

Archived Content

Information identified as archived on the Web is for reference, research or record-keeping purposes. It has not been altered or updated after the date of archiving. Web pages that are archived on the Web are not subject to the Government of Canada Web Standards.

As per the [Communications Policy of the Government of Canada](#), you can request alternate formats on the "[Contact Us](#)" page.

Information archivée dans le Web

Information archivée dans le Web à des fins de consultation, de recherche ou de tenue de documents. Cette dernière n'a aucunement été modifiée ni mise à jour depuis sa date de mise en archive. Les pages archivées dans le Web ne sont pas assujetties aux normes qui s'appliquent aux sites Web du gouvernement du Canada.

Conformément à la [Politique de communication du gouvernement du Canada](#), vous pouvez demander de recevoir cette information dans tout autre format de rechange à la page « [Contactez-nous](#) ».

CANADIAN FORCES COLLEGE / COLLÈGE DES FORCES CANADIENNES
CSC 32 / CCEM 32

Master of Defence Studies Research Project

Canadian Arctic: Is the True North Strong and Free?

By /par Commander J.H.P. St-Denis

This paper was written by a student attending the Canadian Forces College in fulfilment of one of the requirements of the Course of Studies. The paper is a scholastic document, and thus contains facts and opinions, which the author alone considered appropriate and correct for the subject. It does not necessarily reflect the policy or the opinion of any agency, including the Government of Canada and the Canadian Department of National Defence. This paper may not be released, quoted or copied, except with the express permission of the Canadian Department of National Defence.

La présente étude a été rédigée par un stagiaire du Collège des Forces canadiennes pour satisfaire à l'une des exigences du cours. L'étude est un document qui se rapporte au cours et contient donc des faits et des opinions que seul l'auteur considère appropriés et convenables au sujet. Elle ne reflète pas nécessairement la politique ou l'opinion d'un organisme quelconque, y compris le gouvernement du Canada et le ministère de la Défense nationale du Canada. Il est défendu de diffuser, de citer ou de reproduire cette étude sans la permission expresse du ministère de la Défense nationale.

ABSTRACT

The Canadian Arctic is an area of strategic interest and is rich in resources. Since the unfortunate events of September 11, 2001, the security of Canada has been at the forefront of defence policy. In 2004 and 2005 respectively, the Canadian government promulgated two policy documents, the *National Security Policy* and the *International Policy Statement*, which support the renewed interest in the Canadian Arctic. This paper will demonstrate that, despite several critiques, the Canadian government has generally taken appropriate and reasonable steps to ensure security in the Far North. There is no discernible military threat to the Arctic and spending more money on Arctic security is a waste of resources given other more pressing military and non-military demands on Canadian resources. Canadians historically do not support high defence spending unless there is a clear threat. Canada faces the paradox that the United States provides Canada and the Arctic with security through its military might and continental defence posture, yet it is also the only country which has made any significant challenge to Canada's sovereignty in the region. However, as an ally, the United States poses no security threat to Canada. It is possible that given the resources in Canada's Arctic, increased accessibility due to climate change, and the economic imperialism of the United States, that the United States could attempt to control Canada's resources in the North in the future. However, Canada cannot respond to this possibility using military means. Canada has taken appropriate measures to participate in policy making and international organizations in order to assert its control over the Arctic. Canada has clearly established use and control of the Canadian Arctic, which should be considered sovereign under International Law. The Arctic is secure and does not require a significant change in security policy or influx of defence resources at this time.

TABLE OF CONTENTS

LIST OF FIGURES.....	5
CHAPTER 1 – INTRODUCTION.....	6
CHAPTER 2 – ISSUES RELATED TO THE CANADIAN ARCTIC REGION.....	9
Geographical description of the Arctic.....	9
Climate change.....	11
Cultural issues.....	16
Environmental issues.....	21
Economic opportunities.....	27
Sovereignty issues.....	36
Hans Island.....	39
Continental Shelf.....	39
Alaska & Yukon Maritime Boundary.....	40
Northwest Passage.....	41
CHAPTER 3 - CANADA’S NATIONAL SECURITY INTERESTS.....	45
Historical review of the threats to Canada and the Arctic.....	45
Historical review of Canadian defence policy regarding the Arctic.....	53
1947-1970 Period.....	53
1970-1980 Period.....	55
1980-1990 Period.....	56
1990-2000 Period.....	58
Current defence policies regarding the Arctic.....	59
Arctic Security Interdepartmental Working Group.....	61
Canada’s National Security Policy.....	62
Canada’s International Policy Statement.....	66
Northern Dimension of Canada’s Foreign Policy.....	70
United States’ Arctic defence policy.....	73
CHAPTER 4 – ANALYSIS OF CANADA’S RESOURCES FOR DEFENCE AND THE SECURITY OF THE ARCTIC.....	77
History of defence budget allocation in Canada.....	77
Canadian attitudes toward defence spending.....	84
Resources allocated to the security of the Arctic.....	87
The roles of the Canadian Forces in the Arctic.....	90
The roles of the Canadian Coast Guard in the Arctic.....	99
CHAPTER 5 – ANALYSIS OF CANADA’S ACTIONS REGARDING ARCTIC SECURITY.....	101
The Liberal Government’s approach to Arctic security from 2003-2005.....	102
The Conservative Government’s 2006 election platform regarding Arctic security.....	102
Evaluation of the Conservative’s Arctic security platform.....	104
CHAPTER 6 - CONCLUSION.....	111
APPENDIX 1.....	114
APPENDIX 2.....	116
APPENDIX 3.....	117

APPENDIX 5.....	119
APPENDIX 6.....	120
BIBLIOGRAPHY.....	121
Books.....	121
Papers.....	122
Periodicals.....	122
Reports.....	124
Newspaper Articles.....	125
Government Websites.....	126
Internet.....	128
Images.....	129

LIST OF FIGURES

- Figure 1 Map of the Canadian Arctic
- Figure 2 Picture of Polar Bears
- Figure 3 Picture of an Igloo
- Figure 4 Hans Island
- Figure 5 CFS Alert
- Figure 6 Picture of CCGS Terry Fox

CHAPTER 1 – INTRODUCTION

The Canadian Arctic has always occupied a central place in the national psyche. Particularly since the Second World War, there has been political debate about the actions required to ensure the security of the Arctic. Given infinite resources, Canada could station military bases, personnel, vessels, aircraft and monitoring methods sufficient to continuously monitor the entire Arctic and defend it if the need arises. In reality, Canada, like every other country, has competing interests for the allocation of resources, both to and within the defence budget. The Canadian government must allocate resources according to expressed public and government priorities. Unless Canada has been under direct threat, the Canadian public has long given low priority to defence spending. Considering the low to non-existent security threat to the Arctic since the end of the Cold War, the political reality that Canada traditionally gives low priority to military spending, and other pressing budgetary demands, Canadian spending on Arctic security has been low.

On one side of the issue of Arctic security, critics say that too little spending has been allocated to Arctic security. They argue that it is only through good fortune that we have not had direct security violations via the Arctic and, that as the resource values and development in the Arctic increase, and as the world becomes more politically unstable, Canada is leaving itself vulnerable by not taking more action to secure the huge and relatively undefended Arctic territory. Currently, the Conservative Government, elected in January 2006, has taken the stance

that Arctic security requires more attention and the government has proposed several actions to address the lack of resources to promote Arctic security.

Other experts and critics say that there is no discernible threat to the Arctic and spending more money on Arctic security is a waste of resources, given more pressing military and non-military demands on scarce Canadian resources. Additionally, whether the Canadian public likes or will admit it, Canadians are under the defence umbrella of the United States. We can get away with spending little on defence, even with vast undefended territory, and still remain quite secure. These critics say that although the United States has been the main country infringing on our Arctic sovereignty, our leading ally poses no security risk to us, and it would be pointless if not impossible, as well as politically inflammatory, to mount any military reaction to American sovereignty infractions.

In order to place Arctic security concerns into context, this paper will provide an overview of the issues related to the region such as climate change, cultural issues, environmental issues, economic development, and sovereignty issues. It will then adopt an historical perspective to review Canada's security concerns as a whole, with particular reference to the Arctic region and Canadian defence policy from 1947 to the present. The paper will then examine recent actions taken by the Canadian government regarding the Arctic security. Considering the resources available for defence of Canada as a whole and the defence of the Arctic specifically, the paper will then analyse the actions being taken by the Canadian

government to ensure security of the Arctic. This paper will finally examine the recommendations of the current Conservative government regarding Arctic security.

CHAPTER 2 – ISSUES RELATED TO THE CANADIAN ARCTIC REGION

Scholars and policy makers believe that climate change, cultural issues, environmental issues, sovereignty issues and economic opportunities all require close examination of the Canadian Arctic. Security must be examined in the context of the many interrelated factors affecting the Arctic.

GEOGRAPHICAL DESCRIPTION OF THE ARCTIC

Geographically, the Canadian Arctic has been defined as the region of northern Canada up to the Arctic Circle. Figure 1 provides a map of the region.¹ The Canadian Arctic covers the northernmost parts of the Northwest Territories, Yukon, Quebec, Ontario, Manitoba, Labrador and most of Nunavut. According to Harold Welch, a research scientist from the Department of Fisheries and Oceans, the Canadian Arctic includes:

...the Beaufort Sea eastward from the Yukon/Alaska border, all of the Arctic Archipelago, and Foxe Basin, Hudson Bay, Hudson Strait, and James Bay. These shallow seas are entirely within the Continental Shelf, except for parts of Baffin Bay and the Polar Basin. This area includes about 173,000 km of coastline, twice that of the Canadian Pacific and Atlantic regions combined, and over 1 million km² of continental shelf waters, equivalent to the combined extent of Atlantic and Pacific waters within Canada's 200-mile economic zone. These waters, which are generally as productive as

¹ Canadian Arctic map, available from <http://www.geobotany.uaf.edu/arcticgeobot/canbio.html>; Internet; Accessed 18 February 2006.

or more productive than the adjacent arctic land surface, provide most of the food for Canadian Inuit. Except for the northwestern portion of the Archipelago and the Polar Basin itself, where multi-year ice exists year round, this is entirely an area of seasonal ice cover. Annual ice reaches 1-2 m thickness by May and is melted or exported almost entirely by September.²

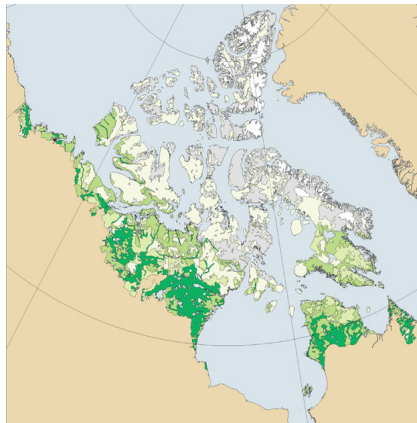


Figure 1 – The Canadian Arctic

CLIMATE CHANGE

Climate change is a significant issue that has the potential to affect the security of the Arctic. Scientific research indicates that global warming is causing the increased melting of sea-ice in the Arctic. According to the Intergovernmental Panel on Climate Change report of 2001, the global sea-ice in the Arctic thinned by 40% during late summer to early fall in the 1990s and

² Harold E. Welch, "Marine Conservation in the Canadian Arctic: A Regional Overview," *Northern Perspectives* 23, no. 1 (Spring 1995); www.carc.org/pubs/v23no1/marine3.htm; Internet; accessed 11 January 2006.

the extent of ice in spring and summer has decreased by 10-15% since the 1950s.³ However, some scientists argue that global warming is not causing the melting of the sea-ice in the Arctic, but that the melting is a result of a natural variation of the climate⁴ such as the fluctuations in wind patterns.⁵ One thing is certain: the sea-ice of the Arctic is melting. This phenomenon raises questions about the impact on the security of the region.

Several academics and scientists believe that the melting of the Arctic sea-ice will permit ships to navigate through the Northwest Passage⁶ by the middle of this century. Under international Maritime Law, a waterway which provides a shipping route between major oceans is considered to be international waters and not domestic inland waters.⁷ Consequently, warming Arctic conditions and the resultant passage of international shipping through the Northwest Passage could justify claims that the Northwest Passage is an international strait. This status is

³ Intergovernmental Panel on Climate Change, *Climate Change 2001: Synthesis Report Summary for Policymakers*; <http://www.ipcc.ch/pub/un/syrenq/spm.pdf>; Internet; accessed 7 January 2006.

⁴ Kyle D. Christensen, *Arctic Maritime Security and Defence: Canadian Northern Security Opportunities and Challenges*, Report Prepared for the Chief of Maritime Staff (Ottawa: Directorate of Maritime Strategy, 2005), 12.

⁵ Rob Huebert, "Climate Change and Canadian Sovereignty in the Northwest Passage," *ISUMA* 2, no. 4 (Winter 2001); www.isuma.net/v02n04/huebert/huebert_e.shtml; Internet; accessed 11 January 2006, 87.

⁶ A water route from the Atlantic Ocean to the Pacific Ocean through the Arctic Archipelago of northern Canada and along the northern coast of Alaska.

⁷ International Straits: they are the natural maritime passes connecting the high seas, or the seas and the oceans. Some straits due to their geographical position, scale and dynamics of use are used intensively for international navigation. In international Maritime Law they are called *international straits*. United Nations Educational, Scientific and Cultural Organization, Chapter 2.3 "International straits and canals," <http://www.unesco.org/csi/act/russia/legalpro6.htm>; Internet; accessed 15 March 2006.

already asserted by the United States. If the Northwest Passage becomes an international strait, it is not clear to what degree, if any, this would be a threat to Canadian security. Controlling shipping from other nations sailing through an ice-free strait would have to be dealt with if and when the Northwest Passage becomes used for international shipping. Cooperation among nations, diplomacy, and international law would provide the basis for addressing many of these concerns.

Two Canadian academics, Rob Huebert and Franklyn Griffiths, have debated the consequences of the thinning of the Canadian Arctic sea-ice vis-à-vis sovereignty over the Northwest Passage. They both agree that climate change is affecting the thickness of the Arctic sea-ice; however, each has different opinions about the accompanying sovereignty and security issues. In his paper titled, *Climate Change and Canadian Sovereignty in the Northwest Passage*, Huebert argues that climate change has the potential to affect Arctic sovereignty and security and that the Canadian government needs to act proactively.⁸ On the other hand, Griffiths argues in his article entitled *The Shipping News*, that the threat to the Northwest Passage is exaggerated.⁹ To justify his position, Griffiths provides evidence to show that the Northwest Passage would be difficult to use and there are few reasons to worry about its sovereignty. Griffiths indicates in his argument that the Canadian Ice Service¹⁰ states that due to the absence of solar radiation in the

⁸ Rob Huebert, "Climate Change and Canadian Sovereignty in the Northwest Passage," 86-94.

⁹ Franklyn Griffiths, "The Shipping News: Canada's Arctic Sovereignty not on thinning ice," *International Journal* 58, no. 2 (Spring 2003); 257.

¹⁰ Canadian Ice Service is an office of the Ministry of the Environment Canada which provides direct access to ice and iceberg information

winter months, the Canadian Arctic will have winter ice for the foreseeable future and will never be ice-free year round.¹¹ Furthermore, in another paper, *New Illusion of a Northwest Passage*, Griffiths states that while some regions of the Arctic, such as the western Arctic waterway and Viscount Melville, have a ice rate reduction per decade of 11 percent and three percent

¹¹ Franklyn Griffiths, "The Shipping News: Canada's Arctic Sovereignty not on thinning ice," 260.

respectively, other regions, such as the entry of the passage to Lancaster Sound, have shown no decrease at all. Therefore, Griffiths concludes that transit through the Northwest Passage could be achieved only during the Arctic summer months, mid-June to mid-October.¹² Consequently, due to its limited potential use, the Northwest Passage may never become a significant international shipping route and therefore is not an immediate security concern. Instead, it is a matter for the Canadian government to monitor.

