sector

The economic impact related to the independent departure of each of the Allied Units varies by industry. The following set of tables indicates which sectors are affected and to what extent by the independent departure of each allied unit from 5-Wing Goose Bay.

Scenario 1 – Independent Departure of Allied Units

Table C-1
Total GDP and Employment Impact by Industry Sector in Scenario 1:
Independent Departure of the RAF

Industry Sector	Labrador		Newfoundland	
	GDP (%)	Employment (%)	GDP (%)	Employment (%)
Agriculture, forestry, fishing	0.11	0.08	0.26	0.18
Mining and oil & gas	0.08	0.03	0.09	0.04
Manufacturing	0.11	0.03	2.37	0.84
Construction	12.10	19.10	9.87	16.66
Transportation and utilities	3.67	0.39	4.10	1.42
Wholesale and retail trade	3.60	7.69	4.99	10.02
Information and cultural industries	1.21	0.65	2.10	1.30
Finance, insurance, real estate	2.79	1.30	4.48	2.82
Profess, technical and scientific	6.44	8.03	6.89	9.24
Administrative and support service	24.68	34.95	20.16	31.27
Education service	0.01	0.02	0.03	0.07
Health care and social assistance	0.27	0.51	0.31	0.64
Arts, entertainment and recreation	0.03	0.04	0.20	0.34
Accommodation and food service	2.26	5.48	2.35	6.15
Other services	0.69	1.51	0.73	1.84
Government	41.96	19.33	41.06	16.40
Total	100.00	100.00	100.00	100.00

Note: As percentage of total.



Table C-2
Total GDP and Employment Impact by Industry Sector in Scenario 1:
Independent Departure of the GAF

Industry Sector	Labrador		Newfoundland	
	GDP (%)	Employment (%)	GDP (%)	Employment (%)
Agriculture, forestry, fishing	0.12	0.07	0.27	0.16
Mining and oil & gas	0.07	0.02	0.10	0.03
Manufacturing	0.09	0.03	2.14	0.76
Construction	10.14	15.41	8.39	13.67
Transportation and utilities	3.28	0.40	3.79	1.41
Wholesale and retail trade	6.97	14.46	7.56	15.71
Information and cultural industries	1.12	0.58	2.04	1.24
Finance, insurance, real estate	2.81	1.25	4.48	2.74
Professional, technical and scientific	5.26	6.34	5.78	7.50
Administrative and support service	20.08	27.62	16.69	25.22
Education service	0.01	0.02	0.03	0.06
Health care and social assistance	0.29	0.56	0.32	0.66
Arts, entertainment and recreation	0.03	0.05	0.22	0.34
Accommodation and food service	2.10	4.92	2.20	5.56
Other services	0.74	1.55	0.78	1.86
Government	46.87	26.00	45.21	22.41
Total	100.00	100.00	100.00	100.00

Note: As percentage of total.



Table C-3
Total GDP and Employment Impact by Industry Sector in Scenario 1:
Independent Departure of the RNLAF

Industry Sector	Labrador		Newfoundland	
	GDP (%)	Employment (%)	GDP (%)	Employment (%)
Agriculture, forestry, fishing	0.11	0.05	0.27	0.14
Mining and oil & gas	0.06	0.00	0.06	0.00
Manufacturing	0.11	0.03	2.42	0.83
Construction	8.72	12.63	7.25	11.19
Transportation and utilities	4.89	0.43	5.20	1.62
Wholesale and retail trade	5.40	11.77	6.33	13.48
Information and cultural industries	0.87	0.48	1.69	1.06
Finance, insurance, real estate	1.88	0.88	3.36	2.22
Professional, technical and scientific	5.85	7.40	6.36	8.62
Administrative and support service	20.10	29.77	16.63	26.84
Education service	0.01	0.02	0.03	0.06
Health care and social assistance	0.27	0.53	0.31	0.65
Arts, entertainment and recreation	0.03	0.05	0.24	0.38
Accommodation and food service	2.76	6.83	2.82	7.49
Other services	0.89	1.94	0.92	2.24
Government	48.05	26.05	46.13	22.17
Total	100.00	100.00	100.00	100.00

Note: As percentage of total.



