

THE IMPACT OF MILITARY BASE CLOSURES
UPON THE LOCAL COMMUNITY

A thesis presented to the Faculty of Graduate Studies
in partial fulfillment of the requirements
for the Degree of Master of City Planning

by

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For Maureen

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ABSTRACT

The impacts of military base closures upon local communities are investigated using comparative case study analysis. A case study of the closure of CFB Gimli is presented with a review of case studies of the impacts of existing military bases and a representative sampling of base closures studies. Base closure patterns, closure impacts and factors effecting impacts are identified. Recommendations presented include federal policy changes and local community actions for recovery.

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ABREVIATIONS

ADG:	Air Defence Group
AFB:	Air Force Base (American)
AWACS:	Airborne Warning and Control Systems
Canex:	Canadian Base Exchange
CENCOM:	Central Command
CF:	Canadian Armed Forces
CFB(s):	Canadian Forces Base (s)
CFS(s):	Canadian Forces Station (s)
CNR:	Canadian National Railways
DEW:	Distant Early Warning
DND:	Department of National Defence (Canadian)
DOD:	Department of Defence (American)
FRED:	Federal Regional Economic Development
HQ:	Headquarters
LRPA:	Long Range Patrol Aircraft
MQ(s):	Married Quarter (s)
NATO:	North Atlantic Treaty Organization
NORAD:	North American Air Defence
OEA:	Office of Economic Adjustment
OREA:	Operational Research and Analysis Establishment
OTH:	Over the Horizon
RM:	Rural Municipality
ROAMA:	Rome Air Materiel Area
ROCC:	Regional Operational Control Centre
U.S.:	United States
USAF:	United States Air Force

Chapter I

INTRODUCTION

The aim of this study is to identify the impacts of military base closures upon local communities. It will describe the patterns of actions and reactions to military base closures and make recommendations to deal with the adverse impacts of such actions.

A. Rationale: Recent Defence Patterns

In the past decade, the escalating costs of defence, coupled with the pursuit of detente between East and West, has led many groups and individuals to embark upon the assessment of the impacts of defence spending. Many of these studies have been conducted as a prelude to disarmament. They often deal with the impact of defence spending upon national or regional economies, focussing primarily upon defence production.

Charles Tiebout¹ made some interesting observations about the impact of defence expenditures and although his example of California's dependence upon defence contracts deals specifically with the impacts of defence upon manufacturing production and employment, his observations may be implied to include military installations in general. Pointing out that the significance of defence expenditures as a source of regional or community income is often greater than is generally appreciated, he singles out defence sales

and activities as an 'export' market under the export-base concept. The export - base concept is considered a valuable tool in explaining why some regions grow and other decline in terms of total income, employment and population.

The order of magnitude of defence spending is not limited to the direct impact upon employment and income. There is also a very significant indirect impact which measures employment created by subcontractors and suppliers to the prime contractor or employer. Furthermore there is a substantial impact created by induced effects. Additional income and employment is created by a rise in total consumer income as a result of direct and indirect income and employment created by defence expenditures. This additional income and employment is a result of spending consumer income in the region on retail goods, services, housing, and other items. Businesses will spend in order to expand in the region to satisfy direct, indirect, and induced demands and, therefore, create even more demand. Local government in turn will spend more in order to provide the services demanded by the local population. Tracing the direct, indirect, and induced impacts of defence production and the operation of defence establishments has shown that, indeed, defence spending does have a pronounced effect upon the local economy.

Aside from the interests in economic impacts of defence spending generated by proponents of disarmament,

cut backs in military budgets and military operations in both Canada and the United States have served to generate interest in areas and localities directly affected by reduced production and closures of local military installations. In Canada specifically, the decade of the seventies has witnessed a reduction in military manning of the Canadian Armed Forces and a reduction in the number of military facilities. From a manning level of approximately 120,000 prior to integration of the Army, Navy, and Air Force in the late 1960's, the Canadian Forces has been reduced to a current manning level of approximately 79,000.² Canadian Forces Bases (CFBs) Gimli and Rivers, Manitoba were closed in 1970-1971. The number of existing bases have remained at a total of 32 since 1971, but the number of radar stations have been reduced from 28 in 1971³ to 21 in 1974.⁴

Following policies outlined in the Canadian government's White Paper on defence; Defence in the 70's, there is every reason to believe that the number of military facilities now in existence will be reduced in the future. The number of radar stations in particular will probably be reduced as a result of a perceived reduction in the bomber threat to North America, the development of Over-The-Horizon (OTH) radar and the development of Airborne Warning and Control Systems (AWACS). "It is possible that operating together they (OTH and AWACS) could replace some of the existing fixed radars and reduce the vulnerability of the

system."⁵

The current radar facilities in Canada are limited by line of sight and as such detection of aircraft beyond the horizon depends upon the aircraft's altitude. Low-flying aircraft cannot be detected until they come over the horizon and into the radar's line of sight. A larger number of ground stations are required for complete coverage. The new OTH radar can detect targets beyond the horizon because both the outgoing radar signal and the backscatter are deflected off the ionosphere. There are occasions, however, when ionospheric conditions are not favourable. To meet these conditions the AWACS can be employed. These are aircraft mounted radar systems which can be used to supplement OTH radars.

Progress has been made in the development of these two systems. In 1972, the Defence Research Board of the Department of National Defence announced an experiment carried out in conjunction with the United States Air Force (USAF) to test the potential capabilities of OTH radar. Titled Polar Cap III, this experiment involved the installation of a high powered radar transmitter at Hall Beach on Melville Peninsula. A receiver was installed at Cambridge Bay.⁶ Data was collected in late 1972 and throughout 1973. The Defence Research Board reported that data analysis was in progress in 1973.⁷

Development of the complementary AWACS systems have

have progressed as well. In 1979, the Department of National Defence reported that in 1978:

"ADG (Air Defence Group) all-weather fighter squadrons had their first opportunity to fly training missions with the U.S. E-3A Sentry aircraft which functions as an airborne warning and control system (AWACS). These missions were used to train AWACS crews and to exercise plans for the employment of the E-3A in the North American strategic defence environment. An E-3A was employed in the training exercise Vigilant Overview 78-4 in a control and surveillance configuration to further develop the capabilities of AWACS within the NORAD environment."⁸

The development of OTH and AWACS must be viewed in conjunction with other developments in Canadian defence if the repercussions for existing radar stations are to be fully understood. The first of these developments is the reconfiguration of North American Air Defence (NORAD) regions in the 1980's and the second is the historical and current budget restraints imposed upon DND.

NORAD currently divides the responsibility for North American air defence among eight regions. Four of these regions straddle the U.S. - Canadian border. Following the concept of sovereignty as adopted by the Canadian government, it was decided that the Canadian Forces should assume greater responsibility for defence activities over Canada.⁹ This policy had a bearing upon the shape and form of the renewal of the NORAD agreement in 1975. The new agreement provided for reconfiguration of current regions to only seven regions which followed national boundaries more closely.

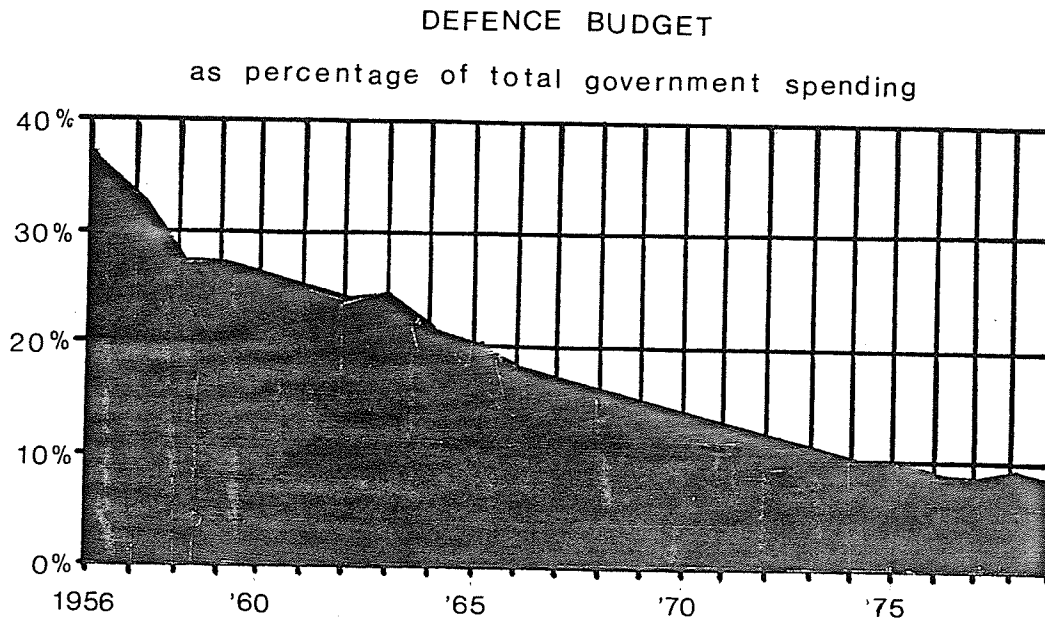
Five regions were wholly in the U.S. and two wholly in Canada.¹⁰ Reconfiguration of the regions is scheduled for the 1980's. Each region will require a Regional Operational Control Centre (ROCC). The Canadian ROCC's were proposed for Edmonton, Alberta and North Bay, Ontario.¹¹

The price for national pride may be high however. The original 1958 NORAD agreement gave American military aircraft overflight and landing privileges in Canada since these were required due to the cross-boundary configuration of defence regions. The U.S., however, as compensation for these privileges, paid for 90 percent of the costs of running the Distant Early Warning (DEW) and Pinetree Radar Lines. This cost was well over \$1 billion per year. Canada only paid \$150 million and the U.S. paid the rest.¹² With the regions redrawn along national boundaries, it is doubtful that the U.S. will pick up as much as the bill as it has in the past.¹³ Besides probably having to pick up the operating costs of the old radar lines, Canada will have to provide the two ROCC's.

We now must turn our attention to DND budgets. Throughout the 1960's and 1970's, DND budgets declined steadily not only as a percentage of total government spending but also in absolute terms. In the last couple of years the budget, as a percentage of total government spending, has stabilized at around 8 1/2 to approximately 9 percent. However, during this whole period of trimmed and stable bud-

gets, the costs of maintenance, operations and personnel have risen dramatically and essentially reduced the capital expenditures to less than eight percent of the defence budget. A twenty percent capital expenditure is an accepted level of spending "necessary to keep pace with technological changes and to prevent undue deterioration of the physical plant".¹⁴ Essentially what this means is that there just was not enough money to replace obsolete and deteriorated equipment and facilities. Rather than replacing facilities, they were either patched up or abandoned. Seven radar stations closed in the 1970's.

In 1975, the decision was made to increase capital expenditure budgets by 12 percent. This was to allow for a real growth in the capital program beyond the rate of inflation. The backlog of equipment and facility replacement programs that were deferred in the 1960's and 1970's now awaited funding. These included replacement of the Long Range Patrol Aircraft (LRPA), a new tank, a new fighter aircraft and among them, upgrading the radar systems. Hope for the ground radars seemed to revive until one analysed the allocations of priorities amongst the many equipments and facilities still for a limited budget. In fiscal year 1976/77, five percent of the capital budget was allocated for research and development (such as the OTH and AWACS), 11 percent for construction of new and/or replacement facilities, and 84 percent was allocated for equipment re-



Source: Canada, Department of National Defence, Defence 1976 (Ottawa, Ontario: Information Canada, 1977), p. 48, with information added from Defence 1977 and Defence 1978.

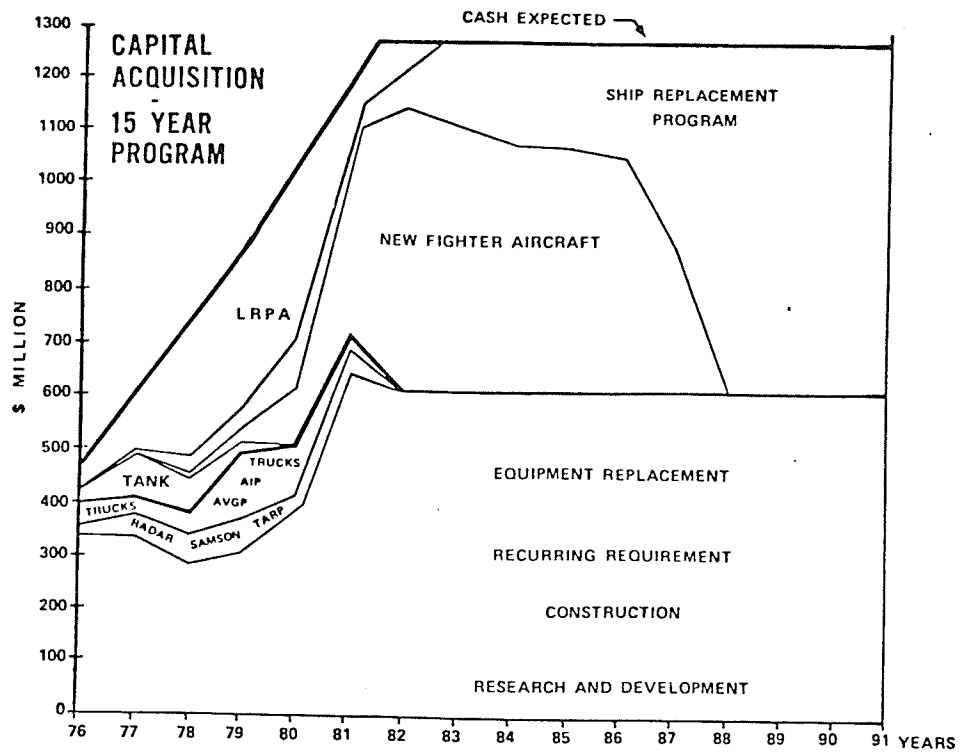
Figure 1

placement.¹⁵ Analysis of the 15 year programs for Capital Acquisition for fiscal years 1976/77, 1977/78 and 1978/79 shown in Figures 2,3, and 4 respectively, indicates that the long-range radar replacement has been gradually slipping over the years in preference to higher priority items such as the LRPA, tank and new fighter aircraft.

In 1976, radar replacement was scheduled for 1976 to 1978. In 1977, a major portion of the radar expenditure was scheduled for 1978 to 1979. In 1978, however, radar replacement suffers a major set back. It's priority in the late 1970's is replaced by the ROCC and radar replacement is set back to 1984 and later! Why? Could it possibly be that there has been a major shift in policy towards retention of the existing long-range ground radar stations?

One can always argue that DND is already firmly committed to replacement of some of the other equipments and the ROCC's had to be fitted in because of the 1975 NORAD agreement. True, but then why as the radar program slipped so far behind the ROCC's? Radar systems are an integral part of the air defence systems and work hand-in-hand with the ROCC's. It would seem logical to upgrade the long range radars immediately after construction of the ROCC's unless, of course, there is no intention to upgrade the existing radars, but to replace them after their useful life span with a new system.

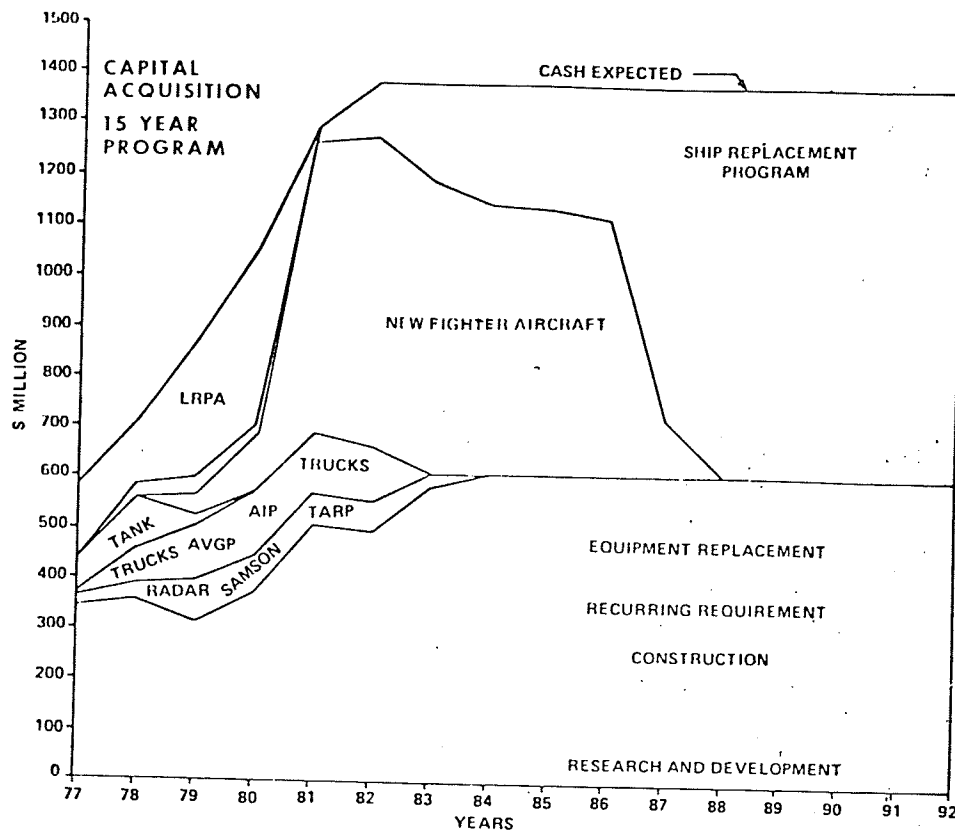
Considering Canada's commitment to develop the more



- AVGP — Armoured Vehicle, General-Purpose
 TARP — Terminal Aids Replacement Program
 SAMSON — Strategic, Automatic Message-Switching Operational Network
 ASSMS — Anti-Surface Ship Missile System
 AIP — Improvement of Artillery Weapons
 ADLIPS — Automatic Data-Link Plotting System
 ROCC — Regional Operational Control Centres

Source: Canada, Department of National Defence, Defence 1976 (Ottawa, Ontario: Information Canada, 1977), p.67.

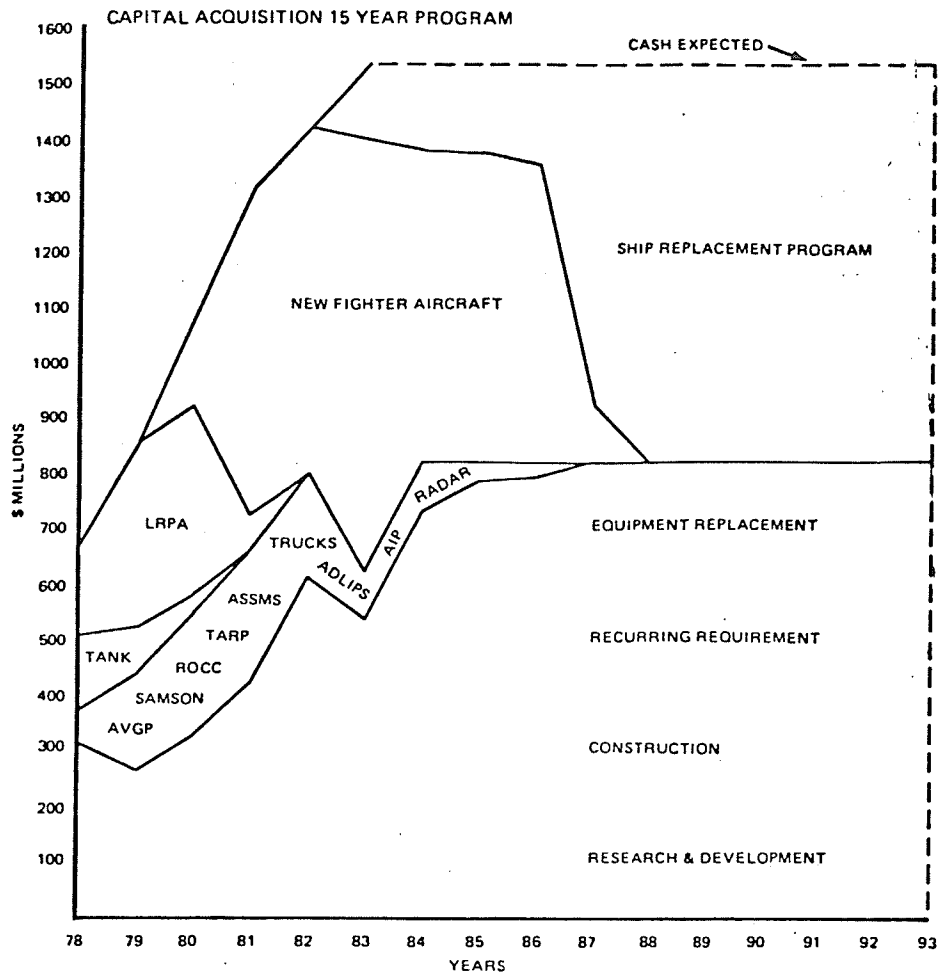
Figure 2



- AVGP — Armoured Vehicle, General-Purpose
 TARP — Terminal Aids Replacement Program
 SAMSON — Strategic, Automatic Message-Switching Operational Network
 ASSMS — Anti-Surface Ship Missile System
 AIP — Improvement of Artillery Weapons
 ADLIPS — Automatic Data-Link Plotting System
 ROCC — Regional Operational Control Centres

Source: Canada, Department of National Defence, Defence 1977 (Ottawa, Ontario: Information Canada, 1978), p.96.

Figure 3

**Legend:**

- AVGP — Armoured Vehicle, General-Purpose
- TARP — Terminal Aids Replacement Program
- SAMSON — Strategic, Automatic Message-Switching Operational Network
- ASSMS — Anti-Surface Ship Missile System
- AIP — Improvement of Artillery Weapons
- ADLIPS — Automatic Data-Link Plotting System
- ROCC — Regional Operational Control Centres

Source: Canada, Department of National Defence, Defence 1978 (Ottawa, Ontario. Information Canada, 1979), p.119.

Figure 4

efficient and flexible OTH and AWACS radar system, the increased financial burden in operating existing radar stations likely after the realignment of NORAD regions along national boundaries and an apparent low priority for upgrading the existing radar systems, it seems logical to conclude that many of the Pinetree radar stations will be phased out or drastically cut in activity and facilities. This action will have a definite impact upon the local communities supporting these bases or stations.

Communities have suffered the impact of cut backs in defence programs or base closures even with a stable defence budget due to efficiency measures and/or changing military technology.¹⁶ The impacts will probably be felt in housing, retail activities, schools, the provision of utilities and the levels of social and recreational activity existing in the community. If base or station closures are eminent, steps should be taken to forewarn and forearm the affected local communities to enable them to effectively plan their social and economic recovery.

It is not difficult to envision and accept that military installations do have an impact upon local communities. A military base or station may be compared to a large industrial firm except for some important differences. A military base is not profit motivated. Its level of activities are not as directly related to market concerns but more so to national and international political concerns. A

military base or station will import much of its labour. The employment of local civilians is usually a smaller proportion of the number of military servicemen. Industries normally would employ a higher ratio of local labour. Military bases are usually relatively self-sufficient with respect to services. They normally would provide their own water and sewage services and in some cases even generate their own electrical power. Industries are normally serviced by the local community. It is important not only to recognize the vast and/or subtle differences between industries and military installations, one must also be able to determine the effects these differences have upon the local community.

B. Methodology

A comparative case study analysis will be used to examine the effects of military bases upon local communities. The impacts of some existing bases will be examined to identify areas of possible stress. Other cases involving actual base closures will also be examined to determine the pattern of closures and the characteristics of recovery programs. This particular method has been selected not only because it is the most popular approach taken in the relatively few military base impact studies actually conducted, but also because there are some great difficulties in employing some of the qualitative methods.

Measuring the impacts of military installations and

their closures is not a simple task. A variety of methods have been employed in the past of which the most popular were:

- a. case studies;
- b. economic bases analysis;
- c. input - output analysis; and
- d. cost - benefit analysis.

1. Benefit - Cost Analysis

Benefit - cost analysis was developed in the 1940's in the United States. It's original design was to evaluate water resource projects. It consists of computing a ratio of benefits to costs, or vice versa, to determine if the benefits outweigh the estimated costs of a project.¹⁷ At first glance, the benefit - cost ratio would seem to be inviting in that its conclusions are very straight forward. Upon closer examination some inherent difficulties become apparent the first of which is selecting "benefits" and assigning them a weighting factor. There is a strong possibility of introducing a bias based upon the author's and researchers' own values. Neither can benefit - cost analysis resolve the problem of the desirability of vastly different solutions to a specific problem. One can not expect it to solve the dilemma of choosing between industrial or agricultural investments or indicating the necessity of stimulating a self-sustaining economy by means of very large

capital investments.¹⁸

"The greatest contribution which benefit - cost analysis can make is simply by promoting the economic quality of projects through more rational economic design, and through its aid in the ranking of projects of similar types."¹⁹

Since our purpose in this study is primarily to identify the patterns and ranges of impacts rather than evaluating specific proposed solutions, benefit - cost analysis is not an appropriate method of analysis.

2. Input - Output Analysis

Input - output analysis predicts the consequences of shifts in spending in various sectors of activity upon various production sectors. A table is produced which divides an economy into a grid in which the purchases for all production sectors are shown for each grid sector. For example, it determines what effect a shift in military spending may have upon transportation industries or construction activities. This technique is most often used at national levels to appraise the effects of various proposed economic measures. Wassily Leontief and Marvin Hoffenberg jointly carried out an input - output analysis of the U.S. national economy to determine the dependence of various industries upon military demand. A comprehensive study, their results were tabulated in eight tables showing:

- a. input in a dollar value of direct purchases from industrial sectors created by categories of de-

- mand such as military purchases;
- b. input in a dollar value and impact on direct and indirect purchases;
 - c. a dollar value of output required by each production category for a \$1 million increase in each demand category;
 - d. employment in man years required to meet the output required by \$100 million demand shifts;
 - e. tables specifically showing the increase or decrease in production caused by a shift from military demand to non-military demand categories; and
 - f. changes in employment created by shifts in military demand to non-military demands.²⁰

The data presented was gathered from 1958 statistics. It portrays and analysis the impact of military spending upon the national U.S. economy and has very little applicability to a study of Canadian military spending in a regional setting. What is required for our study is current data on 'imports' and 'exports' into the regions we wish to examine and compare these with other regions or the Canadian national economy. With respect to regional data:

"Generally, this set of data is not always available and the fact that such a fundamental lack of information has not restrained the pioneers of regional analysis from attempting to establish regional accounts is

rather alarming."²¹

Because local regions are 'open' economies, the information needed to generate input-output tables is often unobtainable. Rather than attempting to cope with the lack of readily available information for a number of regions in which base or station closures have occurred, input - output analysis was abandoned. It would seem to have more applicability to national analysis than regional or local impact analysis.

3. Economic Base Theory

Economic base theory because of its wide acceptance in regional and community analysis will be critiqued at some length. Without going into a detailed explanation of the theory, economic base analysis consists of dividing all economic activities into 'export' or 'base' activities and service activities. The idea is that 'exports' from the region are a source of income for that region. Service industries develop to provide services for the industries and their employees. Military installations are usually considered part of the economic base.

"The point of view taken . . . is that a Canadian Forces Base is an external source of income to a specific region, similar to the exporting industry, and its impact on the economic well-being of the area can be assessed in a similar manner."²²

Multiplier effects are developed for each base in-

dustry to measure regional direct, indirect and induced effects. Tiebout outlines three techniques used in measuring regional impact beyond the direct impact. These are:

- a. tracing contracts from prime contract to sub-contract and so on;
- b. tracing inter-industry relationships; and
- c. working from the bottom up.

Tracing prime contracts to sub-contracts through various levels can be quite involved. Furthermore, not all the impact is accounted for in just tracing contracts. The prime contractor, and even possibly the sub-contractor, will not produce or contract for all of what they use in production. They may purchase a variety of items and not directly sub-contract for them.

Inter-industry relations are basically input - output analysis for a region. We already discussed the problems of applying this method on a regional basis.

The bottom - up approach has two forms.

- a. surveys to determine where firms sell their products; and,
- b. surveys to determine
 - (1) the percentage of sales directly to another industry (like the military);
 - (2) the percentage of remaining sales that went to know prime and sub-contractors of that industry; and,

- (3) of sales not accounted for in (1) and (2) an estimate of what percentage ended up in products sold to that industry.

This last method is a short cut used to obtain reasonable results with reasonable research costs.²³ These basic procedures are also used to develop Input-Output tables.

Another method used is to determine a regional coefficient of specialization. A comparison of employment in a region is made with the national average. If the regional employment is greater, it is assumed to be a net exporter of an amount proportional to that above the national average. If regional employment is lower than the national average, the region is assumed to be a net importer with all production consumed locally. From these various methods of determining base - service ratio, predictions of economic growth and population growth are put forward. Koyohei Sasaki used these methods to develop an employment multiplier for defence spending in Hawaii. The impacts of payroll effects and purchasing effects were used to develop an overall employment multiplier of 1.28. This meant that for the period under study, 1949 to 1955, the employment of 100 people in the defence sector of Hawaii resulted in the creation of 28 jobs in non-defence sectors. Conversely the loss of 100 defence jobs resulted in a loss of 28 non-defence jobs.²⁴

John Lynch²⁵ developed employment multipliers for U.S. military bases, rather than the total defence sector, after studying the effects of a number of base closures. He found that training bases had a rather insignificant multiplier effect upon the local area but that operational bases had an employment multiplier of 3.59 for civilian employees and a multiplier of 1.66 for military personnel.

Although economic base ratios and employment multiplier effects are widely accepted in practice they do have some faults and weaknesses, but often the errors obtained are explained away as inadequate development of the base - service ratios or inaccuracies in determining the base activities. Seldom are errors prescribed to limitations of the basic method. Gillies and Grigsby²⁶ found, however, that errors in classifying base and/or service industries did not necessarily result in large errors but that the base - service ratio was not stable in a changing economy. The base - service ration for an area is the combination of many base - service relationships in an area which are the expression of economic linkages. Through time and in a changing economic condition, these linkages change as do the individual ratios and so does the overall ratio.

M.D. Thomas²⁷ supports this criticism in stating that the basis and non-basic (or service ratio) is a static concept. Setting aside all the other problems inherent in the ratio such as the classification of activities, it "... is

still only true at a point in time, and for a specifically delimited area in space. Unless there is a completely even distribution of homogenous economic activity in space through time, changes in economic activities, or in both will bring about changes in the basic non-basis ratio."²⁸ He also criticizes economic base theory ratios for concentrating upon products only and not considering import and export of services and capital within a region. These must also be considered to obtain an accurate picture of economic activity in an area.

The use of a labour coefficient as a coefficient of specialization is also criticized. Comparing regional employment with national averages implicitly assumes that regional productivity and consumption are the same as the national average. There may be wide variations from the national average due to the educational and technical skills of the region, the prosperity of the region, and even the degree of mechanization of the industry in that particular region, as compared to the national industry average. Coefficients of specialization are also calculated for a certain classification of an industry. Problems arise in comparing activities which actually produce different products but which are classified under one broad industrial label. It is not a true comparison.²⁹

R.W. Pfouts performed statistical tests of economic base theory. The change in base to service ratios from 1940

to 1950 were calculated for 28 U.S. cities, ten of which were classified as diversified cities and 18 as manufacturing cities. The change in the base - service ratio was compared to the change in population for the same period. The interpretation of correlation tests did not support the economic base theory. Economic base theory indicates that service employment increases would be accompanied by population decreases and vice versa. In the cities studied, this did not take place.