All things considered, the consequences of climate change are significant, but they are not an immediate security concern. There is not much more the Canadian government can do to address the thinning of the sea-ice other than anticipate the short and long-term impacts and continue with policies to reduce its overall greenhouse emissions as required by the Kyoto Protocol.¹³ To further understand the impact of climate change, the Canadian government is committed to increasing Northern scientific research, a policy advocated by former Prime Minister Martin during his reply to the Speech from the Throne in 2004.¹⁴ Additionally, a Circumpolar Ministry was proposed at the federal level to feature a Northern Research Service concept.¹⁵ Furthermore, to include the support of the Canadian population in forming Arctic policy, more than 50 Canadians from government, academia, and the North, represented Canada

¹² Franklyn Griffiths, "New Illusions of a Northwest Passage," 15 June 2004, 4.

¹³ Government of Canada, "Canada and the Kyoto Protocol," http://www.climatechange.gc.ca/cop/cop6_hague/english/overview_e.html; Internet; accessed 18 February 2006.

¹⁴ Canadian Polar Commission, "Canadian Polar Commission Annual Report 2004-2005," http://www.polarcom.gc.ca/english/pdf/annualreport_2004-2005_enfr.pdf; Internet; accessed 18 February 2006, 3.

¹⁵ Ibid.

during the international Arctic Climate Impact Assessment Conference in 2004.¹⁶ These policies demonstrate the Canadian government's present commitment to understanding climate changes in the North.

CULTURAL ISSUES

The protection of Inuit culture presents another argument to bolster security in the Canadian Arctic through mutual understanding, cooperation and preservation. The Inuit people are associated worldwide with the Canadian Arctic. The words "true north strong and free" are found in our national anthem. The Arctic is part of our national consciousness. For centuries, if not millennia, before the Europeans arrived, the vast Arctic territory was the Inuit homeland. This homeland has become part of overall Canadian culture and a Canadian symbol internationally. Images of our Arctic territory, with its igloos and polar bears, have become identified with Canada and with Canadian culture. Thus, the cultural issues of the people living in the Arctic affect the national policies for the region.



¹⁶ Ibid.

Figure 2 – Polar Bears¹⁷Figure 3 - Igloo¹⁸

The Inuit are indigenous people living in a fragile and changing part of the Canadian environment. In order to appreciate the cultural issues of the Arctic, it is crucial to understand how the Inuit have maintained their distinct culture, language and strong values of self-sufficiency, resilience and adaptability.¹⁹ For instance, Inuit have always taken the stance of stewardship. They believe that their fragile yet harsh is homeland in their keeping for themselves now and for future generations.²⁰ As a result, the Inuit depend upon the integrity of the Arctic ecosystem to survive and to continue to live as a distinct hunter-gatherer society. For example, Inuit rely on the ice for access to whales, seals and walrus²¹ in order to sustain themselves and to maintain their cultural identity. Any significant change in this delicate area will have a huge impact on Inuit travel and subsistence patterns whether hunting by kayak, dogsled or snowmobile.

Factors such as globalization, industrialization, urbanization, and resource exploration will affect native northern culture by displacing their traditional skills. In addition to hunting,

¹⁷ Polar Bears image, available from <http://www.polarbearsinternational.org/photo-gallery/>; Internet; Accessed 18 February 2006.

¹⁸ Igloo image, available from <http://gorp.away.com/gorp/location/canada/nunavut.htm>; Internet; Accessed 18 February 2006.

¹⁹ Jose A. Kusugak, Roundtable on Aboriginal Issues: President, Speaking Notes, <http://www.itk.ca/roundtable/pdf/canada-aboriginal-roundtables.pdf>; Internet; accessed 9 January 2006.

²⁰ Mary Simon, "Militarization and the Aboriginal Peoples," in *Arctic Alternatives: Civility or Militarism in the Circumpolar North*, ed. Franklyn Griffiths, 55-67 (Toronto: Canada Papers in Peace Studies, 1992), 64.

²¹ Richard A. Kerr, "A Warmer Arctic Means Change for All," *Polar Science: News* 297, no. 5586; available from www.ephost@epnet.com; Internet; accessed 14 August 2005.

Inuit culture also includes the making of clothing, tools, conveyances, and art. The Inuit are very close to losing skills for creating clothing as well as bone and hide implements, such as harpoons, sleds, and sea-going vessels. The snowmobile, for example, has quickly replaced traditional modes of transportation on the ice; rapid change has taken the Inuit from the Stone Age to the machine age in a half century.

The Canadian government must continue to foster Inuit culture by keeping the Arctic environment secure and stable. The Inuit have been more or less able to sustain themselves and their culture but, ironically, they must use modern ways to safeguard some of their old ways. Direct and active involvement in major issues concerning the protection and development of the Arctic will provide them the means they need to protect their own culture.²² The execution of this responsibility has been partly addressed during the last decade through an increased Inuit political voice in the public arena. Not only are the Inuit making known their concerns about the environment and social problems, they have actively pursued issues such the seal hunt and whale hunting rights to protect the core of their cultural identity.²³ Although social problems involving drugs, gas sniffing, high suicide rates, and forced relocation hinder Inuit society, the Canadian government continues to work with indigenous northerners to help them combat these problems.

The security of the Arctic will be imperilled if collaboration between the Inuit peoples and the Canadian government does not function well. To address some of these factors, Milton Freeman proposes that adaptive management, which combines the use of both scientific and the

²² Mary Simon, "Militarization and the Aboriginal Peoples," 56.

²³ Aqqaluk Lyngé, "Inuit Culture and International Policy," in *Arctic Alternatives: Civility or Militarism in the Circumpolar North*, ed. Franklyn Griffiths, 94-99 (Toronto: Canada Papers in Peace Studies, 1992), 94-99.

traditional-based methods, be used to tackle some of these issues that affect the cultural aspects of Inuit life.²⁴ As illustrated, cooperation and adaptive management already exist to some degree in addressing native cultural issues in Canada's Far North. This managerial strategy has been benign and effective.

In April 2004, the Canadian government announced the creation of an Inuit Secretariat within the Department of Indian Affairs and Northern Development. This mechanism enables the Inuit to collaborate with the federal government concerning Arctic affairs.²⁵ Additionally, the Canadian Aboriginal People's Roundtable serves as a forum for collaborative engagement with senior officials.²⁶ The National Inuit Organization seems to be pleased with the progress made by the government in these attempts to address their issues.²⁷ In 2003, the Canadian government announced funding of \$30.7 million over four years for climate change studies and energy initiatives in Aboriginal and northern communities.²⁸ Furthermore, the 2005 budget announcement indicated the federal government's commitment to an enhanced relationship with

²⁴ Milton M.R. Freeman, "Ethnoscience, Prevailing Science, and Arctic Co-operation," *Arctic Alternatives: Civility or Militarism in the Circumpolar North*, ed. Franklyn Griffiths, 79-93 (Toronto: Canada Papers in Peace Studies, 1992), 89.

²⁵ Inuit Tapiriit Kanatami: 2004 Press Release Archive, "Creation of Inuit Secretariat Important First Step in Addressing Inuit Issues in Specific Manner," <http://www.itk.ca/media/press-archive-20040419b.php>; Internet; accessed 20 February 2006.

²⁶ Inuit Tapiriit Kanatami: Canada Aboriginal Peoples Roundtable, "ITK's participation in the Canada Aboriginal Peoples Roundtable," <http://www.itk.ca/roundtable/roundtable-index.php>; Internet; accessed 20 February 2006.

²⁷ Inuit Tapiriit Kanatami: 2004 Press Release Archive.

²⁸ Indian and Northern Affairs Canada, "Aboriginal and Northern Community Action Program," http://www.ainc-inac.gc.ca/clc/index_e.html; Internet; accessed 20 February 2006.

Aboriginal peoples founded on mutual cooperation and economic self-reliance.²⁹ This change from the former aboriginal policy which espoused First Nations on a reserve pattern will maintain Inuit and government interaction, provided that Prime Minister Harper is as committed to collaboration with the Inuit. Former Prime Minister Paul Martin said, “[i]t is of utmost importance that we recognize the unique culture, lifestyle and environment of the Inuit peoples – and their increasing contribution to the realization of our northern dream.”³⁰ This strong

²⁹ Jose A. Kusugak, Roundtable on Aboriginal Issues: President, Speaking Notes.

³⁰ Jose A. Kusugak, Roundtable on Aboriginal Issues: President, Speaking Notes.

interaction demonstrates that the government's policy has been moving toward better awareness of Inuit cultural issues and that Inuit and federal government cooperation contributes to security. Additionally, any security measures, such as building bases, air or sea operations will need to consider impacts on the Inuit people. The Government will need to work collaboratively with the Inuit people when making changes or undertaking new initiatives in the region.

ENVIRONMENTAL ISSUES

Environmental issues pose the biggest security challenge to the Arctic.³¹ Climate change is undoubtedly the dominant issue, but transboundary environmental threats³² and industrialization³³ also have the potential to affect the environment of the Far North. These threats can cause a severe deleterious impact on the health of Inuit peoples, animals, Arctic lands, and water.³⁴ The fragility of the Arctic's ecosystem must be examined in order to understand the consequences of the environmental issues. Although the Arctic ecosystem does not contain a high diversity of species, it is complex.³⁵ It extends over a large area containing many different

³¹ Richard A. Kerr, "A Warmer Arctic Means Change for All."

³² Department of Foreign Affairs and International Trade, "The Northern Dimension of Canada's Foreign Policy," 1.

³³ Terence E. Armstrong, "Industrialization and Its Consequences," *Arctic Alternatives: Civility or Militarism in the Circumpolar North*, ed. Franklyn Griffiths, 125-135 (Toronto: Canada Papers in Peace Studies, 1992), 132.

³⁴ Department of Foreign Affairs and International Trade, "The Northern Dimension of Canada's Foreign Policy," 1.

³⁵ M.J. Dunbar, "The Physical and Biological Environment," *Arctic Alternatives: Civility or Militarism in the Circumpolar North*, ed. Franklyn Griffiths, 103-124 (Toronto: Canada Papers in Peace Studies, 1992), 116- 117.

geographical zones such as tundra, sub-Arctic forest, lake, ocean, rivers, and ice.³⁶ Because the Inuit peoples are dependent upon the ecosystem's integrity to survive, and because any damage to it may not be reversible, treating the Arctic with caution is crucial.³⁷

The search for natural resources and the introduction of industrialization have created threats to the Northern environment. Industrialization involves humans and machines, both of which can damage the fragile landscape.³⁸ For example, heavy trucks proceeding over the tundra cause damage to the tundra's permafrost, a semi-frozen state which protects the land surface.³⁹ The disposal of sewage is another concern. Industries and settlement face challenges when disposing of their sewage and other hazardous waste materials when traditional means of disposal are unavailable. Permafrost on land makes the absorption of sewage impossible and the disposal of sewage into lakes and ocean, an act which is universally practiced, is not always possible in or safe for the environment.⁴⁰ Furthermore, noise also threatens ecosystems. For example, evidence suggests that low-level military flights have negative effects on caribou herds.⁴¹ Additionally, sub-zero testing by vehicles and planes has increased in the Arctic. For

³⁶ M.J. Dunbar, "The Physical and Biological Environment," 117.

³⁷ Harold E. Welch, "Marine Conservation in the Canadian Arctic: A Regional Overview."

³⁸ Terence E. Armstrong, "Industrialization and Its Consequences," 132.

³⁹ M.J. Dunbar, "The Physical and Biological Environment," 121.

⁴⁰ Ibid.

⁴¹ The Beverly and Qamanirjuaq Caribou Management Board, "Protecting Beverly and Qamanirjuaq Caribou and Caribou Range," <http://www.arctic-caribou.com/PDF/Text.pdf>; Internet; accessed 18 February 2006, 15.

example, in February 2006, the world's largest plane flew into Iqaluit for sub-zero tests.⁴²

Moreover, Eastern Inuit have protested the effects caused by icebreakers which have the potential to affect the communication system of sea mammals.⁴³ Additional explorations of the North by ship, plane, or other transportation modes will increase noise, which is disruptive in an almost silent part of Canada.

Another threat to the Arctic environment is the long-range transport of pollutants which originate in Canada and other countries. Both agricultural and industrial pollutants often end up in the Arctic.⁴⁴ Dangerous pollutants, such as mercury, cadmium,⁴⁵ chlorine and bromine,⁴⁶ have been detected in the Arctic food chain from seabirds to humans,⁴⁷ and pose a significant threat to

⁴² CTV News, "Engineers test Airbus A380 in cold of Nunavut," CTV News, 9 February 2006, http://www.ctv.ca/servlet/ArticleNews/story/CTVNews/20060209/airbus_nunavut_060209/20060209?hub=SciTech; Internet; accessed 18 February 2006.

⁴³ M.J. Dunbar, "The Physical and Biological Environment," 121.

⁴⁴ Harold E. Welch, "Marine Conservation in the Canadian Arctic: A Regional Overview."

⁴⁵ Cadmium is a heavy metal found naturally in soils and rocks. It is soft and has a silvery colour. It is mined and used in some industries to make things such as batteries, some pesticides, and some types of paint. The Nunavut Wildlife Health Assessment Project, "Glossary of Scientific Terms," www.trentu.ca/nwhp/glossary.shtml; Internet; accessed 20 February 2006.

⁴⁶ Bromine is a naturally occurring element. It is a dense, deep reddish brown liquid that is easily vaporized into a brownish-red vapour. Metal bromides occur in small amounts in seawater and salt deposits as well as in water from mineral springs. One of the most common uses of bromine is in the manufacture of gasoline. Bromine compounds are also widely used in pesticides and for treating plastic material and textiles to make them fireproof. The Nunavut Wildlife Health Assessment Project, "Glossary of Scientific Terms."

⁴⁷ Harold E. Welch, "Marine Conservation in the Canadian Arctic: A Regional Overview."

the Arctic ecosystem.⁴⁸ Moreover, over-hunting, non-renewable resource extraction, ozone depletion,⁴⁹ and nuclear waste also threaten the Arctic environment.⁵⁰

In order to explore the relationship between environmental issues and security issues, current government action and intended future government action in the North warrants examination. Any increased military operations in the North will bring with it increased environmental concerns and risks. Since the early 1990s, the Canadian government has made a good effort at mitigating Arctic environmental issues. Initiatives and policies address several of the environmental problems already discussed. In 1998, the Canadian government formed the Northern Ecosystem Initiative (NEI), designed “to enhance the future health and sustainability of northern communities and the ecosystems on which they depend.”⁵¹ Since 1998, the NEI has provided in excess of \$4.5 million to fund various research projects, from sampling mercury contamination in northern lakes, to surveying Inuit elders to gather traditional information. For example, the elders can recall patterns of caribou migration and birthing patterns which can then be compared to recent patterns. External sources provided more than \$10 million in cash and

⁴⁸ Ibid.

⁴⁹ Ibid.

⁵⁰ Department of Foreign Affairs and International Trade, “The Northern Dimension of Canada’s Foreign Policy,” 1.

⁵¹ Environment Canada, “Project History,” <http://www.pnr-rpn.ec.gc.ca/nature/ecosystems/nei-ien/dh04/index.en.html>; Internet; accessed 26 February 2006.

kind contributions from external project partners.⁵² Later, in October 2003, the Canadian government provided an additional five-year commitment of \$10 million to the initiative.⁵³

Additionally, legislation to protect Canada's marine ecosystems as a whole include the Arctic. Federal acts include not only the *Arctic Waters Pollution Prevention Act*, but also the

⁵² Vancouver Aquarium Aquanews, "Canada: Northern Research Receives \$10 Million," <http://www.vanaqua.org/aquanew/fullnews.php?id=806>; Internet; accessed 18 February 2006.

⁵³ Ibid.