Table C-4
Total GDP and Employment Impact by Industry Sector in Scenario 1:
Independent Departure of the ITAF

Industry Sector	Labrador		Newfoundland	
	GDP (%)	Employment (%)	GDP (%)	Employment (%)
Agriculture, forestry, fishing	0.13	0.07	0.27	0.29
Mining and oil & gas	0.07	0.04	0.06	0.08
Manufacturing	0.12	0.02	2.42	2.37
Construction	12.58	19.75	7.25	10.27
Transportation and utilities	3.58	0.38	5.20	4.00
Wholesale and retail trade	2.85	5.95	6.33	4.39
Information and cultural industries	1.25	0.67	1.69	2.12
Finance, insurance, real estate	2.88	1.33	3.36	4.58
Professional, technical and scientific	6.56	8.08	6.36	7.00
Administrative and support service	24.71	34.06	16.63	20.17
Education service	0.01	0.01	0.03	0.02
Health care and social assistance	0.27	0.52	0.31	0.31
Arts, entertainment and recreation	0.03	0.04	0.24	0.21
Accommodation and food service	2.23	5.35	2.82	2.33
Other services	0.66	1.46	0.92	0.69
Government	42.08	21.45	46.13	41.15
Total	100.00	100.00	100.00	100.00

Note: As percentage of total.



Scenario 2 – Departure of Allied Units, with Base Closure

The economic impact related to the departure of the Allied Units and complete Base closure varies by industry. The following tables indicate which sectors are affected and to what extent by the departure of Allied Units and the closure of 5-Wing Goose Bay.

Table C-5
Total GDP and Employment Impact by Industry Sector in Scenario 2 – No Environmental Clean-Up

Industry Sector	Labrador		Newfoundland	
	GDP (%)	Employment (%)	GDP (%)	Employment (%)
Agriculture, forestry, fishing	0.11	0.07	0.25	0.29
Mining and oil & gas	0.07	0.04	0.08	0.08
Manufacturing	0.10	0.02	2.08	2.37
Construction	10.03	19.75	8.12	10.27
Transportation and utilities	3.40	0.38	3.75	4.00
Wholesale and retail trade	4.62	5.95	5.49	4.39
Information and cultural industries	1.04	0.67	1.83	2.12
Finance, insurance, real estate	2.45	1.33	3.91	4.58
Professional, technical and scientific	5.44	8.08	5.80	7.00
Administrative and support service	20.43	34.06	16.57	20.17
Education service	0.01	0.01	0.03	0.02
Health care and social assistance	0.25	0.52	0.28	0.31
Arts, entertainment and recreation	0.03	0.04	0.19	0.21
Accommodation and food service	2.09	5.35	2.14	2.33
Other services	0.68	1.46	0.70	0.69
Government	41.15	21.45	39.31	41.15
Total	100.00	100.00	100.00	100.00

Note: As percentage of total.



Table C-6
Total GDP and Employment Impact by Industry Sector in Scenario 2 - Environmental Clean-Up

Industry Sector	Labrador		Newfoundland	
	GDP (%)	Employment (%)	GDP (%)	Employment (%)
Agriculture, forestry, fishing	0.3	0.2	0.4	0.2
Mining and oil & gas	0.3	0.1	0.3	0.1
Manufacturing	0.2	0.1	4.2	1.8
Construction	43.8	48.0	26.9	33.3
Transportation and utilities	1.7	0.9	2.8	2.1
Wholesale and retail trade	3.0	5.4	3.6	6.6
Information and cultural industries	1.4	0.7	2.3	1.4
Finance, insurance, real estate	3.7	1.4	4.9	2.8
Professional, technical and scientific	14.0	15.0	20.7	25.0
Administrative and support service	11.8	22.8	9.2	20.0
Education service	0.0	0.1	0.1	0.2
Health care and social assistance	0.5	0.9	0.5	0.9
Arts, entertainment and recreation	0.0	0.1	0.3	0.4
Accommodation and food service	1.5	3.1	1.4	3.4
Other services	0.7	1.4	0.7	1.7
Government	16.9	0.0	21.7	0.0
Total	100.0	100.0	100.0	100.0

Note: As percentage of total.