Neither did tests of significance support economic base theory. For diversified cities, population growth was not associated with either basic or service industries. In manufacturing cities, service industries were associated with population growth.

In examining confidence intervals for correlation coefficients, there was further evidence that economic base theory was incorrect. Pfouts does, however, point out that statistical testing is not conclusive, but he suggests that the evidence raises doubts as to the validity of the theory but does not conclusively disprove it. He supports further investigation to develop alternatives to the economic base theory.³⁰

The studies we will review vary in many aspects. Some will be Canadian situations of military base impacts and some will be American situations. The size and activities of the bases with respect to each other vary also, as do the

size and diversity of the local communities. The timing of the studies also vary. Considering these factors and the criticisms leveled against economic base theory noted above, the development of an overall employment multiplier in this study would probably be inaccurate and have limited application in the future.

4. Case Studies

Probably the most popular approach to the analysis of the impact of military installations has been using case studies. This approach has its merits but is not without weaknesses either.

"This approach is valuable in that it affords the researcher an opportunity to identify the particular kinds of stress placed on communities by base openings and closings. In so doing, case studies are affected by government installations. Unfortunately beyond indicating areas of stress, the individual case study or site - specific approach provides little foundation for empirical comparison between individual communities and does not provide in and of themselves a methodological approach to abstract quantitative measurements of installation impact."³¹

The case study approach does at least recognize that each military installation and its surrounding area is unique. Gian and Woodend in performing a study of existing military bases were to title their report "The Economic and Social Impact of a Typical CF Base" but soon decided that 'typical' "was not meaningful because of wide differences among base/environment combinations".³² This coincides with

the approach taken by the United States DOD Office of Economic Adjustment with its "... philosophy that each community is different, with its own strengths and weaknesses, its hopes and aspirations".³³

It would seem that the case study should also employ both quantitative analysis as well as qualitative analysis for often "...the social impact of a base on a community is more appropriately defined as the perception of the community members of the impact rather than as the measurable impact itself".³⁴ In taking this approach, a great deal of flexibility is achieved and one may concentrate upon the concerns and fears of the community involved.

The case study seems to fit our purposes of identifying the range and pattern of impacts more so than the other methods reviewed. Recognizing that it does lack a method for empirical comparison, an attempt will be made to perform a comparative case study analysis. The reports of findings of a number of case studies of existing Canadian military bases will be reviewed (Chapter II). This in turn will be followed by a review of the findings of base closure studies (Chapter III). Unfortunately not many Canadian Military base closures have been documented and so most of the examples will be from American studies. The closure of Canadian Forces Base Gimli will be addressed in Chapter IV. An analysis of the cases will then be provided to determine the pattern of base closure impacts in Chapter V. Recommended

recovery actions will be discussed and suggested policy changes will be presented. Chapter VI will provide a summary of the study.

Chapter II

EXISTING MILITARY BASES

A study of the impact of existing military bases will help us to identify the relationship between a military base and nearby communities. Understanding the effects that a base has upon such aspects as housing, employment, general services, education and recreational facilities will enable us to ascertain possible areas of stress should the base close. By understanding the existing relationship between the base and community, we may gain insights into the impacts of base closures.

A. Impact Studies of Canadian Forces' Bases in Canada

"In recent years, there has been an increasing interest, when judging the value of the Canadian Forces, to consider not only their military contribution to the defence, security, and sovereignty of the nation, but also the effect on the economy of Canada and the Canadian Society as a whole."¹ To this end the Department of National Defence (DND), Operational Research and Analysis Establishment (OREA), has conducted a number of studies of the social and economic impact of existing Canadian military bases upon their host communities. The studies started with an analysis of the impact of CFB Cornwallis, a training base in Nova Scotia, upon the surrounding areas of Annapolis and Digby Counties. From this first study, a methodology was developed that

would be used in the study of other bases. Once the first study was completed, a sample of four other bases were selected based upon a sampling procedure developed from three assumptions of the type and degree of interaction between a base and its surrounding environment. Interaction was assumed to depend upon:

- "a. the characteristics of the base;
- b. the characteristics of the environment; and,
- c. the physical relationship between the base and environment."²

Based upon the characteristics of assumptions 'b' and 'c', an isolation index was developed for each existing military base or station in Canada. Furthermore, a Base Interaction Potential Index was then developed from assumption 'a'. A plot of each base with respect to these indices was then carried out. A linear regression 'best fit' line was plotted and then bisected to divide the graph into four quadrants. A base in each quadrant was then selected plus one close to the intercept of the two lines. When selecting the base in each quadrant, factors such as geographic region, type of command, anglo/francophone nature and known idiosyncrasies were considered. The four bases selected were: CFB Halifax of Maritime Command in the Atlantic region; CFB St. Jean of Training Command in Quebec and a francophone base; CFB Shilo of Mobile Command in the Prairie region; and, CFB Comox of Air Command in the Pacific area.³

The findings of these studies were discussed and summarized under the headings of: General Services, Education, Commerce and Employment, Health, Law Enforcement, Religion, and Recreation. The impacts of the base and its interaction with its host community were thus analysed. These studies and their results are a cross-sectional view of the impacts of military bases upon their locales.

To provide a time-series analysis of the impact of military bases, a further summary investigation was conducted by DND's ORAE. It summarized findings on six bases. Three, Canadian Forces Station (CFS) Clinton, CFB Hagersville and Army Headquarters Central Command (CENCOM) were closed and will be discussed in the subsequent chapter. The findings of the studies of the existing bases: CFB's Kingston, London and Trenton, are discussed below.

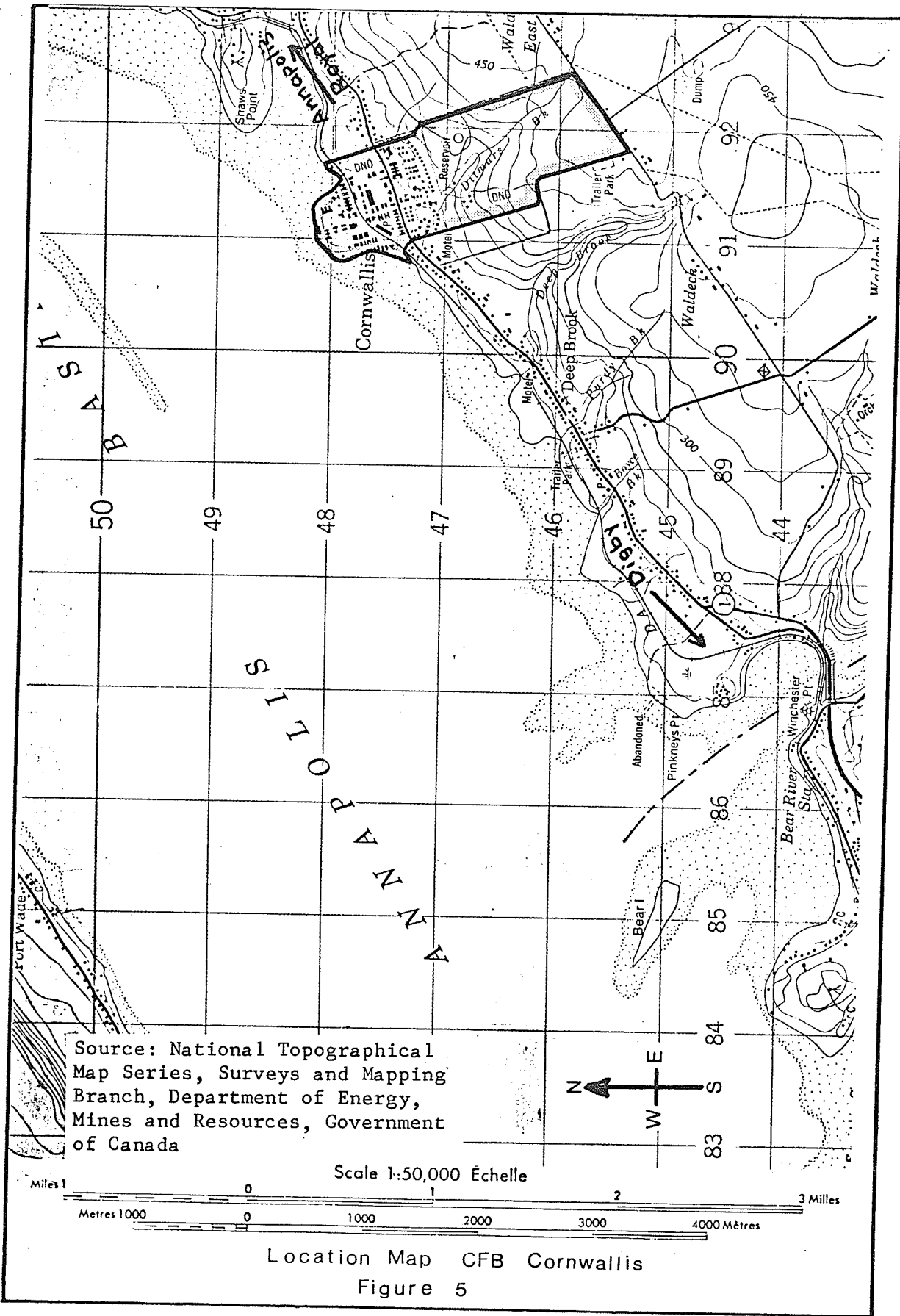
B. Canadian Forces Base Cornwallis⁴

CFB Cornwallis is a recruit training depot located in western Nova Scotia on the shores of the Annapolis Basin. The towns of Digby and Annapolis Royal are located within a ten mile radius of the base. During the time period of the study, Digby County had a population of approximately 20,000. Approximately three-quarters of the county's labour force was employed in fishing, fish processing, forestry and agriculture with the first three activities far more important than the fourth. Annapolis County supported a population of

approximately 21,850. Economic activities included fruit farming, mixed farming, dairy farming, fishing, and forestry. Statistics from 1961 showed that approximately 30 percent of the labour force was employed in the administrative and defence sector as compared to 7.5 percent as a national average. CFB Cornwallis is actually located within Annapolis County but only a few miles from the Annapolis - Digby County boundary.

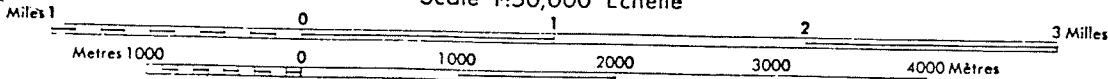
In fiscal year 1971-72, CFB Cornwallis employed a staff of 424 military personnel and 345 full-time civilian employees. An additional 42 employees were employed by the Base Exchange retail stores commonly referred to as Canex. Compared to a total of 811 full-time employees, there were 262 part-time civilian workers employed by the base and another 27 part-time civilians employed by Canex. There were 418 military trainees at the Base all year round and an additional 159 reserve personnel, 60 sea cadet officers and 625 sea cadets in July and August. The total gross wages paid to these employees during the year was \$8,151,572. A total of \$5,197,630 was paid to all types of military employees and \$2,953,942 to all civilian employees.

A questionnaire survey was used to determine the impact of expenditures made by full-time employees and trainees. Reserves, cadets, and part-time civilian employees were not included. The results of the survey indicated that, within a ten mile radius of the base, and compared to total expenditures in the same area, base employees generated 23.4



Source: National Topographical Map Series, Surveys and Mapping Branch, Department of Energy, Mines and Resources, Government of Canada

Scale 1:50,000 Échelle



Location Map CFB Cornwallis
Figure 5

percent of food expenditures, 14.9 percent of clothing expenditures, 13.2 percent and 13.3 percent respectively of hardware and automotive expenditures, and 4.2 percent of the remaining other expenditures. The overall average total comparison concluded that 12.7 percent of all expenditures were generated by base employees.

It is interesting to note the impact of these direct expenditures upon the total retail trade in both the ten mile radius from the base and in the Annapolis-Digby County region. Expenditures on food by base employees accounted by 30.7 percent of trade in the ten mile radius and only 12.2 percent in the county regions. The variability for the other activities was not quite so marked. Expenditures in the ten mile radius compared to the county region were 17.0 percent compared to 12.5 percent for clothing, 15.9 percent compared to 9.2 percent for hardware, 16.3 to 4.9 percent for automotive expenditures, and 4.9 to 1.4 for other trade. The total trade generated by base personnel in the ten mile radius of the base was 15.9 percent as compared to 5.7 percent for the region. Expenditures by base employees upon automotive and other retail trade is highly concentrated within a ten mile radius of the base as are food purchases. This may be a result of the geographic location of the towns of Digby and Annapolis Royal. One would suspect that automotive retail activity for the counties would be concentrated in these two towns and that the towns would offer a more diversified

range of retail activity than the more sparsely populated counties. Food retail activities would also tend to concentrate in the higher density towns.

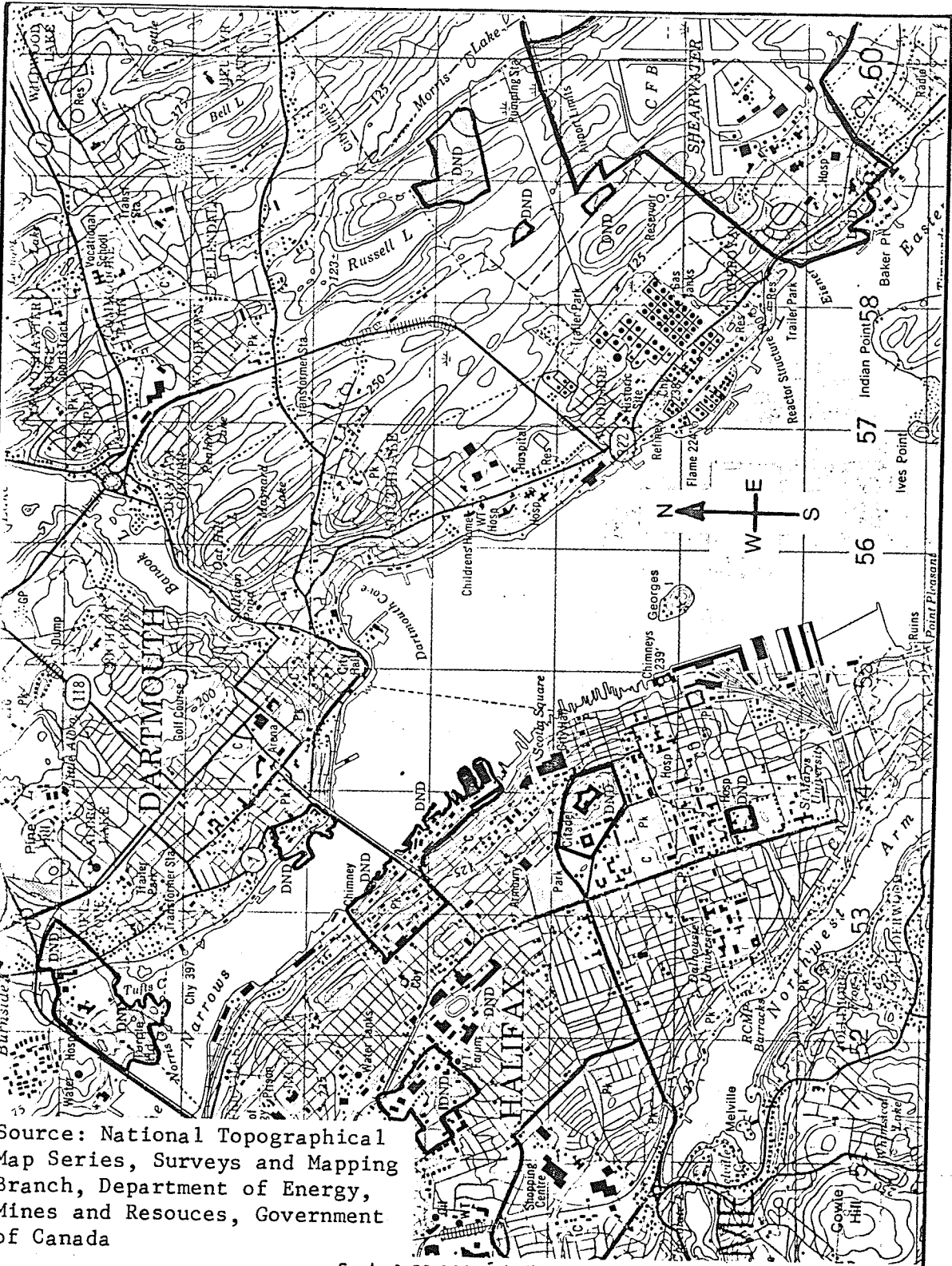
A comparison of local wages in the area was provided. The average wage of base civilian employees (an average of full-time and part-time wages) was \$4,412. The average wage of the primary and manufacturing forestry industry were \$4,385 and \$3,455 employees respectively. The average wage of full-time and part-time fishermen was \$1,526 and fish processors earned \$3,228. The average income of all farms, not just commercial producers, was \$1,837. Total wages paid by defence were \$8,151,572 compared to \$3,955,305 for forestry, \$2,863,922 for fishing, and \$2,136,431 for agriculture. These figures indicate that the base is not only a major source of income for the region but also provides higher wages for employees. The higher wages may be due to higher technical skills required by base employees although this was not verified by the study.

C. CFB Halifax⁵

There are two major military installations in the Halifax area: CFB Halifax, a naval shipyard; and, CFB Shearwater, an airfield with helicopter and 'tracker' aircraft squadrons. CFB Halifax is by far the larger of the two installations and is physically spread out over both Halifax and Dartmouth. The main base including the Head-

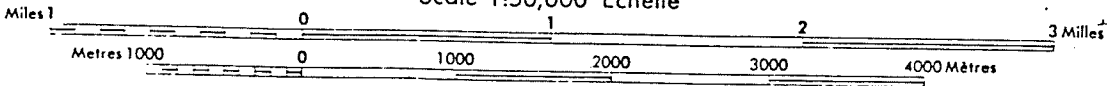
quarters, training schools and support and recreational facilities is located in central Halifax near the MacDonald Bridge. It is referred to as Stadacona, whereas the Dockyard refers to the waterfront facilities which include the Headquarters of Maritime Command and the Ship Repair Unit. The Ship Repair Unit is the largest industrial complex located east of Montreal. There are also offices, storage facilities, and workshops located in areas known as Willow Park, Windsor Park and the South Street Headquarters Buildings. There are more facilities located at the Dockyard Annex on the Portsmouth side of the MacDonald Bridge. Similarly, spread throughout the metropolitan area are 528 housing units known as Married Quarters (MQ's) owned by DND. Another 1,045 privately owned units are bulk leased for military occupancy and 50 Central Mortgage and Housing Corporation units are also utilized by the military. Shannon Park School was built by DND and leased to Dartmouth. The students are mostly dependents of military personnel. Because of a high percentage of French-Canadian military personnel whose children attend the Shannon Park School, the school offers a francophone program.

The case study of CFB Halifax and the surrounding area was conducted in the early 1970's. The population of the City of Halifax at that time was 122,035 not including the populations of Bedford and Sackville. The population of the City of Dartmouth was 64,770. The Cities of Halifax



Source: National Topographical Map Series, Surveys and Mapping Branch, Department of Energy, Mines and Resources, Government of Canada

Scale 1:50,000 Échelle



Location Map CFB's Halifax & Shearwater
Figure 6

and Dartmouth and Halifax County were a metropolitan area. The Metropolitan Area Planning Committee administered harbour development, transportation, and land use in all three areas but the cities maintained their own separate school boards, fire departments, police, and recreational areas. Halifax County included Halifax, Dartmouth, Sackville, Bedford, and the 'Eastern Passage'. The Eastern Passage is a semi-rural area which developed along the highway from the main gate of CFB Shearwater to Cow Bay.

The Halifax study differed from that of CFB Cornwallis in that it was more qualitative in nature. There was no attempt made to ascertain the effects of employee expenditures or to evaluate the impact of defence employment as compared to other industrial activities. Instead general comments and observations were made upon the relationships between the base and its employees and the community.

With respect to general services, it was noted that in the City of Halifax, fire protection services were provided to the base and in turn the military facilities available at the Dockyard served the harbour area. Mutual reciprocal aid agreements were used between CFB Shearwater and Dartmouth and Halifax County. The bases provided some aid to charitable organizations. This consisted mainly of the loan of materials such as chairs, tables, tents and occasionally transportation.

The impact of the base upon educational activities

was difficult to determine. The occupants of the bulk lease housing units and renters of privately owned units supported education through a proportion of their rents which went for school taxes. For occupants of MQ's, DND paid non-resident school fees for students attending local schools and the federal government also provided grants-in-lieu of taxes. The school fees were considered to be insignificant by the local school boards. There was no evidence that military dependents provided any appreciable number of teachers or other employees for schools. The leasing of Shannon Park School was only necessitated by the presence of military personnel's dependents in that area.

The presence of the bases had some impact upon health services in the area. Military doctors worked part-time in the community but the impact was not very great. The military radiologists from the base practicing on the South Shore where there were no radiologists provided a much needed service which would not be available otherwise. CFB Shearwater also provided an air evacuation service which would not be available without the base's presence.

The impact of the military installations upon employment and commerce were stated as being significant although no attempts were made to measure direct or indirect effects. CFB Shearwater employed 1,700 military personnel and 554 civilians. The Ship Repair Unit also operated an apprentice program in cooperation with the Nova Scotia Technical Insti-

tution. There were 80 trainees in the program in 1974. Aside from the direct employment of labour, the bases' activities were credited with developing new service industries in the area. The formation of Kelley's Construction and Swansberg's were attributed to contracts tendered by the bases.

There was little appreciable impact upon law enforcement. Although the reputation of military personnel as a whole developed during the war years still lingers in the minds of residents, the serviceman as an individual was held in high regard. His discipline and training were cited as reasons why servicemen were considered to be at least as law abiding as civilian residents if not more so. There were reported incidents of servicemen coming to the aid of policemen in difficulties. There was a high degree of cooperation between military and civilian police forces.

The effect of the military population upon recreational facilities and programs was not measurable. In terms of leadership and support activities, the serviceman seemed to be handling his fair share or more. The smaller the community, the more measurable or obvious was the impact of military personnel in leadership or supporting roles.

CFB's Halifax and Shearwater had a significant effect upon employment in metropolitan Halifax. They also had an impact upon the availability of specialized medical services such as radiologists and emergency air evacuations. Many impacts were not measurable due to the dispersion of the

military population throughout the local area.

D. CFB St. Jean⁶

CFB St. Jean is a recruit training and language training base of Training Command. Unlike CFB Halifax, CFB St. Jean is concentrated in one area. It is located within the city of St. Jean which is about 35 kilometers south-east of Montreal.

There are no DND owned or leased MQ's provided to house staff or trainees. Trainees are provided rooms on the base for the duration of their training. The permanent military staff must find their own accommodation in the surrounding communities. There are 36 MQ units available for the military staff of College Militaire Royal also located in the City of St. Jean. These provide accomodation for about half of the permanent military staff of the college. Of 414 military personnel from CFB St. Jean living in the surrounding communities, 73.7 percent reside in the City of St. Jean, 8.7 percent in the Town of St. Luc and 4.8 percent in the City of Iberville. The remaining 12.8 percent reside in 26 different communities other than the three mentioned.

The City of St. Jean is located approximately 35 kilometers from Montreal. It is sited along the west bank of the Richelieu River. In March 1974, when the CFB St. Jean study was conducted, the population of the City of St. Jean was given as 33,000. The french speaking portion of the pop-

ulation was 85 percent of the total with nine percent speaking english as their primary language. The economy of St. Jean is dependent upon light manufacturing such as sports equipment and industrial appliicance production to mention just two.

The City of Iberville is located on the east bank of the Richelieu River opposite the City of St. Jean. With a population of 9,000 it was 95 percent francophone and four percent anglophone with only one percent made up of other language groups. The economy of Iberville is dependent upon the same types of light manufacturing industry as St. Jean.

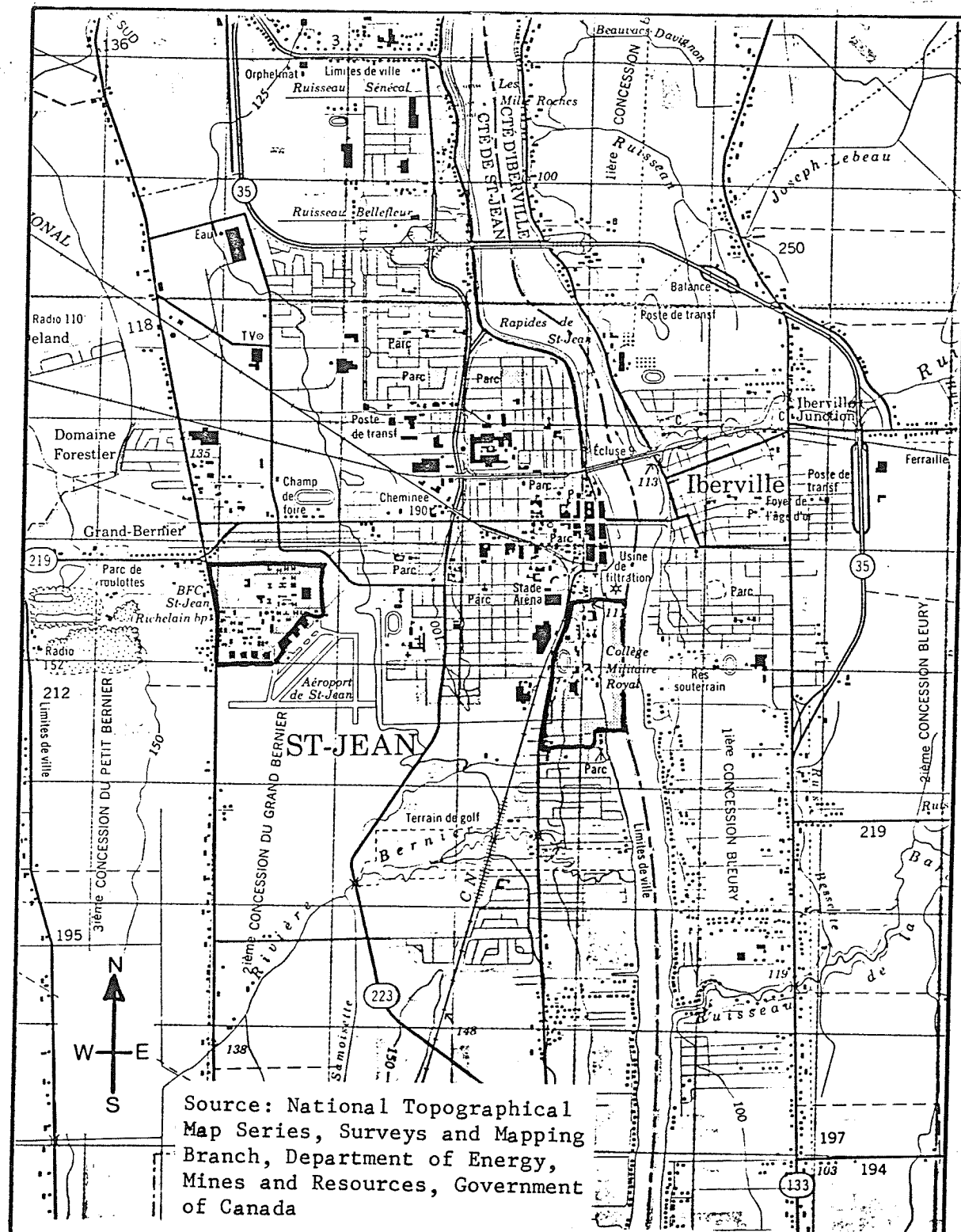
Located about five kilometers from St. Jean is the Town of St. Luc with a population of about 4,800. Like Iberville, the population was mainly francophone. The french speaking segment makes up 95 percent of the population. St. Luc is a bedroom community of St. Jean and Iberville. Its economy is linked to that of those two cities.

CFB St. Jean consists of a recruit and language training school for military personnel but it does not provide any schools for military dependents. In 1974, 514 military dependent students attended 42 different schools mainly in the local area but some as far as Montreal. The base provided its own hospital and its own chapels for military personnel. There was a dry goods Canex shopping facility available on the base which catered mainly to the needs of trainees. Recreational facilities available on the base included an

arena, a gymnasium, swimming pool, a small library, and a movie theatre. Occasionally some of these facilities were used by members of the local community. All utilities and services were provided by the City of St. Jean except for fire protection services which are available on the base.

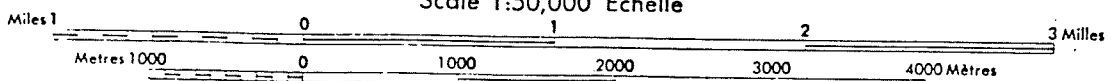
College Militaire Royal, which is located only a short distance from St. Jean along the west bank of the Richelieu River, is a college for Officier Cadets undergoing a five year undergraduate program. Affiliated with the University of Sherbrooke, five year courses leading to a Bachelor of Administration or Bachelor of Arts were offered as well as three year courses in engineering, sciences, or humanities preparing students for admission into the Royal Military College in Kingston, Ontario. Like CFB St. Jean, the College did not provide any schools for dependent children. All utilities and services are provided by the city. Both a Roman Catholic and Protestant Chapels were available at the College. Recreational facilities included an arena, gymnasium, swimming pool, and sportsfields. There were no Canex shopping facilities available. Medical facilities were provided by the base.

In March, 1974, there were 72 military personnel and 234 civilians on staff at College Militaire Royal as well as 428 Officer Cadets undergoing instruction. CFB St. Jean employed 437 military personnel, 463 civilian employees as well as 125 civilian instructors.



Source: National Topographical Map Series, Surveys and Mapping Branch, Department of Energy, Mines and Resources, Government of Canada

Scale 1:50,000 Échelle



Location Map CFB St. Jean
Figure 7



It was difficult to separate the impact of the base from the college upon the local communities and no attempt was made to do so. Both military installations operate as training installations and basically have similar facilities and require similar support services from the local communities. The impact of the base and college upon the provision of general services by the City of St. Jean was considered minimal. The military installations were well integrated into the community in this respect.

The impact of the military installations and the military population had no appreciable impact educational institutions in the area. The students were easily absorbed into the existing systems and military support for educational systems were through rents or taxes and non-resident school fees. The location of College Militaire Royal had some rather different effects upon education in the area and the Province of Quebec. Texts published by the college professors were the first of their kind published in French and are used by the Quebec school boards. Previous to this, texts in physics, chemistry, mathematics, and economics applicable to Canadian studies were not available. The professors were also able to provide consultant services which would not otherwise be available in the local area. The presence of the language training school at the base gave credibility to the federal government's policy on bilingualism.

The base's medical facilities were self-sufficient

and the services of military specialists were occasionally used by local communities. The impact of military doctors working in the communities was minimal since medical services were well provided in the area.

There was close cooperation between military and civilian law enforcement agencies. Problems arising from the large number of recruits or trainees in the vicinity had not occurred.

Religious facilities were provided at the base and college for trainees. Most staff members utilized community facilities available near their residences. There was no appreciable impact upon such facilities.

Many of the recreational facilities of the base were utilized by the civilian community. Some of these were rented for use by civilian groups whereas other community residents utilized facilities by joining military clubs and teams. Removing these privileges would have had a marked impact upon some recreational activities.