Canada *Shipping Act*, the *Fisheries Act*, and the *Canadian Environmental Protection Act*.⁵⁴ In order to enforce this legislation, Environment Canada has seven officers in the three northern territories assigned to monitor compliance.⁵⁵ Finally, Canada is represented at the Arctic Council⁵⁶ by Inuit peoples who themselves address the environmental issues in the Arctic.⁵⁷ These initiatives demonstrate a commitment by the Canadian government to the environmental issues from sea, to sea, to sea.

Canada's national fishing rights will have to be carefully monitored if species migration to the north becomes a pattern. On 21 February 2006, the *Sierra Club of Canada* stated that 38 salmon rivers in northern British Columbia are endangered because salmon eggs require a narrow range of temperature (2-3 degrees) in which to hatch; if the seasonal water temperature deviates from normal, the eggs will not hatch. The Sierra Club's article states that the 2005 fishing season was delayed in the Fraser River by two to six weeks because the salmon stayed up north until the temperature of the ocean reached its normal level. Cold ocean temperature is the

⁵⁴ Harold E. Welch, "Marine Conservation in the Canadian Arctic: A Regional Overview."

⁵⁵ Canadian Directorate of Defence, "Arctic Capabilities Study," 1948-3-CC4C (DGSP) Jun 2000, <http://www.natice.noaa.gov/icefree/Arctic%20Study%20Final%20-%20Canada1.pdf>; Internet; accessed 26 February 2006, 5.

⁵⁶ The Arctic Council is a high-level intergovernmental forum that provides a mechanism to address the common concerns and challenges faced by the Arctic governments and the people of the Arctic. Arctic Council, "Arctic Council."

⁵⁷ Department of Foreign Affairs and International Trade, "The Northern Dimension of Canada's Foreign Policy," 2.

trigger for salmon to migrate south.⁵⁸ In total, these facts paint the picture of fewer and fewer salmon hatching in warming northern rivers. Those that do hatch will migrate to a warming ocean and remain there for several years until sexual maturity at which time cold ocean temperatures drive them to the rivers where they hatched and where they will spawn. Over time, the repetition of this delayed cooling in the northern ocean and increased warming in spawning rivers will certainly receive the attention of the ministries created to address issues such as these.

ECONOMIC OPPORTUNITIES

Several economic opportunities may attract international attention and economic development to the Canadian North, and may challenge Arctic security. The greatest wealth in the North is the abundance of natural resources such as oil, natural gas, and minerals.⁵⁹ Other resources such as fishing, hunting, and even tourism may, in the future, require increased protection. For example, in the face of decreased fish stocks in many parts of the world, security against foreign fishing in the Arctic may become an important issue. As stated in the *Northern Dimension of Canada's Foreign Policy*, "interests and visions among circumpolar countries, coupled with the fact that the region is one of the world's richest in natural resources, may increase the potential for tension in the North."⁶⁰ For example, the fisheries have always been a

⁵⁸ Sierra Club of Canada, "Collapse of Sockeye: 38 Runs endangered," <http://www.sierraclub.ca/bc/media/item.shtml?x=766>; Internet; accessed 24 February 2006.

⁵⁹ Kyle D. Christensen, *Arctic Maritime Security and Defence: Canadian Northern Security Opportunities...*, 17.

⁶⁰ Department of Foreign Affairs and International Trade, "The Northern Dimension of Canada's Foreign Policy," 7.

contentious issue with the United States. The economic development of the Arctic must be managed carefully. Nevertheless, economic prospects are also limited by the lack of accessibility to the North coupled with the high cost of extraction compared to other reserves of similar natural resources still remaining at more accessible locations around the world. Arctic resources are expensive. Arctic oil is more costly to produce than Mexican oil.⁶¹ However, Arctic oil is a secure continental supply and may warrant exploitation in an unstable world. Understanding the extent of the economic potential of the Arctic requires knowledge of its resources and when, and under what circumstances, it is beneficial to extract them.

Presently, oil is the greatest Arctic resource. The total Arctic oil reserves are estimated at 1.3 billion barrels which represent less than one percent of Canada's total oil reserves.⁶² According to 2002 statistics, the inclusion of Alberta's oil sands, with approximately 170 billion barrels, ranks Canada as the second largest holder of oil reserves after Saudi Arabia.⁶³ These oil sands and other reserves will become increasingly important when easily accessible reserves in the south are depleted. For now, however the importance of Arctic oil reserves will remain relatively low until the more accessible reserves in the south are depleted. The oil reserves are under no overt threat, and with international cooperation, may never be.

⁶¹ Jesse Alan Gordon, Andre Meade, "Making Sense in the Arctic Political Climate, An Environmental Economist's Argument Against Drilling in Alaska," http://www.ontheissues.org/spectrum/anwr_cba.htm; Internet; accessed 18 February 2006.

⁶² Kyle D. Christensen, *Arctic Maritime Security and Defence: Canadian Northern Security Opportunities...*, 18.

⁶³ Ibid.

Another source of northern wealth is natural gas. As the third largest natural gas producer in the world, with one-third of its resources located in the Arctic, Canada has not exploited much of this resource due to external factors such as supply and demand, stable gas prices,⁶⁴ and internal factors such as the resistance by the Inuit people and southern environmental groups.⁶⁵ However, times have changed with record oil and natural gas prices in the past year. As a result, pressures from the Canadian and American governments and from oil companies are pushing for the implementation of the Mackenzie Valley Pipeline⁶⁶ which would bring natural gas from the Beaufort Sea to and through the southern region of Canada.⁶⁷ This project brings up many questions, especially for the Inuit people who are supposed to have a role to play in the development of the North. Some of the same concerns described in the *Berger Inquiry* of 1977 still apply today.⁶⁸ The pipeline project could negatively affect the environment if proper safeguards, such as the protection of the caribou migration route, are not created. Disruption of caribou migration patterns could create an economic hardship by affecting local

⁶⁴ Ibid., 19-20.

⁶⁵ Doug Struck, "In bitter Arctic, a race to build natural gas pipelines heats up Obstacles include tribes, ecology," *Washington Post*, 11 December 2005, http://www.boston.com/news/world/canada/articles/2005/12/11/in_bitter_arctic_a_race_to_build_natural_gas_pipelines_heats_up?mode=PF; Internet; accessed 14 January 2006.

⁶⁶ The Mackenzie Valley Pipeline would start 250 miles east of the Alaska line on Canada's portion of the Beaufort Sea. It would snake 800 miles through forests of spruce and pine along the Mackenzie River -- one of the world's longest with no bridge or dam. This all-Canada route would cost \$6 billion and is predicted to take three years to complete once construction begins. Doug Struck, "In bitter Arctic..."

⁶⁷ Doug Struck, "In bitter Arctic..."

⁶⁸ Mackenzie gas Pipeline and the Boreal Environment Information project, "The Mackenzie Gas Pipeline," *The Berger Inquiry*, <http://www.colorado.edu/geography/blanken/GEOG%206181%20Fall%202003/ryen/berger.html>; Internet; accessed 18 February 2006.

economies based on fishing, trapping and especially hunting caribou. In the end, as Berger predicted, any lack of Inuit involvement in the Mackenzie Valley Pipeline project could create social divergence and provide resistance to the implementation of the project. The Mackenzie Valley Pipeline serves as an example of the importance of adaptive management in the Far North.

A third economic opportunity is the extracting of minerals. Canada's North is rich in gold, silver, lead, uranium, zinc, tungsten, and diamonds.⁶⁹ Diamonds from the Northwest Territories are expected to become the number one export in terms of value by the end of the next decade, and Canada is projected to become the sixth largest diamond producer in the world.⁷⁰ The federal government has been building intensively in Hay River, NWT and other areas around Great Slave Lake.⁷¹ This area is to be the main launching point for sending massive amounts of materiel up the Mackenzie River to supply the Mackenzie Valley Pipeline. Additionally, infrastructure for the diamonds mines is being built at the same time in the same place. Obviously, intensive economic activity is heating up in the Far North. The Canadian control and exploitation of these resources helps guarantee the security of the land by virtue of occupation and development.

⁶⁹ 99 percent of Canada's tungsten, 26 percent of its lead, 23 percent of its zinc, 13 percent of its gold, and five percent of its silver are from the Arctic regions. John Honderich, *Arctic Imperative: Is Canada Losing the North?*, (University of Toronto Press, Toronto, Buffalo, London, 1987), 63.

⁷⁰ Kyle D. Christensen, *Arctic Maritime Security and Defence: Canadian Northern Security Opportunities...*, 23.

⁷¹ Socio-Economic Impact Assessment, Hay River Reserve Community Report, "Environmental Impact Statement for the Mackenzie Gas Project," [http://www.ngps.nt.ca/Upload/Environmental%20Impact%20Statement%20and%20Supplemental%20Filings/Community-Specific%20Socio-Economic%20Reports/Vol6C_Hay_River_Reserve_SEIA_Final_\(May_6_05\).pdf](http://www.ngps.nt.ca/Upload/Environmental%20Impact%20Statement%20and%20Supplemental%20Filings/Community-Specific%20Socio-Economic%20Reports/Vol6C_Hay_River_Reserve_SEIA_Final_(May_6_05).pdf); Internet; accessed 18 February 2006.

As world mineral resources in the south deplete and Arctic resources become more accessible, the Arctic may become an important source of minerals for the rest of the world. This demand for resources will put great pressure on the North. Finally, as the climate of the Arctic changes and as southern food resources become more scarce, Arctic fish stocks and fresh water may become even more valuable. A major fishing industry could result from climate change in the Arctic.⁷² To illustrate a potential problem, Iceland and Denmark are currently disputing international northern fishing rights.⁷³ A similar situation may develop with the United States as cold water fish move farther north. In the matter of water, the United States has long looked to the Canadian North as a source of fresh water for its dry southwestern states. The American Army Corps of Engineers drew up plans just after the Second World War to divert the Mackenzie River south and store the water in the Rocky Mountain trench for its use in the United States.⁷⁴ Currently, the United States continues to pressure the Canadian government to export fresh water. According to a report produced by a non-profit Canadian organization, *Learning for a Sustainable Future*, "... massive diversions of water away from the Arctic, for example, may cause dramatic changes in the climate of this region which will impact the entire globe."⁷⁵ This

⁷² Richard A. Kerr, "A Warmer Arctic Means Change for All."

⁷³ Global Security Organization, "International disputes," <http://www.globalsecurity.org/military/world/war/disputes.htm>; Internet; accessed 18 February 2006.

⁷⁴ Forrest Peterson, Minnesota Pollution Control Agency, "Superior Diversion: A thirsty world eyes our water," <http://www.pca.state.mn.us/publications/mnenvironment/winter2006/mewinter2006.pdf>; Internet; accessed 18 February 2006, 8.

⁷⁵ Learning for a Sustainable Future, "Canada's Freshwater: A Commodity for Export, A Resource for Conservation?," <http://www.lsf-lst.ca/en/teachers/water.en.pdf>; Internet; accessed 18 February 2006, 4.

kind of negative impact pushes the Canadian government to become reticent in investing in any freshwater diversion mega project. If global warming increases, fresh water may become as valuable as oil and gas.

In all, the Arctic holds many economic opportunities which, in the future, may require enhanced security in order to ensure Canadians fully benefit from their value. At this time, there is no immediate threat to the Arctic's resources; however, Canada must be proactive about the future security concerns caused by demand for the Arctic's bounty.

In the past, the Canadian government has introduced legislation to protect the Arctic and its associated resources. Following the Arctic sovereignty challenge posed by the American oil tanker *Manhattan* in 1969,⁷⁶ the Canadian government adopted the *Arctic Waters Pollution Prevention Act* which promulgates "strict standards of design and operation for any ship carrying petrocarbons in the North. [This act] requires companies owning such vessels to demonstrate to the [Canadian] government their financial ability to pay for any clean-up cost."⁷⁷ The Exxon Valdez tanker spill off the Alaska coast in 1989 is still being cleaned up. A spill the size of the Exxon Valdez's in the Northwest Passage would be a much greater catastrophe. Although the United States can afford the clean-up costs, the real point is that a spill must never recur. A spill like the Exxon Valdez could never be cleaned up in the Arctic. Oil would persist in the environment for decades, if not centuries.

The same *Arctic Waters Pollution Prevention Act* ensures the protection of not only the environment, but also the protection of future economic opportunities, such as animal and fish stocks in the Arctic. Additionally, in 1977, Canadian fishing stocks were further protected from

⁷⁶ CARC, "The Question of Sovereignty," *Northern Perspectives* 14, no. 4, <http://www.carc.org/pubs/v14no4/6.htm>; Internet; accessed 14 January 2006.

⁷⁷ John Honderich, *Arctic Imperative: Is Canada Losing the North?*, 65.

fishermen of other countries with the declaration of an Arctic Fishing Zone which gives Canada exclusive rights to control fishing within Canadian Arctic waters. Such exclusive zones have become fully recognized in international law. On this basis, coastal states claim absolute authority over all living and mineral resources within their exclusive zones.⁷⁸

Added to those protective measures, the Canadian government, in cooperation with Inuit peoples, are actively involved in sustainable development in the Arctic. Specifically, Canada has taken an important leadership role in environmental safety and has launched a sustained international campaign in order to get other nations to adopt its stance.⁷⁹ At the domestic level, the government continues to work hard to meet its Rio commitments to sustainable development.⁸⁰ The Rio declaration requires nations to involve governments, citizens and key sectors of civil society to ensure long-term economic progress, beneficial to humanity, all linked to environment protection.⁸¹ Although there is still much to clarify regarding northern comprehensive land claims between Northern aboriginal peoples and the Canadian government, existing self-government arrangements demonstrate the Canadian government's commitment to sustainable development of the Arctic.⁸²

⁷⁸ Ibid., 63.

⁷⁹ Ibid., 65.

⁸⁰ Government of Canada, "Indigenous Peoples and Sustainable Development in the Canadian Arctic Towards a Sustainable Future," <http://www.sinfo.gc.ca/reports/en/monograph11/indigenous.cfm#a5>; Internet; accessed 26 February 2006.

⁸¹ Ibid.

⁸² Ibid.

SOVEREIGNTY ISSUES

There are multiple definitions and interpretations of the word sovereignty. According to the *Oxford Dictionary*, sovereignty is defined as “supreme power or authority.”⁸³ Under International Law, sovereignty is “as the Supreme Power of the State over its territory and inhabitants, and independent of any external authority. As such it constitutes a criterion of the State as a subject of International Law”.⁸⁴ Based on these definitions, a nation has sovereignty if it can occupy, use and control an area of land it claims to be under its jurisdiction and if this claim is recognised internationally. Security is defined as “the state of being of feeling secure” or “the safety of a state or organization against criminal activity such as terrorism or espionage.”⁸⁵ A certain level of security is required in order to maintain sovereignty. But what is the right level of security to maintain sovereignty in the Canadian Arctic?

⁸³ Compact Oxford English Dictionary, “sovereignty,” http://www.askoxford.com/concise_oed/sovereignty?view=uk; Internet; accessed 26 February 2006.

⁸⁴ Guy Stair Sainty, The Sovereign Military Hospitaller Order of Malta, “The Order of Malta, Sovereignty, and International Law,” <http://www.chivalricorders.org/orders/smom/maltasov.htm#BM20>; Internet; accessed 15 March 2006.

⁸⁵ Compact Oxford English Dictionary, “security,” http://www.askoxford.com/concise_oed/security?view=uk; Internet; accessed 26 February 2006.

Since the Second World War, Canada has not faced any significant security disputes⁸⁶ which have threatened its national security or its territorial integrity and therefore it has not had to use force for direct defence of its territory. At times however, the Canadian government has

⁸⁶ These include Canada's boundary disputes: Northwest Passage, Beaufort Sea, Arctic continental shelf, Dixon Entrance, Juan de Fuca Strait, Hans Island, and Bay of Fundy. Chris Mason, "Sovereignty issues a part of nationhood," *Times Colonist*, 2 August 2005, A2.

had to use diplomacy to persuade other nations to respect Canada's sovereignty.