Scenario 3 – Departure of Allied Units, with Base Maintained at Minimal Level

The economic impact related to the departure of each of the Allied Units and Base closure, assuming minimal maintenance of the Base, varies by industry. The following set of tables indicate which sectors are affected and to what extent by the partial closure of 5-Wing Goose Bay.

Table C-7
Total GDP and Employment Impact by Industry Sector in Scenario 3

Industry Sector	Labrador		Newfoundland	
	GDP (%)	Employment (%)	GDP (%)	Employment (%)
Agriculture, forestry, fishing	0.15	0.07	0.29	0.18
Mining and oil & gas	0.18	0.00	0.20	0.00
Manufacturing	0.12	0.03	2.41	1.04
Construction	23.92	40.65	18.41	33.46
Transportation and utilities	6.12	2.10	5.87	3.06
Wholesale and retail trade	2.53	5.81	4.44	9.11
Information and cultural industries	1.23	0.70	2.13	1.44
Finance, insurance, real estate	4.04	2.07	5.95	4.02
Professional, technical and scientific	7.18	9.61	8.34	12.23
Administrative and support service	38.61	11.98	29.23	10.14
Education service	0.01	0.02	0.06	0.08
Health care and social assistance	0.34	0.74	0.38	0.85
Arts, entertainment and recreation	0.03	0.06	0.21	0.45
Accommodation and food service	3.20	8.48	3.14	8.95
Other services	1.09	2.46	1.05	2.64
Government	11.26	15.23	17.88	12.32
Total	100.00	100.00	100.00	100.00

Note: As percentage of total.



APPENDIX D
DIRECT EXPENDITURES



Appendix D – Direct Expenditures

Scenario 1 – Independent Departure of Allied Units

Table D-1 assumes the following breakdown in expenditures by Allied Unit.

Table D-1
Direct Expenditures for Scenario 1

Expenditure	RAF	GAF	RNLAF	ITAF	Total
Annual Budget (wages)					
Military employee wages	1,431,092	2,557,727	1,004,418	935,918	5,929,155
Travel allowance, military employees	164,932	294,776	115,758	107,864	683,331
Civilian employee wages	327,577	585,463	229,911	214,231	1,357,183
Travel allowance, civilian employees	118,031	210,951	82,840	77,191	489,012
Nonpublic fund employee wages	0	0	0	0	0
Allied (permanent)	1,778,446	3,178,536	1,248,209	1,163,082	7,368,273
Subtotal	5,606,568	5,729,654	2,681,136	4,490,731	15,826,953
Serco Contract					
Management	1,567,473	1,634,880	518,429	956,397	4,677,178
Supply	309,302	324,251	229,949	173,780	1,037,282
Aviation weather services	310,360	325,361	230,736	174,375	1,040,832
Air traffic control services	468,710	491,364	348,461	263,343	1,571,878
Transient services	290,837	304,894	216,222	163,406	975,358
Telecommunications	208,340	218,409	154,889	117,055	698,693
Airfield communications maintenance	401,201	416,740	0	260,324	1,078,265
Fire protection	786,226	816,679	0	510,153	2,113,058
Transportation maintenance	392,965	411,957	292,148	220,786	1,317,856
Security	295,242	309,512	219,496	165,881	990,131
Food services	1,040,290	1,090,569	773,399	584,483	3,488,742
Billeting	68,916	71,586	0	44,717	185,219
Janitorial	360,116	377,521	267,727	202,330	1,207,695
Utility management	54,954	57,610	40,855	30,876	184,295
Electrical generation	0	0	0	0	0
Auxiliary power	96,991	101,679	72,108	54,494	325,272
Electrical distribution	134,251	140,740	99,808	75,429	450,228
Storm and sanitary systems	145,644	151,286	0	94,503	391,433