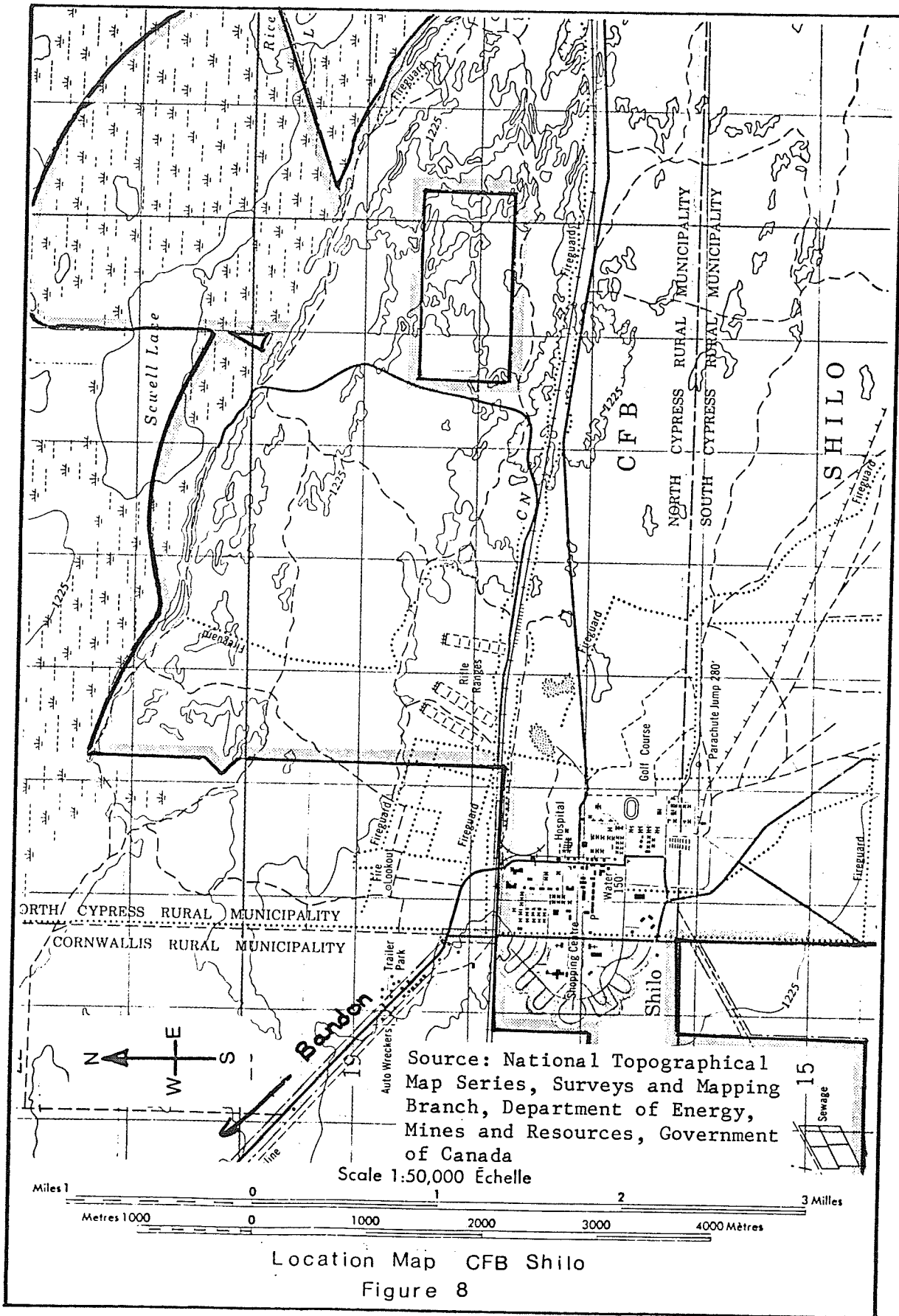
The military installations had their greatest impact upon the economy of the local area. They were one of the largest employers in the community. A survey of civilian employees indicated that 61.1 percent resided in St. Jean, 14.9 percent in Iberville, 4.7 percent in St. Luc, 3.8 percent in Montreal and 15.5 percent in other localities. A survey of civilian and military employees indicated that 96 percent of dry goods and services were purchased in the local

communities and 100 percent of their groceries. It was estimated that \$51 million was injected into the local communities by the military installations. This had its drawbacks as well as its benefits. One of the main drawbacks was that as a direct result of this impact, St. Jean Region had not been eligible for an Industrial Region Grant to stimulate industry. The high costs of housing were also blamed upon the military installations with the suggestion that military personnel more readily accept housing price increases and were a supporting factor.

E. CFB Shilo

CFB Shilo is a training base located in south west Manitoba about 20 kilometers south of Brandon. The base is the home unit for the Royal Regiment of Canadian Artillery. It functions as a training ground for artillery and all arms training. Officer Cadets receive combat arms training during the summer months and in recent years, CFB Shilo has been utilized by West German armoured tank corps units for tactical training.

The base is self-reliant in many aspects. It has a large number of MQ housing units available for its military personnel. During the conduct of the April/May, 1974 study of CFB Shilo, of the 744 MQ's available, 600 were occupied. It was estimated that approximately 105 military families lived off the base in surrounding communities, mostly in the



Location Map CFB Shilo
Figure 8

City of Brandon. There were three DND Schools located on the base: Princess Elizabeth High School, O'Kelly School, and Greenwood School. There was a total of approximately 60 classrooms available. The base hospital provided full medical services for military personnel. Dependents were provided with a Civilian Doctors' Clinic located in the hospital. The Base Exchange, Canex, provided a groceteria, general dry goods store, a coffee shop, newstand, barber shop, and gas station on the base for use by military personnel, their dependents, and eligible government employees. The base provided all its own utilities and services except for electrical power which was provided by Manitoba Hydro. There was a Protestant and a Roman Catholic Chapel located on the base. Recreational facilities provided on the base included a library, movie theatre, bowling alley, swimming pool, sauna, gymnasium, ice rink, and sports fields. A country club provided for other than public funds was available with a dining room and bar lounge. It provided golf, curling, and tennis facilities. Many of the recreational facilities available on the base were loaned to community groups on occasion. Bus services to Brandon were available on the base.

The City of Brandon is located within easy commuting distance of the base. It had a population of approximately 31,000 at the time of the case study and was expanding. It is located approximately 200 kilometers west of Winnipeg and

and is the second largest city in the province in terms of population. Its economy is dependent upon agriculture and developing industries.

Because the base was self-reliant with respect to general services, it had little impact upon the City of Brandon except for fire fighting services. There was a mutual aid agreement between the city and the base which the city relied upon. The city fire fighting services would have had to been increased if it were not for the availability of base services. The city also took advantage of other available expertise at the base. Aid was requested of the base in the planning and construction of a bridge for the community.

The base provided its own educational facilities and provided these services to some students located in the tiny communities immediately adjacent to the base. There were 34 students from these communities attending base schools. They made up about 3.3 percent of those enrolled. The base also provided assistance to the University of Brandon in conducting archeological research in 1973.

The base had little impact upon local medical services. The base military doctors provided part-time services to the adjacent communities of Sprucewood, Cottonwood and Douglas. Emergency services were provided by the base when required. Hygiene technicians from the base were used to perform inspections of the local meat market in Sprucewood.

The impact of the base upon Brandon's medical facilities may have been negligible but the relationship and cooperation between the city and base hospitals was valued by both facilities. They acted as back ups to each other.

The base and its population had had no appreciable impact upon local law enforcement activities. The local police on the other hand had become dependent upon the base in a psychological sense in that they relied upon its existence and resources should an emergency have occurred. The base had had no measurable impact upon community religious facilities.

The greatest impact of the base was upon employment and commercial activities in the local area. The base employed 738 military and 588 civilian employees in April, 1974. CFB Shilo was the largest single employer in the region. Of the civilian employees, 453 were on permanent staff and 135 were employed for specific terms of various time length. It was interesting to note, however, that in this case, tradesmen for the base were difficult to find in the local area due to a lack of skilled labour and the relatively lower wage rates paid by the base as compared to local industries.

Although the base provided some shopping facilities, base employees did most of their weekly shopping in Brandon. This had had an appreciable impact upon retail activity in the local area although it had not been measured in quantita-

tive terms. The training program of the West German Army at CFB Shilo also had an impact upon retail activity in the area. There were approximately 216 permanent or semi-permanent German military staff members at the base who conducted three week training sessions for up to 700 trainees.

F. CFB Comox⁸

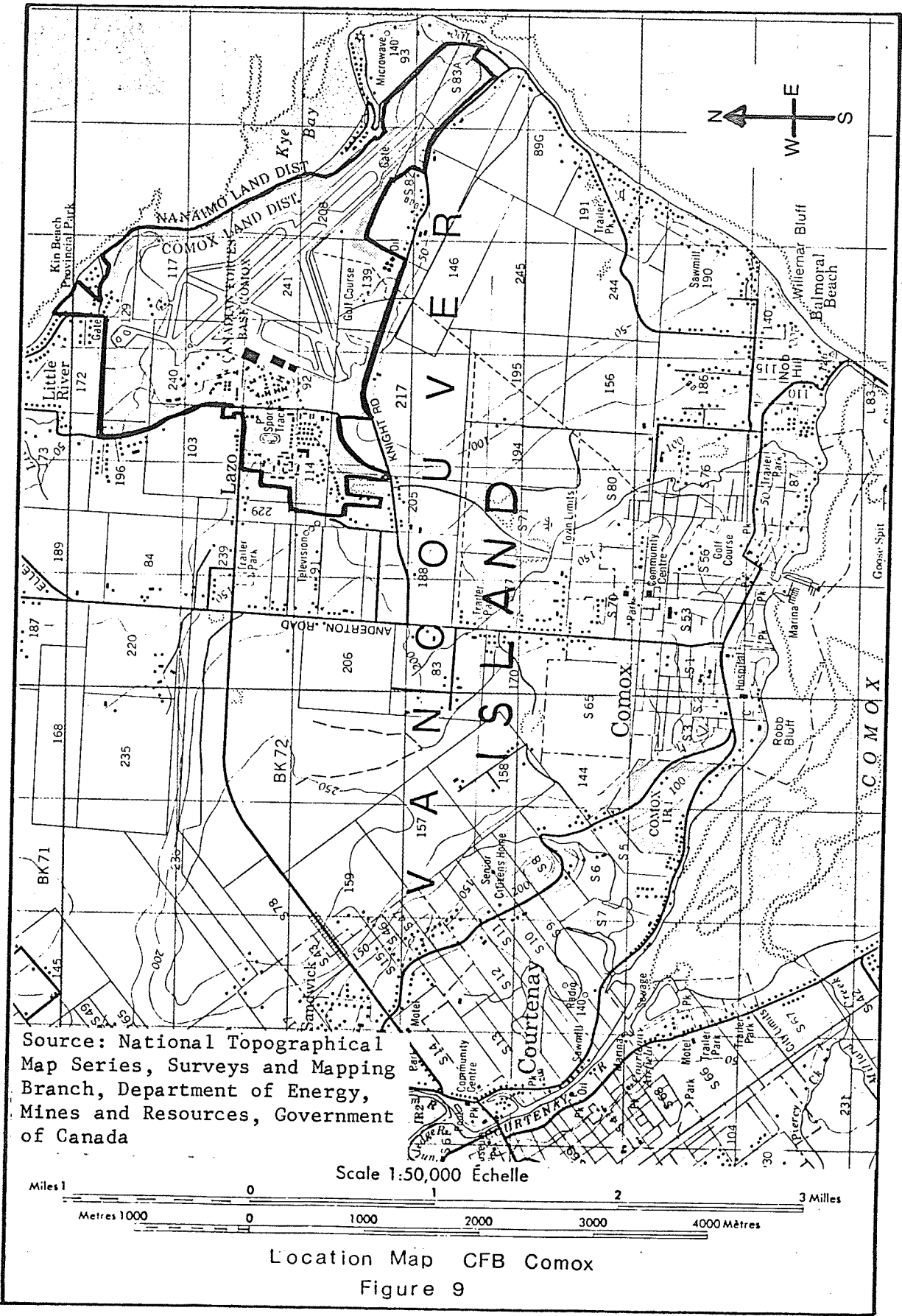
CFB Comox is situated on the west central area of Vancouver Island, British Columbia approximately 240 kilometers north of Victoria. It is an operational base of Air Command and accommodates aircraft in search and rescue, maritime patrol and air defence roles. The closest towns are those of Comox located six kilometers from the base and Courtenay located about eleven kilometers away. In 1974, at the time of the CFB Comox study, Comox had a population of 3,980 and Courtenay a population of 7,152. The economy of this area was dependent upon farming, logging, lumber mills, fishing, mining, and tourism. Farms were gradually developing into large modern equipped operations and mining was declining. Logging operations had moved further away from the towns and the lumber mills had curtailed operations. Tourism still had a large potential.

CFB Comox provided 303 MQ's for military families at the base and an additional 100 units leased in the Town of Comox. Approximately 60 percent of military families lived in the local area, mostly in Comox and Courtenay. The

base was self-reliant with respect to general services except that it purchased electrical power. There was an elementary school at the base providing schooling for military dependents from Grades 1 to 7 inclusive. A Protestant and Roman Catholic Chapel were available at the base which also had numerous recreational facilities including a gymnasium, arena, swimming pool, movie theatre, a library, curling rink, and golf course with the two latter supported by other than public funds. Canex provided a dry goods store and snack bar. There was a barber available as well as bank and credit union facilities. The base hospital provided medical care for military personnel. Dependents use facilities in Comox or Courtenay.

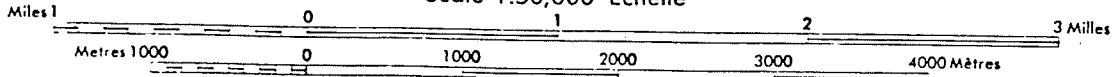
With the base self-reliant with regards to utilities, it had little impact upon the local communities except for reciprocal fire fighting agreements which seemed to be a common practice. The base provided other services which would not have been available without the military installation. These included emergency air evacuation, search and rescue operations, weather forecasting, and air traffic control for the airfield.

The base had little impact upon the provision of transportation services in the local area. Most military servicemen owned and utilized their own automobiles. The local communities benefited from the operation of the military airfield which permitted operation of commercial air



Source: National Topographical Map Series, Surveys and Mapping Branch, Department of Energy, Mines and Resources, Government of Canada

Scale 1:50,000 Échelle



Location Map CFB Comox
Figure 9

liners. The regularly scheduled mainland/island air services were developed primarily to service military requirements but benefit the local population and commercial enterprises as well.

With regards to law enforcement, no increase in police forces had been attributed to the presence of the base. An area judge went so far as to attribute the area with a lower rate of offences due to the discipline of military personnel.

The existence of the base had no appreciable effect upon religious facilities in the area except that more manpower was available for conducting activities such as Sunday schools and men's or women's groups.

The base with its military population had had an impact upon local medical facilities. The increased population had resulted in a larger number of doctors practicing in the area as well as an increase in specialized facilities such as a mental health care unit. More funding was available for additional beds in local hospitals, more equipment, and more specialists than if the military dependent population was not present. Servicemen's wives also provided a large source of qualified nurses for local employment. As mentioned previously, the base provided an air evacuation service.

Local and base recreational facilities were almost duplicated except that the base had an arena and swimming

pool. These facilities were made available for community use and in a sense caused some friction between military personnel and civilian patrons. The military perceived an attitude amongst civilian patrons that the use of military facilities was not a priveledge but a right. The military population served as a source of leadership in local clubs, youth activities, and sports. Recreational activities were probably the area of most interaction and contact between military personnel and the local populace. The existence of the military population and the base's facilities resulted in increased recreational activity and the introduction of new activities.

CFB Comox had its greatest impact upon education and employment in the area. Of 7,400 students enrolled locally, 2,400 were military dependents. The local school board received \$41 per month per student in non-resident school fees for each of the 700 students residing in MQ's. This amounted to approximatley \$287,000 per year with undeterminable additional revenue from the parents of the other 1,700 dependent students being raised through school taxes. The presence of the military dependents had resulted in obtaining a full-time school supervisor and an additional specialist teacher. Additional and new courses were made possible by the enlarged student population. DND grants-in-lieu of taxes have also made it possible to reduce the local mill rate slightly.

Servicemen's wives were also an important source of labour for the local schools. A large number of teachers were servicemen's wives. Exact figures were not available but in an obviously abnormal example, servicemen's wives made up 1/3 of teachers in one school. It was estimated that up to 75 percent of the secretaries hired by the local school district were servicemen's wives.

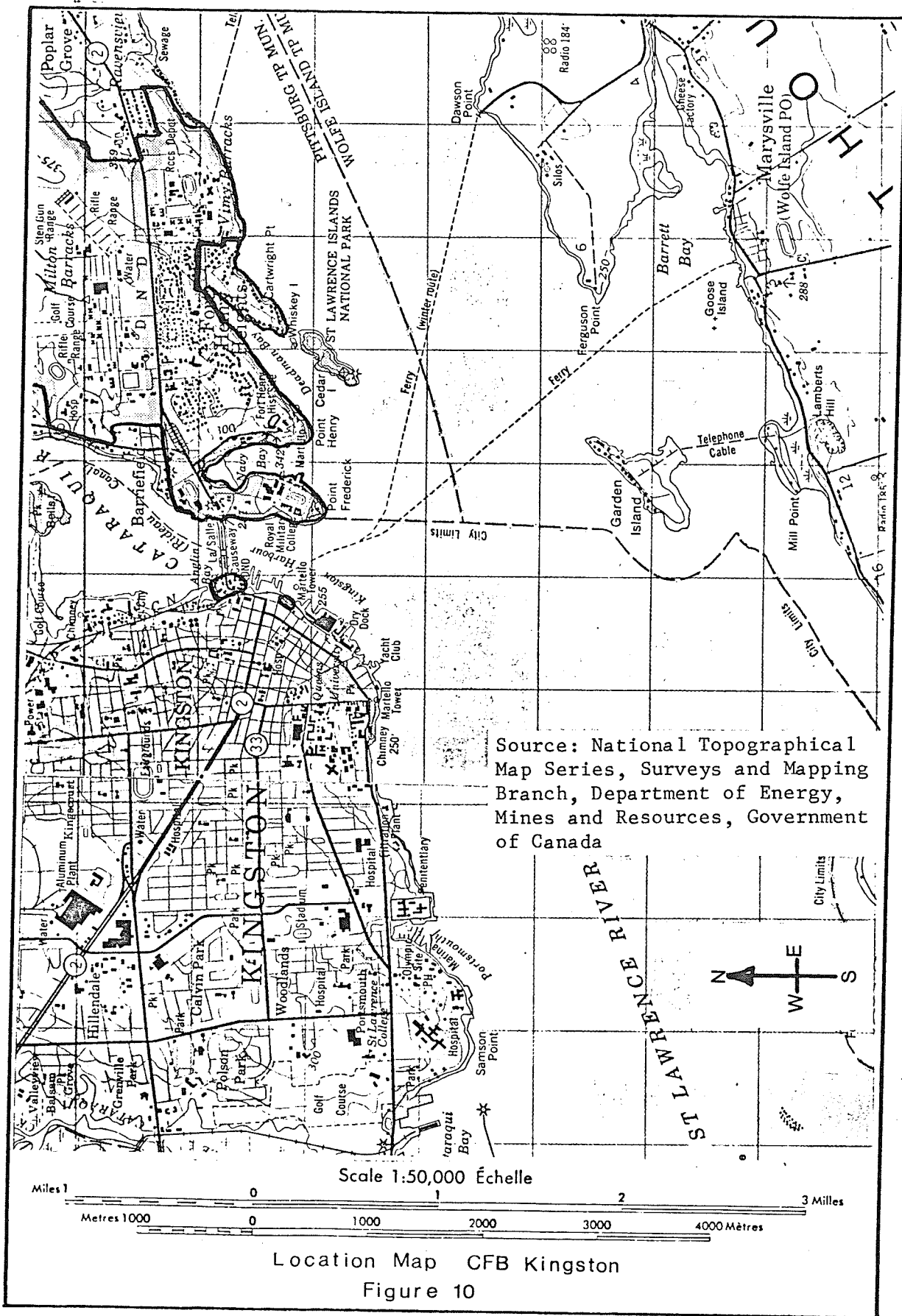
The study of CFB Comox was the only one which did not provide military manpower figures. The number of civilian employees including permanent and term employees was stated as ranging from 200 to 225. There were a number of adverse effects noted besides the benefit of direct employment for local labour. It was contended that a large number of military personnel retired in the area and sought jobs to supplement their pensions. Highly skilled, but willing to work for less because of their pensions, they were blamed for low local wage rates. A large number of servicemen's wives were also employed in the local area and were cited as being unfair competition. Newly trained or inexperienced locals could not compete with the experience of military dependents who were hired because employers wanted to get the best value for wages offered. In some cases, local retailers hired who they sold to and had a preference for military dependents as employees.

With regards to local development, the Comox Strathcona area has been in an industrial decline but was not

eligible for provincial assistance to attract industry because the basis of assistance was the average wage rate. Military wages were used in the calculations and resulted in area disqualification.

G. CFB Kingston⁹

The military presence in Kingston, Ontario consists of four separate installations which are located in close proximity to each other. These installations are: CFB Kingston, the Canadian Land Forces Command and Staff College, the National Defence College, and the Royal Military College. The study of CFB Kingston (and of CFB London and Trenton which follow) focussed upon the impact of the base military population and civilian employment opportunities from 1947 to 1971. It was determined that the military installations at Kingston were important to the local economy. They provided a considerable number of civilian jobs throughout the period studied. The military population supported a reasonable proportion of the local housing market, retail sales, and service industries particularly in the 1961 to 1966 period of increased military manning. The presence of the military establishments could not, however, be found to stimulate any expansions in manufacturing in the area. Graphs showing the military staff, civilian employees, city population, and numbers of military personnel and their families living on and off the base are provided in Figure 5. Basi-



Source: National Topographical Map Series, Surveys and Mapping Branch, Department of Energy, Mines and Resources, Government of Canada

Location Map CFB Kingston
Figure 10

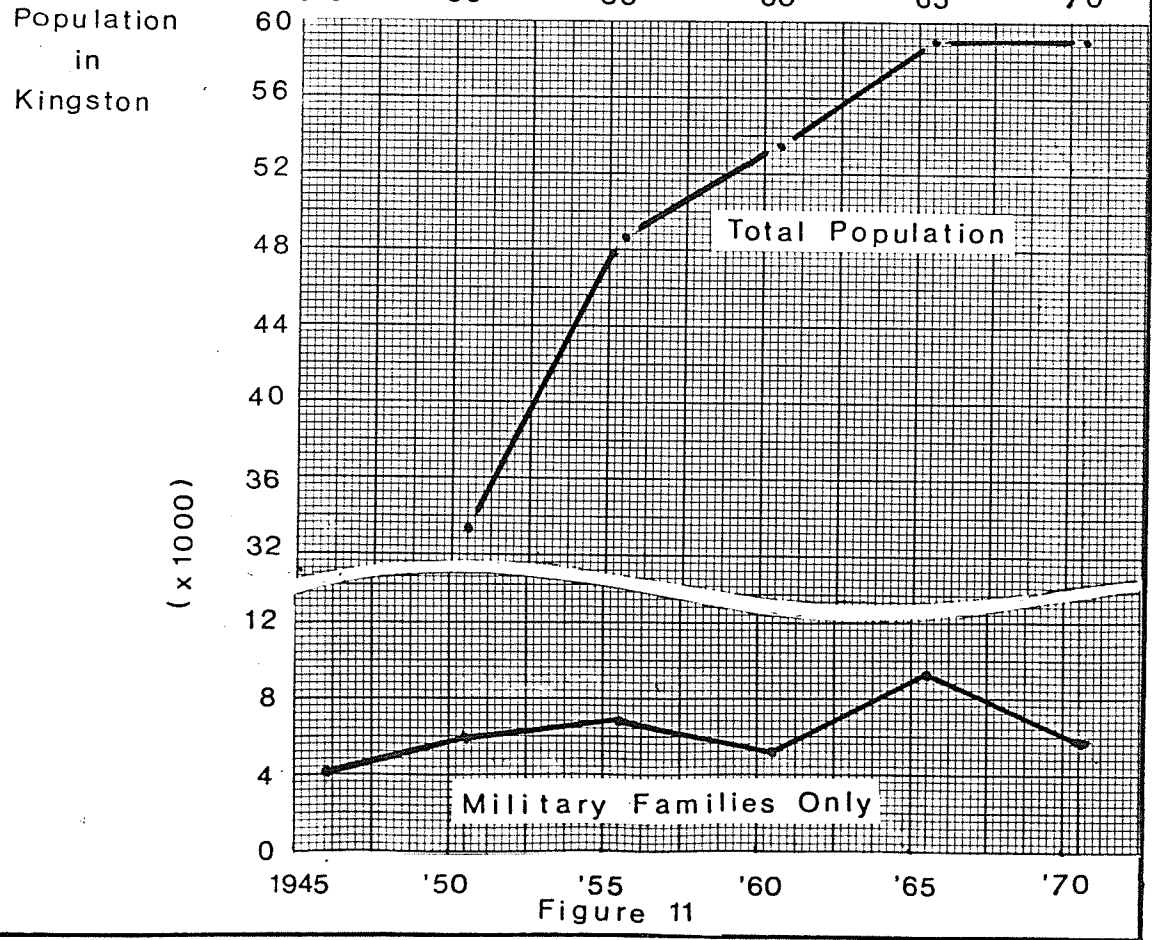
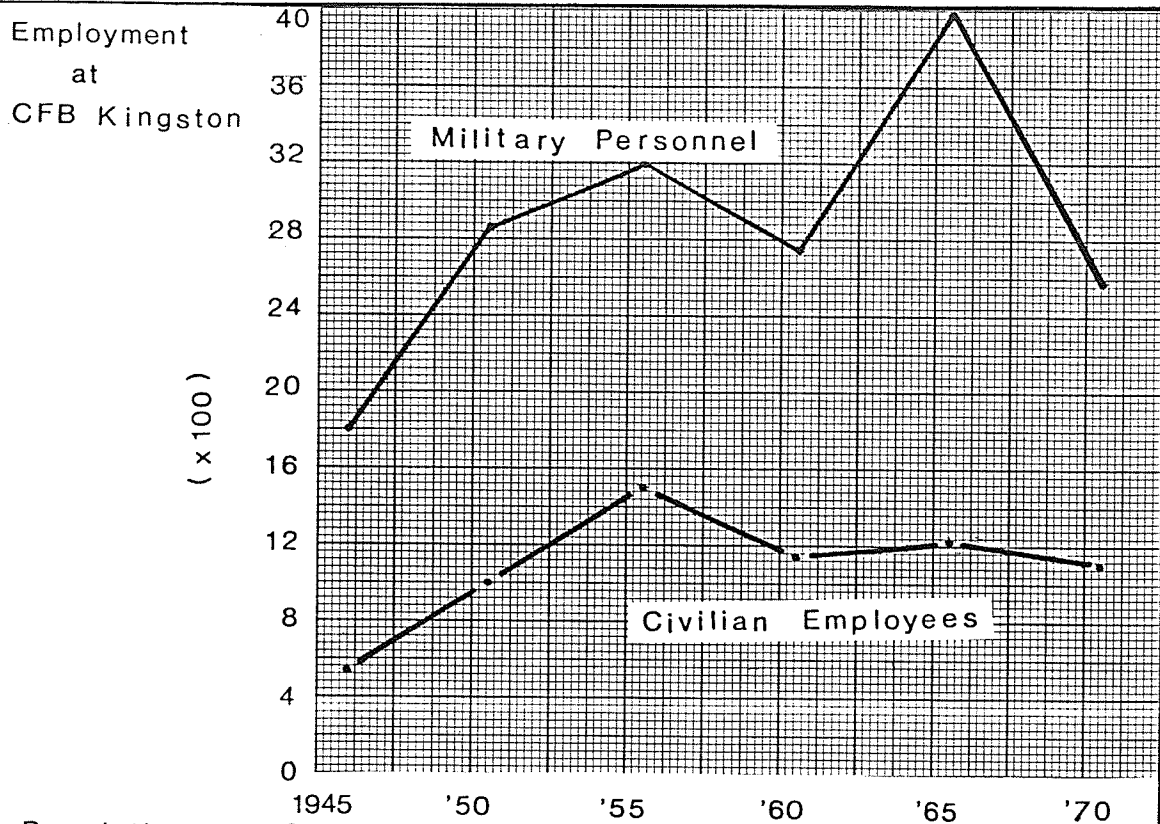


Figure 11

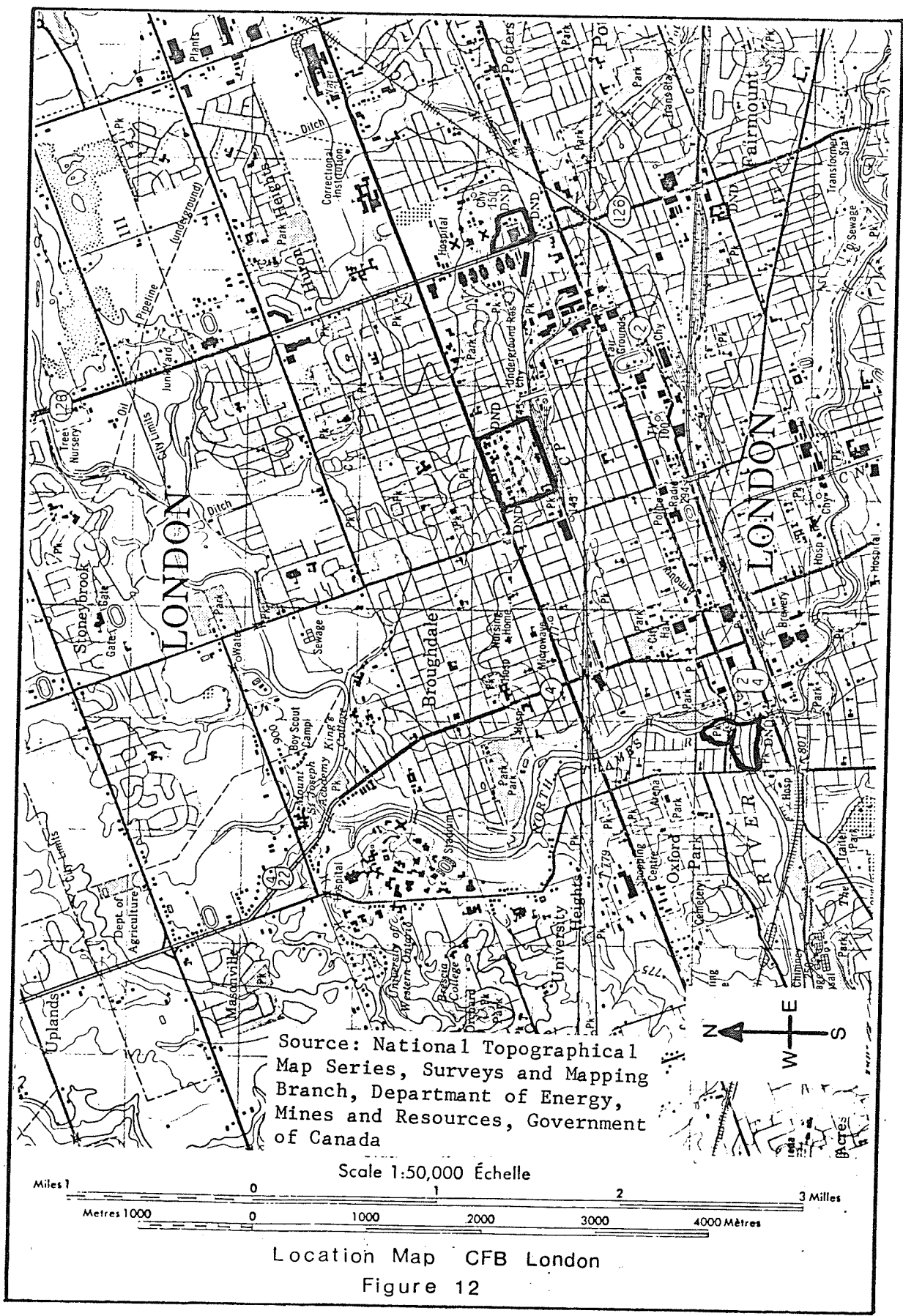
cally the level of civilian employment is more stable than that of military personnel. Military families contributed very little to the population growth of the city of Kingston.