In 1985, then Secretary of State for External Affairs Joe Clark, provided a comprehensive declaration of Canadian Arctic sovereignty to the House of Commons. After an American icebreaker, the *Polar Sea*, transited the Northwest Passage without permission from Ottawa, Clark asserted that:

Canada's sovereignty in the Arctic is indivisible. It embraces land, sea and ice. It extends without interruption to the seaward-facing coasts of the Arctic Islands. These islands are joined, and not divided, by the waters between them. They are bridged for most of the year by ice. From time immemorial Canada's Inuit people have used and occupied the ice as they have used and occupied the land. The policy of the Government is to maintain the natural unity of the Canadian Arctic [A]rchipelago and to preserve Canada's sovereignty over land, sea and ice undiminished and undivided.⁸⁷

Given the present condition of warming water and ice retreat, Canada's sovereignty in the Arctic may have to be negotiated on many fronts with many nations. These issues will most likely be settled in diplomatic negotiations. Therefore, overly aggressive policies or actions will not be in Canada's interest. In order to understand the nature of the sovereignty issues in the Arctic, current sovereignty disputes are examined.

⁸⁷ Kyle D. Christensen, *Arctic Maritime Security and Defence: Canadian Northern Security Opportunities...*, 33.

Hans Island

Hans Island is a small island located in the Kennedy Channel between Greenland and Ellesmere Island. Canada and Denmark dispute its ownership. Both countries made an agreement to create a border through Nares Strait in 1973, but a recent dispute resurfaced in March 2004.⁸⁸ At present, this dispute



Figure 4 – Hans Island

is the only challenge to ownership of Canadian land in the North,

and could have consequences on the location of the maritime boundaries and therefore on Canada’s fishing rights. This dispute

is being addressed diplomatically by the Danish and the Canadian governments. However, if Canada loses this dispute, the result could be precedent setting for future disputes with other nations.⁸⁹ In any case, this current dispute challenges Clark’s concept of a North “undiminished and undivided”.

Continental Shelf

A contentious issue concerns the northern continental shelf boundary between Canada, the United States, and Russia. According to the United Nations Convention of the Law of the Sea, nations are allowed to exercise some rights over the seabed and subsoil out to a limit of 350

⁸⁸ CBC News, “Canada, Denmark dispute ownership of tiny Arctic island,” CBC News, 26 July 2005, <http://www.cbc.ca/story/canada/national/2005/07/25/hansisland050725.html>; Internet; Accessed 15 March 2006.

⁸⁹ Kyle D. Christensen, *Arctic Maritime Security and Defence: Canadian Northern Security Opportunities...*, 28.

nautical miles. As a result of this convention, any overlapping of continental shelves must be adjudicated by the Commission on the Limits of the Continental Shelf. Likewise, any other circumpolar nation has to make similar claims for its continental shelf. As a result of adjudication by this commission, Canada's continental shelf could be reduced by an international agency in the future.⁹⁰ These rulings are significant because they involve Canada's sovereignty over its territorial waters, fishing and mineral rights. Thus, Canada should direct its resources to preparing for negotiations by funding the best lawyers, scientists, and scholars to bolster their claims prior to negotiations.

Alaska & Yukon Maritime Boundary

Another dispute involves the Alaska and Yukon maritime boundary in the Beaufort Sea, an area rich in natural resources such as oil and gas. Canada claims that the boundary between Yukon and Alaska should follow the direct continuation of the Yukon-Alaska border, while the United States claims that the boundary should be at a 90-degree angle from the coastline, which does not follow the present Yukon-Alaska border.⁹¹ This ongoing issue will require Canada's utmost negotiating skills in order to protect Canada's national resources and territorial integrity.

⁹⁰ Ibid., 29-30.

⁹¹ Ibid., 30.

Northwest Passage

Canada and the United States also dispute the status of the Northwest Passage. This dispute is the most significant sovereignty challenge that Canada is currently facing. The United States claims that the Northwest Passage should be an international strait while Canada wants it to remain an internal waterway.⁹² It has been a Canadian waterway since the 1600s and Canadian was the first to sail through the passage in both directions.⁹³ Despite historical precedents, on three occasions the United States has challenged the status of the Northwest Passage by exercising its right of freedom of navigation of the seas:⁹⁴ the passage of the *S.S. Manhattan* in 1969,⁹⁵ the *Polar Sea* in 1985,⁹⁶ and the possible voyage of the *USS Charlotte* in 2005.⁹⁷

⁹² Ibid., 31-34.

⁹³ St. Roch was the first vessel to transit the Northwest Passage in one season in both directions. Kyle D. Christensen, *Arctic Maritime Security and Defence: Canadian Northern Security Opportunities...*, 92.

⁹⁴ This freedom is recognized by the general principles of international law and shall be exercised by all States with reasonable regard to the interests of other States in their exercise of the freedom of the high seas. The Multilaterals Projects, the Fletcher School, Tufts University, Convention on the High Seas – Article 2,” <http://fletcher.tufts.edu/multi/texts/BH364.txt>; Internet; accessed 18 February 2006.

⁹⁵ Kyle D. Christensen, *Arctic Maritime Security and Defence: Canadian Northern Security Opportunities...*, 31-34.

⁹⁶ Ibid.

⁹⁷ The United States submarine, *USS Charlotte*, may have transited through the Northwest Passage on its way to the North Pole. Christ Wattie, “U.S. sub may have toured Canada Arctic zone,” *National Post*, 8, no. 46, 19 December 2005, A1, A10.

This debate over the status of the Northwest Passage has reappeared because of projections that the Passage may become a more open waterway due to climate change. The opening of the Northwest Passage has the potential to create significant changes for shipping in the Canadian Arctic. However, it is not clear whether or not the Passage would ever become a significant international shipping route. Although the Northwest Passage would reduce the route from Europe to Asia by about 8,000 kilometres compared to the transit through the Panama Canal, there are many constraints that the shipping industry would face.⁹⁸ First, there are the added costs of owning ships which meet the Canadian government's requirements for proceeding through the Arctic.⁹⁹ Second, the Arctic is not a well-surveyed region; therefore, risks to shipping will be increased due to uncharted navigational hazards and unfamiliarity by inexperienced bridge watchkeepers. Third, due to the presence of ice, shipping would likely have to reduce speed; consequently, delays would occur and additional insurance, fuel and labour could be required at additional cost. Nevertheless, some savings could occur due to the shortened route. Most likely, however, the high risk and expense would push the shipping industry to use known routes such as the Suez Canal and Panama Canal.¹⁰⁰ Furthermore, even if shipping companies decide to proceed through the Arctic, it is not certain that the Northwest

⁹⁸ Franklyn Griffiths, "New Illusions of a Northwest Passage," 3.

⁹⁹ Transports Canada, "Shipping Safety Control Zones," *Arctic Waters Pollution Act*, <http://www.tc.gc.ca/acts-regulations/GENERAL/a/awppa/act/awppa.htm#0.2.JZ0KIZ.K1D72S.4HEJED.C>; Internet; accessed 26 February 2006.

¹⁰⁰ Franklyn Griffiths, "New Illusions of a Northwest Passage," 5-7.

Passage would be the preferred route due to other attractive routes such as the Russian Northern Sea Route or across the North Pole.¹⁰¹

Historically, the Canadian government has usually waited for the development of a sovereignty crisis in the Arctic rather than being proactive about establishing its control. Although this reactive approach has not helped Canada to promote a strong stance to establish its sovereignty, it has taken some actions in the past thirty years.¹⁰² In 1970, after the transit of *S.S. Manhattan* through the Northwest Passage, the Canadian government extended its territorial limits from three nautical miles to 12 nautical miles.¹⁰³ In 1985, after the transit of *Polar Sea* through the Northwest Passage, the Canadian government used straight baselines to enclose the waters of the Arctic Archipelago.¹⁰⁴ Furthermore, the 1988 *Arctic Cooperation Agreement* between the United States and Canada stipulated that the Canadian government must give consent prior to any U.S. icebreaker transiting waters claimed by Canada.¹⁰⁵ These three agreements, which are based on the Law of the Sea Convention, have not been upheld by the

¹⁰¹ Rob Huebert, "Renaissance in Canadian Arctic Security?," *Canadian Military Journal* 6, no. 4 (Winter 2005-2006); http://www.journal.dnd.ca/engraph/Vol6/no4/Home_e.asp; Internet; accessed 4 March 2006.

¹⁰² Kyle D. Christensen, *Arctic Maritime Security and Defence: Canadian Northern Security Opportunities...*, 39.

¹⁰³ *Ibid.*, 36.

¹⁰⁴ *Ibid.*, 37.

¹⁰⁵ *Ibid.*, 39.

United States. The United States has not ratified the Law of the Sea Convention,¹⁰⁶ and therefore the United States does not acknowledge that it needs to recognize Canada's sovereignty claims based on this convention.

The sovereignty issues of the Canadian Arctic, especially the status of the Northwest Passage, are not easily solved because of the complexity of the Arctic and its strategic importance. However, due to the nature of the disputes and the generally friendly relationships that Canada has with the countries making these claims, it is unlikely that these sovereignty issues warrant a significant increase in security measures at this point. These sovereignty disputes are being and should be deliberated either legally or diplomatically.

In order to address the security concerns of the Arctic, it is important to understand the interrelated issues of climate change, cultural issues, environmental issues, sovereignty issues, and economic opportunity. The Canadian government must continue to address these issues in a progressive and coherent manner with the understanding that these evolving issues will continue to affect the security of the region, and that changes in security measures will also affect these issues.

¹⁰⁶ Donat Pharand, "The Role of International Law for Peace and Security in the Arctic," *The Arctic: Choices for Peace and Security*, ed. The True North Strong & Free Inquiry Society, 105-111 (Vancouver: Gordon Soules Book Publishers Ltd., 1989), 109.

CHAPTER 3 - CANADA'S NATIONAL SECURITY INTERESTS

This chapter will analyse Canada's national security interests in the Canadian Arctic. This analysis will include an historical overview of Canada's security concerns, particularly as they relate to the Arctic, a review of Canadian defence policy from 1947 to the present, and a review of the current Canadian defence and security policies related to the Arctic.

HISTORICAL REVIEW OF THE THREATS TO CANADA AND THE ARCTIC

The first threats to Canada were from multiple tentative invasions by the United States in the nineteenth century. Although Canada and the United States have become neighbours with generally friendly relations, their relationship was not always smooth. The conflicts with the United States throughout the 1800s entailed border adjustments with British involvement. The Americans, as the aggressor, usually pushed and gained because British negotiators had to contend with the fact that the British were spread thin in establishing their empire throughout the world. In 1817, the Rush-Bagot Treaty was signed between the United States and Britain to disarm the border between Canada and the United States.¹⁰⁷ This treaty remains in effect today and it is the "longest lasting and most successful disarmament treaty in international history."¹⁰⁸

¹⁰⁷ C.P. Stacey, *The undefended Border: The Myth and the Reality* (Ottawa: The Canadian Historical Association Booklets, 1967), 5.

¹⁰⁸ Joseph R. Nunez, "Canada's global Role: A Strategic Assessment of its Military Power," *Parameters* (Autumn 2004), 75.

Post Civil War, the United States had a large standing army and began to look to continental expansion, especially to the Prairies and the West Coast. Alarmed British Canadian

colonials feared the trend by the Americans toward continental expansion and sought greater security through Confederation in 1867. The *British North America Act* began Canada's weaning from Britain. After the First World War, the British, weakened by war and depression, invested less and less in Canada while American investment increased more and more until the present day. After the Second World War, American economic imperialism replaced British colonial imperialism worldwide. The United States emerged as an economic and military giant at the same time that its allies and foes struggled from post-war devastation. Consequently, Canada, without Britain, tended to trade and interact more with the United States than with Britain or any other nation.¹⁰⁹

Given Canada's huge land mass, politicians realized that Canada could only be threatened by a very powerful country. Given Canada's small size and the impossibility of maintaining a military large enough to defend itself, Canada could best defend itself through an alliance with a powerful country, such as the United States. Since American military interests include the defence of all of North America, Canada would naturally benefit from the United States' protection.¹¹⁰ Accordingly Canadian and Arctic security fell largely under the sphere of American defence.

¹⁰⁹ D.W. Middlemiss and J.J. Sokolsky, *Canadian Defence: Decisions and Determinants* (Toronto: Harcourt Brace Javanovich, 1989), 9-20.

¹¹⁰ Ibid.

From the beginning of the 20th century until the end of the Second World War, Canada's territory was not directly threatened by any nation. Although Canada was heavily involved in both World Wars, there was no direct threat to Canadian territory or citizens at home except for a few U-boats operating in the approaches to the St-Lawrence River. At the start of the Cold War, Canada's Arctic became increasingly important to both the United States' and Canada's defence. The shortest distance from the Union of Soviet Socialist Republics (USSR) to the United States was over the Polar ice. Russian bombers often patrolled the Arctic region, and Russian nuclear ballistic submarines were believed to be positioned under the Arctic ice ready to strike against North America. For these reasons, American Intercontinental Ballistic Missiles were aimed over the northern ice cap. Canada became a buffer zone between the USSR and the United States. Canada's Cold War foreign policy was dominated by the concern that Canada was indirectly threatened by a nuclear attack taking place over the Arctic. Any tension that could develop into a nuclear battle between the United States and the USSR posed a danger to us.¹¹¹

Even during the Cold War, when our security was inextricably linked to American defence, Canada still maintained policies which were independent of the United States' policies. For example, because of Canada's ratification of the Nuclear Non-Proliferation Treaty in 1969, the United States removed all its nuclear weapons from Canada. In response, the United States armed its northern states with Intercontinental Ballistic Missiles. In general, however, Canada cooperated with the American military agenda in order to benefit from the defence given and because of the

¹¹¹ Hugh Segal, "Canadian Foreign Policy and the International Environment," *Canadian Speeches*, 16, 3 (Jul/Aug 2002), available from <http://proquest.umi.com>; Internet; accessed 17 January 2006.

extensive trade link between the nations. Canadian cooperation with the Americans for defence was demonstrated when Canada agreed to be part of North American Aerospace Defence (NORAD). Canada's participation in NORAD placed the Canadian Forces in Canada under operational control of an American general. This bilateral agreement allows, under certain alert conditions, American military aircraft to enter Canadian airspace, and requires Canada to coordinate with the United States for the defence of its own territory. As described by Middlemiss and Sokolshy, "... bilateral co-operation does impose limits on Canadian policy... most international agreements and treaties entail some compromise on sovereignty. This is as true in the strategy arena as it is in the international economic sphere".¹¹² Despite the limitations imposed by this agreement, Canada has been able to remain a sovereign nation.

With the exception of the global terrorist threat, Canada is no longer directly threatened as it was during the Cold War, but the world is still not peaceful or stable.¹¹³ When the Cold War ended, Canada and its allies had a greater sense of security because the only remaining superpower in the world was an ally. Nevertheless, global tensions continued. The break-up of the Soviet Bloc led to increased conflicts within states as well as between smaller, less developed nations, all which caused tremendous upheaval, human suffering and political instability. By the early 1990s, conflicts arose in the Persian Gulf and in the former Yugoslavia. More than 2,000 Canadian soldiers took part in the 1991 Gulf War. In 1994, 2,700 Canadian soldiers were serving

¹¹² D.W. Middlemiss and J.J. Sokolsky, *Canadian Defence: Decisions and Determinants*, 153.

¹¹³ Rob Huebert, "Renaissance in Canadian Arctic Security?."

as United Nations peacekeepers. Indeed, peacekeeping consumed a great deal of increasingly scarce Canadian defence resources in the 1990s.¹¹⁴

Since the terrorist attacks against the United States on September 11, 2001, new global threats have emerged. Canada is not immune to those threats. Although Canada has been fortunate in not experiencing terrorist attacks on its soil, Osama bin Laden named Canada as a potential target in 2002 due to Canada's participation in the war against terrorism in Afghanistan.¹¹⁵ Facing these new threats, Canada's security focus has shifted to defending Canada against terrorism. It is almost certain that any terrorist threat against Canada would be focused on major urban centres, airports or ports, and not very likely against Arctic territories where terrorist attacks would be difficult to execute given the terrain and dearth of targets. Therefore, the new global situation has shifted Canada's attention away from Cold War security concerns in the Arctic toward small international missions and domestic security against terrorism.