Expenditure	RAF	GAF	RNLAF	ITAF	Total
CHPP generation and distribution	277,216	290,615	206,095	155,753	929,680
Potable water	0	0	0	0	0
Solid waste collection and disposal	46,481	48,727	34,556	26,115	155,879
Building and facility engineering	623,073	647,206	0	404,289	1,674,568
Building and facility maintenance	1,458,604	1,515,101	0	946,435	3,920,140
Airfield, R&G maintenance	665,179	697,328	494,524	373,728	2,230,759
Hazardous waste management	181,432	188,459	0	117,724	487,615
Subtotal	10,183,803	10,632,473	4,199,403	6,116,378	31,132,058
CCC Contracts					
Janitorial	407,185	484,855	542,533		1,434,573
Construction					
Construction (Serco)	360,278	377,691	267,848	202,421	1,208,239
Construction (DCC)	1,061,473	1,112,776	789,147	596,385	3,559,781
Construction (DCC for CFHA)	494,348	518,241	367,521	277,748	1,657,858
Subtotal	1,916,099	2,008,708	1,424,516	1,076,554	6,425,877
Contracts					
Fuel, aviation	5,294,624	5,830,535	4,429,773	3,008,927	18,563,859
Liquid oxygen	162,607	170,466	120,890	91,360	545,324
Electricity	1,030,658	1,080,472	766,238	579,072	3,456,440
Gas and fuel	223,987	234,813	166,522	125,846	751,168
Heating Fuel	392,997	411,991	292,172	220,804	1,317,963
Payments in lieu of taxes (on top of taxes from model)	243,023	254,769	180,674	136,542	815,008
PMQ furniture	21,641	22,479	0	14,042	58,162
Freight	19,696	20,648	14,643	11,066	66,053
OGD purchases	0	0	0	0	0
Temporary duty travel	150,165	157,423	111,640	84,370	503,598
Environmental services	243,428	252,857	0	157,952	654,237
Capital expenditure	380,242	394,970	0	246,725	1,021,937
Other contract costs:	0	0	0	0	0
Communications	4,932	5,170	3,666	2,771	16,539
Professional services	1,021,729	1,071,111	759,600	574,055	3,426,495
Rental	311,524	326,580	231,601	175,029	1,044,734
MTCE and repairs	1,653,224	1,724,319	546,790	1,008,718	4,933,051
Supplies	837,319	873,327	276,937	510,892	2,498,475



Expenditure	RAF	GAF	RNLAF	ITAF	Total
Miscellaneous	856,834	890,022	0	555,968	2,302,824
Subtotal	4,240,820	4,445,787	3,152,820	2,382,691	14,222,118
Subtotal	13,089,767	13,694,729	7,586,910	7,605,460	41,975,867
Total (\$ millions)	31,658,889	35,590,072	14,323,305	19,289,123	100,860,390

Scenario 2 – Departure of Allied Units, with Base Closure

The direct expenditures associated with Scenario 2 are equal to the total direct expenditures associated with the closure of the training Program and the withdrawal of the Allied Participants (obtained in Scenario 1 above), plus additional expenditures related to deconstruction, labour adjustment, and environmental clean-up. Table D-2 assumes the following breakdown in wages and salaries by Allied Units under Scenario 2 and the additional expenditures related to deconstruction, labour adjustment, and environmental clean-up are shown below in Table D-4.