H. CFB London¹⁰

The analysis of CFB London and the military installations in London, Ontario from 1947 to 1971 concluded that they have little impact upon the local economy. The military population, which includes dependents, is very small in relation to the civilian population of the city. Even the closure of Station London and some of the warehouses and depots of CFB London had little or no adverse influence upon the city's economy which even showed significant development over the same periods. Graphs showing manpower and population comparisons are provided in Figure 6 and confirm the relatively small influence of military families upon local population growth. In the case of CFB London, the ratio of civilian employment and military personnel tends to remain relatively unchanged with fluctuations in manning levels.

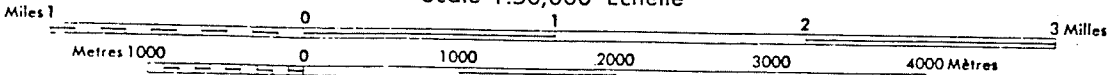
I. CFB Trenton¹¹

CFB Trenton, located near Trenton and Belleville, Ontario, is a major terminal in the Canadian Forces air transportation of material and personnel. It is also the headquarters of Training Command. CFB Trenton was found to



Source: National Topographical
 Map Series, Surveys and Mapping
 Branch, Department of Energy,
 Mines and Resources, Government
 of Canada

Scale 1:50,000 Échelle



Location Map CFB London
 Figure 12

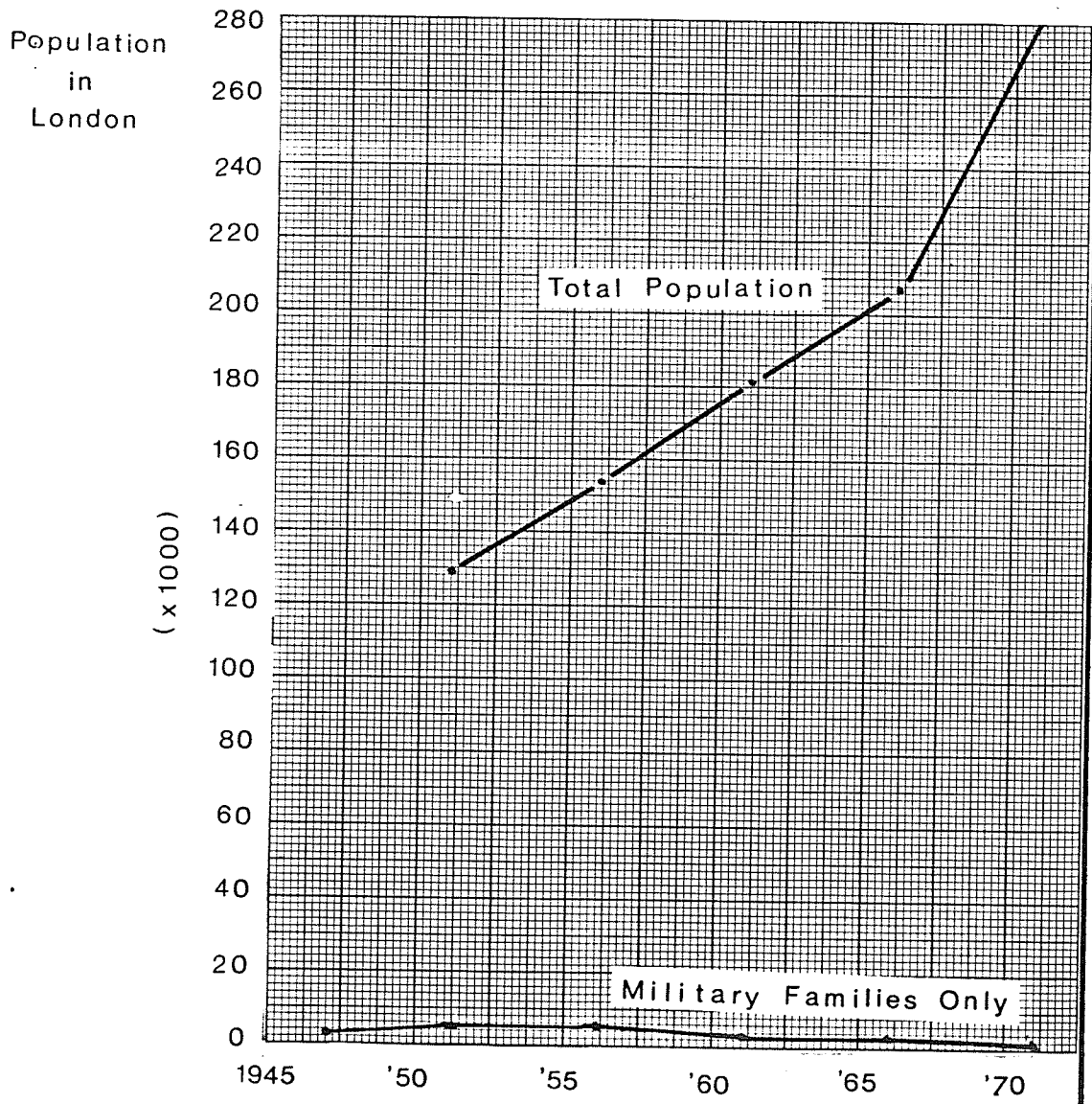
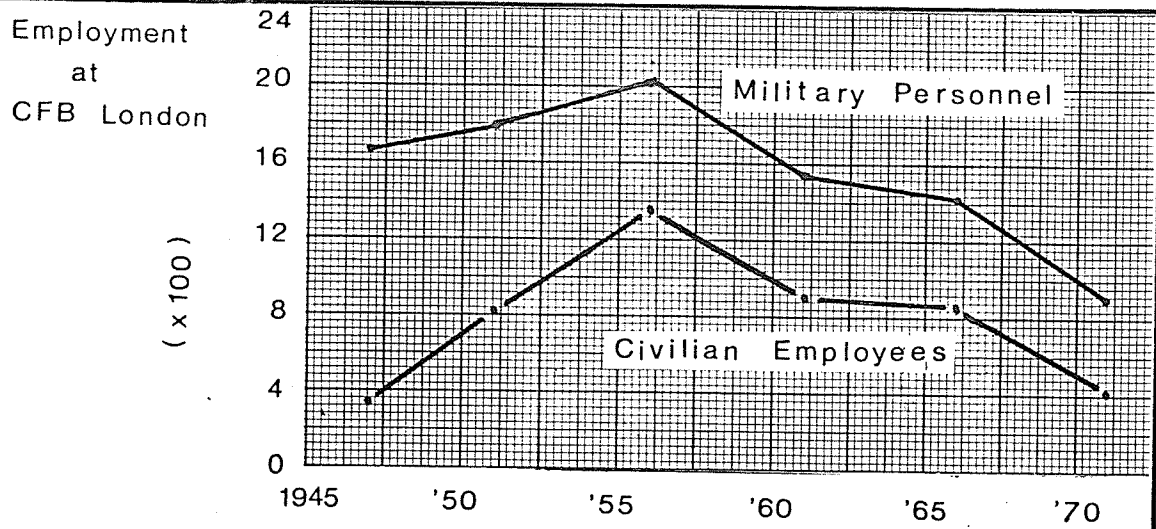


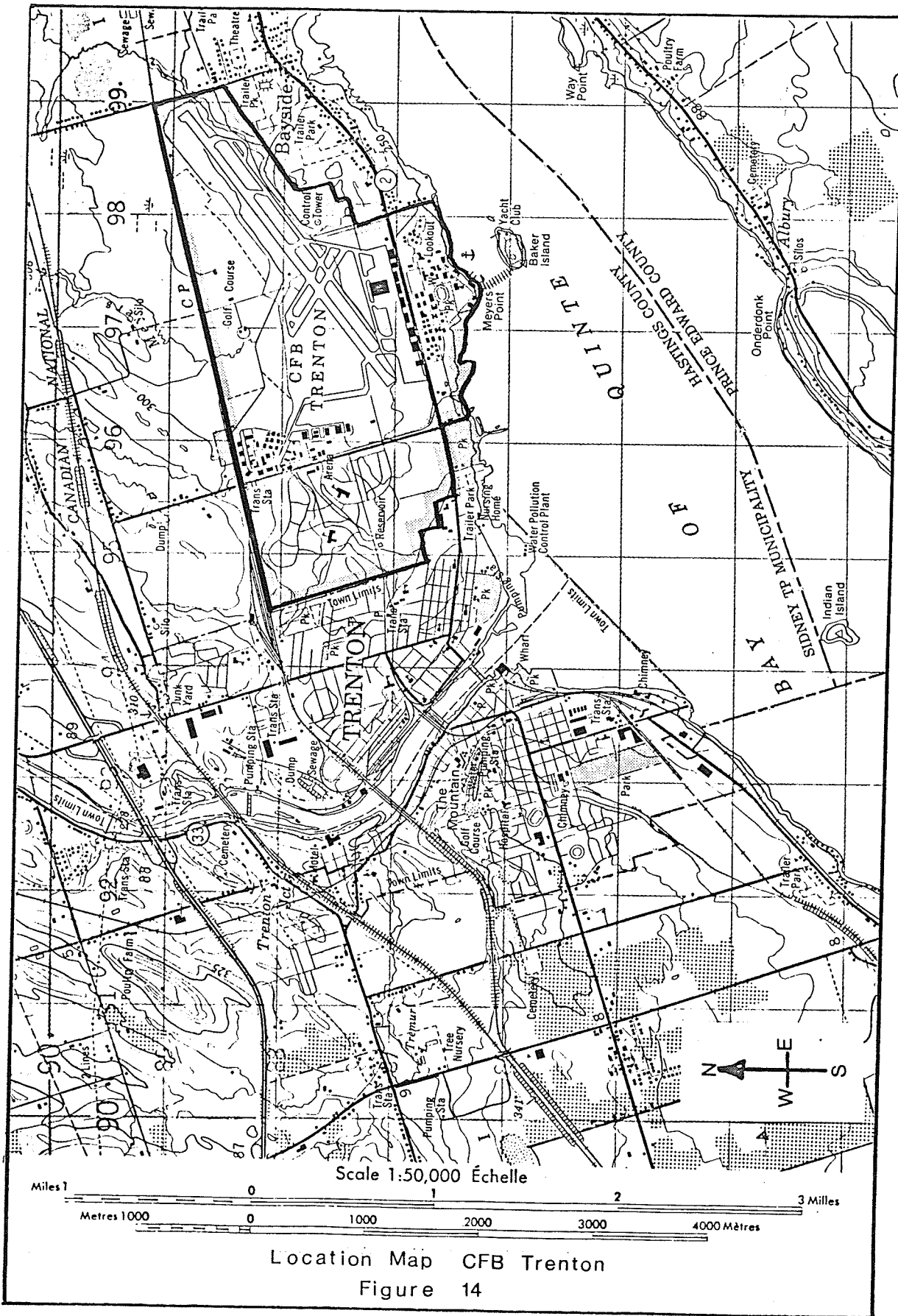
Figure 13

be a major economic factor in the Trenton/Belleville area. It is the largest single employer in the area and the military population supports the area housing market, retail sales, and service industries. The presence of the base has stimulated some industrial development in both Belleville and Trenton where aircraft oriented industries have located. Part of the attraction for these industries is not only the presence of the base, but also a large number of retired servicemen in the area who form an experienced and highly skilled labour pool. Figure 7 illustrates changes in military and civilian populations over the period 1947 to 1971. Once again the contribution of military families has a minor influence upon total local population. Similar to CFB Kingston, the numbers of civilian employees to CFB Trenton were relatively stable with large fluctuations in military manning.

K. Observations

The review of the above case studies points out many aspects of the relationship between a military installation and a local community. It serves to confirm some obvious relationships and to highlight some of the not so obvious ones.

The economic impact of a military installation upon a local community is related to the relative sizes of both the base and the community. The larger the base and the



Location Map CFB Trenton
Figure 14

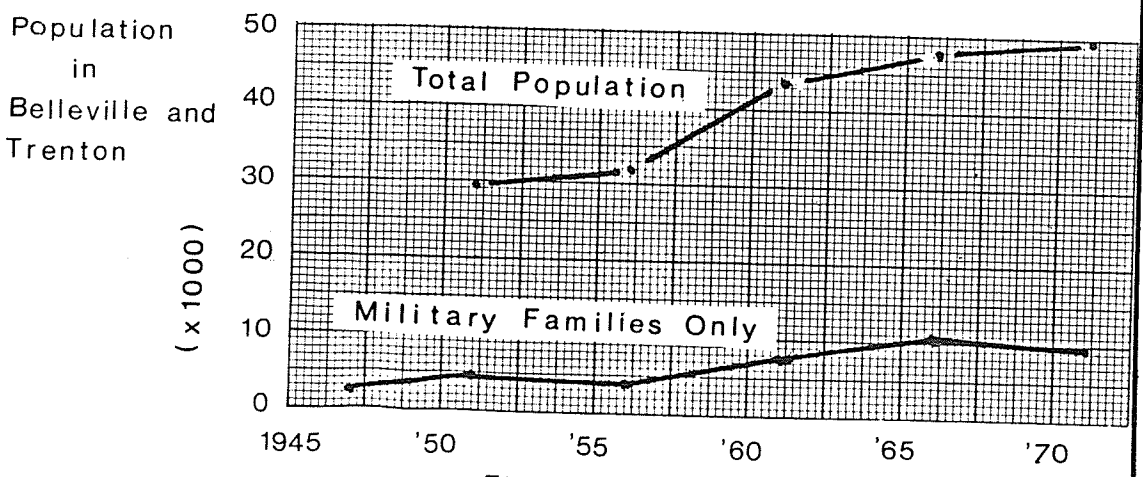
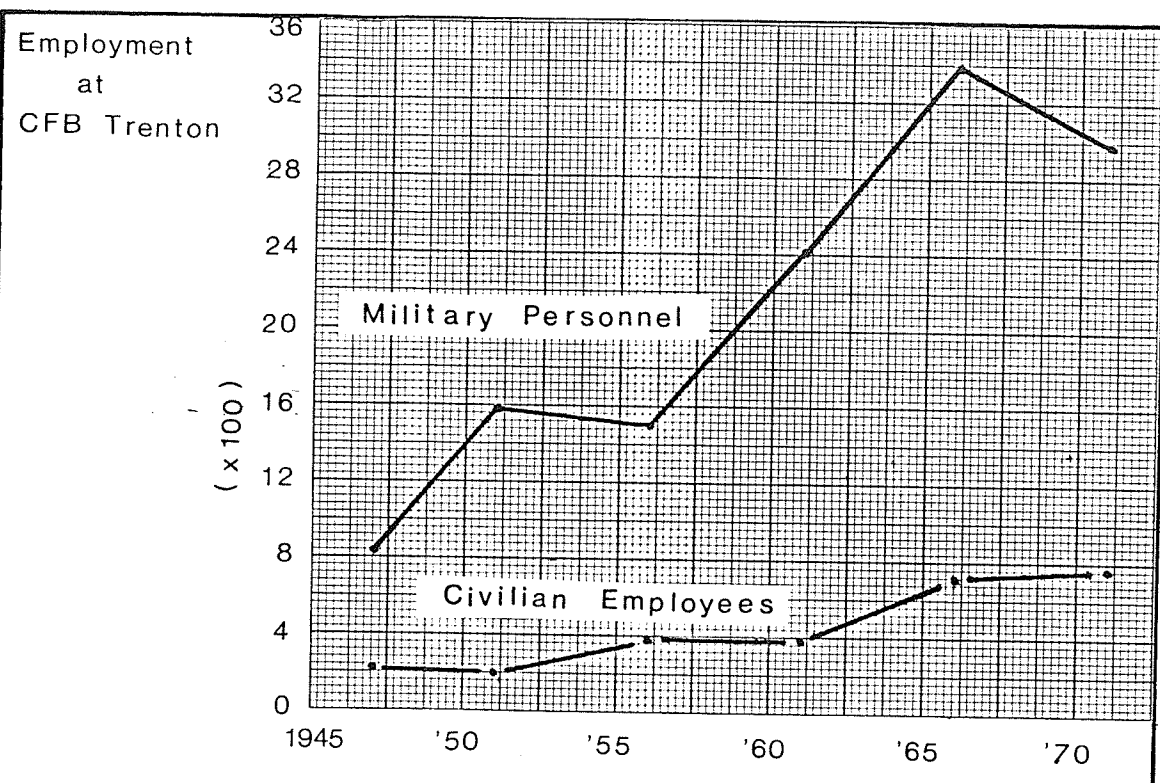


Figure 15

smaller the community, the larger will be the impact. This relationship was confirmed by the last three studies dealing with the relative population sizes of military installations and the local community. The impact of CFB London was negligible while that of CFB Trenton was pronounced and CFB Kingston fell somewhere in between. Towns which are influenced greatly by the presence of nearby military installations have a larger than normal service sector. The studies of CFB's Cornwallis and St. Jean indicate that the military population has a large impact upon local food retail activities with lesser impact upon automotive and other specialized retailing. The impacts upon clothing, hardware, and other dry goods were not as pronounced.

Although MQ's are provided at most bases, there usually are not enough to accommodate all military families. Even when there are a large number as was the case of CFB Shilo, a certain number of military families prefer to live in the local community instead. The presence of these off base military residents initially boosts the housing market and helps to support it as was alleged in St. Jean. Military families tend to be relocated approximately every three or four years. Military personnel would be expected to pay higher than the local market would support because they compare housing costs to areas in other parts of the country rather than the local area and because they probably have more surplus income available for housing. Local residents

may tend to invest more income into other aspects of the community such as small businesses or a cottage in a nearby recreational area. Military personnel because of their mobility, tend not to invest so heavily in the local area except for their primary place of residence.

The physical presence of a military base usually has very little impact upon the demand for general services from the local community unless the base is small in dimensions and located within and integrated with the town. For the most part, military bases are self-sufficient with regards to the provision of utilities such as water, sewage treatment, garbage disposal, and snow removal. They purchase electrical power from the local agency which is usually provincially controlled. With respect to fire services, there usually exists a reciprocal agreement between the military and civilian fire services with the town benefiting as much as or more so than the military. Similarly there is usually close cooperation between police and medical services. If the military base has an airfield, the town usually benefits from its existence by having an air evacuation service available for emergencies.

The impact of the base upon the town is also related to the types of facilities which are available in the town and those which are available at the base. This is particularly applicable to recreational facilities. Unless it is located in a metropolitan area, the recreational facilities

provided at the base are usually far more extensive than those available in the local community. Most of these facilities are made available for local use under various conditions and agreements and sometimes, as was noted in the case of CFB Comox, the local community may come to consider such access as a right.

A military base usually acts to inhibit local industrial development in some ways. In isolated cases it may tend to encourage some local development as was seen with CFB's Halifax and Trenton but it is suspected that these are exceptions rather than the rule. The military base, which usually is the largest single employer in the area, utilizes much of available local labour which may not be encouraging to industries evaluating various locations. Furthermore, the base operations and the wages paid to both military and civilian employees may disqualify the local area for regional development assistance to diversify their economic base. This situation was noted at CFB Comox and St. Jean. On the other hand these wages and the opportunities for seasonal employment may provide a very substantial portion of regional income in economically depressed areas as we have seen in the case of CFB Cornwallis.

The largest impact of a military installation is upon employment. The wages paid by the base tend to raise wage rates in the local area in order for industry to compete for labour. This may tend to raise the average income

of the area but it may also discourage prospective employees evaluating various locations. The military base usually is the largest single employer in the area and, therefore, has a fairly large proportion of the direct impact upon economic activity in the area. Another aspect of the presence of a military installation, however, is the military population associated with the facilities. As we have seen at Comox, wives and dependents of military personnel may act as important sources of professional, skilled, or semi-skilled labour. This may be a blessing or a curse. It provides a source of readily available experienced labour on one hand but also drives out locally trained young and inexperienced labour who cannot compete. Furthermore, if a large number of military personnel retire in the local area, they may seek a job to supplement their pensions and may be willing to work for lower wages. This may have a tendency to lower wage rates and discourage local residents from seeking employment in the community. The community itself may occasionally benefit from the expertise available at the base as was the case of Brandon seeking assistance from CFB Shilo in planning and constructing a bridge. The impact of military personnel and their dependents upon employment as discussed above may be overstated. The jobs and positions occupied by dependents may very well be due to a demand created by the existence of the base itself. Once the base closes, the need for many of these services

TABLE 1: EXISTING MILITARY BASE CHARACTERISTICS (SUMMARY)

MILITARY BASE	CFB Cornwallis	CFB's Halifax and Shearwater	CFB St. Jean	CFB Shilo
ROLE OF BASE	Recruit Training	Shipyard and Maritime Air Patrol	Recruit and Language Training	Artillery and Armoured Training
BASE FACILITIES PROVIDED:				
Military Housing Units	N.A.	528 ³ (1095) ⁴	36	744
Water Supply	N.A.	N.A.	No	Yes
Sewage Treatment	N.A.	N.A.	No	Yes
Electrical Power	N.A.	N.A.	No.	No
Fire Protection	N.A.	Yes ⁵	Yes	Yes
Dependents' School	N.A.	Yes	No	Yes
Hospital	N.A.	Yes	Yes	Yes
Chapels	N.A.	N.A.	Yes	Yes
Shopping	N.A.	N.A.	Yes	Yes
Recreational	N.A.	N.A.	Yes	Yes
MILITARY PERSONNEL	424 ¹ (262) ²	918 ¹	509 ¹	738 ¹
CIVILIAN EMPLOYEES	387 ¹ (27) ²	5627 ¹	359 ¹	453 (135)
LOCAL EMPLOYER STATUS	Largest	Largest	largest	Largest
NEARBY COMMUNITY	Digby & Anna-polis Royal, Nova Scotia	Halifax and Dartmouth, Nova Scotia	St. Jean and Iberville, Que.	Brandon, Man.
COMMUNITY POPULATION	County Populations Digby 20,000 and Annapolis 21,850	Halifax 122,035 Dartmouth 64,770	St. Jean 33,000 Iberville 9,000	Brandon 31,000
DATE OF STUDY	1974	1974	March 1974	April 1974

1. Full-time employees.
 2. Part-time employees.
 3. DND owned.
 4. Bulk leased units including 50 Central Mortgage and Housing units.
 5. City provided fire protection to 'base' facilities and DND provided protection to Dock-yard facilities. CFB Shearwater had its own fire protection facilities.
 6. Statistics for 1971.
 7. Military Trainees in 1971.
- N.A. Information not available.

TABLE 1: EXISTING MILITARY BASE CHARACTERISTICS (SUMMARY) con't.

MILITARY BASE	CFB Comox	CFB Kingston	CFB London	CFB Trenton
ROLE OF BASE	Air Defence and Training Maritime Air Patrol		Regimental Home Base	Air Trans- port
BASE FACILITIES PROVIDED:				
Military Housing Units	303 ³ (100) ⁴	809	135	699
Water Supply	Yes	N.A.	N.A.	N.A.
Sewage Treatment	Yes	N.A.	N.A.	N.A.
Electrical Power	No	N.A.	N.A.	N.A.
Fire Protection	Yes	N.A.	N.A.	N.A.
Dependents' School	Yes	N.A.	N.A.	N.A.
Hospital	Yes	N.A.	N.A.	N.A.
Chapels	Yes	N.A.	N.A.	N.A.
Shopping	Yes	N.A.	N.A.	N.A.
Recreational	Yes	N.A.	N.A.	N.A.
MILITARY PERSONNEL	N.A.	1581 ⁶ (1004) ⁷	963	2879 (50)
CIVILIAN EMPLOYEES	200 to 250	1071 ⁶	407	749
LOCAL EMPLOYER STATUS	Largest Comox and	Largest Kingston,	N.A.	Largest
NEARBY COMMUNITY	Courtenay, B.C. Comox 3980 Courtenay 7152	Ontario Kingston 59007	London, Ontario London 6 286,010 ⁶	Belleville and Trenton, Ont. Belleville 35,128 ⁶
COMMUNITY POPULATION				Trenton 14,589 ⁶
DATE OF STUDY	1974	October 1974	October 1974	October 1974

1. Full-time employees.
2. Part-time employees.
3. DND owned.
4. Bulk leased units including 50 Central Mortgage and Housing units.
5. City provided fire protection to 'base' facilities and DND provided protection to Dock-yard facilities. CFB Shearwater had its own fire protection facilities.
6. Statistics for 1971.
7. Military Trainees in 1971.
N.A. Information not available.

may no longer exist.

The impact of military dependents upon education in the local area varies with the relative size of the base and the local community. In the case of CFB St. Jean, the impact was negligible. Military dependents were absorbed readily into the existing system and widely dispersed. In the Comox/Courtenay area, however, a large number of military dependents were concentrated in one area and had a profound effect upon the numbers and types of courses offered as well as the numbers of staff available.

M. Conclusion

The impact a military base has upon the local community depends upon the relative sizes of the military installation and the civilian community. The base is usually the largest single employer in the local area, but imports a large portion of its labour as military personnel. The influx of this manpower has an impact upon the local housing market but this effect is usually less than it could be because a large number of housing units are normally provided by the base. The base is usually self-reliant and provides its own services. Often recreational facilities at the base are fairly extensive and utilized by the local community to a certain degree. The presence of a base may encourage some local industrial development but this seems to be the exception rather than the rule. The base has a large impact upon

local employment not only in providing jobs but also in that military dependents may be a source of skilled or semi-skilled labour competing for jobs. The effect of the military dependent population upon local educational facilities varies with the size of the base and the community.

Although it is not stated implicitly, these case studies seem to suggest that the impact of a military base upon the local community is not evident so much in measurable quantitative terms as it is in subjective terms. The real impact of the base is as it is often perceived by the local community and the local population. Attitudes and public relations may play an important role in the assessment of beneficial and/or adverse impacts.

Chapter III

BASE CLOSURES

A. Introduction

In the previous chapter, the impact of existing military bases upon the local area was examined. This chapter will examine the impact of actual military base closures by reviewing previous case studies. Unfortunately there are only a few Canadian base closures that were documented, but there are a large number of U.S. case studies which may be reviewed. Of the large number of such case studies available, only a selection of the most representative will be discussed.

Although there are differences between the operation of the Canadian and U.S. military forces and their installations, there are many similarities as well. Both the American and Canadian military forces are highly technical and both provide similar facilities for personnel on their bases. There are recreational facilities, single quarters and usually a number of married quarters for at least a proportion of married military personnel. American bases usually provide more extensive shopping facilities for their personnel than do Canadian bases. The American military serviceman may tend to do more shopping on the base whereas his Canadian counterpart may patronize local retailers to a greater degree. We may assume that although the impacts of U.S. military base closures may differ in severity as com-

pared to Canadian base closures, there will be similar areas of stress encountered because of the similarities in facilities provided by the bases. The short review of Canadian base closures will be presented first and followed by a more extensive review of American base closures.

B. Canadian Base Closures

A summary study performed involving three Canadian military installations in Ontario are reviewed below. The installations involved were Canadian Forces Station (CFS) Clinton, CFB Hagerville, and Army Headquarters Central Command (CENCOM) at Oakville.

1. CFS Clinton³

CFS Clinton was an air force training station located about two kilometers from the town of Clinton which is about 75 kilometers from London, Ontario and 50 kilometers from Stratford, Ontario. The station was closed in September, 1971.

The operation of the military station at Clinton was important to the economy of the local community in that it provided an opportunity for employment for a considerable proportion of the local labour force. The station also contributed to stimulating some activity in housing, retail sales, and service industries but it had little lasting impact upon the slow but persistent decline of the economy in

that area. Gradually the population of the town started to decrease even during periods of stable military and civilian employment. The impact of the station's closure in the years following 1971 were not investigated.

2. CFB Hagersville⁴

CFB Hagersville was originally an air force flying training base during the 1940's until the end of World War II. From 1951 to 1961, an army Vehicle Storage Depot was operated at Hagersville. The base was closed in the early 1960's. The base was located in the village of Hagersville which is about 35 kilometers from the metropolitan area of Hamilton, Ontario. Hagersville's economic development depended upon Hamilton. The village could potentially become a place of residence for Hamilton workers.

During the period of the operation of the Army Vehicle Storage Depot, the base did have an effect upon the village economy. The base provided considerable employment for both skilled and unskilled local labour and the military population contributed to the support of the local housing market and the expansion of retail sales and service industries. The first reduction in military staff in the early 1950's was found to have some impact on the local economy but gradually it managed to recover. The final closure of the Depot did not impact greatly upon the local economy which was becoming more dependent upon the village's role

as a lodger for Hamilton workers.

3. Oakville Army HQ CENCOM⁵

The Army Headquarters of Central Command was established in Oakville after World War II and closed in the middle to late 1960's with integration of the three armed forces. It moved to Montreal to become part of Mobile Command.

Oakville is located between Toronto and Hamilton, approximately 25 and 50 kilometers from each city respectively. When the headquarters was formed, Oakville was fairly small and the military installation was a large employer. Shortly afterwards the town expanded rapidly as manufacturing firms located in the town which was situated between two large markets. The importance of the military installation as an economic force was gradually being overshadowed when it was totally eclipsed by the Ford Motor Company's automotive plant in the 1950's. Ford employed over 7,000 workers directly and attracted other firms to the area. By the time the headquarters unit was closed in the 1960's the impact upon the local community was negligible.

C. American Base Closures

During the 1960's, there were a large number of military base closures in the United States due to a lessening of military activity after the Korean Conflict and a realignment of defence priorities and policies. Although

not all the actions implemented resulted in closures, many did, and all had some impact upon the local areas of the affected bases or installations. From 1961 through fiscal year 1969, there were 1,110 actions taken to change or close U.S. military installations. These actions resulted in the release of "nearly two million acres of land and the elimination of 217,602 DOD (Department of Defence) jobs."¹ In the case of the closure, reduction or transfer of only 25 military installations in this period, 13,769 civilian employees were affected,² or an average of approximately 551 employees per installation. Because of the obvious impact these actions were having upon employees and the local communities, the DOD set up an agency to aid communities in the transition. The Office of Economic Adjustment (OEA) has been instrumental in aiding many communities in recovery from adverse impacts of military installation closures and/or changes in roles or activities. The OEA also has been able to provide data and information to authors and students interested in the impacts of closures and the success rates of recovery programs.