As a result of potential terrorist infiltration into Canada and/or the United States, border security has become a sensitive issue between the two countries. Additionally, unconventional threats such as illegal migration, drug trafficking, illegal fishing, and biological warfare continue to threaten the national security of Canada. Canadian and American cooperation for border

¹¹⁴ Joseph R. Nunez, "Canada's global Role: A Strategic Assessment of its Military Power," 79.

¹¹⁵ Canadian Security Intelligence Service, "Speeches and Presentation," <http://www.csis-scrs.gc.ca/en/newsroom/speeches/speech02042003.asp>; Internet; accessed 26 February 2006.

control does not directly contribute to the security of the Arctic, but is essential to ensure that Canada is not a base for threats to our allies.

The cooperation between Canada and the United States for the security of the continent includes the Arctic. Some critics of Canada's lack of spending on Arctic security might make the argument that marine traffic detected in the region is threatening Canadian sovereignty or exposing Canada to the aforementioned threats of terrorism, illegal migration, drug smuggling and the like. However, due to the limited number¹¹⁶ of vessels operating in the Arctic compared to the significant number¹¹⁷ of vessels operating on the east and west coasts, it is hard to justify an increase in security in the Arctic at this time.

As mentioned earlier, climate change is the most significant long-term issue affecting the Arctic. Other nations' interest in the Canadian Arctic will probably be more significant in the future due to the effects of climate change, and the opening of shipping routes in the Arctic may invite multinational companies to exploit, with fewer difficulties, the resources located in the Arctic. Other than the global terrorist threat, however, Canada does not face any significant threats to its national security which require immediate action. Canada remains one of the safest homelands in the world and Canadians already benefit from the continental defence provided by the United States.

¹¹⁶ This number is assessed at about 50-100 vessels per year based on discussion with a former officer-in-charge of the Maritime Operations Centre of the West Coast.

¹¹⁷ This number is assessed in the thousand of vessels per year based on discussion with a former officer-in-charge of the Maritime Operations Centre of the West Coast.

HISTORICAL REVIEW OF CANADIAN DEFENCE POLICY REGARDING THE ARCTIC

An historical overview of Canadian defence policy regarding the Arctic reveals two main themes. First, only a small percentage of Canada's defence resources have been directed toward Arctic security over the years. Second, Canada has not been proactive in determining its security needs. Instead, the United States' security and economic interests tend to trigger Canadian attention to the Arctic. In response to American sovereignty challenges in the North, Canada's defence policy was geared to protecting its sovereignty against the United States rather than from a threat from the Soviet Union. As discussed by Kenneth Eyre in his article, *Forty years of military activity in the Canadian North, 1947-87*, little changed from the Second World War until the late 1980s regarding Canada's northern defence policy.¹¹⁸

1947-1970 Period

Between 1947-1964, the United States initiated defensive measures in the Arctic to protect against the Soviet Union. A Distant Early Warning (DEW) radar line was constructed along the 70th Parallel to provide early warning against a Russian threat. As a result of the United States' actions, many Canadians thought that the control of the Arctic was now an American responsibility and disliked the sovereignty implications. In response, in 1959, Canada

¹¹⁸ Kenneth C. Eyre, "Forty years of military activity in the Canadian North, 1947-87," *Arctic*, no. 4 (Dec 1987), available from <http://proquest.uni.com>; Internet; accessed 29 November 2005, 294.

took over operational control of the DEW Line to assert its sovereignty in the North and to ease internal political pressure.¹¹⁹

Throughout these years, there was little activity in the North. The first Canadian military vessels to venture into the North were the aircraft carrier HMCS MAGNIFICENT, which went into Hudson's Bay with two destroyers in the summer of 1948. In 1949, HMCS SWANSEA made a similar voyage into the Arctic. In 1954, the icebreaker HMCS LABRADOR became the first warship to transit the Northwest Passage. This icebreaker was subsequently transferred to the Canadian Coast Guard in 1958 and marked the end of the Navy's ice capability. The Royal Canadian Navy only sailed back into the Arctic in the 1970s during the Trudeau era.¹²⁰

Additionally, as a result of the DEW Line construction, airfields were built in the North, but air operations were limited. Canadian troops conducted exercises, at times with American forces, to gain experience in operating in the Arctic conditions. By 1965, however, virtually all military activities in the Arctic ceased except for the surveillance conducted by the DEW Line and the Canadian Rangers.¹²¹

¹¹⁹ Ibid.

¹²⁰ Ibid., 295.

¹²¹ Ibid., 296.

1970-1980 Period

During this era, Trudeau's government implemented a northern policy which included the maintenance of Canadian sovereignty and security in the Arctic. The protection of the sovereignty was Trudeau's first priority in defence policy; consequently, Canadian presence in Western Europe was reduced significantly. Debates occurred in the House of Commons to determine who was challenging the sovereignty in the North; these debates were inconclusive, but the Canadian government remained committed to the North. Finally, it was concluded that the only pressing sovereignty challenge in the North was from the United States. The 1971 *White Paper* on defence stated that military forces must be ready to conduct operations without violence in order to maintain Canada's sovereignty, but force may be used if necessary. The character of this new policy demonstrated a lack of understanding of the threat to the Canadian North. Therefore, the policy was not enacted when politicians determined that the lack of actual threat did not justify providing additional resources to protect the North. However, during this period, the military forces conducted monthly long-range surveillance patrols, the Army conducted exercises in the North to indoctrinate its troops to Northern conditions, and the Navy conducted patrols in the summer. Additionally, the Canadian Forces established a Northern Region Headquarters to continue to promote the importance of the Arctic. However, because of other priorities and the government's lack of will to update military equipment for operating in the North, the focus on the Arctic once again faded early in the 1980s.¹²²

¹²² Ibid., 296-298.

1980-1990 Period

In the Mulroney government's 1987 *White Paper* on defence, the Canadian Arctic was given more attention: Arctic security was its main theme.¹²³ This renewal of interest in the Arctic was caused by a sovereignty violation by an American Coast Guard icebreaker

¹²³ Ibid., 298.

Polar Sea, which transited the Northwest Passage without Canada's consent in 1986.¹²⁴ As a result of the United States' incursion, the 1987 *White Paper* contained acquisition programs to increase Canadian sovereignty and security. These programs included the acquisition of a polar class 8 icebreaker, the purchase of twelve nuclear-powered submarines, the establishment of five forward operation locations for fighter aircraft, and a sub-surface surveillance system.¹²⁵ The DEW Line was also modernized as the North Warning System. The decision to purchase nuclear submarines was the most controversial item in the paper. The strengthening of the Canadian Rangers was another initiative of the Mulroney government.¹²⁶ However, most projects, such as the submarine, sub-surface surveillance system, and the icebreaker programs, were cancelled due to financial constraints and reduced security requirements in the Arctic after the Cold War ended.¹²⁷ Projects such as the DEW Line modernization and the establishment of forward operation locations went ahead, but the lack of threat did not provide sufficient justification for the other expenditures. Despite recognition in policy that the security of the Arctic required more attention, again, the North was more or less left to itself.

¹²⁴ Parliament of Canada, "Chapter 4 – Post-Cold War cooperation in the Arctic: From interstate conflict to new agendas for security," http://www.parl.gc.ca/committees352/fore/reports/07_1997-04/chap4e.html; Internet; accessed 26 February 2006.

¹²⁵ Parliament of Canada, "Chapter 4 – Post-Cold War cooperation..."

¹²⁶ Kenneth C. Eyre, "Forty years of military activity in the Canadian North, 1947-87," 298.

¹²⁷ Parliament of Canada, "Chapter 4 – Post-Cold War cooperation..."

1990-2000 Period

Canada produced a new defence policy for the post Cold War era with the 1994 defence *White Paper*. The 1994 *White Paper* acknowledged that Canada did not face any direct military threat; as a result, the structure of the Canadian Forces changed to meet national interest objectives such the maintenance of international peace.¹²⁸ These changes included budget and force reduction and the maintenance of a multi-purpose force.¹²⁹ Because there was no perceived threat to Canada, Arctic security was not a significant aspect in the 1994 *White Paper*. However, the Canadian government acknowledged the importance of the role of the Canadian Rangers by increasing their capability to conduct patrols in the Arctic.¹³⁰ Additionally, the Canadian government promoted the importance of the cooperation between Canada and the United States in the surveillance of the three oceans.¹³¹ Due to the lack of military threat post Cold War, the Canadian government, once again, adapted its Arctic defence policy by reducing defence commitments in the Arctic and by relying on its allies, particularly the United States, for defence.

¹²⁸ Department of National Defence, "Section II Departmental Overview," http://www.vcds.forces.gc.ca/dgsp/pubs/rep-pub/ddm/rpp/rpp98/sec2_e.asp, Internet; accessed 22 January 2006.

¹²⁹ Joel J. Sokolsky, "Canada, getting it right this time: The 1994 Defence White Paper," http://www.dtic.mil/doctrine/jel/research_pubs/canada.pdf; Internet; accessed 22 January 2006.

¹³⁰ Department of National Defence, "The Minister," http://www.dnd.ca/site/Minister/eng/94wpaper/seven_e.html Internet; accessed 22 January 2006.

¹³¹ Department of National Defence, "The Minister."

In summary, the security of Canada via the Arctic has not been threatened since the end of the Cold War. Although the importance of Arctic security has been recognised in policy papers, the commitment of resources has not followed due to the absence of tangible military threats to justify the expenditure. Canada has long been under the protection provided by the United States' defence of the continent. However, Canada faces the paradox that the only nation challenging Canada's sovereignty in the North is the United States, which is also protecting Canada's North. On the one hand, it can be argued that the passage of the *Polar Sea* and other American vessels through the Northwest Passage without permission represents merely a lack of courtesy to Canada, and did not present any actual security threat. However, some suspicion might remain that a superpower such as the United States, with interests throughout the globe, might want to gradually try to assert some dominance in the Canadian Arctic, particularly as the resources there become more accessible and valuable. The threat of economic exploitation in the Arctic by the United States may become the only threat. However, if this economic exploitation were to occur, Canada would be unable to address this economic and political issue through military means.

CURRENT DEFENCE POLICIES REGARDING THE ARCTIC

Recently, scholars and policy makers have renewed interest in the significance and importance of the Canadian Arctic. The main reasons for this renewal of interest are several sovereignty challenges in the Arctic, the unfortunate events of September 11, 2001, the discovery and exploitation of natural resources in the Arctic, the belief that global warming will lead to the

opening of the Northwest Passage to international shipping, and claims that the Northwest Passage is international waters and not Canadian inland waters. Throughout the years, the

Canadian government has maintained that the Arctic is an area of strategy interest that requires additional security and defence resources. After the 2006 election, during his first press conference, the new Prime Minister Stephen Harper announced that Arctic sovereignty was one of his top priorities.¹³²

To continue the discussion about Canadian defence policy in the Arctic, current Canadian policies need to be examined to determine if the actions taken by the Canadian government are adequate for security. Also, the United States defence policy related to the Arctic provides a comparison of the different defence policies affecting the region.

Arctic Security Interdepartmental Working Group

In 1999, a working group, the Arctic Security Interdepartmental Working Group (ASIWG) was formed to address the security issues facing the Arctic. This organization, which became instrumental to the Canadian government, includes representatives from the three territorial governments, Canadian Forces, RCMP, Coast Guard, Revenue Canada, Citizenship and Immigration, the Canadian Security Intelligence Service, Foreign Affairs, Natural Resources Canada, Environment Canada, Indian Affairs and Northern Development, Transport Canada, and Health Canada. Many of the security initiatives generated by the ASIWG were incorporated into

¹³² CBC News, "Harper brushes off U.S. criticism of Arctic plan," CBC News, 26 January 2006; <http://www.cbc.ca/story/canada/national/2006/01/26/wilkins-harper060126.html>; Internet; accessed 18 February 2006.

Canadian policy documents such the *National Security Policy* and the *International Policy Statement*. Most important, the ASIWG coordinated activities to improve Arctic security.¹³³

Canada's National Security Policy

Canada's first ever national security policy, *Securing an Open Society: Canada's National Security Policy*, was released in April 2004. This document discussed Canada's national security interests and the means to address threats to Canadians. The new policy discusses three core national security interests:

1. protecting Canada and Canadians at home and abroad;
2. ensuring Canada is not a base for threats to our allies; and
3. contributing to international security.¹³⁴

Although the first core national security interest, protecting Canada and Canadians at home and abroad, has been among the government's main priorities since the end of the Second World War, this policy was articulated subsequent to the world events that followed September 11, 2001. The military threat to Canada was almost nonexistent until the emergence of new threats such as terrorism. As a result, the *National Security Policy* document does not discuss specifically Arctic security, but it does articulate security issues and initiatives that encompass

¹³³ Rob Huebert, "Renaissance in Canadian Arctic Security?."

¹³⁴ Privy Council Office, "Securing an Open Society: Canada's National Security Policy," (Her Majesty the Queen in Right of Canada, 2004) vii.

the region. For example, the document states that “[t]he Government is determined to pursue our national security interests and to be relentless in the protection of our sovereignty and our society in the face of these new threats,”¹³⁵ and stresses that the government has an obligation to defend

¹³⁵ *Ibid.*, 1.

its sovereignty against threats such as illegal entry and incursions into Canada's territorial waters.¹³⁶ In order to support these policy statements, in 2004, the Canadian government invested \$308 million for strengthening the tracking of vessels operating in Canadian waters, increasing surveillance, protecting marine infrastructure, and improving domestic and international coordination.¹³⁷ Additionally, the government is in the process of developing bilateral initiatives, especially with the United States, to improve marine, air, and surface security to benefit Canada and the United States.¹³⁸ For example, Canada and the United States have the intention of cooperating in the protection and defence of Canadian coasts and territorial waters by implementing strict rules and standards which will benefit both nations.¹³⁹ Indeed, initiatives such as these will contribute to security of the Canadian Arctic.

Finally, it is important to understand that Canada has other commitments which will contribute to national security. In addition to the security of the Arctic, Canada is committed to countering international terrorism, to preventing proliferation of weapons of mass destruction, to assisting failed and failing states, and to resolving inter and intrastate conflicts.¹⁴⁰ All these commitments will contribute to keeping threats away from Canada and therefore will contribute to the security of the North. In the end, the security of the Arctic is a small but important part of

¹³⁶ Ibid., 5.

¹³⁷ Ibid., 37-39.

¹³⁸ Ibid., 37.

¹³⁹ Ibid., 39.

¹⁴⁰ Ibid., 48.

the big picture of Canada's national security.

Canada's International Policy Statement

The introduction of Canada's *International Policy Statement* represents the most significant improvement in Canadian Arctic security policy in decades. As Rob Huebert explains in his article, *Renaissance in Canadian Arctic Security?*, "Canada is now experiencing a renaissance in how it addresses the issues of Arctic security."¹⁴¹ In the *International Policy Statement*, the Canadian government provides its priorities and its key initiatives in executing its foreign policy, many of which are directly related to the security of the North. One of the significant aspects of this document is the Canadian government's admission that it had neglected the Arctic and that it is committed to renewing its interest in this region.

In Canada's *International Policy Statement*, the Canadian government summarizes the threats to the Arctic by discussing issues which have been already covered in this paper such as climate change, sovereignty protection, terrorism, and the threat to the natural resources. The question that remains is what actions the Canadian government must take in order to implement Canada's *International Policy Statement* as it pertains to the Arctic.