Table D-2
Direct Expenditures for Scenario 2

Expenditure	Total
Annual Budget (wages)	
Military employee wages	5,929,155
Travel allowance, military employees	683,331
Civilian employee wages	1,357,183
Travel allowance, civilian employees	489,012
Nonpublic fund employee wages	0
Allied (permanent)	7,368,273
Subtotal	15,826,953
Serco Contract	
Management	4,677,178
Supply	1,037,282
Aviation weather services	1,040,832
Air traffic control services	1,571,878
Transient services	975,358
Telecommunications	698,693
Airfield communications maintenance	1,078,265
Fire protection	2,113,058
Transportation maintenance	1,317,856
Security	990,131
Food services	3,488,742
Billeting	185,219
Janitorial	1,207,695
Utility management	184,295
Electrical generation	0



Expenditure	Total
Auxiliary power	325,272
Electrical distribution	450,228
Storm and sanitary systems	391,433
CHPP generation and distribution	929,680
Potable water	0
Solid waste collection and disposal	155,879
Building and facility engineering	1,674,568
Building and facility maintenance	3,920,140
Airfield, R&G maintenance	2,230,759
Hazardous waste management	487,615
Subtotal	31,132,058
CCC Contracts	
Janitorial	1,434,573
Construction	
Construction (Serco)	1,208,239
Construction (DCC)	3,559,781
Construction (DCC for CFHA)	1,657,858
Subtotal	6,425,877
Contracts	
Fuel, aviation	18,563,859
Liquid oxygen	545,324
Electricity	3,456,440
Gas and fuel	751,168
Heating Fuel	1,317,963
Payments in lieu of taxes (on top of taxes from model)	815,008
PMQ furniture	58,162
Freight	66,053
OGD purchases	0
Temporary duty travel	503,598
Environmental services	654,237
Capital expenditure	1,021,937
Other contract costs:	0
Communications	16,539
Professional services	3,426,495
Rental	1,044,734
MTCE and repairs	4,933,051
Supplies	2,498,475
Miscellaneous	2,302,824
Subtotal	14,222,118
Subtotal	41,975,867
Total (\$ millions)	100,860,390



Scenario 3 – Departure of Allied Units, with Base Maintained at Minimal Level

Table D-3 assumes the following breakdown in expenditures by Allied Unit.

**Table D-3
 Direct Expenditures for Scenario 3**

Expenditure	Amount (no. or \$)
Employment	
Military	5
Civilian (public funds)	8
Civilian (nonpublic funds, full-time)	12
Serco	10
Total	35
Annual Budget (wages)	
Military employee wages	\$315,381
Travel allowance, military employees	36,347
Civilian employee wages	502,660
Travel allowance, civilian employees	181,116
Subtotal	1,035,504
Serco Contract	
Management	668,836
Supply	148,331
Aviation weather services	148,839
Telecommunications	99,913
Fire protection	302,167
Transportation maintenance	188,453
Security	141,589
Food services	348,874
Janitorial	181,154
Utility management	26,354
Auxiliary power	16,264
Electrical distribution	22,511
Storm and sanitary systems	19,572
CHPP generation and distribution	46,484
Solid waste collection and disposal	15,588
Building and facility engineering	200,948
Building and facility maintenance	470,417
Airfield, R&G maintenance	267,691
Hazardous waste management	58,514
Subtotal	3,372,500



Expenditure	Amount (no. or \$)
Construction	
Construction (Serco)	172,778
Construction (DCC)	509,049
Construction (DCC for CFHA)	237,074
Subtotal	918,900
Contracts	
Liquid oxygen	27,266
Electricity	494,271
Gas and fuel	75,117
Heating fuel	197,694
Payments in lieu of taxes	122,251
Freight	9,908
Temporary duty travel	75,540
Environmental	98,136
Capital expenditure	153,291
Communications	2,481
Professional services	342,650
Maintenance and repairs	739,958
Supplies	249,848
Miscellaneous	230,282
Subtotal	1,565,218
Subtotal	2,818,691
Total (\$ million)	8,145,596

Environmental Clean-Up Costs

Table D-4 shows the environmental clean-up costs for Scenario 2.