There have been studies conducted independent of the OEA and one of the first was of the impact of the final closure of the Sampson-Seneca County, New York U.S. Naval and Air Force Establishment.

A much publicized base closure was that of Presque Isle Air Force Base (AFB) at Presque Isle, Maine. This

case is probably best known for setting the pattern of recovery efforts of communities affected by subsequent base closures. It was the first time that a former military installation was successfully converted into an industrial park under the local leadership. Presque Isle has been upheld as an example of the right way of coping with and accepting an adverse impact and turning an apparent set back into advantage.

Other military installations that were closed out and that are worthy of study are: Donaldson AFB, Greenville, South Carolina; Rome Air Materiel Area of Griffiss AFB, Rome, New York; Naval Ordnance Plant York, York, Pennsylvania; Fort Chaffee, Fort Smith, Arkansas; Black Hills Army Depot, Edgemont, South Dakota; Mobile Air Materiel Area at Brookley AFB, Mobile, Alabama; Middletown Air Materiel Area, Middletown, Pennsylvania; and Walker AFB, Rosewell, New Mexico.

1. Sampson-Seneca County, New York⁶

The history of military involvement in Sampson-Seneca County of New York State in the United States is interesting from two aspects: The first is that the study of the impacts of the base closure was one of the first documented and widely published of such cases and the second is that it provides a good insight into the impacts of both the opening and closing of a military base.

The site of the base was in a predominantly agricul-

tural area with some industrial activity. It was originally constructed in 1942 as a navy training installation. The original construction period had a large impact upon local housing, transportation systems, and wage rates. Construction workers from outside the area flocked to the site and contributed to much of the demand. The naval operations themselves injected a large amount of money into the economy through the consumption of staples and utilities, in particular electrical power. As a result of the navy base, transportation services, including bus and rail services, were improved. Roads were upgraded to cope with heavier traffic. An additional 250 temporary housing units with a planned ten year life span were constructed. Accommodation was also provided in civilian homes but these were expensive and of poor quality, largely due to building restrictions which were in place during the war. The type of housing changed. Most of the units constructed between 1940 and 1950 were multiple dwelling units as opposed to single family units. After World War II, the base was closed. It was isolated and there had been a high incidence of respiratory ailments during the winter. The navy ceased its operations in July, 1946.

During the years between World War II and the Korean Conflict the base was used by academic and medical institutions to a limited degree. There were no military funds available for housekeeping maintenance and vandalism was soon uncontrolled. With the outbreak of the Korean Conflict, the

old navy base was reopened in 1950, but this time as an air force base.

Revitalization of the base had an immediate impact upon the local area. The urgent need for the facility resulted in a large influx of workers once again. Long hours of overtime were logged and the total payrolls were quite high. The local economy benefited from increased purchases in food stuffs, auto parts, office supplies, construction material, and electrical power. During operation of the base, payrolls were about \$3 million per month. It was estimated that about \$50 million per year was spent by the base and its personnel in the local area. In December of 1952, the base was designated a 'permanent' base although this would probably have no influence upon retention of the base for any extended period of time. Unfortunately local businessmen ignored warnings of possible or probable closure and they overlooked the planned ten to fifteen year life span of the base's structures. The base closed completely on 3 September, 1956.

During the base's second term of operations, its impact upon housing was similar to that of the navy operations. There was a large demand for housing but building restrictions were in effect. The quality of housing was poor and rents were high. There were cases of gouging service families. After the base closure, local population increases could not utilize all the existing housing. Lack of demand coupled with

poor quality construction soon resulted in the development of slums.

During the base's operation, schools became overcrowded and rapidly expanded. Some facilities were surplus as a result of the base closure but were soon utilized as enrollments increased due to the baby boom.

Transportation services increased greatly during the base operations. Besides increased rail and bus services, the airfield was also utilized. With closure, transportation services dropped back to their original levels. During the war years, the construction and provision of private vehicles were restricted but the number of locally registered vehicles was up sharply during base operations and decreased drastically with closure. Traffic between the two local communities increased but then subsided when the base closed.

During construction, revitalization and operation of the base, wages rose sharply in the area. Outside labour had to be attracted and local wages rose to compete. After closure, wages never receded to previous levels but maintained their current levels. The local economy benefited from the increased buying power.

The base had varying effects upon population in the area. During construction, it attracted a large number of temporary residents. During the operation of the naval base, locals left the area as a result of the draft and out of fear of the area being a military target. At the end of World

War II more left because the local services declined and the local economy was depressed. Once again during the Korean Conflict, locals left because of the draft and the fear of a potential target but some returned after the hostilities, although not as many as had left.

The base had its highest impact in the local economy upon food stuffs. When the base closed, food sales went down approximately 25 percent. As discussed previously, there also was a severe impact upon housing. A number of small novelty stores and cinemas quickly folded. Sales in general merchandise were not greatly effected. The military population did not make purchases as if they were settling permanently in the area.

The base closure was a rude awakening for the town. An attempt was made to utilize the base facilities but the structures were old and deteriorated. Eventually they were torn down and the former base became a park with some facilities utilized as a civil defence deopt and a rehabilitation camp for juvenile delinquents. The original construction of the military base had resulted in the loss of large amounts of farm land in the area. The economic base shifted more rapidly from an agricultural base to an industrial base. The base is seen as having acted as a catalyst in this respect. It did not alter the natural path of development in the area but rather increased the rate of development in that direction.

2. Presque Isle, Maine⁷

On the 29th of March, 1961, it was announced that Presque Isle Air Force Base would close in the period from June to October of that year. At the time of the closure announcement, the town population of Presque Isle, Maine was approximately 13,000. The economy of the area was dependent upon the AFB to a large degree and also upon the Aroostook County potato crop. It just so happened that potato crop sales were down at the time of the announced base closure. This was due to poor uniform volume, poor packaging, and quality standards, a short market period, a glut of shippers and few buyers, and the lack of storage facilities.

The closure announcement had an immediate direct impact upon the town. The base employed 1,259 military personnel and 268 civilian employees. Eventually 178 of the civilian employees were re-employed with other government departments although the majority transferred to Loring AFB which was located nearby. Housing in the area went from a shortage of 200 units to a sudden surplus of 250 units. It eventually took 18 months to absorb the surplus. Surprisingly, retail food sales increased rather than decreased. This suggested that a number of unauthorized locals were using the military commissary.⁸ Retail sales in other areas declined from \$22.8 million in 1960 to \$19.4 million in 1961.

The expected panic reaction to the closure announce-

ment did not materialize. Reaction amongst local leaders and businessmen was one of cooperation. They took a serious and realistic approach to the decision and searched for a productive use for the base even though the attitude of local citizens was that no practical use could be made of the facilities.

An industrial development council was formed locally to plan recovery action. The town requested retention of installed and semi-installed equipment at the base as part of the sale agreement. They planned to use the facilities for vocational training. In fact, the Maine Vocational Technical Institution located at the former base in September of 1963. The town also applied for transfer of the airport facilities to the municipality for use as a municipal airport. Some facilities had already been leased by the town since 1959. The municipality wished to move quickly but soon ran into the problem of other higher government departments not quickly releasing their first right of use. The town persevered. The base would be used as an industrial park with the council formulating policy. The base was eventually renamed Skyway Industrial Park.

The council set up a number of rules for development of the industrial park. Buildings would not be given over to civic organizations or for recreational purposes until after a suitable trial period. Buildings would not be leased for storage except on a short term basis. Productive

uses were sought. New industries to the area were sought and relocation from the city would not be permitted. Rental fees were geared to job creation with lower fees for higher numbers of employees. The land and facilities for industrial uses would not be sold. This allowed for some measure of control over occupants.

On 1 May, 1962, transfer of title passed to the city. Ample use was made of advertising and public relations. A seminar held on 21 May, 1962 with all three levels of government represented helped to start development. The decision by Indian Head Plywood to locate at the new park sparked further development. Liberal use was made of existing federal and state development programs. Utility distribution systems such as electrical and telephone systems were sold and funds used to promote further development. The emphasis was to capitalize upon local resources like lumber and potatoes. An off shoot of the development programs was the establishment of a sugar beet processing industry which took advantage of the good local water supply. The development program did not only focus upon the base, but on the community as a whole. Although Presque Isle had the advantage of substantial support from the Area Redevelopment Administration and the Economic Aid Administration, it did much to promote its own recovery. The establishment of the vocational-technical training centre at the former base is cited as being a contributing factor to development in the area. Public relations

and advertising also played an important role in recovery of the community but the greatest amount of credit must be given to the determination and drive of local leaders who persevered and eventually wrote the success of the city's economic recovery.

3. Greenville, South Carolina⁹

A proposal to close Donaldson AFB at Greenville, South Carolina was announced on July 18, 1962. Political efforts were made to rescind this decision especially by Senator Olin D. Johnston. The closure was deferred but not cancelled. About six months later, on December 27, 1962 an announcement was made that plans to close Donaldson AFB were resuming. The base would be phased out by June, 1963. At the time of the final closure announcement, the base employed approximately 4,100 military personnel and 600 civilian employees. An immediate impact was felt in the housing market. There were suddenly 3,500 housing units, both freehold and rental, on the market in June, 1963 when closure was implemented. In November of 1964, approximately 20 percent of these units were still vacant.

The closure of the base forced a reconciliation between the city and the country. They had to work together on a regional approach to the problem. Assets that the region had included potential for development by virtue of of location in the southeastern U.S., a good water supply,

available land for industrial development, and an ample supply of labour with good attitudes. It was agreed that the base facilities should be put to industrial uses and a management committee was formed consisting of a member of city council, the chairman of the County Planning Commission, a member of the county Legislative Delegation, and the chairman of the County Development Board.

Problems arose in estimating the cost of the base's assets. It arose from the conflicting interests and roles of two responsible agencies: the Office of Economic Adjustment (OEA), whose interest was the recovery of the local community; and, the Government Services Administration (GSA), whose duty was to get a maximum return to the government on items of surplus. The base closed on 30 June, 1963 and GSA took control on 16 July, 1963. By mid September, 1963, a sales offer was agreed to in principle which was ratified by county and city representatives on 17 October. Title transfer eventually took place on January 24, 1964. The cost of the transaction were fully recovered by the locality by May, 1964, mainly through the sale of land and utilities.

The base was used for industry and warehousing, retail activities, and engineering and education functions. Its success was due mainly to the provision of fair and equitable rents and utility rates. An assessment of economic recovery was difficult to measure due to the wide range of multipliers suggested for the effects of military and civilian employees

of the base and for the newly located industries. One of the main lessons gleaned from this experience was that the shock of a base closure can often be the spark to cooperation between contending agencies that leads to the formation of regional development programs.

4. Rome, New York^{10,11}

The case of the closure of Rome Air Materiel Area at Griffiss AFB is interesting in two aspects: the base itself was not closing but only a major activity, and so the military installation would not be available for development; and, the Rome area had also been economically depressed for a long time. Griffiss AFB accommodated a number of military units in the 1950's among which were two fighter-interception squadrons and the Rome Air Materiel Area (ROAMA).. ROAMA was the U.S. Air Force centre for buying, storing, maintaining, and supplying ground electronics equipment. In 1960 there were 3,380 military personnel and 7,902 civilian employees at Griffiss AFB with a majority employed by ROAMA. When plans became known in 1961 to close ROAMA, instant reaction resulted. The local newspaper editor had been instrumental in retaining the base in the 1950's. A Save ROAMA' movement was started which took credit for changing the closure decision although international political events such as the Berlin crisis in 1961 probably had more influence. In any case, as with Donaldson AFB, the decision was only delayed and not

cancelled. On December 12, 1963 it was announced once again that ROAMA would close and would gradually be phased out in 1967. At the time of the second announcement, ROAMA employed approximately 500 military personnel and 3,400 civilian employees.

Much effort and publicity was spent on a second 'Save ROAMA' campaign. The town already had a high rate of employment and it had gone into considerable debt in order to provide services for the base. The municipal debt in 1963 was four times the 1950 level. Although considerable political pressure was brought to bear, defence considerations would come first and the ROAMA operations would cease at Griffiss. In February of 1964 other local industries announced their intention to leave the area. The adverse publicity generated by the 'Save ROAMA' movement may have been partly responsible.

A new mayor was elected and the focus shifted from saving the existing operations to recovering from the impact. It was decided to focus upon changing the community image. Efforts were made to improve public transit and an urban renewal program was initiated. National Parks Assistance was sought to attract tourists and to capitalize upon the historical background in the area.

In February of 1964, a County Industrial Development Corporation was founded in which a regional approach to the problem could be coordinated. Funds were raised within the city and state financial aid was requested and received. The

funds so raised were used to develop industrial sites to attract new industries. The change in attitude resulting from a new local leadership was welcomed. Civic spirit was important to industry and the success of the new spirit was amply illustrated by the decision of Revere Copper and Brass Company to reverse its decision to phase out its Rome operations and to relocate. Instead the company expanded its operations in Rome adding additional production capacity.

Eventually the number of civilian employees effected by the ROAMA closure was to reach 5,600 rather than the original 3,400. Approximately 74 percent of these employees were relocated with the DOD and about one percent with other federal government agencies.

5. York, Pennsylvania¹²

In April of 1961, it was announced that Naval Ordnance Plant York would close placing 1,092 civilian employees out of work and relocating 13 military personnel. Part of the sale proposal was to let a contract to the purchaser for fixed-fee to allow time to convert the plant to other uses. Two bids were received and rejected and the contract changed to fixed-price incentive fee contract. One bid was received and accepted. As a result, American Machine and Foundry Company relocated one of its operations to York. Title was transferred on 1 February, 1964. The OEA did not condone this relocation of established industry to another area with-

out a net increase in employment.

6. Fort Smith, Arkansas¹³

Fort Smith, Arkansas was one of the few communities that recognized its over-dependence upon a nearby military installation. As early as 1957, the town recognized that Fort Chaffee would not exist forever. An industrial development committee was formed to formulate a development strategy. The city had many assets upon which it could capitalize. Labour rates in the area were reasonable. There was an abundant supply of good water. The area had a good climate. The cost of living was low as were local taxes yet there was a high level of government services and school services in the city. Fort Smith was close to growing markets in the south and south west U.S. Fort Smith was also proud and independent. It had rejected depressed area aid before the second base closure announcement.

In late 1958 it was announced that Fort Chaffee would close in June of 1959. Base facilities would not be disposed and, therefore, could not be used for industrial development. There were 11,000 military personnel at the base and 950 civilian employees. Most of the military personnel were trainees.

The local attitude was one of determination. The city wanted to succeed. It wanted to grow and as a result of its development efforts a number of small employers were

attracted to the area. Fort Smith's determination paid off when in 1960 the Norge Division of Borg-Warner located locally and provided 2,000 jobs.

In October, 1961, Fort Chaffee reopened temporarily. It employed 1,440 civilians this time. On December 12, 1963 the second closure announcement was made. Fort Chaffee would close again on June 30, 1965. The town immediately requested 2,000 acres of the base for expansion. The base stood in the way of natural city growth patterns. Eight hundred acres were transferred to the town even before the base was formally closed. Immediate plans were to use the area for recreational purposes pending future developments. State industrial aid was requested and the funds used to develop industrial land banks and to create a fund to provide loans for industry. Prospects in the local area must have been encouraging for base employees. Only 58.5 percent took advantage of programs to relocate to other government jobs as compared to a national average of 70.6 percent.

7. Edgemont, South Dakota¹⁴

Edgemont, South Dakota was a town with a population of 1,680 at the time of the closure of Black Hills Army Depot. The Depot employed 12 military personnel and 520 civilian employees. Edgemont did not have many assets to capitalize upon. There has been a net emigration from the area for many years. The town's water and sewage services required up-

grading. The poor corrosive water conditions deterred industry. The town was in need of an urban renewal program and to make matters worse, this was a case in which the state government did not fulfill its promises of cooperation. The base closure announcement on April 24, 1964 for phase out on June 30, 1967 acted as a stimulant in this economically declining area. Recovery efforts were directly related to the action of the local leadership as was illustrated by parallel developments between recovery progress and the mayor's health. Efforts stabilized with a new mayor voted into office in May, 1967.

Black Hills Army Depot consisted of 21,000 acres of land with six buildings, 15 warehouses, 801 ammunition storage igloos, 474 married quarters, a school, hospital, commissary, and theatre. Outside businessmen were interested in the military facilities and were encouraged by the OEA. An offer was made to the town to lease the facilities with an option to buy. Problems arose in two areas: one in the area of financing was resolved when the federal government bent a little and the other involving land management claims by the Forestry Service of the Department of Agriculture. The Forestry Service cited specific regulations requiring proper management to prevent overgrazing. This problem was resolved with the aid of the OEA. The outside development group submitted firm proposals to the town.

The town took initiatives to clean up and paint up.

Tourism was encouraged. Management and administration of the vacated base was beyond local capabilities and was provided by the outside development group.

The recovery of Edgemont cannot unfortunately be qualified as a success. Of the employees directly effected by the base closure, 69.6 percent relocated to other jobs and 15.2 percent retired. The population declined from 1,680 to 1,440 and net income of the area declined by 50 percent. Assessed real estate values declined from \$4.5 million in 1962 to \$3.1 million in 1968. Homes previously valued at \$16,000 to \$18,000 were selling for \$3,000 to \$5,000. There were 43 vacant and/or abandoned dwellings in the town.

8. Mobile, Alabama¹⁵

The case of Mobile, Alabama is also one of limited success but for different reasons. Mobile, Alabama was the home of Mobile Air Materiel Area at Brookley AFB. The Materiel Area employed 1,070 military personnel and 12,500 civilian employees when a 4 1/2 year phase out program was announced on 19 November, 1964. The civilian employees effected made up 12 percent of the area non-agricultural employment. The long phase out program was designed to reduce the immediate impact of the closure decision.

Prior to the closure announcement, Mobile was slow to attract new industry. The Chamber of Commerce was the

driving force up to that time. When the closure announcement was made, two opposing groups were organized. The Chamber of Commerce strove to encourage industrial development and a 'Battle for Brookley' committee which endeavoured to have the closure decision rescinded. In November in 1966 the Industrial Development Board of the city and the Mobile Industrial Parks Board were amalgamated and their efforts coordinated. Continental Motors Corporation established at the AFB even before complete close out. An arrangement was made for the city to lease facilities from the base for sub-lease to Continental Motors. The base was eventually to be used for industrial development and technical and higher education. The airfield was used as a municipal airport to improve the local transportation system. Eventually the University of Southern Alabama located facilities at the base which are professed to figure significantly in attracting new industry. Other base facilities were used by industry, the coast guard, and as a recreational park.

The immediate impact of closure was a high rate of unemployment and emigration, declining school enrollments, and a soft housing market which managed to recover during the phase out. Mobile's limited success is attributed to its divided efforts. It is suggested that a concentration upon recovery programs would be far more productive than 'save the base' campaigns.

9. Middletown, Pennsylvania¹⁶

The Middletown Air Materiel Area closure is interesting in comparison to that of Mobile Air Materiel Area. Like the Mobile Alabama closure announcement, the announcement at Middletown Pennsylvania was also made on November 19, 1964 with a planned 4 1/2 year phase out to terminate on July 1, 1969. In the case of Middletown, Pennsylvania, however, the state initiated recovery and development program was so successful that the final closure date was advanced by a year at the state's request.

Middletown Air Materiel Area employed 1,250 military personnel and 10,784 civilian employees. Many of the civilian employees were re-employed in other federal government jobs within commuting distance, however, there was a net reduction in 2,372 civilian positions and 557 military positions. The impact of the closure upon the existing housing market was next to nil. A housing relief program was utilized for workers laid off by the base. The closure announcement did result in a decrease in new housing starts. An initial reaction to the announcement was to organize a 'save the base' campaign which was quickly undermined by prompt state action to manage and capitalize upon the opportunity to develop the area. A diverse industrial base already existed upon which to develop even further.

The facilities of the Materiel Area consisted of 1,094 acres of land, 477 buildings, and 140 married quarters.

The state proposed to develop the facilities for an airport, industry, and state facilities. State uses were to include and advance education facility with a technical base to attract more industry. The airport was to be used in its jet capacity. No other such capacity existed in the area.

An early offer was received from Lear Siegler Incorporated to lease some facilities for a defence production contract. When on 5 March, 1965, a firm offer was made by a national industrial firm to use warehousing facilities and to employ 1,500 people. The state requested gradual take over of the military facility and an increase in the phase out rate. Current employees objected to earlier phase out proposals but to no avail. The base closed a year ahead of schedule.

A large number of industries were attracted to the new industrial park but the facility which was established as a drawing card was Pennsylvania State University. Upper and graduate study classes were started at the former base on 3 October 1966. The success of the recovery of Middletown story contrasts greatly with that of Mobile, Alabama. The leadership of the state played an important part in the Middletown success story.

10. Roswell, New Mexico¹⁷

The actions of Roswell, New Mexico showed a far-sighted and realistic evaluation of a community's dependence

upon a nearby military establishment whose continued existence was in jeopardy. In 1963 Roswell recognized that closure of Walker AFB was five to ten years distant. Rather than wait, it sought advice early and approached the OEA for advice. Two consultant studies were initiated: one a business and industrial locational analysis and the other a land planning survey. An economic workshop was held in September of 1963 with all three levels of government represented with the aim of redeveloping the downtown area, attracting a major department store, promoting tourism, and developing manufacturing to a level three times the current level. Much of the discussion centered upon Roswell's saline water problems.

In April, 1964, the Roswell Industrial Development Corporation was formed. In July, 1964 a vocational education conference was held and an urban renewal program was initiated. On November 19, 1964 it was announced that the Atlas F Missile Squadron at the base would be phased out by April, 1965. The December 8, 1965 announcement to close Walker AFB by July 1, 1967 soon followed.

The base consisted of 5,053 acres, 1,061 buildings, three officers' barracks, 14 dormitories, and 801 married quarters. Roswell itself had other assets besides a far-sighted leadership. There was lots of natural gas in the area and although rail freight rates were high, an air service was available.

There were no political fights to save the base. Instead, a Base Closure Committee was formed to work with the Industrial Development Corporation. Eastern New Mexico University was approached to relocate its community college from the city to the base so that its facilities and activities could be expanded. An application was made for a federal grant to improve the water supply. Work started in 1966. Application was made to replace the municipal airport with the surplus military airfield. The municipal airfield could not handle jet traffic.

A set back occurred when a misunderstanding occurred between the state governor and the university over the development and funding of facilities at Roswell. The result was a complication of development procedures which impeded progress slightly but which did not stop its momentum. In March, 1967, the Bureau of Indian Affairs established a vocational training, child care, and family living centre at the former base. In September of the same year, Pan American Air Lines established a transitional jet training facility at the base. The establishment of a fireworks company in vacated ordnance storage facilities and an electronics components firm followed. The State Hospital Supply Board utilized warehousing facilities.

Roswell's success was not without initial adverse impacts. There had been as many as 1,000 empty dwellings in the area prior to the closure announcement. There was over-

construction of low quality housing. With the closure announcement the construction workers left. There already had been a general emigration from the area. The county population declined as a whole and that of Roswell decreased, largely due to military families leaving the area. Retail sales declined by about one percent. Application was made to utilize the vacated MQ's for low income housing under the Protection and Maintenance Act which allows the use of federally owned housing to be used by a municipality for such purposes.

Roswell's efforts were a determined and realistic program aimed at recovery and development of local opportunities.

D. Observations

Some of the more obvious observations made from the review of the cases described in this chapter are presented here. A discussion of these and other observations and their consequences will be made in Chapter V.

Regardless of the 'permanency' of the military installation in terms of its status, the life span of a base is not guaranteed. As witnessed by the cases presented, it seems that closures occur when least expected. A closure may result from an overall cutback in military or a change in roles or as a result of new technologies. Whatever the reason, the announcement of a closure is quite shocking to the local community.

The initial reaction in the local community is often one of shock followed by panic. More often than not, representation is swiftly made to the federal government to have the decision rescinded. All possible political pressure is brought to bear. This action, if successful, only defers closure action which seems to lie dormant until the initial political upheaval subsides. Military fiscal economies or strategies remain paramount considerations. Communities effected by closure actions seem to have better success of recovery if they refrain from becoming embroiled in a political battle. It is suggested that local political resistance does more harm than good when seeking future aid for recovery or development programs. The publicity associated with such actions may also deter industrial development.

The immediate impact of closure actions is felt in the housing market, in local employment and retail food sales. Food sales slump with the exodus of military families and even base civilian employees who relocate to new jobs. The housing market is extremely sensitive to closure actions. Eventually the market recovered in most cases, but it is a long process unless a major new industry relocates to the area. It would seem that the housing market requires one to two years to recover. The direct impact of base closures upon employment may be softened by offers in the same or other government departments which require relocation. Both the U.S. and Canadian governments have programs offering

TABLE 2: MILITARY BASE CLOSURE CHARACTERISTICS (SUMMARY)

MILITARY BASE OR UNIT	CFS Clinton	CFB Hagersville	Army HQ CENCOM	Naval and Air Establishment
NEARBY COMMUNITY	Clinton, Ont.	Hagersville, Ont.	Oakville, Ontario	New York State Sampson-Seneca Cty.
COMMUNITY POPULATION	3280 ¹	2075	10,366 ³	N.A.
FINAL CLOSURE ANNOUNCED	N.A.	N.A.	N.A.	N.A.
CLOSURE DATE	Sept., 1971	Early 1960's	1966 (?)	3 Sept., 1956
MILITARY PERSONNEL	532 ¹ (950) ²	73 ³	561 ³	N.A.
CIVILIAN EMPLOYEES	271 ¹	381 ³	388 ³	N.A.
MILITARY HOUSING UNITS	145	None	60 or less	250+
CONVERTED BASE USES:				
Industrial	N.A.	N.A.	N.A.	No
Educational	N.A.	N.A.	N.A.	No
Public	N.A.	N.A.	N.A.	Minor
Recreational	N.A.	N.A.	N.A.	Park
Municipal Airport	N.A.	N.A.	N.A.	No
MANAGED BY:				
Local Community	N.A.	N.A.	N.A.	N.A.
State/Province	N.A.	N.A.	N.A.	N.A.
Federal Government	N.A.	N.A.	N.A.	N.A.
DEVELOPMENT CORPORATION FORMED				
FINANCIAL AID RECEIVED	N.A.	N.A.	N.A.	No
OTHER PROGRAMS	N.A.	N.A.	N.A.	N.A.
IMPLEMENTED				
IMPLEMENTED	N.A.	N.A.	N.A.	N.A.

1. In 1966.
2. Military Trainees in 1966.
3. In 1961.
4. Net reduction of military personnel or civilian employees.
N.A. - Information not available.

TABLE 2: MILITARY BASE CLOSURE CHARACTERISTICS (SUMMARY) con't.

MILITARY BASE OR UNIT	PRESQUE ISLE AFB	DONALDSON AFB	ROAMA
NEARBY COMMUNITY	Presque Isle, Maine	Greenville, South Carolina	Rome, New York
COMMUNITY POPULATION	13,000	N.A.	N.A.
FINAL CLOSURE ANNOUNCED	29 March, 1961	27 Dec., 1961	12 Dec., 1963
CLOSURE DATE	June to Oct. 1961	30 June, 1963	3380 (500) ⁴
MILITARY PERSONNEL	1259	4100	7902 (5600) ⁴
CIVILIAN EMPLOYEES	268	600	Retained by Military
MILITARY HOUSING UNITS	N.A.	N.A.	Not Available for Conversion to Other Uses
CONVERTED BASE USES:			
Industrial	Yes	Yes	--
Educational	Yes	Yes	--
Public	No	No	--
Recreational	No	No	Yes
Municipal Airport	Yes	No	Yes
MANAGED BY:			
Local Community	Yes	Yes	Yes
State/Province	No	No	No
Federal Government	No	No	No
DEVELOPMENT CORPORATION FORMED	Yes	Yes	Yes
FINANCIAL AID RECEIVED	Yes	N.A.	Yes
OTHER PROGRAMS IMPLEMENTED	N.A.	N.A.	N.A.

1. In 1966.
2. Military Trainees in 1966.
3. In 1961.
4. Net reduction of military personnel or civilian employees.
N.A. - Information not available.

TABLE 2: MILITARY BASE CLOSURE CHARACTERISTICS (SUMMARY) cont.

MILITARY BASE OR UNIT	NAVAL ORDINANCE PLANT YORK	FORT CHAFFEE	BLACK HILLS ARMY DEPOT
NEARBY COMMUNITY	York, Pennsylvania	Fort Smith, Arkansas	Edgemont, South Dakota
COMMUNITY POPULATION	N.A.	N.A.	1680
FINAL CLOSURE ANNOUNCED	April 1961	12 Dec., 1963	24 April, 1964
CLOSURE DATE	February 1964	30 June 1965	30 June 1967
MILITARY PERSONNEL	13	N.A.	12
CIVILIAN EMPLOYEES	1092	1440	520
MILITARY HOUSING UNITS	N.A.	N.A.	474
CONVERTED BASE USES:			
Industrial	Yes	Yes	Yes
Educational	No	No	No
Public	No	No	No
Recreational	No	No	No
Municipal Airport	No	No	No
MANAGED BY:			
Local Community	Private Corporation	Yes	Private Corporation
State/Province	--	--	--
Federal Government	--	--	--
DEVELOPMENT CORPORATION FORMED	N.A.	Yes	N.A.
FINANCIAL AID RECEIVED	N.A.	Yes	N.A.
OTHER PROGRAMS IMPLEMENTED	N.A.	Yes	N.A.
		N.A.	Urban Renewal, Tourism

1. In 1966.
 2. Military Trainees in 1966.
 3. In 1961.
 4. Net reduction of military personnel or civilian employees.
- N.A. - Information not available.

TABLE 2: MILITARY BASE CLOSURE CHARACTERISTICS (SUMMARY) con't.

MILITARY BASE OR UNIT	MOBILE AIR MATERIEL AREA	MIDDLETOWN AIR MATERIEL AREA	WALKER AFB
NEARBY COMMUNITY	Mobile, Alabama	Middletown, Pennsylvania	Roswell, New Mexico
COMMUNITY POPULATION	N.A.	N.A.	N.A.
FINAL CLOSURE ANNOUNCED	19 November, 1964	19 November, 1964	8 December, 1965
CLOSURE DATE	April (?) 1969	1 July 1968	1 July 1967
MILITARY PERSONNEL	1070	1250 (557) ⁴	N.A.
CIVILIAN EMPLOYEES	12500	10784 (2372) ⁴	N.A.
MILITARY HOUSING UNITS	N.A.	140	801
CONVERTED BASE USES:			
Industrial	Yes	Yes	Yes
Educational	Yes	Yes	Yes
Public	U.S. Coast Guard	No	Yes
Recreational	Yes	No	No
Municipal Airport	Yes	Yes	Yes
MANAGED BY:			
Local Community	Yes	--	Yes
State/Province	--	Yes	--
Federal Government	--	--	--
DEVELOPMENT CORPORATION FORMED			
FINANCIAL AID RECEIVED	Yes	N.A.	Yes
OTHER PROGRAMS IMPLEMENTED	N.A.	Yes	N.A.
	N.A.	N.A.	N.A.