First, the Canadian government acknowledges that one of its biggest challenges is conducting surveillance over a very large territory, airspace, and maritime approaches, and to be

¹⁴¹ Rob Huebert, "Renaissance in Canadian Arctic Security?."

ready to counter asymmetric threats.¹⁴² Therefore, it seems that the Canadian government understands the magnitude of the task. There will always be risks because there is no failsafe solution for conducting surveillance of the vast Canadian territory. In order to mitigate some of these risks and to contribute to the overall strategy of the security of the Arctic, the *International Policy Statement* states that the Canadian Forces will:

1. increase their efforts to ensure the sovereignty and security of the Canadian territory, airspace and maritime approaches, including in the Arctic;¹⁴³
2. enhance their surveillance of and presence in Canadian areas of maritime jurisdiction, including the near-ice and ice-free waters of the Arctic;¹⁴⁴
3. increase the surveillance and control of Canadian waters and the Arctic with modernized Aurora long-range maritime patrol aircraft, unmanned aerial vehicles and satellites;¹⁴⁵
4. enhance capabilities in the North by:

¹⁴² Canada, “Canada’s International Policy Statement, A Role of Pride and Influence in the World, Diplomacy,” (Her Majesty the Queen in Right of Canada, 2005) 16-17.

¹⁴³ Ibid., 17.

¹⁴⁴ Ibid., 19.

¹⁴⁵ Canada, “Canada’s International Policy Statement, A Role of Pride and Influence in the World, Defence,” (Her Majesty the Queen in Right of Canada, 2005) 20.

- a. replacing the Twin Otter fleet with a more modern aircraft; and
 - b. considering the utility of basing search and rescue aircraft in the region;¹⁴⁶
5. improve Canada's maritime, land, air and space surveillance capabilities;¹⁴⁷
 6. increase Canada's capacity to monitor and respond to events in the North;¹⁴⁸
 7. support the Government's sovereignty and security objectives in the North by:
 - a. improving the ability of the Canadian Rangers to communicate with other components of the Canadian Forces and government agencies; and
 - b. increasing Regular Force sovereignty patrols in the region.¹⁴⁹

If the goal of these tasks is to assert sovereignty and improve the security of the Arctic, new initiatives must take place. As of February 1st, 2006, the Canadian Forces has restructured its headquarters to introduce a unified structure, "Canada Command", that will bring the most effective available military resources from across Canada together during a national crisis¹⁵⁰ such

¹⁴⁶ Ibid.

¹⁴⁷ Canada, "Canada's International Policy Statement, A Role of Pride and Influence in the World, Overview," (Her Majesty the Queen in Right of Canada, 2005) 8.

¹⁴⁸ Ibid..

¹⁴⁹ Canada, "Canada's International Policy Statement, A Role of Pride and Influence in the World, Defence," 20.

¹⁵⁰ Ibid., 18.

as national disasters or a terrorist attack. The *International Policy Statement* proposes that the Canadian Forces will utilize sophisticated systems to enhance Canada's security in the North.

Through a combination of enhanced surveillance (from satellites, unmanned aerial vehicles and radars), a more visible military presence and other improved capabilities (including airlift and communications), the Canadian Forces will be better able to respond to northern contingencies, and the Government will be able to more strongly assert Canada's interest in this vital region of the country.¹⁵¹

Additionally, according to this document, the Canadian Forces will be expanded by 5,000 Regular and 3,000 Reserve personnel to improve their ability to conduct all domestic and international assigned tasks, including the security of the Arctic.¹⁵²

To support these initiatives, Paul Martin's Liberal government invested nearly \$13 billion in the 2005 defence budget. This allocation for the Canadian Forces was the largest inflow of money in over 20 years.¹⁵³ Additionally, the Liberal Canadian government made other specific commitments to help tackle the issues of the North:

¹⁵¹ Ibid.

¹⁵² Ibid., 3.

¹⁵³ Ibid., 1.

1. Design an action plan to implement Kyoto commitments in a timely fashion;¹⁵⁴
2. Build on Canada's Oceans Action Plan and work internationally to close gaps in the management of oceans resources; and¹⁵⁵
3. Renew Canada's Climate Change Development Fund as an important mechanism to help combat the challenges of global warming in developing countries.¹⁵⁶

These actions will help manage the climate change occurring in the Arctic and demonstrate the government's commitment to managing its resources in its three oceans.

Northern Dimension of Canada's Foreign Policy

In June 2000, the Canadian government released the *Northern Dimension of Canada's Foreign Policy* to articulate its vision of the Arctic. Canada's northern policy was produced with the cooperation of Northerners and its circumpolar neighbours such as the United States and Russia and promoted Canadian and common interests and values. The major difference between Canada's foreign policy compared with security policy is that the foreign policy is more

¹⁵⁴ Canada, "Canada's International Policy Statement, A Role of Pride and Influence in the World, Overview," 19.

¹⁵⁵ Ibid.

¹⁵⁶ Ibid., 22.

concerned with the management of dimensions of the Arctic other than just sovereignty and security. The *Northern Dimension of Canada's Foreign Policy* has four overarching objectives:

1. to enhance the security and prosperity of Canadians, especially northerners and Aboriginal peoples;

2. to assert and ensure the preservation of Canada's sovereignty in the North;
3. to establish the Circumpolar region as a vibrant geopolitical entity integrated into a rules-based international system; and
4. to promote the human security of northerners and the sustainable development of the Arctic.¹⁵⁷

To execution of this policy, the Canadian government has committed \$2 million a year.¹⁵⁸ Furthermore, the Canadian government has been an important participant in the Arctic Council by taking a leadership role in the execution of Arctic policies¹⁵⁹ to fulfill the requirements promulgated in the *Northern Dimension of Canada's Foreign Policy*. Additionally, a first-ever Northern Strategy is currently being developed by territorial and federal government officials to reinforce the importance and significance of the Far North. This strategy will include the objective of reinforcing sovereignty, national security and circumpolar cooperation, which will

¹⁵⁷ Department of Foreign Affairs and International Trade, "The Northern Dimension of Canada's Foreign Policy."

¹⁵⁸ Ibid.

¹⁵⁹ CARC, "Sovereignty, Security, Surveillance in the Arctic," *Northern Perspectives* 22, no.4 (Winter 1994-95), www.carc.org/pubs/v22no4/sss.htm; Internet; accessed 25 January 2006.

contribute to the security of the Arctic.¹⁶⁰ In 2004, the federal government made an investment of \$120 million to continue progressing toward the objectives of the Northern Strategy.¹⁶¹

UNITED STATES' ARCTIC DEFENCE POLICY

A different way to assess the Canadian government's actions towards the security of the Arctic is to examine United States' Arctic defence policy. In 1867, the United States became a circumpolar nation when it purchased Alaska from Russia. Since then, the United States has key interests in the Arctic, which include economic, national security, scientific, and environmental interests.¹⁶² The main themes and objectives of the United States' Arctic policy are very similar to Canada's. According to the U.S. Department of State website, the United States' "Arctic policy emphasizes environmental protection, sustainable development, human health, and the role of indigenous people and other Arctic resident as stakeholders in the Arctic."¹⁶³ The only differences between the two countries' Arctic policies are the political will and the allocation of resources toward national security. The United States has proven superior in both.

¹⁶⁰ The Northern Strategy, "About The Strategy," http://www.northernstrategy.ca/index_e.html; Internet; accessed 4 March 2006.

¹⁶¹ The Northern Strategy, "News," http://www.northernstrategy.ca/nws/index_e.html; Internet; accessed 4 March 2006.

¹⁶² Elizabeth Leighton, "U.S. Arctic Policy Undergoes reassessment," *Northern Perspectives* 21, no. 4, (Winter 1993-94), www.carc.org/pubs/v21no4/us.htm; Internet; accessed 25 January 2006.

¹⁶³ U.S. Department of State, "U.S. Arctic Policy," <http://www.state.gov/g/oes/ocns/arc/>; Internet; accessed 25 January 2006.

The United States is challenging the status of the Northwest Passage as Canadian waters, but its intention is not entirely clear. It may desire that the Northwest Passage be considered an

international strait in order to maintain its ability to easily travel the globe. The United States exercised its perceived freedom of passage through the Northwest passage when an American supertanker, the *S.S. Manhattan*, in 1969, and an American icebreaker, *Polar Sea*, in 1985, transited through the Northwest Passage without permission from the Canadian government.¹⁶⁴ These sovereignty violations led to a 1988 formal agreement between the United States and Canada that icebreakers could transit through the Canadian Arctic as long as Ottawa is informed of the transit in advance.¹⁶⁵ Additionally, the fact that the United States is not pursuing the Northern Passage status issue with too much enthusiasm shows that having the Northwest Passage as an international strait has the potential to cause security challenges to the United States by allowing other nations' vessels transit through it. Instead, the intention of the United States' challenge may be to persuade Canada to give the United States permission to transit through the passage without any conditions, as they are likely doing already.

Another example of the influence and the political might of the United States regarding the Arctic occurred when it joined the Arctic Council. One of the conditions of joining the Council had included the requirement to discuss Arctic defence issues with the other members, but the United States stated it would join only if the requirement to have discussions involving defence was removed.¹⁶⁶ As a result, the Arctic Council removed this requirement and the

¹⁶⁴ Kyle D. Christensen, *Arctic Maritime Security and Defence: Canadian Northern Security Opportunities....*,34.

¹⁶⁵ *Ibid.*, 39.

¹⁶⁶ Rob Huebert, "Renaissance in Canadian Arctic Security?."

United States joined in 1996.¹⁶⁷ This fact clearly demonstrates American power which other nations, including Canada, cannot easily resist.

In summary, Canada and the United States' Arctic policies include similar interests; however, the ways the policies are executed differ from one country to another. Due its greater political influence and larger amount of defence resources, the United States takes more active roles than Canada in ensuring the security of its Arctic. Additionally, Canada and the United States have different threat interpretations and tolerance. Nevertheless, cooperation between the two countries is essential for ensuring the Arctic security of both countries. The most significant step by the Canadian government has been the promulgation of Canada's *International Policy Statement* in 2005 which demonstrates the emphasis on the security of the Canadian Arctic.

¹⁶⁷ Foreign Affair Canada, "Arctic Council," http://www.dfait-maeci.gc.ca/circumpolar/sec02_council-en.asp; Internet; accessed 22 February 2006.

CHAPTER 4 – ANALYSIS OF CANADA’S RESOURCES FOR DEFENCE AND THE SECURITY OF THE ARCTIC

Resources are usually spent where there are needed; in the case of defence, spending is usually directed where there is a security threat. Therefore, governments can justify allocating resources to improve the quality of life for inhabitants, build infrastructure and address social problems, or for pressing defence and security issues. However, the Canadian government has recently committed funds which will assist in the security and management of the Arctic. History shows that, despite policy statements outlining the need for spending on Canadian Arctic security, when it comes to enacting policy the government’s contributions are usually less than planned. This usually reflects a lack of direct threat and demands to spend on other more pressing matters.

An historical analysis of defence spending in Canada reveals the trends and Canadian attitudes. The resources currently allocated for the security of the Arctic are generally appropriate considering both the lack of military threat in the Arctic and the government’s need to allocate resources to other priorities. This information provides a background for analysing the resources likely to be available to address ongoing security issues in the Arctic.

HISTORY OF DEFENCE BUDGET ALLOCATION IN CANADA

Since Confederation, Canada has been fortunate in not having to fight a war on its territory or being forced to boost its defence spending to protect itself. However, the Canadian government has spent tax money on defence in direct relation to the stability of world affairs.

After the First World War, the Canadian government kept military spending to a minimum. During the Second World War, it increased significantly to contribute to the war in Europe. Thereafter, government officials usually opted to maintain a smaller military force during peacetime instead of a larger force for deterrence purpose. Canadian spending on defence through to the end of the twentieth century followed that pattern.

The First World War was believed to be the ‘war to end all wars’; therefore, the Canadian defence budget was reduced considerably after it ended. The Canadian government reduced its forces to fewer than 5,000 regulars, the Royal Canadian Navy maintained only two warships capable of blue water operations, and the Royal Canadian Air Force carried out non-military duties, such as mapping and forestry protection. The Reserve force was even in worse state with less equipment and more meagre funds. During the Great Depression, Canadians were more concerned about feeding their families than strengthening the armed forces. Without obvious threats, few Canadians lobbied to spend scarce resources on defence.¹⁶⁸

During the Second World War, the Canadian defence budget increased considerably. The Canadian army grew to 250,000 strong.¹⁶⁹ The Royal Canadian Navy was comprised of 100,000 men and 6,000 women and 471 warships.¹⁷⁰ The Royal Canadian Air Force was comprised of

¹⁶⁸ James Eayrs, *In Defence of Canada: From the Great War to the Great Depression* (Toronto: University of Toronto Press, 1964) 104-148.

¹⁶⁹ War Museum, “Fortifying Canada,” http://www.warmuseum.ca/cwm/chrono/1931britains_side_e.html; Internet; accessed 26 February 2006.

¹⁷⁰ Ibid.

232,000 men and 17,000 women dispersed among 86 squadrons, including 47 squadrons overseas.¹⁷¹ The Canadian government, like every other government, increased military spending it faced a significant threat to its national security.

The graphs at Appendix 1¹⁷² demonstrate the trends in military spending from 1912-1975. Before the beginning of the First World War, less than 8% of the total government expenditure was spent on defence. This percentage increased from 30% to 60% during the First World War and decreased to an average of 4% between the two world wars. Again, a drastic increase occurred during the Second World War from 60% to almost 80%. These figures demonstrate the Canadian government usually increased military spending during crises to protect its national security. On the other hand, during peacetime and economic downturns, the defence budget is usually one of the first items to be cut because it represents the largest sum of discretionary spending for the government.¹⁷³

The Cold War brought new pressures. In 1949, Canada joined the North Atlantic Treaty Organization (NATO) and remilitarization continued with the deployment of 10,000 troops and twelve air force squadrons to Europe.¹⁷⁴ To maintain its commitment to NATO, the Canadian

¹⁷¹ Ibid.

¹⁷² Graphs produced from data taken from Statistics Canada, "Federal government budgetary expenditure, classified by function, 1867 to 1975," http://www.statcan.ca/english/freepub/11-516-XIE/sectionh/H19_34.csv; Internet; accessed 26 February 2006.

¹⁷³ J. Craig Stone and Binyam Solomon, "Canadian Defence Policy and Spending," *Defence and Peace Economics* 16, no. 3 (June 2005); 161.

¹⁷⁴ John Honderich, *Arctic Imperative: Is Canada Losing the North?*, 150-151.

government's defence spending remained above the usual single digit percentage during the 1950s. Defence spending reached a high of 42% of total government expenditure in 1952 and consistently declined to 8% in 1975.¹⁷⁵ After Pierre Trudeau was elected as Prime Minister in 1968, he reduced Canada's commitment to NATO and UN peacekeeping missions, which were the trademark of Canada's foreign engagement. Canada's military lost capability with the decommissioning of Canada's only aircraft carrier, HMCS BONAVENTURE, and the abolition of several Canadian army regiments.¹⁷⁶ This "Trudeau rust out" continued into the 1980s.

After many years of neglect of defence spending during the Trudeau era, the Mulroney government renewed the importance of the defence of Canada in the mid-1980s. This defence platform required substantial defence spending to support new foreign and defence policies. Increasing spending was required to reduce the capability gap created by the Liberal government's lack of defence spending in the 1970s. Mulroney's policies included commitments that Canada would contribute more effectively to its alliances and that the Arctic would receive a lot more attention. However, the money was not ever allocated to execute the Conservative plan to its full extent. Canada was faced with a large federal deficit and Canadians continued to demand more social programs. As a result, the Mulroney government was unable to increase the defence budget to procure the equipment to support its defence policy.¹⁷⁷

¹⁷⁵ Data taken from Statistics Canada to produce Appendix 1 for analysis. Statistics Canada, "Federal government budgetary expenditure..."

¹⁷⁶ John Honderich, *Arctic Imperative: Is Canada Losing the North?*, 151.

¹⁷⁷ D.W. Middlemiss and J.J. Sokolsky, *Canadian Defence: Decisions and Determinants*, 47-48.