Table D-4
Summary of Direct Expenditures for Scenario 2 – Environmental Clean-Up
(2005 to 2015)

Commodity	Expenditures (\$)	Local (%)
Professional services	85.2	40
Construction	50.4	80
Other capital expenditure	23.3	60
Nonprofessional services	35.8	80
Supplies	30.8	50
Miscellaneous	14.5	70
Total	240.0	100

Note: All dollar amounts in \$2002 millions.



Table D-5 shows the environmental clean-up costs for Scenario 3.

Table D-5
Summary of Direct Expenditures for Scenario 3 – Environmental Clean-Up
(2005 to 2015)

Commodity	Expenditures (\$)	Local (%)
Professional services	76.3	40
Construction	45.1	80
Other capital expenditure	20.8	60
Nonprofessional services	32.0	80
Supplies	27.6	50
Miscellaneous	13.0	70
Total	215.0	100

Note: All dollar amounts in \$2002 millions.

Table D-5 shows electricity costs for maintenance and utilities for Allied Units and Canada.

**Table D-5
 Electricity Cost for Maintenance and Utilities for Allied Units and Canada**

Building	Description	RAF (\$)	GAF (\$)	RNLAF (\$)	ITAF (\$)	CAF (\$)	CIV (\$)	444 (\$)	Total (\$)
371	CHPP	14,426.26	12,126.05	4,606.87	6,468.94	283.50	23,620.66	2,899.43	64,431.70
377	Billy Bishop Centre	351.34	295.32	112.20	157.54	6.90	575.26	70.61	1,569.17
380	Theatre	463.69	389.76	148.08	207.93	9.11	759.22	93.19	2,070.99
381	Canex/Royal Bank	2,422.74	2,036.44	773.68	1,086.39	47.61	3,966.85	486.93	10,820.64
382	Youth centre	441.42	371.04	140.96	197.94	8.67	722.75	88.72	1,971.50
388	Base chapel	586.66	493.12	187.34	263.07	11.53	960.56	117.91	2,620.19
394	Base gym storage	6.95	5.85	2.22	3.12	0.14	11.39	1.40	31.06
395	Sewage lift station	17.99	15.12	5.74	8.07	0.35	29.45	3.61	80.33
399	Gymnasium	1,553.71	1,305.98	496.16	696.71	30.53	2,543.95	312.27	6,939.32
515	Espress Mart	1,435.56	1,206.66	458.43	643.72	28.21	2,350.49	288.52	6,411.59
555	Sewage lift station	36.00	30.26	11.50	16.14	0.71	58.94	7.24	160.78
560	Mess hall	4,345.71	3,652.81	1,387.76	1,948.68	85.40	7,115.40	873.41	19,409.17
564	Medical inspection room & dental clinic	527.37	443.28	168.41	236.48	10.36	863.48	105.99	2,355.37
595	Sewage lift station	6.97	5.86	2.23	3.13	0.14	11.42	1.40	31.14
597	Outdoor skating rink	84.16	70.74	26.87	37.74	1.65	137.79	16.91	375.87
598	Change shelter	103.99	87.41	33.21	46.63	2.04	170.27	20.90	464.45
644	MFRCLatch key	99.82	83.91	31.88	44.76	1.96	163.44	20.06	445.83
734	Family resource centre	501.45	421.49	160.13	224.86	9.85	821.04	100.78	2,239.60
851	Spring Gulch pumping station	16.12	13.55	5.15	7.23	0.32	26.40	3.24	72.01
851a	Spring Gulch security	5.80	4.88	1.85	2.60	0.11	9.50	1.17	25.92
899	Sewage lift station	19.73	16.59	6.30	8.85	0.39	32.31	3.97	88.14
1071	Ammunition storage	915.61	769.62	292.39	410.57	17.99	1,499.17	184.02	4,089.39
1139	Sewage lift station	1.74	1.46	0.56	0.78	0.03	2.85	0.35	7.77
	Total CSAI	42,201.78	35,472.87	13,476.68	18,923.89	829.33	69,098.59	8,925.82	188,484.97

Note: Cost-shared buildings for FY 2002-2003.