1. In 1966.
2. Military Trainees in 1966.
3. In 1961.
4. Net reduction of military personnel or civilian employees.
N.A. - Information not available.

priority employment within the federal civil service for employees who are surplus at any particular establishment. These programs will be discussed in more detail in Chapter V. Such programs may soften the impact upon the effected employee but may have an adverse effect upon the local labour pool. A surplus of labour may be attractive to prospective industries, however, a large unemployed sector will also tax local resources and add to the gloom of the local situation.

The recovery of the local community is related to the initiative and drive of local leadership. Where adequate administrative and managerial skills are lacking, outside aid from either state or provincial governments or private developers may be required. The attitudes and dispositions of the local population also have much to do with the decisions of industry to locate in the area. The formation of a local development committee or corporation is a progressive step. Successful recovery efforts capitalize upon the reuse of the vacated military facilities although not necessarily so. The best strategy is to approach recovery as an overall development scheme for the effected community and not just the reuse of the base. A regional approach may be required. Reuse of base facilities for industrial and educational purposes seem to be a winning combination. The relocation of industries, or any facilities, without a net increase in employment is not recommended.

Early recognition of the community's dependence upon a military installation is an asset. Advance planning to encourage development pays off in the long run. Advice should be sought from provincial/state and federal agencies with regard to eligibility for assistance and possible agencies acting as an intermediary when obstacles arise. The U.S. Office of Economic Adjustment plays an important role in this regard. State or provincial cooperation is an asset and in cases where an already depressed area is effected, it may be necessary. Good publicity and public relations are an asset.

While many actions and/or combinations of actions seem to point to the path of success, recovery is not guaranteed. Each situation seems to be unique with its own specific problems which require individual attention. Each solution must be tailored to the specific problem and a specific aim.

E. Conclusion

Regardless of the status of a military base, they are not permanent installations. Early recognition of this characteristic by nearby communities is an asset to planning recovery from the impacts of a base closure. The initial reaction to closure announcements were shock and momentary panic. Efforts were made to have the decision reconsidered and rescinded but these were futile. In both the Canadian

and American experiences, the greatest impacts of base closures were in the housing and employment sectors of the local economy. These impacts were predictable from the studies reviewed in Chapter II. With respect to recovery programs, an overall development strategy and the drive and determination of local leadership were important factors contributing to successful recovery. Financial aid from higher governments was usually necessary. External expertise or advice also contributed to the success of recovery programs and reuse of the closed military base was often a major factor in successful development plans or strategies.

Chapter IV

THE CLOSURE OF CANADIAN FORCES BASE GIMLI

Gimli, Manitoba is a community of 1,660 (1976 Census) located on the west shore of Lake Winnipeg. It is approximately 97 kilometers north of Winnipeg, the provincial capital. Originally settled by a group of 285 Icelanders in 1875, Gimli is an area trading centre serving a region of mixed and dairy farming.¹ Tourism also plays a major role in the local economy swelling the local population to more than 3,000 in the summers.² The Icelandic Festival of Manitoba, an annual event at Gimli, attracted 30,000 visitors in 1979. The town has an excellent sheltered harbour and long stretches of sandy beaches. The harbour is not strictly for pleasure craft but also serves a small fleet of fishing boats. Fishing once played an important part in Gimli's economy and according to Major T.K. Arnason³, its role is still valued with 25 boats and about 100 men fishing the lake for whitefish in the summer of 1979. The economic base of the community has diversified, however, with the location of a distillery outside the town limits and the conversion of the former military base to an industrial park.

A. History of the Base Closure⁴

Canadian Forces Base Gimli was located approximately five kilometers west of the Town of Gimli. The base first started operations in September of 1943. It was a flying

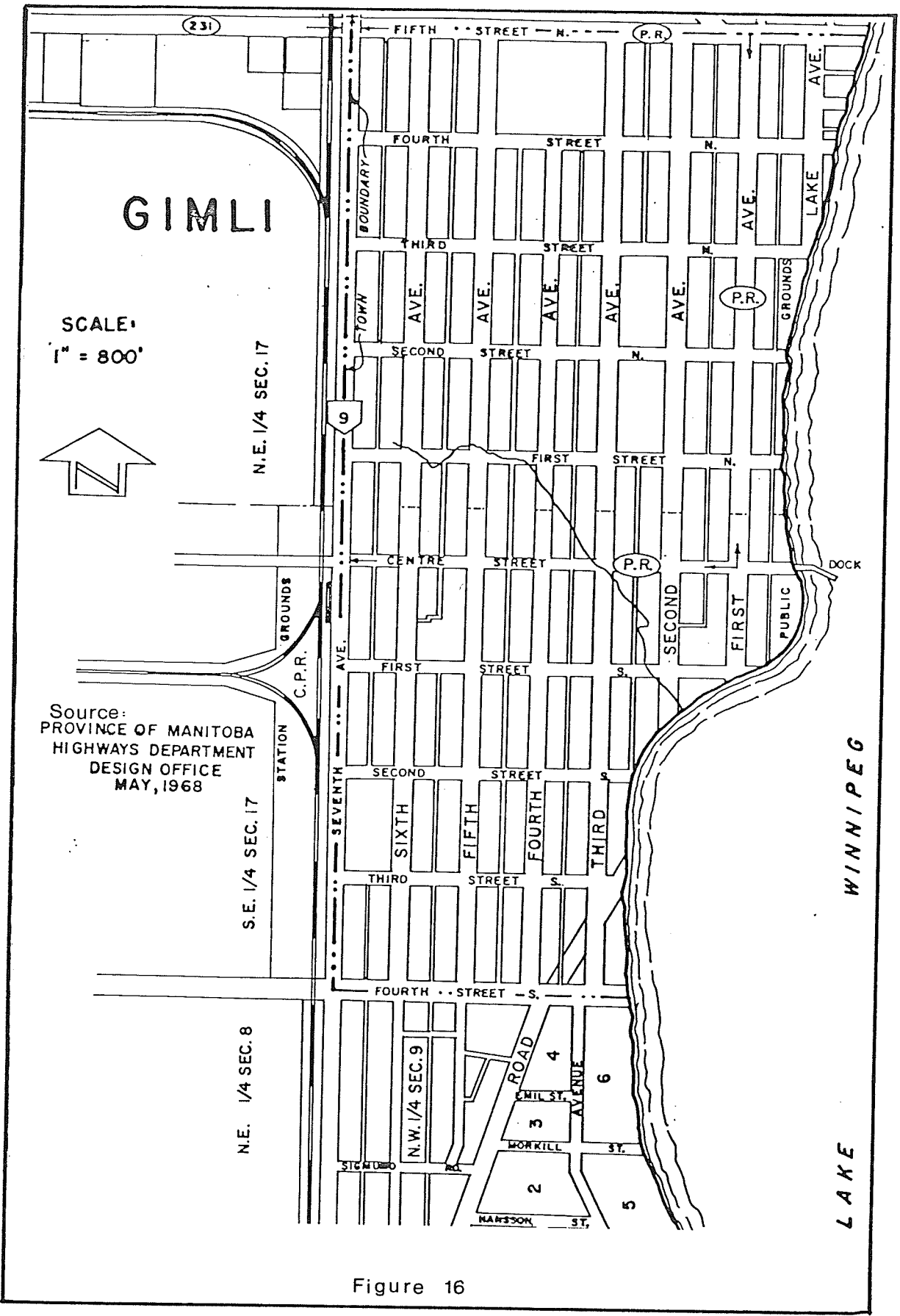
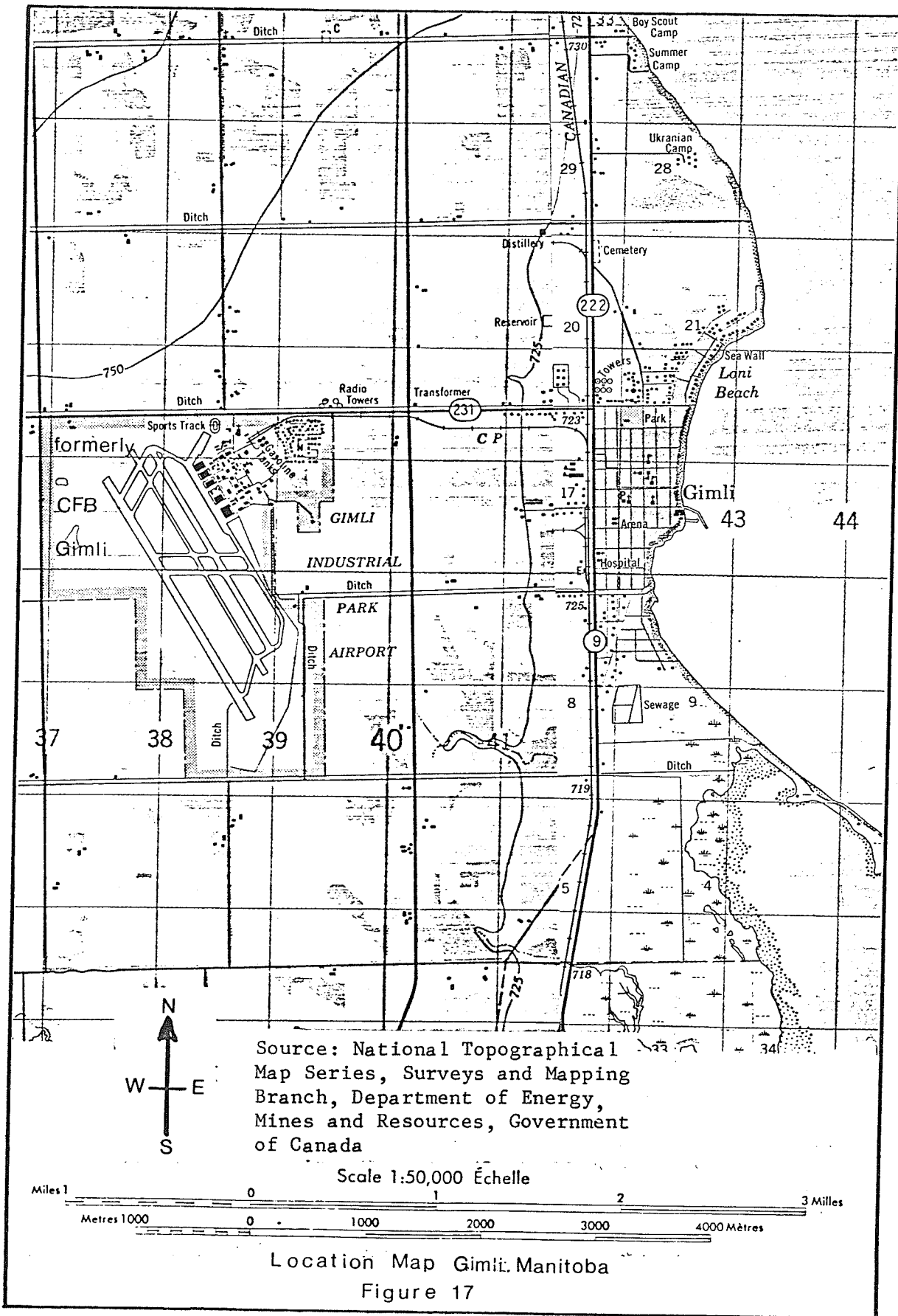
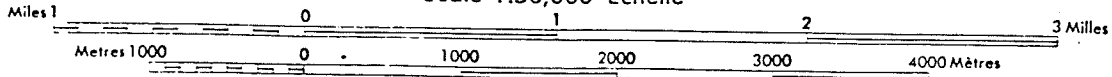


Figure 16



Source: National Topographical Map Series, Surveys and Mapping Branch, Department of Energy, Mines and Resources, Government of Canada

Scale 1:50,000 Échelle



Location Map Gimli, Manitoba
Figure 17

training base accommodating Number 18 Service Flying Training School. Manning levels reached a total of 1,337 including military and civilian staff and trainees. The Training School was moved in June, 1945 and the base then became the home of Number 1 Pilot Conversion School. Its role was to train pilots for the Pacific theatre of war but it just became operational when the war ended. The Conversion School closed and training aircraft were relocated to Edmonton, Alberta on October 1, 1945. The base became a reserve equipment maintenance depot and a summer training camp for air reserve squadrons and Air Cadets. Although military operations had decreased significantly, the base buildings and facilities were continuously maintained by a permanent housekeeping staff.

With the growth of international tensions in the late 1940's, the Royal Canadian Air Force began expanding and required more active training facilities. The military base at Gimli was reactivated in October of 1950. The base officially reopened in December of 1950 and accommodated Number 2 Flying Training School which trained pilots on the single engine Harvard trainer. Training started in January, 1951 with a group of Canadian pilots. Pilots from European NATO (North Atlantic Treaty Organization) countries also trained at Gimli. In June, 1953, Number 2 Flying Training School with its Harvards moved to Moose Jaw, Saskatchewan, and was replaced by Number 3 Advanced Flying School with the

T-33 jet trainer. Number 7 Field Technical Training Unit was also located at Gimli in October of 1953 in order to train repair technicians for the T-33.

In 1964, all jet training commenced in the Royal Canadian Air Force and so the school at Gimli was renamed Number 1 Flying Training School since it conducted basic training once again. In 1967, at about the time of integration of the three former military services into the single service of the Canadian Armed Forces, CFB Gimli employed about 900 military personnel and about 250 civilian employees with a total annual payroll of approximately \$4.2 million. The base also spent approximately \$290,000 annually for maintenance repairs in the area and another \$500,000 for purchases such as food and fuels. There were 193 MQ's units located adjacent to the base but another 222 families lived in the Town of Gimli and surrounding areas. The Town of Gimli came to depend upon the military base as a strong force in the local economy. The town was encouraged to develop housing and commercial projects because the base was thought to be a permanent installation.

In March, 1967, the Base Commander, Group Captain M. H. Docher, announced a \$10 million building and rehabilitation program for the base to be phased over a four year period. A new \$8 million runway and control tower were constructed and DND entered into an agreement with Evergreen Development from Winnipeg, to construct a \$3 million housing

development just west of the town to house military families. The Development would construct the 150 housing units and DND would guarantee rents for 20 years. The agreement guaranteed monthly rentals of \$14,200 per month. In 1968 a new agreement was negotiated for a ten year period for a bulk flat rate. The annual rate was revised on January 1, 1970 to a rate of \$264,100 per year.⁵

On August 27, 1970 a conference for town officials and news media was arranged at the base at which it was announced that CFB Gimli would close on September 1, 1971. The Base Commander, Colonel James Dunlop made the local announcement while simultaneous broadcasts were made nationally by the Minister of National Defence, the Honourable Leo Cadieux. The reasons given for the planned closure were a general reduction in the size of the Canadian Forces, a change in defence priorities and economies dictated by a fixed defence budget.

In 1970, the total operational cost of running CFB Gimli was approximately \$9.2 million. There were approximately 800 military personnel and over 200 civilians employed at the base. The total payroll amounted to approximately \$7.3 million of which \$1.06 million was paid to civilian employees. There were 240 military families living in town and the surrounding areas and 154 families in the Evergreen Housing Development. The remainder lived in MQ's and in single quarters on the base.

After a town public meeting, Major Daniel Sigmundson and a committee were delegated to travel to Ottawa and meet with federal officials. The meeting was delayed by the 1970 October Crisis of political kidnappings in Quebec. Later when the meeting eventually did take place, it was clear that the original decision would not be changed.

The federal and provincial governments came to an agreement to utilize and develop the former military base as an industrial park. In addition, the federal government provided \$1.1 million and the Province of Manitoba another 25 percent of this amount for the development of cultural and recreational facilities in the Town of Gimli. This project was to provide interim employment for those effected by the base closure.

Town Attitudes and Impacts

What was it like in Gimli after the base closed? Mr. Gordon Gingrich, a resident and businessman in Gimli summed it up by saying, "For three years it was pretty damn sad around here."⁵ Mr. Gingrich's comments may reflect some personal bias, however, since the base closure had a profound impact upon his personal life. Coming to Gimli as an employee of Western Grocers in the summer of 1969, he decided to go into business by himself and purchased the 'Solo' grocery store. Six weeks later the announcement of the base closure was made. Mr. Gingrich estimated that up to 60 per-

cent of his customers were military families. As the base slowly phased out, his store had to be open from 9 a.m. to 9 p.m., seven days a week. When Saunders Aircraft established itself at the base, Mr. Gingrich diversified and started catering. His main customers were the aircraft firm and the Canadian National Railway (CNR) Training Centre at the Base. Eventually he had to close his grocery store and his converted it to a small gift shop. The back of the store is used to service his vehicles. With the closure of Saunders Aircraft, Mr. Gingrich diversified once again this time to vending machines. His main customer is the CNR Training Centre at the former base. He also leases a bus to the Training Centre and contracts the driving.

Mrs. Violet Einarson⁷ was the Mayor of Gimli for a second time from November, 1972 to November, 1977. While Mayor, she served on the Provincial Advisory Board for the development of the former base as an industrial park. She recalls that when the base closed, the loss of the \$7 million payroll had a severe impact upon the community. Businesses declined and it was impossible to find renters for vacant accomodation.

In 1971, the Rural Municipality (RM) and Town of Gimli Development Corporation was formed with the purpose of promoting tourism and culturalism in the local area. It was given a federal and provincial grant of \$1.4 million which was used to develop a trailer park, a marina, a museum, and

a tourist information office. The town hall was also given a face lift. The trailer park is a profit making enterprise. These profits are used in turn to promote and operate the other non-profit activities such as the museum and tourist information operations. Originally, because of the government grants involved, provincial representation was provided in the Corporation. There is very little provincial input at this time.

According to Mrs. Einarson, the immediate impact of the base closure was felt in the housing market which took a down turn and which did not recover until Calverts Distillery, (constructed in 1967-68) got into full swing and the industrial park was in operation. The federal government purchased a number of military servicemen's homes when they could not be sold privately and in turn took a loss when they were sold by tender.

Schools had a sharp decline in enrollments but these also recovered when the effects of the industrial park and Calverts Distillery were finally felt. As Mrs. Einarson recalls, not many businesses actually folded but many felt a substantial reduction in gross sales. A bus service to the base terminated operation and of at least three taxi companies then in existence, only one now survives. The establishment of the CNR Training Centre at the industrial park was in Mrs. Einarson's words "a Godsend",⁸ although she does not under rate the value of the federal and provincial grants which in

her opinion were very successful.

Grants-in-lieu of taxes, either now or before the base closure, were not received by the Town Gimli but by the Rural Municipality. The RM is analogical to a county. Now, with revenue from Calverts and the industrial park, the rural municipality is in a healthy financial position. Mrs. Einarson hinted that the town is languishing in this respect. The RM has an assessment value of approximately \$10 million and the Town an assessment of less than half that amount. Essentially this means that a one mill increase in tax assessments by both Town and RM would result in twice as much revenue to the RM than that to the Town. This may have been the cause of some friction in the past and may cause some conflict in the future.

The impact of the base closure is difficult to assess since government records pertaining to CFB Gimli employees were destroyed a few years ago.⁹ Mr. J. Malcolmson was the Civilian Personnel Officer at CFB Gimli when the closure announcement was made. Mr. Malcolmson estimates that between 250 and 275 civilian employees were affected by the closure. These estimates include not only permanent civilian staff but also term employees hired for specific projects or for specified lengths of time. Because he himself was offered and accepted a position at CFB Portage La Prairie a few months before the actual close out of the base, he was not sure of how many employees were transferred

to other positions but suggests that an estimate of ten percent is probably optimistic. Many civilian employees "... had roots in Gimli ..."¹⁰, they were farmers and landowners; homeowners who were not mobile. The distillery absorbed many employees although some did relocate to other military bases at Winnipeg, Moose Jaw, and Calgary. Saunders Aircraft Limited also absorbed many surplus employees. According to Mr. Malcolmson, the closure announcement was a traumatic experience for employees who were secure in their positions. Many had from 15 to 20 years seniority and were settled in the area. It was an awful shock to these employees. Some of them, a very few of the maintenance and heating staff, were hired by the Province of Manitoba when it took over the base and they stayed on in their existing jobs. Mrs. Webster, the Office Manager of the CFB Winnipeg Base Civilian Personnel Office, confirmed Mr. Malcolmson's observations of relatively few civilian employee transfers.¹¹ She also stated that in some cases, Treasury Board permission was granted to waive a five percent per year penalty on early retirements. Each case was reviewed individually and on its own merit. There was no general regulation established to deal with such circumstances.

The current Mayor of Gimli, Mayor T.K. Arnason, confirmed many of the observations noted above.¹² The Mayor had worked at the military base himself until 1968 when he entered the construction business. From personal experience

in dealing with a property at the time of base closure announcement he recalled that real estate values dropped by 50 percent overnight. Local business activity also may have been reduced by as much as 50 percent. The town was shocked by the closure announcement, the hardest hit being the base civilian employees. Mayor Arnason confirmed that many of the employees were local landowners with small holdings who could not or would not move from the area. Twelve tradesmen who were offered and took jobs at the military base in Winnipeg, still are residents of Gimli and work in Winnipeg. They commute, travelling approximately 100 kilometers each way each work day. They have been doing this for close to nine years now.

One beneficial impact the base closure had upon Gimli is that the town and surrounding area now could take unrestricted advantage of the base's recreational facilities. The swimming pool, bowling lanes, and gymnasium are now used by local residents. The recreation facilities were originally taken over and operated by the Kinsmen who were unable to keep the facilities without financial assistance. The surrounding areas and the Town of Gimli organized themselves into a recreational district and now share the costs and benefits of the base's facilities.

The base closure announcement had great impact upon military personnel as well as civilian employees. The Base Commander during the phase out period was Colonel James Dunlop

who recounted the reaction of military personnel as being stunned by the announcement.¹³ Military personnel also had ties to the Gimli area. Many had married local women. All felt as if the rug had been pulled from beneath them and Colonel Dunlop moved quickly to prevent the initial shock from turning into hostility by disseminating as much information as possible. He wanted all military personnel to be ambassadors to the town during this difficult period. Both the military and civilian communities were in the same boat together. During the phase out period the attitude of the town and of civilians to the military did not change. Relationships with the community were always friendly and there were many sad farewells when military families stated leaving.

Colonel Dunlop also verified that many of the base's civilian employees stayed in the area. He added that the local residents are very flexible and that they can turn a hand at anything. "You don't lose any respect by working hard in Gimli. I have never seen such an adaptable people. They are very proud. They don't want to take handouts."¹⁴ He added that some thought that the base was a form of a handout and he suspected that some may have almost breathed a sigh of relief when the closure announcement was made.

Colonel Dunlop transferred to Cold Lake, Alberta with the flying school when the base was phased out. A few years later he retired from the Canadian Armed Forces and he returned to Gimli to take the position of Resident Manager of

the Industrial Park, a position which he still holds.

The Industrial Park

During the phase out of CFB Gimli, Colonel Dunlop had only routine contact with federal and provincial agencies involved in the future conversion of the base into an industrial park. An agreement was reached between the two governments whereby the military base and all surplus facilities would be sold to the province for a nominal amount.¹⁵ The federal government also agreed to provide a capital grant to help the industrial park to establish itself. The grant was spread over five years and was in the amount of \$1,628,000 which eventually amounted to \$1,831,000 when interest was added.¹⁵ Responsibility for the management of the industrial park passed to the Government Services branch of the Province of Manitoba.

The facilities that were turned over to the province consisted of 78 base buildings and a total of 102 Steelex MQ's.¹⁷ The 102 MQ buildings consisted of 91 duplex two and three bedroom buildings making up 182 family units and 11 four bedroom single units. There were also 110 garages associated with the MQ's, 84 double garages serving duplex units with 26 single garages. The area of land involved in the transfer was 1,504,781 acres. Other facilities and utilities included all electrical lines, power transformers, sewage collection systems, water lines, steam distribution system,

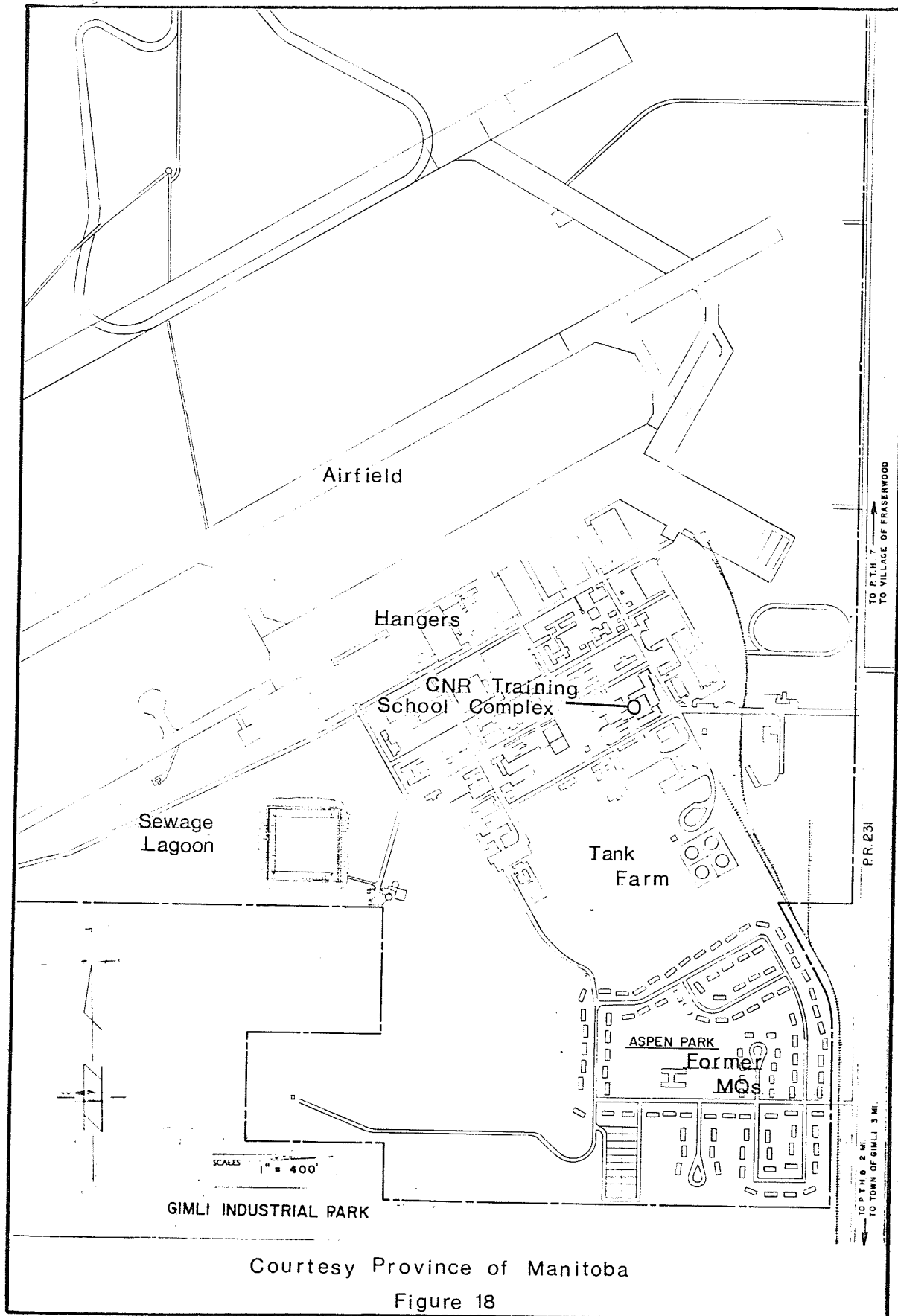
a bulk fuel facility, roads, sidewalks, and a 6,800 foot airfield runway and associated taxiways. Most of the land had been acquired by DND between 1942-1943 and 1951-1953 at a total cost of \$164,032.52.¹⁸ The original costs of the base buildings (not counting MQ's and garages) was \$13,436,143 and had a total floor space of 735,034 square feet.¹⁹ Only specialized or classified equipment was removed from the buildings. All built-in fixtures and equipment remained.²⁰ Barrack Blocks 10, 13, and 69 were even furnished with beds, desks, chairs, and bed linens. The Construction Engineering shops remained equipped as did the fire hall except for fire fighting vehicles. Maintenance supply stocks remained at the base. All refrigerators and stove remained.

DND and military authorities were not only generous but very cooperative. Approval was granted to two industries to locate at the base before military operations were phased out. Saunders Aircraft Corporation Limited leased Hanger 1 from October 1, 1970 until the close out.²¹ The rate charged was three cents a square foot of space per month with all utilities metered and provided at cost plus ten percent. Western Tools and Industries Limited leased Hanger 3 from October 15, 1970 to close out also. The rate was seven cents a square foot per month with all utilities provided by DND except industrial power which was provided at cost plus ten percent.

The last military aircraft left CFB Gimli on June 23, 1971²³ and all civilian employees, except nine who were employed by the industrial park, were laid off on 15 August, 1971. The last military personnel were posted to new duties on 17 August, 1971. CFB Gimli was closed.

At the Industrial Park an Advisory Board with local representation was established whose role was basically to determine the suitability of potential leasees.²⁴ In actual practice the dictates of the Province of Manitoba were followed. They owned and managed the industrial park. Since Mr. Dunlop has taken the Resident Managers position succeeding Mr. Robert Gemmel, the council has had little reason to meet. Mr. Dunlop is well respected and considered more than capable of making appropriate decisions.

By 1972 the province employed 39 people at the industrial park. At the end of that year there were 17 firms located at the former base employing 405 workers.²⁵ The largest employer was Saunders Aircraft Limited with 310 employees. Saunders had relocated from Montreal where prototype production of the ST-27 aircraft had taken place.²⁶ The ST-27 was a completely rebuilt DeHavilland Heron aircraft and qualified as a new aircraft. The federal government helped Saunders Aircraft by providing aid in establishing a training school for employees. Highly skilled workers were required. In 1972, Aerolineas Centrales de Colombia purchased first one ST-27 and then two more. The prospects for Saunders Air-



Courtesy Province of Manitoba

Figure 18

craft looked good. Problems arose, however, when certification was not forthcoming from the U.S., the ST-27's potential market. Saunders Aircraft also ran into financial difficulty. Mayor Arnason²⁶ stated that federal financial backing of over \$1 million was promised the firm but when cabinet shifts took place, promises were forgotten. The three aircraft sold to the Colombian commercial airline had to be repossessed. They and all of Saunders Aircraft material and equipment were auctioned in 1978. Gimli and the industrial park suffered a major blow.

Of the original 17 industries located at the former base at the end of 1972, and of the 26 various tenants at the base, in 1979, only two are the same: the CNR Training Centre and Ontario Central Airlines Limited. Also in 1979, eight of the 26 tenants only rented storage space and did not provide any employment.

The industrial parks major attraction are low rentals.²⁷ Space is rented at 50 cents a square foot. Low rental rates are attractive to industry but a problem for the industrial park management. If they raise rental rates, they will lose tenants and at the present rate the park cannot pay its way. In energy costs alone the Resident Manager estimates that the industrial park is subsidizing tenants approximately \$560,000 per year. The park does, however, provide the opportunity for new industries to prove themselves or to fold up with at least a fair chance of developing their product without being

held at ransom by the high costs of industrial and commercial accomodation.

New life could be breathed into the industrial park and the Gimli area if negotiations to form a West German helicopter industry at Gimli are fruitful.²⁸ The proposal and market potentials are currently under study and it will be some time before any further developments take place.²⁹

Quantitative Measures of Impact

Now, approximately nine years after CFB Gimli officially closed its gates, it is difficult to measure quantitatively the impact of the base closure upon the community. There are many confounding factors such as the federal and provincial grants to the Town of Gimli to promote tourism. The federal government's 'gift' of the base and its facilities to the province plus a large grant to subsidize operations so that industries could be attracted did much to offset the impact of the base closure.