In 1990, the Cold War ended with the collapse of the Soviet Union. The subsequent lack of military threat to Canada and other fiscal challenges pushed the Canadian government to take steps to reduce its military expenditures. The 1994 *White Paper* on defence promulgated the withdrawal of all troops in Europe. The focus of the Canadian government was to maintain its military forces at home to counter new threats to its national security. The military was reduced from 85,000 to 60,000 members and equipment acquisitions were scaled back or cancelled. At the same time, 35% of the national budget was earmarked for health and social programs. Consequently, in the 1990s, Arctic security was not given high priority due to a post Cold War decrease in military threat and political priorities given to other matters.¹⁷⁸ Canadian military resources were needed elsewhere, both domestically and internationally in an unstable world.¹⁷⁹

In the post Cold War era, the Canadian military remained very active internationally conducting peacekeeping and peacemaking operations in support of failed and failing states.¹⁸⁰ As a result, the demands on shrinking military forces and the cost associated with these missions contributed to a defence dilemma. Although Canada was not facing any direct threat, increased military spending was required to support Canadian troops abroad. Deeply embedded in

¹⁷⁸ Kyle D. Christensen, *Arctic Maritime Security and Defence: Canadian Northern Security Opportunities and Challenges*, Report Prepared for the Chief of Maritime Staff (Ottawa: Directorate of Maritime Strategy, 2005), 1-4.

¹⁷⁹ Rob Huebert, "Canadian Arctic Security Issues: Transformation in the post-cold war era," *International Journal*, no. 2 (Spring 1999), 223.

¹⁸⁰ Joseph R. Nunez, "Canada's global Role: A Strategic Assessment of its Military Power," *Parameters* (Autumn 2004), 79.

Canadian military history is the fact that international commitments sometimes challenge our military capability. A significant challenge in creating Canada's strategic policies is striking the right balance between involving the Canadian Forces in international commitments and using military resources domestically.¹⁸¹ For example, the security and sovereignty of the Arctic is an

¹⁸¹ Canada, "Canada's International Policy Statement, A Role of Pride and Influence in the World, Defence," (Her Majesty the Queen in Right of Canada, 2005) 2.

important part of Canada's domestic policies, and peacekeeping missions are an important part of Canada's international policy. However, it can be seen that Canada's participation in international missions supports its domestic security needs. When Canada participated in the war against terrorists in 2001 or the Kosovo campaign in 1998, Canada's involvement contributed to enhancing international security. In the end, increasing international security helped to ensure Canada's security at home. The government must work to strike a balance between promoting Canadian security through international involvement and through domestic measures.

In response to the unfortunate events of September 11, 2001, the Canadian government provided additional funding to the Department of National Defence. The 2005 budget allocated nearly \$13 billion to the military to renew its forces and equipment to respond to the commitments outlined in the *Canada's National Security Policy* and *Canada's International Policy Statement*. Although this amount represents a considerable increase compared to previous years, Canada continues to spend very little on defence.

Looking at Canada's historical military spending vis-à-vis its closest neighbour, the United States, reveals that Canada's military spending has generally followed the trend of the military spending of the United States, but at a lesser per capita rate. (See Appendix 2¹⁸²) Despite the different scale of actual defence spending, this comparison demonstrates that Canada

¹⁸² Bill Robinson, Peter Ibbott, "Canadian military spending: How does the current level compare to historical levels? ... to potential threats?," <http://www.ploughshares.ca/libraries/WorkingPapers/wp031.pdf>; Internet; accessed 2 March 2006, 7.

has continued to spend in the same relative manner as the United States. Additionally, Canada's historical military spending vis-à-vis its Gross Domestic Product (GDP) has decreased; however, this information can be misleading. The decrease in percentage can easily be justified by the growing GDP of Canada since the end of the Second World War. Again, if compared with the United States, Canada's decrease in military spending relative to its GDP is comparable to that of the United States (Appendix 3).¹⁸³ Canada is the sixth largest military spender among the NATO countries. Comparing Canada's military spending with other NATO countries indicates that Canada will probably maintain this ranking as it did during most of the Cold War. It would need to almost double its military spending to join its closest colleague. (Appendix 4).¹⁸⁴

CANADIAN ATTITUDES TOWARD DEFENCE SPENDING

Although it is expensive to keep a defence force and supporting infrastructure, there are economic advantages. Over the years, the military's spending on equipment, maintenance and services has tempered regional disparities in Quebec and Atlantic Canada. If military bases are closed, citizens are often upset due to the fear of the social and economic consequences for the local economy, especially in regions where unemployment is high. Yet, Canadians generally prefer to spend resources on health care, education and social services than on defence, and

¹⁸³ Ibid., 10.

¹⁸⁴ Ibid., 12.

want the money that is spent on defence to directly benefit Canadians, create employment, boost the economy and help ease regional disparities.¹⁸⁵

Some scholars and commentators argue that Canada does not spend much on its military because of the security umbrella produced by the United States.¹⁸⁶ The military historian George Stanley described Canadians as an “unmilitary people”.¹⁸⁷ Canadians generally prefer to support public services and social programs such as medicare. According to a survey conducted prior to the 2006 election, most Canadians do not consider national security a priority. Despite the global terrorist threat, Canadians considered health care their top priority.¹⁸⁸ Appendix 5¹⁸⁹ provides details concerning Canadians’ priorities during these last three elections. Finally, Appendix 6¹⁹⁰ shows the trend in percent of total government spending allocated to defence matters since the end of the Cold War.¹⁹¹ The 6.8% share of the total governmental expenditures has been consistent and seems to be appropriate to maintain Canada’s national security.

¹⁸⁵ Lilly J. Goren, P. Whitney Lackenbauer, “The Comparative Politics of Military Base Closures,” *Canadian-American Public Policy*, no. 43, September 2000, 10-11.

¹⁸⁶ Joseph R. Nunez, “Canada’s global Role: A Strategic Assessment of its Military Power,” 89.

¹⁸⁷ George F.G. Stanley, *Canada’s Soldiers: The military History of an Unmilitary People* (Toronto: Macmillan of Canada, 1974), 444.

¹⁸⁸ Ekos, “Federal Election 2005-06 – A look at the Week of January 7, 2006,” <http://www.ekos.com/admin/articles/7Jan2006Background.pdf>; Internet; accessed 26 February 2006, 31.

¹⁸⁹ Ibid.

¹⁹⁰ Department of National Defence, “Federal Government Revenues, Expenditures...,” 6.

¹⁹¹ Department of National Defence, “Federal Government Revenues, Expenditures...”

RESOURCES ALLOCATED TO THE SECURITY OF THE ARCTIC

Many scholars and politicians criticize the Canadian government's lack of substantial action on Arctic security. However, it is important to look at the Canadian involvement in the North holistically because many governmental departments and agencies are involved in the North. The most prominent involved in the security in the North include: the Department of National Defence (DND), Environment Canada, Royal Canadian Mounted Police, and the Canadian Coast Guard. Although Citizenship and Immigration Canada has a limited presence in the North, it plays an important role in the conduct of security, intelligence, and immigration control with the collaboration of DND and CCG.¹⁹² Transport Canada enforces policies such as the *Arctic Waters Pollution Prevention Act*, by ensuring safe passage of marine shipping in the Arctic, by ensuring that northern communities have reliable transportation, and by promoting environmentally friendly transportation operations.¹⁹³ Canada Customs and Revenue Agency (CCRA) clears visitors to several ports of entry in the Arctic.¹⁹⁴ Although Indian and Northern Affairs are not involved in security issues of the North, they provide warning to authorities of any suspicious activities.¹⁹⁵

¹⁹² Canadian Directorate of Defence, "Arctic Capabilities Study," 6.

¹⁹³ Ibid.

¹⁹⁴ Ports of entry include Iqaluit, Inuvik, and Yellowknife. In 1998, CCRA cleared about 4,000 people in the Arctic. Canadian Directorate of Defence, "Arctic Capabilities Study," 6.

¹⁹⁵ Ibid., 7.

In peacetime, defence budgets are usually reduced, and sovereignty issues dealt with as they arise. Using diplomacy is preferred over expensive military power. However, in

collaboration with Other Government Departments (OGDs), the Canadian Forces has a role to play in ensuring Arctic security by conducting surveillance and control operations which include search and rescue taskings. The *Arctic Capabilities Study* was completed in 2000 to examine the Canadian Forces' capability to operate in the Arctic. As a result of the study, several security initiatives were reinstated, including the Canadian Forces Northern Deployment, and short, medium and long-term recommendations were produced to acknowledge the capability gaps of the Canadian Forces to execute security enhancing measures in the Arctic.¹⁹⁶ These included:

Short/Medium Term Recommendations

1. Strengthen inter-departmental cooperation through:
 - a. Continued DND participation in the ASIWG;
 - b. Participation in inter-departmental group in Privy Council Office/Intelligence Assessment Secretariat with view to produce an Arctic intelligence assessment;
 - c. Continued DND participation in Northern science and technology committee; and
 - d. Agreements with OGD for the exchange of information.
2. Enhance connectivity of CFNA to relevant DND/CF operations and intelligence systems;
3. Enhance the analysis and planning capabilities of CFNA;

¹⁹⁶ Ibid.

4. Increase Rangers capabilities and activity levels;
5. Exercise the northern reaction capability of the LF; and
6. Assess options for providing CFNA with necessary level of air support.¹⁹⁷

Longer Term Recommendations

1. Include Arctic dimension in the development of future CF ISR framework; and
2. Include the northern requirement in development of an enhanced global deployability for the CF.¹⁹⁸

The roles of the Canadian Forces in the Arctic

The Canadian Forces play a small but important role in the Arctic. Since 1970, the Canadian Forces have been established in the Arctic as the Canadian Forces Northern Area.¹⁹⁹ As a result of the Canadian Forces transformation in 2006, the Northern region has been restructured as the Joint Task Force North, which answers to Canada Command located in Ottawa. This restructuring puts the Canadian government in a better position to answer any potential security threats. The mission of Joint Task Force North is to contribute “to the Defence of Canada by providing a Canadian Forces presence in Nunavut, the Northwest Territories and

¹⁹⁷ Ibid.

¹⁹⁸ Ibid.

¹⁹⁹ Department of National Defence, “CFNA Fact Sheet,” http://www.cfna.forces.gc.ca/aboutus/fact_sheet_e.asp; Internet; accessed 26 February 2006.

the Yukon Territory.”²⁰⁰ To support this mission, over 3100 personnel (including military personnel and Canadian Rangers) are located in the North.²⁰¹ The Joint Task Force North has one headquarters located in Yellowknife and a detachment in Whitehorse, and employs about 65 military and civilian personnel. It has the task of coordinating northern military activities and maintaining Canadian sovereignty in the North.

To support northern military activities, the Canadian Forces has allocated 1,800 flying hours per year conducted by the 440 Transport Squadron based in Yellowknife.²⁰² 440 Transport Squadron uses aging CC-138 Twin Otters aircraft to carry out its tasks. The Canadian government has made a commitment in its *International Policy Statement* to replace the Twin Otter fleet with more modern aircraft. Additionally, the government is considering basing search and rescue aircraft in the North to enhance its capability in anticipation of increased air and maritime traffic.²⁰³ These intentions demonstrate the Canadian government’s commitment to enhance its air capability in the surveillance and control of the Arctic.

²⁰⁰ Department of National Defence, “CFNA’s Mission,” http://www.cfna.forces.gc.ca/aboutus/mission_e.asp; Internet; accessed 26 February 2006.

²⁰¹ Department of National Defence, “CFNA Fact Sheet,” http://www.cfna.forces.gc.ca/aboutus/fact_sheet_e.asp; Internet; accessed 26 February 2006.

²⁰² Ibid.

²⁰³ Canada, “Canada’s International Policy Statement, A Role of Pride and Influence in the World, Defence,” 19-20.

Furthermore, the Canadian Forces Forward Operating Locations²⁰⁴ (FOL) used for fighter operations and the North Warning System²⁰⁵ both contribute to the surveillance of the North.²⁰⁶ Although these capabilities may seem insignificant, the FOLs and the North Warning System provide the government with an established capability if the security of the Arctic becomes a future issue.

The Canadian Rangers are one of most important assets that the Canadian government possesses in the North. The Rangers are comprised of over 2400 people located in the three northern territories.²⁰⁷ Beyond providing a presence in the North, the Canadian Rangers assist the Canadian Forces by communicating their local knowledge during exercises, by patrolling the Arctic and reporting unusual events, and they are Canada's first line of defence in the North.²⁰⁸

²⁰⁴ There are four FOLs located in Inuvik, Iqaluit, Yellowknife, and Rankin Inlet to accommodate Canadian and NORAD fighters. Rob Huebert, "Renaissance in Canadian Arctic Security?."

²⁰⁵ The North Warning System is the new name for the modernized DEW Line.

²⁰⁶ Canadian Directorate of Defence, "Arctic Capabilities Study," 10.

²⁰⁷ Department of National Defence, "CFNA Fact Sheet."

²⁰⁸ As discussed by P. Whitney Lackenbauer: "Although the original 1947 list of Ranger tasks included tactical actions to delay an enemy advance, this expectation has been officially dropped. The CF no longer expects the Rangers to engage with an enemy force: indeed, they are explicitly told not to assist 'in immediate local defence by containing or observing small enemy detachments pending arrival of other forces' nor to assist police with the discovery or apprehension of enemy agents or saboteurs. Presumably, such tasks would put the Rangers at excessive risk given their limited training." Whitney Lackenbauer, "The Canadian Rangers: A 'Postmodern' Militia that works," *Canadian Military Journal* 6, no. 4 (Winter 2005-2006); http://www.journal.dnd.ca/engraph/Vol6/no4/Home_e.asp; Internet; accessed 4 March 2006.

The Canadian government has pledged to improve the ability of the Rangers to communicate with the Canadian Forces.²⁰⁹

Another important, but sometimes forgotten, strategic asset is Canadian Forces Station (CFS) Alert located on the most northern tip of Canada. CFS Alert has the mission of collecting intelligence and gathering scientific data. It is the most northern permanently inhabited settlement in the world,²¹⁰ and its presence supports sovereignty and security in the North.



Figure 5 – CFS Alert

Maritime assets also contribute to the security of the Arctic, including Maritime Patrol Aircraft, ships, and diesel submarines. The Maritime Patrol Aircraft are instrumental in conducting surveillance in the North; however, due to their limited number and other defence priorities, these aircraft conduct only a few northern patrols each year. The ships from the two

²⁰⁹ Canada, “Canada’s International Policy Statement, A Role of Pride and Influence in the World, Defence,” 20.

²¹⁰ CFS Alert, available from http://www.img.forces.gc.ca/adm_im/organization/CFIOG/CFS_Alert/index_e.htm; Internet; accessed 26 February 2006.

Maritime Commands are only capable of conducting summer patrols in the North because they are unable to break sea ice. However, there is evidence that future ship acquisition will enable the Canadian Forces to operate in limited ice conditions.²¹¹ The diesel submarines are not capable of operating beneath the ice; however, they can conduct summer time patrols like surface ships. Canada's submarine force contributes to security because it affords involvement

²¹¹ Rob Huebert, "Renaissance in Canadian Arctic Security?."

in the underwater submarine management system, which shares the whereabouts of allied submarines. This management system is necessary to avoid interference between submarines and to maintain safety. However, unless Canadian submarines operate in the Arctic, there will always be questions about who is really operating beneath the Arctic surface.

The Canadian Forces have limited scope for operations in the Arctic and the presence of the Canadian Forces in the North has been limited over the last 60 years. This limited northern capability reflects multiple factors such as political will, fiscal reality, threat assessment, and other defence priorities. Since 2001, however, the Canadian government has renewed its interest in the North. One of the Canadian government's objectives in its 2005 *International Policy Statement* is to increase the regular force presence in the North by conducting sovereignty patrols. According to the Joint Task Forces North Headquarters, the Canadian Forces usually plan for the following northern activities:²¹²

1. Joint Operations involving Army, Navy, and Air Force (Operation Narwhal) – every two years;
2. Sovereignty Operations conducted by the Army – two a year;
3. Northern Patrols (Aurora flights²¹³) – two a year;
4. Sovereignty Patrols coordinated by the HQ – 10 to 30 a year;
5. Enhanced Sovereignty Patrols coordinated by HQ – one a year; and

²¹² Department of National Defence, "CFNA Fact Sheet."