Table D-6 shows the steam costs for maintenance and utilities for Allied Units and Canada.

Table D-6
Steam Costs for Maintenance and Utilities for Allied Units and Canada

Building	Description	RAF	GAF	RNLAF	ITAF	CAF	CIV	444	TOTAL
365	Community centre	5,314.01	4,466.71	1,696.97	2,382.88	104.43	8,700.84	1,068.02	23,733.87
370	CHPP pumping station	389.34	327.26	124.33	174.59	7.65	637.49	78.25	1,738.92
371	CHPP	16,891.89	14,198.54	5,394.24	7,574.57	331.95	27,657.74	3,394.98	75,443.91
377	Billy Bishop Centre	9,464.25	7,955.21	3,022.31	4,243.91	185.99	15,496.18	1,902.15	42,270.00
380	Theatre	3,418.60	2,873.51	1,091.69	1,532.95	67.18	5,597.40	687.08	15,268.41
381	Canex/Royal Bank	5,963.21	5,012.40	1,904.28	2,673.99	117.19	9,763.79	1,198.50	26,633.35
388	Base chapel	2,545.76	2,139.85	812.96	1,141.56	50.03	4,168.27	511.65	11,370.09
399	Gymnasium	7,691.93	6,465.48	2,456.33	3,449.17	151.16	12,594.29	1,545.94	34,354.31
560	Mess hall	24,363.24	20,478.62	7,780.13	10,924.83	478.78	39,890.87	4,896.59	108,813.06
564	Medical inspection room & dental clinic	9,669.63	8,127.84	3,087.89	4,336.00	190.02	15,832.45	1,943.43	43,187.25
	Total CSAI	201,919.41	169,724.13	64,480.74	90,543.59	3,968.05	330,610.35	41,026.29	901,828.56

Note: Cost-shared buildings for FY 2002–2003.

Table D-7 shows the fuel costs for maintenance and utilities for Allied Units and Canada.

**Table D-7
 Fuel Costs for Maintenance and Utilities for Allied Units and Canada**

Building	Description	RAF (\$)	GAF (\$)	RNLAF (\$)	ITAF (\$)	CAF (\$)	CIV (\$)	444 (\$)	Total (\$)
110	Wing Ops Serco TC Administration	21.24	40.06	29.26	21.24	46.15	326.92	10.48	495.35
174	Airfield/welding shop	95.16	179.49	131.09	95.16	4,793.80	1,464.91	46.97	6,806.58
242	Deluge pumping station	875.80	16.93	12.37	875.80	2.75	138.19	4.43	1,926.27
358	Wood hobby/spare capacity	2,358.69	1,982.61	753.22	1,057.67	11,010.92	3,861.98	474.06	21,499.15
	Total cost, shared buildings	3,350.89	2,219.09	925.94	2,049.87	15,853.62	5,792.00	535.94	30,727.35
176	Airfield light power centre	28.73	54.20	39.59	68.32	8.81	451.18	14.19	665.02
1236	Radio transmitter site	81.41	151.68	110.79	80.41	24.68	1,237.90	39.68	1,726.55
1587	Gator site	48.31	91.11	66.55	48.31	14.82	743.62	23.84	1,036.56
	Total OTA11	158.45	296.99	216.93	197.04	48.31	2,432.70	77.71	3,428.13
43	APU building	54.32	102.40	74.83	54.32	16.73			302.60
1223	TACAN	37.26	51.32	37.49	27.22	8.39			161.68
1239	PARSITE	22.11	41.68	30.46	22.11	6.81			123.17
1252	APU building	77.72	137.27	107.07	77.72	23.94			423.72
1551 & 1553	Melville Weather	95.97	180.92	139.84	95.97	29.56			542.26
	Total OTA12	287.38	513.59	389.69	277.34	85.43			1,553.43
185	Water pump station	200.61	168.62	64.06	89.96	3.94	328.46	40.32	895.97
277	Telecom APU building	114.90	96.58	36.69	51.52	2.26	188.13	23.09	513.17
325	R&M/heating shop	2,922.14	2,456.22	933.15	1,310.33	57.42	4,784.54	587.30	13,051.11
345	Weme section	5,374.38	4,517.45	1,716.25	2,409.95	105.62	8,799.67	1,080.16	24,003.47
355	Auto hobby shop	5,826.25	4,897.28	1,860.55	2,612.58	114.50	9,539.54	1,170.98	26,021.67
388	Base chapel	1,481.38	1,245.18	473.06	664.27	29.11	2,425.52	297.73	6,616.25
644	MFRC latch key	159.54	134.10	50.95	71.54	3.14	261.22	32.06	712.55
851	Spring Gulch pumping station	240.26	201.95	76.72	107.74	4.72	393.39	48.29	1,073.07
	Total CSAI	16,079.20	13,515.43	5,134.71	7,210.14	315.98	26,327.08	3,231.64	71,814.19