During this same period, Calvert's Distillery was starting up operations. The distillery is owned by Distillers Corporation - Seagram's Limited.³⁰ Construction started in May, 1967 and the plant began its start up operation in November, 1968. The plant was officially opened in August 21, 1969 and went into full production in late 1969. The total capital cost of the plant was \$24.8 million. Starting with a staff of approximately 60 and gradually increasing each year, the

plant now employees 149.³¹ The distillery itself was given a government incentive in the million dollar range and was tax exempt for a ten year period.³² The start up of the distillery softened the impact of the base closure upon employment in the area.

There were other factors which contributed to the impact of the base closure rather than off setting it. In 1969, the British Columbia Packers fish processing plant in Gimli was closed as a result of steps taken by the Canadian Freshwater Fish Marketing Corporation.³³ The plant had been in operation since 1919 although it changed ownership a number of times. The plant was eventually renovated and became the local museum discussed earlier in this chapter.

Another blow suffered by local fishermen was the closing of Lake Winnipeg to fishing in 1970 due to mercury pollution.³⁴ Fishing has since resumed but it has not the same importance it had in the early and mid-1900's.

During the same period that the base closure impacts were having an effect, a Federal Regional Economic Development (FRED) program was being implemented in the entire Manitoba Interlake Region of which Gimli is a part. The effects of the program have not yet been quantified.

This evaluation is far beyond the scope of this study, however, one should note that the predicted impact of the FRED program was stated as essentially off setting the adverse impact of the base closure.

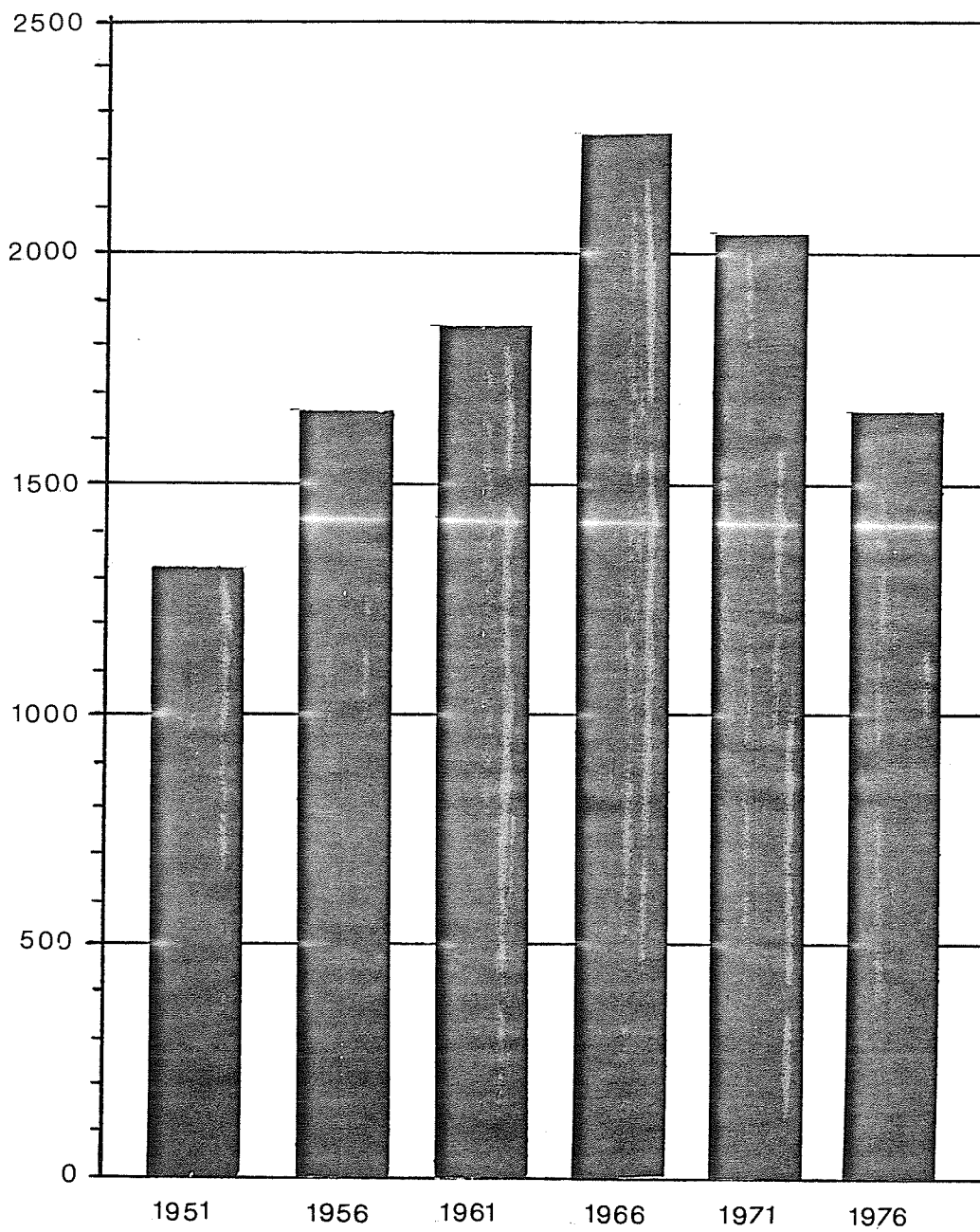
"Thus, negative impact associated with removing the Air Base expenditures is approximately equal per dollar to the positive impacts of the FRED expenditures. One dollar reduction in the expenditures associated with the base closure leads to 30 cents reduction in sales and income while one dollar of FRED expenditure leads to 20 cents increase in sales and income."³⁵

Regardless of these confounding factors it is still worthwhile to study some indicators of growth or decline in Gimli area relative to the military base closure. Figures 19 to 24³⁶ indicate the growth or decline of population, employment, number of employers, and retail establishments in the Town of Gimli. As is readily obvious, from 1971 to 1976, the population of the town has dropped to levels equal to those of two decades earlier. The number of major employers has increased indicating that the economic base is diversifying to some degree. The number of civilian employees has surpassed that employed by the military base but has yet to reach the combined total of military and civilian employees. This may indicate that although employment opportunities for local residents have increased, the total income into the area may not be as high as it was when the base was in operation. The impact of the closure upon food and beverage retailers is also obvious. There was a sudden drop in numbers during the base phase out period. It has taken a number of years for these facilities to recover to their previous numbers.

Other statistics concerning income and revenue for

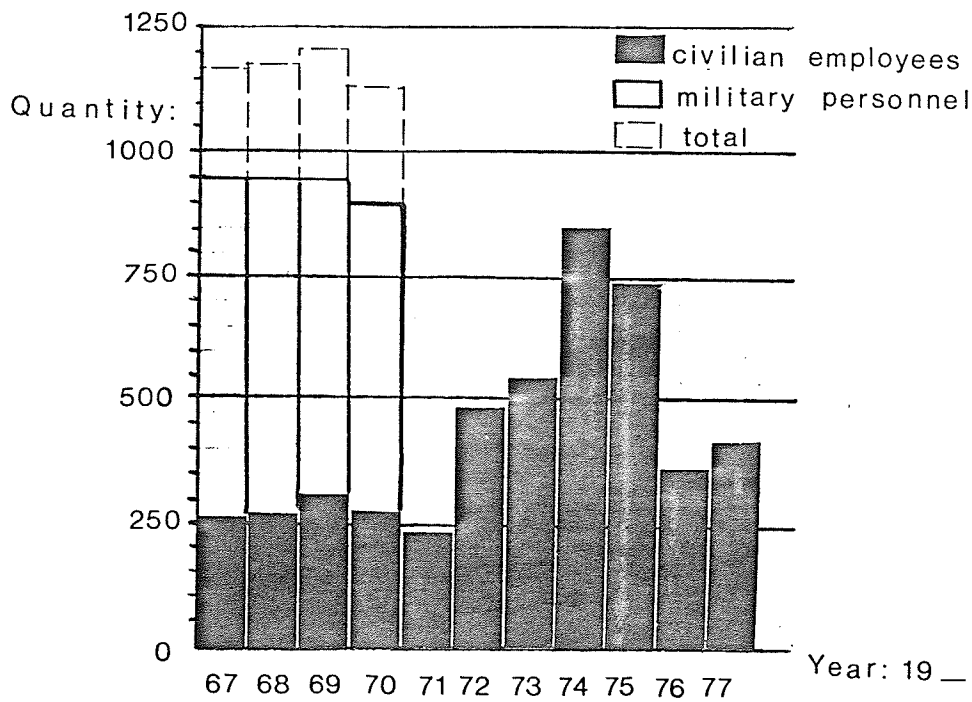
the Town and Rural Municipality of Gimli were also examined.³⁷ These included land assessments, building assessments, business assessments, exemptions, current taxes, tax arrears, and total collectable taxes. Expenditure statistics studied included those upon education, protection, transportation, social welfare, economic development, recreation and culture, and general government. Revenue sources such as grants-in-lieu of taxes, conditional and unconditional grants were also examined with total revenue statistics. The data for each item was separated into two periods: from 1966 to 1970 and from 1971 to 1978. The purpose was to determine if any significant changes took place between these two periods, which was the time span of the base closure.

The method employed to highlight changes was to use simple linear regression techniques to determine a least squares best fit line for the data in each of the two periods. From the slopes of the lines, the average rate of increase or decrease of each revenue or expenditure was then determined. These rates were then compared and tested for statistically significant changes in rates. With respect to the Rural Municipality of Gimli, significant changes in rates were noted for land assessments, current taxes and total tax collections, education expenditures, general government expenditures, grants-in-lieu of taxes, and total revenue. Significant changes in exemptions only were noted for the Town of Gimli. These results, however, should be treated with some degree of caution

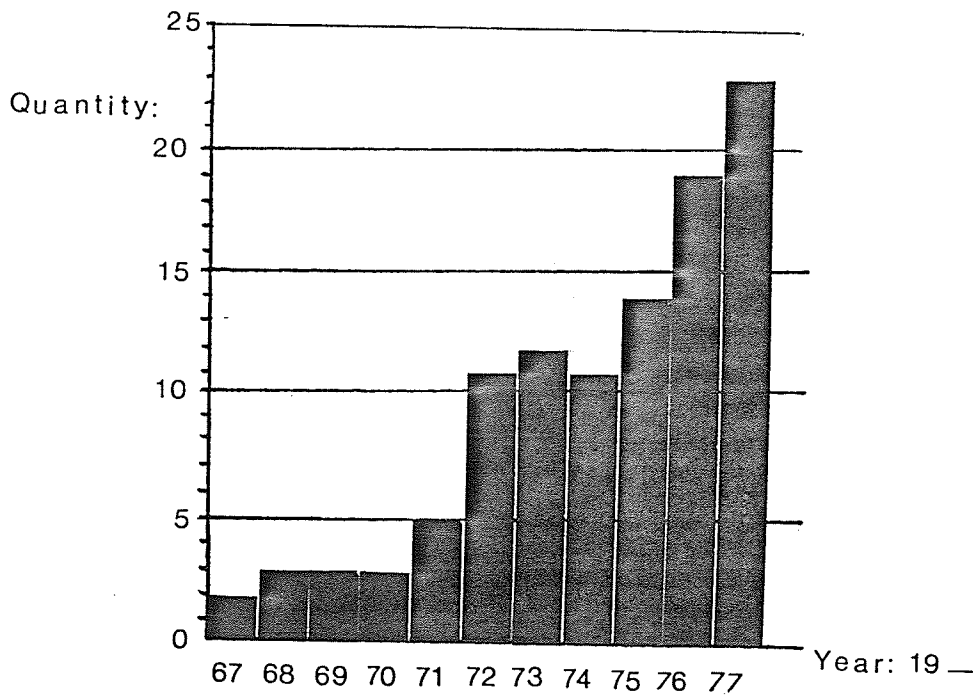


POPULATION OF GIMLI

Figure 19

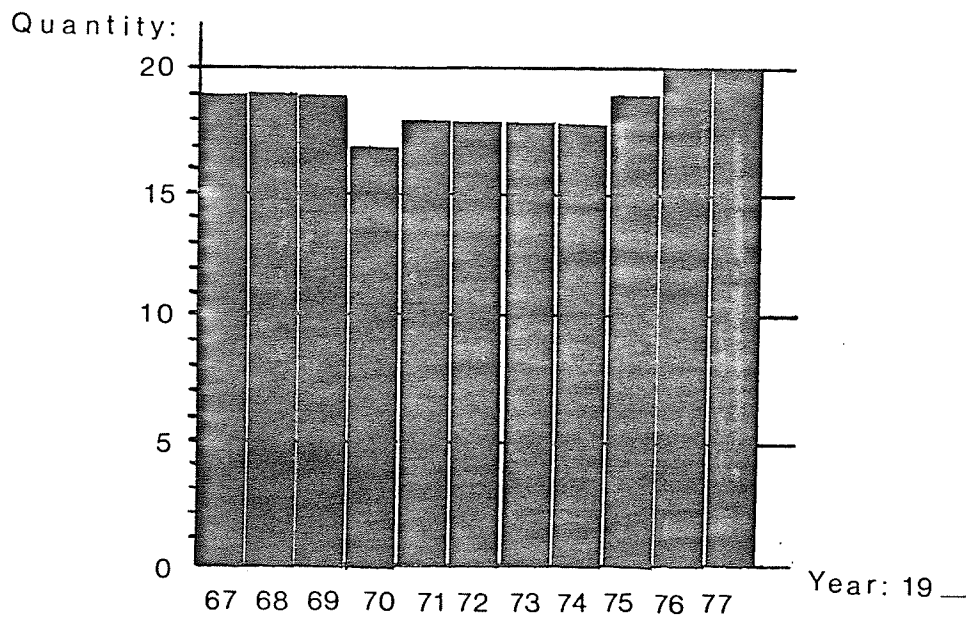


Employment

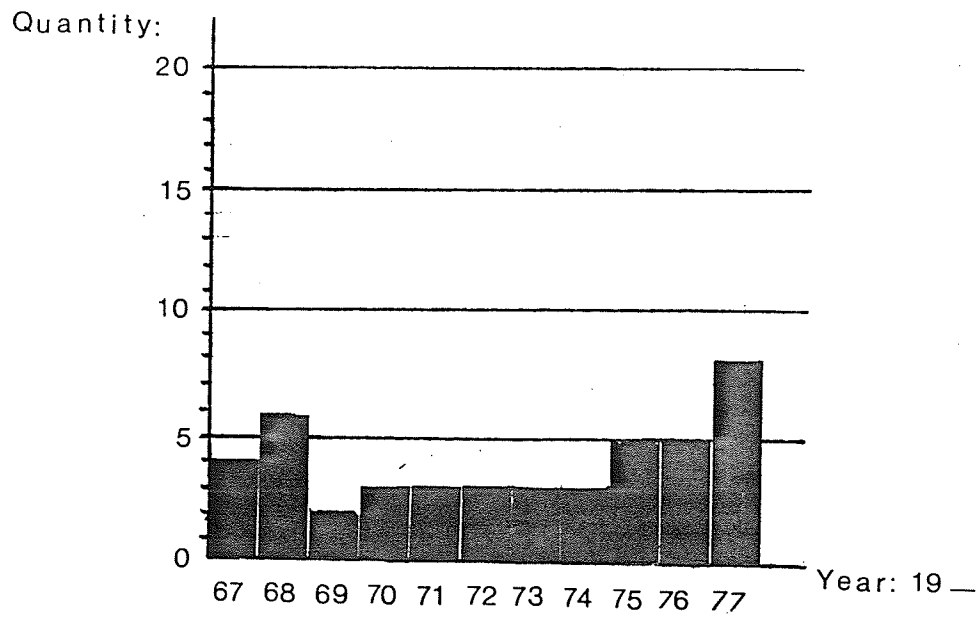


Employers

Figure 20

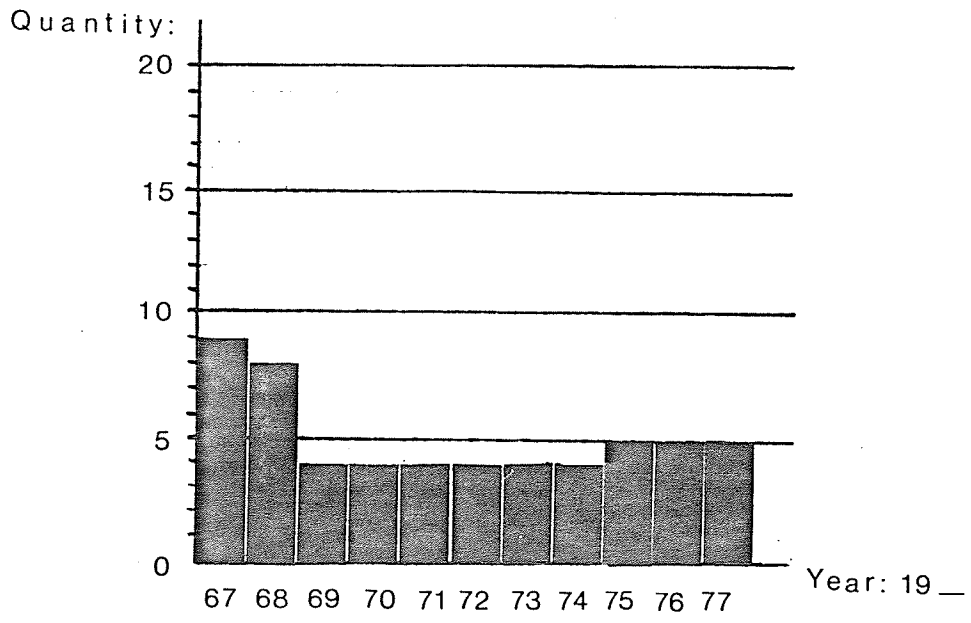


Food and Beverage Outlets

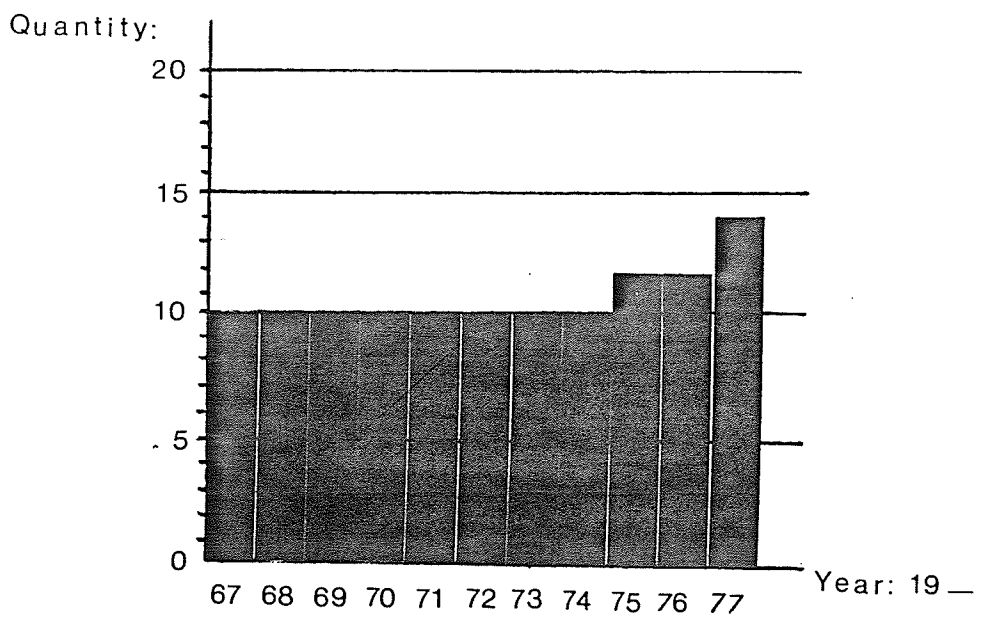


Furniture and Appliance Outlets

Figure 21

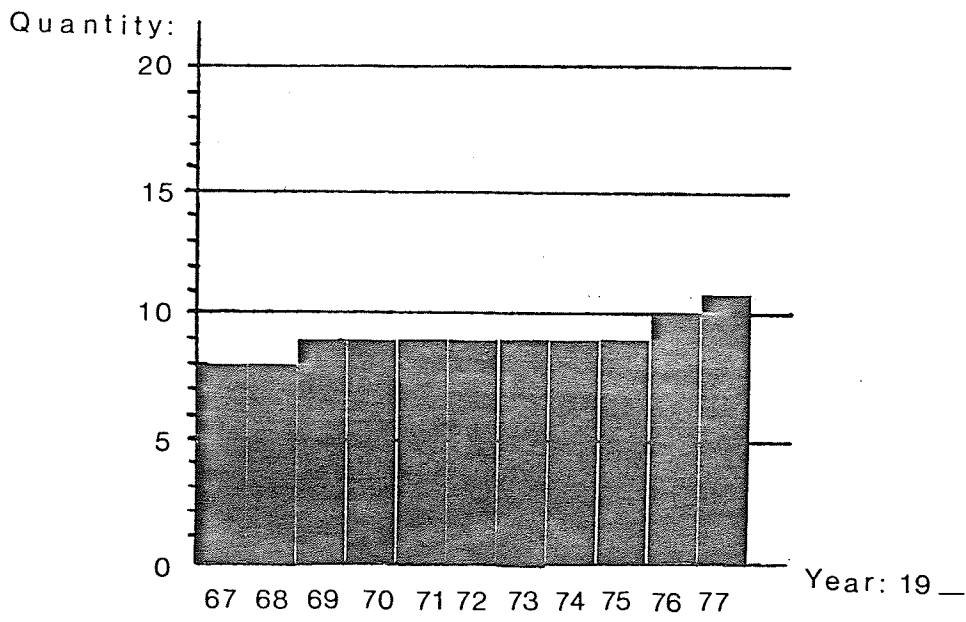


Apparel Outlets

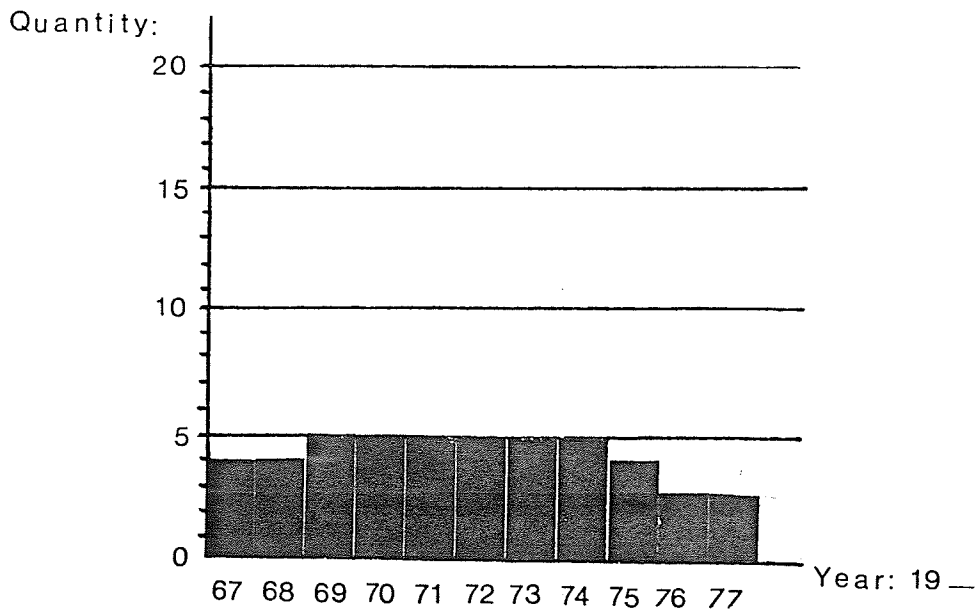


Automotive Outlets and Servicing

Figure 22

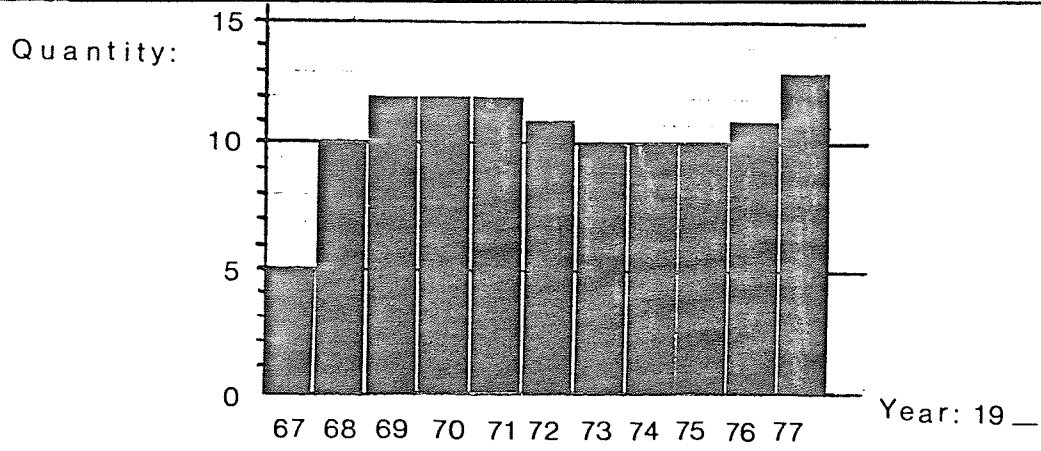


Building Material and Hardware

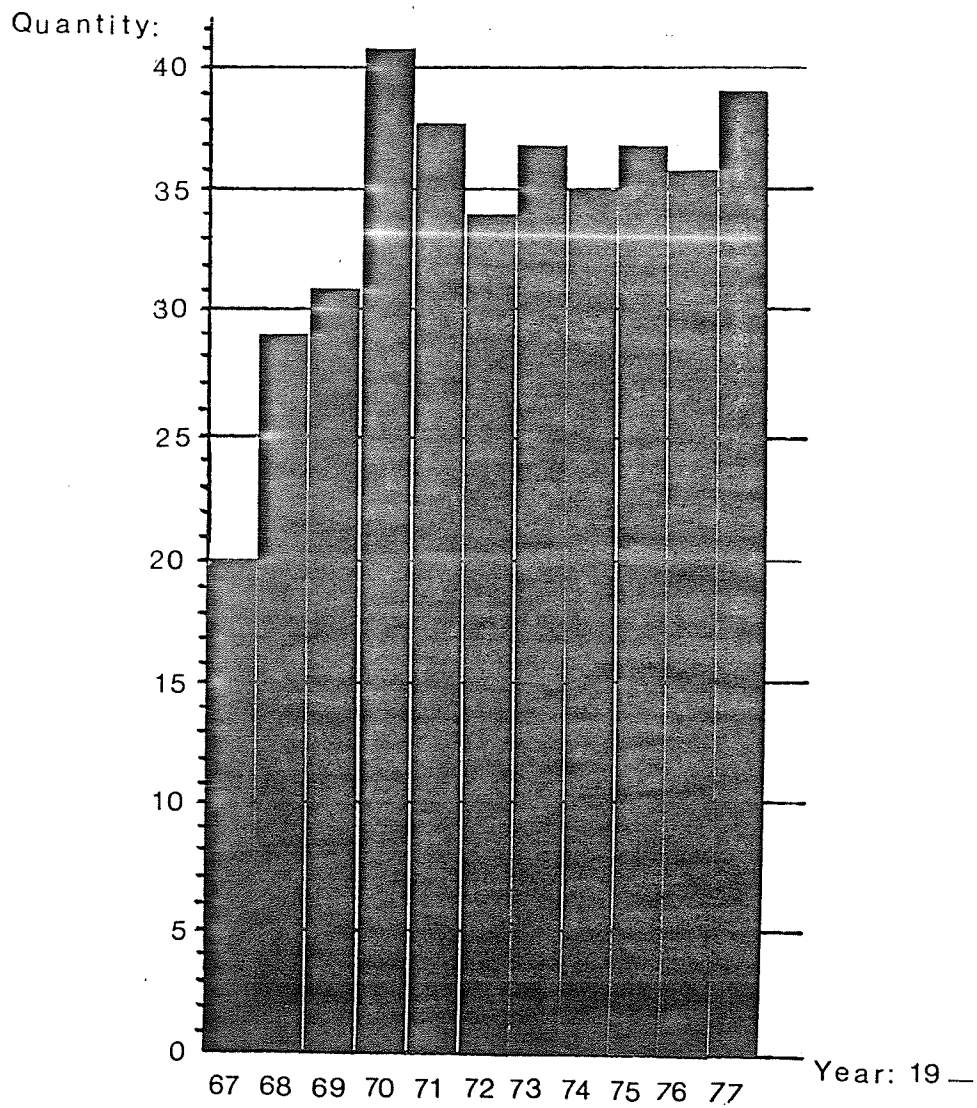


General Merchandise

Figure 23



Professionals



Other Outlets

Figure 24

for although the rates of change of the two regression lines was found to be significant, the correlation between time and the various indicators examined were not found to be significant for each individual time period. Nor can one attribute the changes to the military base closure per se. There were many other important changes taking place at the same time as we have discussed above and it is difficult, if not impossible, to ascertain the degree of influence each had. The results of the indicators showing significant changes are tabulated in Table 1. The value of land assessments in the RM of Gimli changed from a rate of increase of \$16,703 per year to \$23,044 increase per year. Current Taxes for the RM changed from an average yearly increase of \$21,234 to an increase of \$97,498 per year. Total taxes for the RM which included current taxes changed from an increase of \$22,004 per year to an increase of \$105,314 per year. Education expenditures for the RM changed from an annual increase of \$10,401 to \$107,790. General government expenditures increased from a rate of increase of \$2,714 a year to a rate of increase of \$7,645 per year. The total revenue for the RM changed from a rate of increase of \$35,522 per year to a rate of increase of \$155,231 per year. Part of this change reflected a change in grants-in-lieu of taxes which from 1966 to 1970 averaged an increase of \$957 per year and which averaged an increase of \$29,279 from 1971 to 1978. The only significant change in rates of increase for the Town of Gimli

occurred in tax exempt properties which had been increasing at a rate of \$67,913 per year from 1966 to 1970 but which changed to an increasing rate of \$128,252 per year from 1971 to 1978.

E. Discussion

Gimli was not unlike other communities whose case studies we have examined. It too was caught off guard by the military base closure announcement. Like many other communities similarly effected, prior to the closure announcement it was complacent in actively attracting and promoting new industrial development in the area. The shock of the base closure together with provincial leadership and financial backing helped to diversify the economic base to some degree.

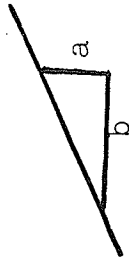
As is not uncommon, the first reaction to the closure announcement was to make representation to have the decision rescinded. Once this failed, local leaders meet with provincial representatives to get down to work and building a recovery program. The local development corporation that was formed was quick to capitalize upon the existing resources of tourism and recreation which had not been fully developed as yet.

The town lacked the leadership and financial backing necessary to manage and promote the industrial park. Federal and provincial aid in these two areas were invaluable

INDICATOR
With values
in dollars

BEST FIT
LINE A

With slope = $\frac{a}{b}$



BEST FIT LINE B
With slope = $\frac{c}{d}$

YEAR

TABLE: 3 LEAST SQUARES BEST FIT LINE CHARACTERISTICS FOR INDICATORS SHOWING SIGNIFICANT LINE SHIFTS

INDICATOR	R ² LINE A LINE B	F VALUE		SLOPE		F VALUE FOR		F VALUE FOR	
		A	B	A	B	95% CONFIDENCE	LINE SHIFT	LINE SHIFT	CONFIDENCE IN SHIFT
LAND ASSESSMENT RM OF GIMLI	0.92052	34.7	216	16,703	129.4	216	129.4	16,703	19.4
	0.79172	22.8	234	23,044		234		23,044	
CURRENT TAXES RM OF GIMLI	0.75746	9.4	216	21,234	32.6	216	32.6	21,234	19.4
	0.95129	117.2	234	97,498		234		97,498	
TOTAL TAXES RM OF GIMLI	0.76393	9.7	216	22,004	22.1	216	22.1	22,004	19.4
	0.91702	66.3	234	105,314		234		105,314	
EDUCATION COSTS RM OF GIMLI	0.38782	1.9	216	10,401	45.7	216	45.7	10,401	19.4
	0.95498	127.3	234	107,790		234		107,790	
GENERAL GOVT COSTS RM OF GIMLI	0.98127	157.2	216	2,714	40.3	216	40.3	2,714	19.4
	0.96692	175.4	234	7,645		234		7,645	
GRANTS-IN-LIEU TAXES RM OF GIMLI	0.93035	40.1	216	957	58.4	216	58.4	957	19.4
	0.95557	129.0	234	29,279		234		29,279	
TOTAL REVENUE RM OF GIMLI	0.87260	20.5	216	35,522	24.0	216	24.0	35,522	19.4
	0.93550	87.0	234	155,231		234		155,231	
EXEMPTIONS TOWN OF GIMLI	0.93083	40.4	216	67,913	27.1	216	27.1	67,913	19.4
	0.96241	153.6	234	128,252		234		128,252	

in achieving the current success of the industrial park. The local Advisory Board which was composed of provincial and local representatives almost started off as a governing body for the industrial park³⁸ but is soon evolved into an information exchange. Although it may not be desirable to involve a committee such as the one formed in the daily routine of managing the industrial park, it may perhaps be more valuable to use it for more than an exchange of information. As it is now, the local town leadership have relatively little input into the affairs of the industrial park. As it was when the base existed, they are isolated from the affairs of the industrial park. Perhaps if local leaders or residents were more actively involved in the management of the industrial park, the town leadership as a whole would feel more inclined to promote development and growth in the area.

The attitude of the town towards expansion of the industrial park is amply illustrated by the Mayor's³⁹ comments about in the proposed location of a Western German helicopter manufacturing firm at the industrial park. The Mayor concurred with the view taken by the provincial government that the proposal should be studied in depth particularly because of the impact an influx of 400 or more employees would have upon the existing housing and services of the town. This reaction may be due in part to the fact that the town does not receive any revenue from the industrial park but may also be due to a lack of information concerning the benefits

of such an industrial firm in the area.

The impact of the base closure upon food retailers was expected judging from the experiences of previous case studies as was the impact upon the housing market. The impact upon retail activities as perceived by the individuals interviewed may have been slightly exaggerated. Mrs. Einarson noted⁴⁰, many of the military families travelled to Winnipeg to shop, often just for a break and to get away from the area for a change. The significant decline in population since the base closure may be due to other factors other than employment opportunities. Factors such as the lack of any educational facilities beyond high school may be a cause for an exodus of young people. Once these young people complete their education elsewhere, it is unlikely they would return to Gimli. The close proximity of Winnipeg with diversified employment and opportunities for higher wages may also be a factor in emmigration.

F. Conclusions

Gimli points out that the adverse impacts of a base closure and the success of recovery programs may not be as important in a quantitative sense as much as they are in a subjective sense. The impact of various actions upon the attitudes of individuals and the community as a whole may be more important than the actual absolute gains or losses measured quantitatively. To this end, communication, public

relations, and the dissemination of information to as large a number of local residents as possible will do much to guarantee the success of a recovery program.

Chapter V

ANALYSIS OF CASE STUDIES

A. Introduction

From the case studies examined, a definite pattern of closure actions and reactions is identifiable and will be presented in this chapter.

Areas of stress and impact also are apparent. Some of these are common to all cases to some degree; and, others are more or less unique to particular situations. From these observations, recommendations will be made concerning policies, procedures, and recovery efforts. There are also more implications for planners of future military bases in the design and siting of military installations.

B. Closure Patterns

Although there are many players in the process of closing a military base, the focus of this study has been upon the military base and its local community. The case studies which were reviewed indicate a definite pattern in the relationships, actions, and reactions of the base and the nearby town.

The nearby community, as a rule, does not recognize the extent of its economic dependence upon the local military installation. Even if this dependence is recognized, it is usually readily accepted. Rarely, and only in exceptional cases, do civilian communities make a concerted and determined

effort to diversify their economic base before a base closure announcement is made.

Secrecy prevails before the formal announcement of closure of a military base.¹ Rumours may, and often do, leak out shortly before the announcement but these are dismissed for what they are - just rumours. Closure announcements are usually made by politicians at an opportune moment followed by details released from the effected base. Announcements may also be made simultaneously by both federal politicians and local military commanders. Seldom do senior military commanders release information concerning the closure of bases without having politicians and local commanders make the initial announcement. The formal announcement is usually followed by a barrage of information concerning the rationale and logistics of the impending closure. This information is usually of a general nature with details to be worked out over a specified time period.

The initial reaction of the local community is shock and disbelief. More often than not, this initial reaction is followed by immediate furious efforts to have the decision rescinded. Political pressure is brought to bear upon departmental and government heads. If successful, this pressure only achieves limited aims. At most the decision is usually only deferred for a few years. Rarely if ever if the decision totally reversed.

While the town wages its political battle, local mili-

tary commanders become concerned with the problems of maintaining the morale and operational efficiency of their units while working out the logistical problems of the base closure. It is a busy period and there is little time to be concerned with the problems of the local community. There are phase out deadlines to meet while still maintaining various levels of operational status. It is no mean task to motivate personnel who know their duties and tasks are no longer required in the long run. During this same period, the initial closure decision is usually reaffirmed by government or military authorities.

The reaffirmation of a closure decision usually results in momentary panic or despair in the local community. The initial impacts of the closure upon the local economy become evident in some way or another, usually in the local housing market. Information concerning phase-out by the military is usually made public to prevent further rumors and to allow local leaders and planners to react accordingly. At this stage, community efforts are usually directed towards formulating a strategy for recovery. The town becomes resigned to the inevitable base closure. A development corporation or planning committee is usually organized to deal with the situation.

In the meantime, steps are taken to declare the military facilities surplus. This usually involves studies by other federal ministries and departments to determine if the

military base could be utilized for other federal government purposes. If no useful purposes are found and claims are relinquished, the provincial government is then usually offered the base for any purposes it may find necessary. Once provincial clearance is obtained, the base can be offered to the local community and if rejected, it may be disposed of to the private sector.

Once the local community has organized itself to deal with the base closure, it begins to assess the opportunities and resources available to it.² The picture does not seem to be quite as bleak anymore and in some cases it may be quite promising. Some sort of aid is usually requested from senior governments either in the form of management or finances, usually finances and often both. The usual strategy formulated by the town, independently or with advice from other governments, is to convert the former military base into an industrial park. Other activities such as public institutional functions and educational functions may also be included.

As the military begin to physically move troops and equipment, the lay-off of civilian employees begins and continues until a minimum caretaker staff remains. During the phase-out, the base may gradually be converted to its new uses provided it does not interfere with military activities and provided all senior governments have relinquished their claims for possible reuse of the facilities. Once the con-

version of the base begins to take shape, the community begins to realize that the effects of the base closure may not be as disastrous as first anticipated and that indeed it may be better for the town in the long run. During this same period there are bound to be set backs in the recovery of the community and there will undoubtedly be frustrations with planning and implementation of the whole process.

C. Factors Effecting Impacts

The impacts of military base closures are related to the characteristics of the town and the military base. The severity of adverse impacts is indirectly related to the relative size of the community and directly to the size of the base. The base is usually the largest single employer in the community. The ratio of civilian employees to military personnel effects the impact of the closure upon direct, indirect, and induced employment in the community; and, even a small base may have profound impact upon the local community if it employs a large number of local residents.

The type of military installation and its activities also effects the impact it has upon the surrounding area. A training base, with a small proportion of permanent staff members and a large ration of young trainees, will have a different impact than an operational base with few trainees and a larger permanent staff. Permanent staff are usually married and have families who spend more time and money in the

local community.³ They will live in the local community and do their shopping there. Trainees are usually single personnel or married service personnel on a training course of a short period without their families accompanying them. Single servicemen tend to spend their money in larger centres. The first chance they have to get away, they head for the larger city with its diversity in recreation and entertainment.

The impact the base has upon the nearby community is also related to the characteristics of and facilities available in the community. The community with a diverse economic base will not be as adversely effected by a base closure as the one that has a very narrow economic base of which the military installation is a part. The facilities offered by the town also have a bearing upon the severity of impact. A town with a very large service sector out of proportion to say a similar town without a nearby military base or similar institution, will be more adversely effected by a closure. A number of small restaurants, fast food outlets, gas bars, or movie theatres may find it difficult to survive once the base closes. Considering all these factors, it is advisable to locate future military bases in or near large communities, are more capable of absorbing and coping with the adverse impacts of the eventual base closure.

Another factor which affects the impact of a base closure is not only the local economy but the state and health

of the regional and even national economy. What this amounts to is that it is easier to recover from adverse impacts in a healthy expanding economy, but when times are tough, they may be even tougher on the impacted area than would normally be expected. Although many of the problems faced by the community in a base closure situation may only be solved by attacking them on a local level, others may best be approached from a regional point of view. Recovery or development programs contemplated by the community should be coordinated with those of surrounding areas even though the immediate impacts of the base closure may only be felt in the local area.

D. Major Areas of Impact

1. The Housing Market

The most immediate impact of a base closure is felt in the housing market.⁴ Market values plummet. As the base phases out its operations, vacancies appear. A number of military personnel who owned homes in the local area may default upon their mortgages. Deterioration usually is noticeable in low income housing, but often a general upgrading in the quality of other housing is apparent for the remaining population. There usually is an initial shift to rental accomodation. The impact upon the housing market is usually reduced by the proportion of MQ's located at the base. The impact upon the local housing market would be even more severe

if these did not exist. It is advisable to withhold government housing from the market until the market recovers. Usually the housing market will recover just as rapidly as it declined once the effects of recovery plans are felt.

2. Local Employment

Although the housing market is extremely sensitive to base closure announcements, the impact which causes most concern is that upon employment. Those whose employment is directly effected by the base closure usually form the core of opposition to the closure.⁵ Other local manufacturing employment is usually not effected by the closure since it is unlikely that major sales of these firms were made to the base. Military procurement policies usually follow a national central purchase policy and local procurement is usually of a minor nature. If five percent or more of the local population is employed directly by the base, then there is likely to be a significant impact upon the local economy.⁶ The local employment impact may be reduced to some extent by the freeing of jobs held by military servicemen's wives and dependents or by 'moonlighting' second jobs held by military personnel themselves. The potential unemployment situation may also be relieved somewhat if a high proportion of the base's civilian employees choose to relocate either to other government job offers or to higher employment areas. The unemployment situation caused by the base closure will depend upon the suc-

cess of local recovery and development programs, however, the finding of new industries to create jobs may not be the whole solution to the problem if the wages paid are not similar to those previously earned. The income of the community as a whole may decline. It should be noted in this discussion that the impact upon employment in the local area brought about by a military base closure is not as severe as if a similar sized private industry had ceased operations. The reason for this is the make up of the personnel employed. Private industry usually employs a very high percentage of local labour. Military installations import a large proportion of their labour in the form of military servicemen.

3. Retail Activities

Base closures also had a noticeable impact upon retail activities in local communities. In most cases it was noted that retail activities slowed somewhat but eventually recovered as planned recovery programs were implemented. Some small operations may cease if the town is too service orientated, however, the effects of a base closure upon retail activity may be reduced by a gradual phase out of operations. Usually the local economy suffers a set back initially but usually diversifies after a base closure, unless of course the community is relatively isolated and the military base formed a very large part of the local economic base. A military base can act as a 'life'support' in small communities

with no other potential for growth. In such cases the impact of a local base closure upon retail and other activities may be quite devastating.

4. Severity of Impacts

The case studies reviewed revealed that more often than not, the existence of a nearby military base or its removal does not have a permanent influence upon the local community? The opening or closing of a base has little permanent effect upon the potential of that community to grow or to carry on various degrees of economic activities. The immediate impacts of a base closure may be quite traumatic but the case studies review indicate that adverse effects may be countered by implementing recovery programs which diversify and expand the community's economic base. The existence of a military base acts as a catalyst to speed up the economic development and evolution of a community, but in some cases it may slow down development of the local economic base because of an apparent sense of security and resultant complacency. In these cases the closing of the military base may act as a stimulant to organize local development programs. The closure of a nearby military base will usually slow down economic development by removing a major employer from the area. Furthermore, if local attitudes are pessimistic with regards to recovery, new employers will be discouraged from locating in the area.

There are many other impacts that a base closure has upon a community but most of those noted in the previous chapters and not discussed here are usually closely related to the characteristics of the base and communities facilities. The impact upon schools for example is closely related to the facilities provided or not provided by the base and/or the dispersion of military dependent children among existing community facilities. It seems that those impacts which are predominant in the majority of the cases studied were those involving housing, employment, retail activity, and the potential of the community to diversify or develop an economic base.

E. Major Concerns

1. Employment Policy

The recovery of housing and retail activities is linked directly to the success of local development programs. Housing and retail activities can usually weather the storm for an extended period and await the effects of new development strategies. Time, however, is of greater consequence when considering the impacts upon employment. Those whose employment is affected directly by the base closure have their own and their family's welfare at stake and are obviously concerned with the availability of employment not only in the long run, but the short run as well. They may not be able to reap the long run benefits of recovery programs if

there are no jobs available in the near future. Many will emigrate if necessary and if their ties to the local area are not too strong. If indeed, the long run prospects of employment may not be bright, as suggested in small isolated communities, it may be well to encourage emigration.

Current federal government employment policies provide for a three month minimal and 12 month maximum lay-off notice for surplus employees⁸ but DND usually tries to give at least six months notice when possible.⁹ Surplus employees normally have a priority preference for positions within the federal civil service based upon qualifications, geographic locational preference, and also willingness to accept an appointment at a lower level.¹⁰ Any employment vacancies cannot be filled without first having checked the priority list of surplus employees. Employees normally retain their priority upon the list for one year after the date of lay-off.¹¹ Should an employee require relocation to accept a new appointment, cost are reimbursed in total.¹² The employee would not normally lose his priority for appointment unless he blatantly refused an offer.

2. Communication and Co-operation

After the initial closure announcement and during the phase out period it was found that communication and cooperation were particularly important to the local community especially with respect to the local military commander.¹³

Positive community relations are extremely important in creating a progressive attitude to future recovery within the community. The local military commander is responsible for explaining the rationale for closure to the local community. He also coordinates or arranges early access to the base and provides information concerning base facilities and resources. He is the one who keeps the local community informed on the progress of the scheduled phase out. He is the principal DND representative in the area and he must maintain constant contact with local leaders and other interested government agencies if the flow of communication with the federal government is to be constructive.

It is very frustrating for local leaders not to be able to communicate with any one particular individual or agency which can speak with authority for the government. The U.S. encountered this problem in the large scale base closures after the Korean Conflict and the DOD created an agency, the Office of Economic Adjustment, to coordinate the various federal agencies involved.¹⁴ The OEA works with representatives from other government departments and agencies and acts as a planning agency to inform local or area planners of the various programs or possibilities that exist. The OEA can cut through a lot of the red tape which local communities may encounter and serves to provide information and to expediate conversion of the military base to other uses. The services of the OEA are available for the community

to use if they so desire. There is no regulation requiring its use. Communities may deal directly with the various agencies involved but many find it more advantageous to utilize OEA services.

In order to coordinate and communicate information between federal, state, and local government, the OEA has performed many functions.¹⁵ It has conducted informal visits to effected communities, conferred with local leaders, and offered recommendations. It has helped in preparing the developing community plans with the three levels of government and has arranged formal visits by federal agency task forces. Seminars for industry were arranged with federal, state, and local government representatives and specialists. Policies were developed concerning the transfer of property and the placement or retention of civilian DOD employees. The OEA has also provided a resident consultant to communities when requested.

Often the role of the OEA is to bring about a change in attitude in the local community and among its leaders. New and different development principles must often be accepted by local leaders and this can only be done by friendly persuasion and education. The final decision as to the local course of action to be taken always rests with the local community.

F. Recommendations

1. Policy Changes

With regards to civilian employees on military bases in Canada, the regulations concerning lay-off notice and priority for replacement are quite adequate. There are other areas, however, which require improvement.

Retraining programs for surplus employees are required.

DND employees cannot benefit from retraining programs. There are none for surplus civilian employees. A retraining program is desirable in base closure situations to reduce the numbers of DND employees forced to seek jobs in the locally impacted area.

Improve allowances and benefits to increase surplus employee mobility.

A few items could be borrowed from the U.S. regulations for DOD employees contained in the Economic Adjustment Program of 1961¹⁶ which not only provides retraining programmes but also allowances to allow the employee and his wife to travel to the new job location and select a home, a 30 day subsistence allowance while locating to the new position, a relocation allowance equal to two weeks salary as well as all the costs associated with buying and selling a home and moving or storing household goods. The addition of such regulations could substantially increase the mobility of surplus employees. The federal government could also benefit by having more of its employment vacancies filled by

qualified and experienced personnel.

Waiver of early retirement penalties.

In the case study at Gimli, it was noted that consideration was given on an individual basis to waive the penalties associated with some early retirements. Regulations now provide for retirement at age 60 with no penalty or at age 55 with 30 years service. One may retire earlier but suffer a five percent reduction in pension payments for each year of early release. It is suggested that in the case of base closures, these regulations should be amended to allow earlier retirement to say age 50 and 25 year employment without penalty. This would allow individuals with long years of seniority and probably strong ties in the local community to remain in the community without losing their hard earned pensions. They would also be able to accept lower wages in the local area and still maintain their dignity and style of living.

Provision of a federal office responsible for coordinating information and assistance to communities affected by base closures.

With respect to organizing an agency which could be the federal government's contact and spokesman when dealing with military base closures, Canada could borrow from the U.S. experience and example. There is currently no Canadian counterpart for the American OEA. Should the development of OTH radars and AWACS result in a large number of ground radar stations closing in Canada as predicted in Chapter I, a simi-

lar agency would be desirable. It could consist of a small group of sepcialists in planning, engineering, labour relations, industrial relations, and economic development. Like the OEA, it could act as a coordinating agency between the local community and senior governments and it act as an advocate for the community while providing advisory and consulting services to local leaders. The Canadian version of the OEA would probably differ in many respects because of differences in government programs and government organizations. For instance, rather than being formed within DND, the Canadian version would perhaps be better placed within the Department of Regional Economic Expansion.

2. Local Actions

A community can also do much on its own to promote recovery form a base closure. The following suggestions are based upon the experiences reviewed in the previous chapters and are presented in chronological order for implementation. Resist the urge to fight the closure decision through political means.

Rather than fighting the closure decision through political means, it would be better if it accepted the decision and put its energies into efforts to expediate its recovery and development. As we have seen, the success rate of political campaigns to prevent announced closure actions have not been encouraging. Few, if any, are successful.

Evaluate local assets and seek outside assistance.

The town should immediately begin to develop a strategy to promote recovery from the adverse effects of the base closure. It should evaluate its assets and resources and seek assistance where required. It should determine where such assistance be obtained and not limit itself to just approaching government agencies. There are many private consulting firms that are also available but the town should beware of studies that only define the problem in detail and that do not offer feasible alternative solutions. There are many professionals available at universities. There should not be overlooked as sources of possible assistance. The military base also should be considered as a possible source of assistance. The base can provide not only data concerning the base operations and facilities, but it can also provide specialists in many technical fields such as water and sewage treatment, electrical distribution, project assessments, and even management advice.

Formulate a development strategy.

The aim of the community should be to develop an overall strategy to deal with the impending base closure. It should not focus solely upon the base and the reuse of those facilities but rather incorporate and coordinate the base redevelopment with a community development plan. The base reuse should be part of the solution, not the solution. The plan should, of course, include land use proposals for

the base as well as surrounding areas.

Organize a local development agency.

The first positive step taken by most communities in the case studies was to organize a local development corporation or a base closure committee. The aim of this body is to coordinate and develop proposals for recovery, to act as a data base for prospective clients, and to improve community attributes to attract industry and development. It should also maintain an active liaison with all levels of government and seek assistance as and when problems occur.

Reuse the military base if possible.

The reuse of the military base usually plays an important role in the local recovery and development program. To this end it is recommended that base facilities be turned over to the local community provided the community has the resources to make effective use of the facilities. Provincial assistance may be required in some cases but usually it is best to leave the management and control of the former base with the community. Only the local community can determine what is best for and what is desired for their town. Without controlling and managing the former base, it will be difficult for the local community to bargain for the best long run prospects and benefits for the community.

Reuse of the military base should benefit the community and overcome local deficits in the long run.

Before actively soliciting new industries, the town

should assess its financial ability to acquire and operate the base and how the base can be used to overcome community deficits. How can educational facilities be improved? How can the base be used to improve transportation systems? Can it be used to improve the total community environment? Once these questions are answered, the town can then set about seeking job-producing industries. The first offers for re-use of the base should not be accepted without assessing alternatives. The long run prospects and benefits of proposals should be kept in mind. Industries with high capital investments and few jobs should be avoided if possible. The spin off effects of prospects should also be assessed.

Publicize local advantages.

To attract new industries to the area, a fair amount of publicity is required. The local community must be able to sell its strong points. It should list available resources and services. It should publicize the availability of surplus labour and of available utilities such as power and water. The community should endeavour to improve its image by upgrading or renewing its business district, improving zoning and traffic movement as well as utility services. Tax concessions to new industries are probably not as attractive as perhaps other means of direct financial assistance.¹⁷ The availability of programs to assist new industries should form the focus of incentives. Local development corporations themselves may be able to be a source of financial assistance

possibly providing low or no interest loans. To attract job producing industries, rents could be tied to the number of jobs produced, to encourage labour intensive production processes and discourage warehousing and storage uses.

Defer sale of military housing until the local housing market recovers.

As was mentioned previously, the sale of the MQ housing units on a base should be postponed until the local housing market recovers. In situations where there is a need, it is suggested that these facilities be utilized by a local housing corporation to provide low income dwellings before releasing them for private use.

Consider a wide and varied reuse of the former base as possible including public, industrial and educational uses.

The case studies have illustrated a number of uses for former military bases, the most common being industrial uses. Public uses are also encouraged and in some cases they have more immediate effect. Public facilities and uses can usually be set up more quickly than private industry and often may begin before or immediately after the military withdrawal from the base. Facilities such as hospitals on the base can often be retained for public or private use. Air strips may be converted to municipal airports and used to improve the local transportation system.

The use of former military facilities for educational purposes is also encouraged.¹⁸ These educational institutions may be oriented towards local needs. Community colleges

and technical institutions produce trained labour which attract industry. They may also serve to stem the tide of young people emigrating from the area.

Quite often the former military base and its facilities can be adapted to enhance the natural resources of an area. Base facilities may be used to supplement the existing recreational and cultural facilities of an area to promote a tourist industry. The industrial park at Gimli is using some of its facilities to host seminars and conferences. It has available dormitories, lecture halls, and dining rooms. Former bases usually have a wide variety of sports facilities which could be utilized as training camps for amateur athletes or professional teams. The support facilities are conveniently on the same grounds. Whatever the proposed use, as great a use as possible should be made of the former military facilities and in such a way as to promote the development of the community's naturally available resources.

3. Implications for Future Planning

Through the case studies reviewed, we have seen that the conversion of military facilities to other uses is not an impossible task. There are some difficulties encountered in integrating the new uses into those of the existing community and this is the result of the self-reliant nature of military bases. They are usually fairly self-contained in that they provide their own utilities, operational and indus-

trial areas, recreational facilities, shopping facilities, and housing. Quite often the base will form a small isolated community at the edge of the civilian community. The original design, layout, and siting of the base make it difficult to fully integrate it into the community even after closure. It often is still quite distinct from the surrounding community.

Military bases are not permanent and should be physically integrated with the local community to facilitate conversion to non-military uses when closure occurs.

Considering that the continued existence of a military base is subject to changes in international relations, national policies, and changes in military technology, we realize that no base is permanent and it was argued that local communities especially should recognize the vulnerable existence of bases. There is no reason to believe that future bases will be any more permanent in nature. On the contrary, they are likely to be less permanent because of the accelerated rates of technological changes which may make facilities out-moded more quickly. Military and civilian planners should recognize that future military bases will not be permanent military installations and that they eventually will be converted to other uses. To this end, they should endeavour to integrate the military base more closely to the local community.

The design of military bases be more closely linked to the local community. Military housing developments do

not necessarily have to be located adjacent to the operational area of the base. They can just as easily be located within existing residential areas of the local community. Recreational facilities need not all be interspersed throughout the military base. Community type facilities not directly related to military training may be provided closer to the military housing units in the local communities. These would include facilities such as clubs, bowling lanes, swimming pools, and recreational centres. The operational areas of a base such as an airfield may also be located with existing or proposed community industrial areas. With a degree of cooperation and coordination military planners and civilian planners can design and locate future military bases to integrate more closely with the community. This action would facilitate the eventual conversion of the base to civilian uses much more readily and easily. The adverse impact of military base closures could be reduced and with advance planning, the stress upon the community could also be reduced.

Select base locations in communities capable of absorbing the adverse impacts of closures.

The impacts of base closures of future military bases could be reduced if they were located in communities that were large enough to cope with the abrupt removal of a major employer. Communities with diversified economic bases can recover more quickly and easily from the closure of a military base and as such should be the likely sites of future

bases. It is recognized that military strategic and political reasons are often prime considerations in selecting a military base location, but the impacts of the eventual base closure should also be a factor in site selection. If military bases were sited in communities that could easily absorb closure impacts, there would be few if any political or economic objections to the military divesting itself of outmoded or militarily inefficient facilities. To the contrary, the local community would probably welcome the opportunity to develop the vacated facilities in accordance with its long range development plans.

Chapter VI

SUMMARY

A. Introduction

The purpose of this study was to identify the impacts of military base closures upon local communities. This aim was accomplished through a comparative case study analysis of existing military bases and a number of base closure studies. The review of previous case studies was followed by a study of the closure of CFB Gimli in Manitoba.

B. Existing Military Base Impacts

The impact of an existing military base upon local communities varies with the relative sizes of the military installation and the community. Most bases were found to be self-reliant with respect to utilities and facilities except for the purchasing of electrical power. The military population associated with the base had a significant impact upon the local housing market and food retail activities. Other retail activities were also effected but to a lesser degree.

Towns and communities located near a military base tended to have larger than average service sectors. The presence of the base did not encourage industrial development in the community but the base had a large impact upon local employment. The base was usually the largest local employer. In general, wages in the area increased to compete with those

offered by the base.

C. Base Closure Impacts

The base closure case studies pointed out that bases were not permanent installations. The initial closure announcement usually came as a shock to the local community whose immediate reaction was to have the decision rescinded through political means.

The immediate impact of a base closure was felt in the local housing market which experienced a sharp decline. Food retail activities were similarly effected. Direct employment impacts were related to the size and diversity of the community and the number of civilian employees effected. The employment impact was softened somewhat by employee relocation programs.

The economic recovery of the community effected was related to the initiative and drive of local leaders. Successful recovery programs utilized an overall development strategy rather than focussing upon any particular facet of the local economy. A development committee or corporation was usually formed and outside advice and expertise were requested. Financial aid from other governments was also usually necessary.

D. Closure of CFB Gimli, Manitoba

The closure of CFB Gimli was typical of most base

closure situations. The announcement took the town by surprise and efforts were made to have the decision rescinded. The town had been relatively complacent to development prior to the closure announcement; secure in the permanent status of the base. The closure announcement had an immediate adverse impact upon the local housing market and food retail activities. The town lacked the financial assets to implement a successful recovery program. Federal and provincial grants were provided to promote and capitalize upon tourism. The military base was converted into an industrial park under provincial management with little local input. The lack of local input was not characteristic of typical base closure conversions. Federal financial assistance subsidized initial base conversion and operating costs.

Since the base closure there has been a steady decline in local population but the base closure could not be sited as the only cause. Other local events and characteristics also contributed to emigration.

E. General Closure Patterns

Prior to the base closure, most communities did not recognize the extent of their dependence upon the nearby military base. Secrecy concealed the closure announcement prior to formal publication. The actual announcement was greeted with shock and dismay followed by political efforts to retain the operational status of the base. When the decision was

confirmed, the initial panic that resulted eventually subsided and the local community began to plan and organize a recovery program.

The military base was declared surplus only after first being offered to other government departments and agencies. In the majority of cases the base was converted to industrial, education, public and/or recreational uses. Management of the facilities usually rested with a newly formed local development corporation which sought financial aid and technical assistance from other governments or outside agencies.

F. Factors Effecting Impacts

The impacts of base closures are directly related to the size of the base and indirectly to the size of the community. The type of base involved and its roles also have a bearing upon closure impacts as do the characteristics of the local community. Prevailing economic conditions will have an effect upon impacts and recovery programs. The number of civilian employees at the military base will have an obvious effect upon the local employment situation. The number of MQ's available at the military base in relation to the military population will have an effect upon the severity of housing market impacts.

G. Major Impacts and Concerns

Base closures have an immediate impact upon the local housing market and retail activities, particularly food retail activities. These adverse impacts are usually not permanent and will recover to pre-base closure levels with the implementation of recovery programs. The impact of a base closure upon local employment may be especially severe if five percent or more of the local population is employed at the base. Although the short-term impacts of base closures are traumatic, long term adverse impacts may be reduced through successful recovery programs which in turn necessitate close cooperation and communication with federal government agencies.

The major concerns of base closures involve employment policies and federal and local government communication and cooperation.

H. Recommendations

Changes to federal civilian employee regulations are recommended to improve the retention of surplus employees by improving relocation allowances and providing retraining programs. A waiver of early retirement penalty clauses is recommended for employees with long years of service but not quite reaching pensionable retirement criteria.

Creation of a federal coordinating office with authority to speak for the federal government and empowered to

negotiate with local communities and other federal agencies is also recommended.

Recommendations for local communities include resisting the urge to wage a political battle to retain the base. Instead they should evaluate their local assets, seek additional assistance where required, formulate an overall development strategy for the community and organize a development committee or corporation to manage the program. Reuse of the military base should be utilized whenever possible and to as wide and great a use as possible particularly to overcome local deficits in transport, education or public facilities. Local assets and advantages should be publicized as widely as possible. Suggested reuse of the base of industrial and educational purposes are particularly recommended as well as public and recreational uses.

Since military bases were shown not to be permanent, there is a need to design future military bases with eventual closure impacts considered. Closer integration of the military base with the local community is required. Future bases should be located in communities that are capable of absorbing the adverse impacts of closures either because of their relative size or diverse economic base.

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