Note: Cost-shared buildings for FY 2002–2003.



APPENDIX E
LIST OF CONTACTS

Appendix E – List of Contacts

Archibald, Gary	Colby Construction
Badcock, Randy	Uncle Sam's
Burden, Buck	A and W
Barrett, George	Boat tours
Barry, Larry	Chaisson Construction
Best, Carol	Central Labrador Economic Development Board
Brown, Herb	Birches Gallery
Campbell, Jock	Campbell Adventure Tours
Conley, Mena	Mulligan's
Cooper, Jack	Blizzard Corporation, Coopers' Minipi Camps
Courage, Jack	JJ's Trucking, Goose Bay Lumber
Dale, Terry	Dept. of Mines and Energy
Dillon, Robert	Human Resources and Skills Development
Dillon, Leo	Innu Development Corporation
Earle, Philip	Air Labrador
Ford, Randy	Serco, Union of National Defence Employees
Gagnon, Roger	TST Overland Express
Garland, Jim	Labrador Craft Marketing Agency
Giffen, Michelle	Tim Horton's
Goodyear, Jeff	Universal Helicopters
Goudie, Rex	ACOA
Hewitt, Andre	Maxwell's
Hickey, Mike	Hickey's Construction
Hynes, Paul	Goose Bay Sports
Lewis, Rick	Lewis Concrete
Morris, George	Boat tours
Michelin, Frank	Innu Services
Noseworthy, Glen	Glen Corporation
Peck, Dennis	Town of Happy Valley-Goose Bay
Penney, Ford	Notre Dame Agencies
Pike, Greg	Goose Sales Home Hardware
Pittman, Floyd	All Season Recreation
Pottle, Katherine Baikie	ACOA
Randall, Tom	Innu Mikun Airlines
Rumboldt, Agnes	Department of Human Resources and Employment
Pye, Joyce	Farmer
Rowe, Boyd	Labrador Health Corporation
Scaplen, Dave	Labrador Inn
Sheppard, Christina	Shepherd's Real Estate, Laundry & Dry Cleaners
Simms, Bob	College of the North Atlantic
Snelgrove, Paul	Labrador North Chamber of Commerce



Strachan, Ian
Stroude, Bill
Stroude, Howard
Thompson, Jeff
Wade, Celia
Warr, Bert
Watts, Terry
Woodward, Peter

Northside Development Corporation
Teamrep Transport Inc.
J & S Busing
Labrador School Board
College of the North Atlantic
Nor-lab Limited, Warr's Pharmacy
Terry's Tents and Shoe Repair
Woodward's Group of Companies