²¹³ An Aurora is a Maritime Patrol Aircraft.

6. NWS Site Inspections coordinated by HQ – up to 175 a year.

What has the Canadian Forces recently done in the North? Between 1991 and 2001, the Canadian Forces' involvement in the Arctic was limited by multiple international commitments such as the Gulf War in 1991, embargo operations off Haiti in 1993-1994, and many NATO commitments.²¹⁴ Since 2001, the Canadian Forces participated in two Joint exercises, NARWHAL 2002 & 2004 and Northern Deployments (NORPLOY) 2006. These deployments proved to be beneficial for the Canadian Forces, which learned about operating in the northern environment. These joint operations among all environments of the Canadian Forces also involved other government departments such as the Canadian Coast Guard, the Royal Canadian Mounted Police, and Public Safety and Emergency Preparedness Canada. Additionally, these exercises were opportunities to test new technology. During NARWHAL 2004, an uninhabited aerial vehicle (UAV) was used to monitor movement from the air²¹⁵ while the synthetic aperture radar imagery of RADARSAT-1 was tested to contribute in the development of RADARSAT-2 (scheduled to be launched in 2006).²¹⁶ These new technologies will complement the existing Arctic surveillance platforms in the years to come. Furthermore, the Canadian Forces are planning Arctic excursions in the spring of 2006, involving the army, to assert sovereignty in the

²¹⁴ Ian Anderson, "Northern Deployments: Naval Operations in the Canadian North," *Canadian Naval Review* 1 no. 1 (Winter 2006): 6-7.

²¹⁵ Department of National Defence, "CFNA News Details," <http://www.cfna.forces.gc.ca/news/newsdetail.asp?recordid=70&langid=english>; Internet; accessed 10 February 2006.

²¹⁶ Defence Research and Development Canada, "Annual Report 2004-2005 – Impact Making a Difference," http://www.drdc-rddc.gc.ca/publications/annual/contribute_e.asp; Internet; accessed 10 February 2006.

North and to gather data to make contingency plans to support some new northern initiatives that the newly appointed Conservative government has undertaken.²¹⁷

Only two patrols by Maritime Patrol Aircraft are conducted each year to monitor the Arctic,²¹⁸ a frequency that is insufficient to monitor the Arctic and all other assigned tasks. The Canadian Forces has acknowledged this deficiency; however, the lack of threat in the North does not necessitate a drastic change in capital acquisition projects. Additional Maritime Patrol Aircraft would probably help monitor the activities in the North. With the reality of the Canadian defence budget however, acquiring new aircraft would likely affect other, more pressing, defence priorities such as the Sea King replacement or the strategic airlift project. The Canadian Forces is in the process of modernizing the surveillance capability of the Maritime Patrol Aircraft; consequently, the patrols conducted by these aircraft will be done with state-of-the-art surveillance equipment, which will address some current concerns. The arrival of new technology such UAV and RADARSAT-2 will address the surveillance of the Arctic; however, habited aircraft will be necessary for years to come. Furthermore, Canadian participation in NORAD contributes to the security of the Arctic, especially with the planned maritime expansion scheduled for this year.²¹⁹

²¹⁷ Bob Weber, "Epic Arctic military trips reinforce sovereignty, brace for northern disaster," *National News*, 9 February 2006. <http://start.shaw.ca/start/enCA/News/NationalNewsArticle.htm?&src=n020937A.xml>, Internet; accessed 9 February 2006.

²¹⁸ Rob Huebert, "Renaissance in Canadian Arctic Security?," *Canadian Military Journal* 6, no. 4 (Winter 2005-2006); http://www.journal.dnd.ca/engraph/Vol6/no4/Home_e.asp; Internet; accessed 4 March 2006.

²¹⁹ ArcticNet, "Our Arctic sovereignty is on thin ice," *Global & Mail*, 01 August 2005. <http://www.arcticnet-ulaval.ca/index.php?fa=News.showNews.fr&home=4&menu=55&sub=1&id=77>; Internet; accessed 26 February 2006.

The roles of the Canadian Coast Guard in the Arctic

The Canadian Coast Guard also plays an important role in Arctic waters. Although the Coast Guard can only access Archipelagic waters for six months of the year, its contribution is significant to support the resupply of the northern communities and military sites.²²⁰ One of its Coast Guard's tasks is to guide foreign vessels through the waters of the Arctic to maintain sovereignty and to help prevent accidents. To accomplish this, it has five dedicated icebreakers which have assigned regions in the Arctic between the months of July and November.²²¹ Most importantly, the icebreakers have only a 10 hour response time to incidents in the Arctic region during their operating period.²²² This demonstrates that the Canadian government has a plan to project a presence in the Arctic for almost half a year using the Canadian Coast Guard, thereby contributing to northern security.



Figure 6 - CCGS Terry Fox

²²⁰ Fisheries and Oceans Canada, "Welcome Aboard," http://www.ccg-gcc.gc.ca/ice-gla/main_e.htm; Internet; accessed 10 February 2006.

²²¹ Fisheries and Oceans Canada, "Icebreaking Program," http://www.ccg-gcc.gc.ca/ice-gla/overview_e.htm; Internet; accessed 10 February 2006.

²²² Ibid.

CHAPTER 5 – ANALYSIS OF CANADA’S ACTIONS REGARDING ARCTIC SECURITY

What is required to ensure the security of the Arctic? There have been some sovereignty violations in the North, mostly by the United States, but at no time were these incursions offensive in nature or a threat to our security. The Canadian government reacted with diplomatic discussion and introduced of legislative and bilateral agreements to lessen the impact on international relations, while demonstrating its desire to maintain sovereignty in the North. It is not clear that these agreements and discussions will prevent the United States from transiting our waters without permission again or claiming that the Northwest Passage is an international waterway. However, since the United States is our ally, any strong response to the American passages through the Northwest Passage would prove futile in the face of our interlocking economies, our participation in the North American Free Trade Agreement, and American military might. What measures other than diplomacy could Canada reasonably use to prevent the United States from using Canadian waters without permission? As far as is publicly known, the United States has only violated Canadian sovereignty in the North three times in 37 years, and therefore cannot be considered a serious threat to our sovereignty at this point. There are several issues, however, which have the potential to affect the security of the North, and the government must continue to pay attention to them. Nevertheless, there is currently no definable security threat to the Arctic.

THE LIBERAL GOVERNMENT'S APPROACH TO ARCTIC SECURITY FROM 2003-2005

Between 2003 and 2005, the Martin government promoted a comprehensive approach toward the security of the Arctic. This renewal of interest in the Arctic resembles that of the past; however, the actions by the Martin government had a logical approach and the emphasis on Arctic security was proportional to the other security priorities facing Canada. The Martin government produced two comprehensive policy documents, the *National Security Policy* and the *International Policy Statement*. These documents provided good practical guidance for the security of Canada. More importantly, the Martin government was realistic in its approach by not over-committing resources in addressing northern security. Funding was not only committed to the Canadian Forces to protect the North, but also to other governmental departments which can have a significant impact in the Arctic. The Martin government struck an appropriate balance; the government planned to keep the North strong by means of addressing broad issues, by good management and through interdepartmental cooperation.

THE CONSERVATIVE GOVERNMENT'S 2006 ELECTION PLATFORM REGARDING ARCTIC SECURITY

In its 2006 federal election platform, the Conservative Party included commitments about the security of the Arctic. Like the Liberal government, the Conservatives wanted to increase the Canadian Forces' capabilities to protect the sovereignty and security of the Canadian Arctic.²²³

²²³ Conservative Party, "Stand Up for Canada," <http://www.conservative.ca/media/20060113-Platform.pdf>; Internet; accessed 11 February 2006, 45.

However, the resources required to accomplish the Conservative's plan are much more extensive than those of the Liberals. According to the Canadian American Strategic Review, the new

Conservative government plans to increase the security in the Arctic by:²²⁴

1. acquiring three armed naval heavy ice breakers;
2. building a new military/civilian deep-water docking facility in Iqaluit;
3. introducing an Arctic sensor system;
4. establishing an UAV squadron;
5. establishing an Arctic training centre;
6. forming 500 additional Canadian Rangers; and
7. acquiring new fixed-wing search and rescue aircraft for 440 Transport Squadron.

Evaluation of the Conservative's Arctic security platform

Some commentators would argue that investing in the Conservative Arctic security plan is money well spent while others would say that Canada cannot afford all these security measures, and that they are not justified given the existing and potential threat to the Arctic. The Conservative security platform raises several questions. For example, the Canadian Coast Guard already manages the icebreaker fleet. If the icebreakers were armed, they would come under the control of the Canadian Navy (which has not had icebreaker capability since 1958). The Conservative government estimates the cost of the icebreakers and the deep-water docking

²²⁴ Dianne DeMille, Stephen Priestley, "Stephen Harper announces the new defence policy put forward by the Conservative Party of Canada," *Canadian American Strategic Review*, <http://www.sfu.ca/casr/ft-harper1-1.htm>; Internet; accessed 10 February 2006.

facility to be approximately \$2 billion, a sum that might be underestimated by tens of millions.²²⁵ Added to the acquisition cost, the cost of recruiting and training Armed Forces personnel to operate the icebreakers would be significant. Considering that the only vessels found violating Canada's sovereignty in the Arctic have been American ships, is an armed capability reasonable? Does Canada need armed icebreakers to patrol the Arctic in case our prime ally enters the Northwest Passage without Canadian permission? Would we threaten the Americans with weapons? The answer is obviously no. It seems to make sense to leave icebreaker capability with the Coast Guard and to maintain the current unarmed fleet.

Furthermore, adding 500 Canadian Rangers with increased training and with better equipment does not consider the capacity of generating additional Rangers based on the demographic factors of the Arctic region and most importantly does not consider the real underlying reason why Inuit people joined the Canadian Rangers. The Inuit people join the Canadian Rangers to protect their own land. The increased training and the better equipment may only raise governmental expectations vis-à-vis the Rangers and disregard one of most important aspect of the Inuit people, their culture, which they are working very hard to preserve.^{226, 227}

²²⁵ Canadian Press, "Tories' ambitious defence plan needs more money," *Canadian Press*, 18 February 2006, http://www.ctv.ca/servlet/ArticleNews/story/CTVNews/20060218/tory_defence_plan_060218?s_name=&no_ads=; Internet; accessed 15 March 2006.

²²⁶ P.W. Lackenbauer, "The Rangers: A Canadian Success Story," Paper delivered at the Canadian Arctic Research Council (CARC) Conference "On Thinning Ice: Climate Change and New Ideas about Sovereignty and Security in the Arctic," Ottawa, January 2002.

²²⁷ CARC, "The Canadian Rangers: Sovereignty on a Shoestring," *Northern Perspectives* 27, no. 2 (Spring 2002); http://www.carc.org/pubs/spring2002/CARC_news_spring_02.pdf; Internet; accessed 2 April 2006.

Further proposed initiatives are also questionable in light of earlier decisions. The Liberal government investigated the installation of underwater sensors in the Arctic in the 1990s

but this plan proved to be too expensive to justify considering the limited amount of marine traffic in the Arctic. The establishment of an Arctic training centre may become an issue that the Canadian Forces will probably resist implementing because there are more pressing priorities that the Canadian Forces is currently managing, such the establishment of Maritime Operations Centres located on both coasts and on the Great Lakes. What is the purpose of the Arctic training centre? The Arctic has already a Joint Task Force Headquarters located in Yellowknife and since 2001, the Canadian Forces has been more committed to conducting exercises in the Arctic. The Arctic training centre is not likely to be a necessary or cost effective asset. The Canadian Forces already has well-established training centres across the country. The deployment of military personnel in the Arctic occurs yearly for training purposes and for conducting operations. The establishment of an Arctic training centre is therefore redundant.

The establishment of a UAV squadron will contribute to the security of the Arctic on a reasonably cost-effective basis. The Canadian Forces are currently acquiring UAVs; therefore, it only makes sense to set up a UAV organization to contribute to national security. The UAV capability will complement the patrols currently conducted by Maritime Patrol Aircraft and will probably be cost effective. On the other hand, the acquisition of new fixed-wing search and rescue aircraft is nothing new; the Liberal government made this commitment in its *International Policy Statement* of 2005.

These Arctic promises do not include all the other commitments to improving the Canadian Forces that were made in the Conservative platform. Is this a repeat of the

commitments made by the Conservative government in 1987 Defence *White Paper*? In 1987, the Conservative government announced the acquisition of nuclear submarines and icebreakers to protect the Arctic. These plans fell through due to Canadian fiscal realities, public opinion against nuclear powered vessels, and changes in the international threat. Time will tell if Harper's ambitious plans become a reality or if history will repeat itself, with promises made about increasing security in the North getting cancelled in favour of spending on more pressing concerns. In order to accomplish the Conservative's Arctic defence plan, which is very expensive, at the same time as cutting taxes (like the GST), the Canadian government would have to cut back social services or decrease Canada's military involvement on the international scene, such as in Afghanistan.

In summary, the Canadian government's commitment of resources toward the security of the Arctic has been low over the last 60 years. Several policy documents were explicit about the importance of the Arctic; however, the Canadian government provided limited resources to meet its stated security objectives. The main reason for this lack of commitment has been the lack of specific threat to the Arctic. Instead of committing resources, such as the purchase of nuclear submarines in 1987 and the installation of expensive acoustic detection system,²²⁸ the Canadian government invested in Arctic security by taking an active role in international organizations, such as the Arctic Council, by promulgating legislation to protect the Canadian Arctic, by enhancing its bilateral relations with the United States, and by investing in technology such

²²⁸ As discussed by Rob Huebert in his article, "Consideration was given to buying three units that would allow for a complete coverage of the choke points leading into the Canadian Arctic Archipelago. ... the Canadian Government ultimately decided that the expected cost of C\$100 million was too expensive." Rob Huebert, "Renaissance in Canadian Arctic Security?."

UAV to monitor activities in Arctic. These concrete actions were cost effective considering the high capital cost of assets which need to be consistently updated and replaced. Additionally, this approach has allowed Canada to be more prominent on the international scene as a significant Arctic nation. The new Conservative government has many challenges ahead to implement its strategic plan for the sovereignty and security of the Arctic. If Prime Minister Harper's plan is executed, critics who have criticized former Canadian governments for their lack of commitment toward Arctic security will finally be satisfied. However, New critics will undoubtedly come forward to comment on what the government had to cut in order to attain more robust security in the North.

CHAPTER 6 - CONCLUSION

This paper demonstrates that many factors influence security in the Arctic. Climate change, cultural issues, environmental issues, sovereignty issues, and economic opportunities will continue to raise questions, but there are no pressing Arctic security threats at this time. By continuing the initiatives started under Martin's government, as promulgated in its *International Policy Statement* in 2005, the Canadian government would be able to address these issues in a progressive and coherent manner. Consequently, this approach should enhance the security of the Canadian Arctic. This policy statement renews the importance of the Arctic and provides concrete actions to address the security of the Far North. Also, the involvement of the Inuit people in resolving these issues will contribute immensely to the sustainability of Arctic resources.

Since the end of the Cold War, the Canadian Arctic has not seen any tangible threat; as a result, the government allocated relatively limited resources to Arctic security over the years. The Canadian government has renewed its interest in the region on a few occasions through policy documents. Nevertheless, due to lack of perceived military threat, fiscal constraints, and other governmental priorities, the Canadian government did not, in the end, dedicate many additional resources to Arctic security.

Since the events of September 11, 2001, there is a renewed interest not only in the Arctic but also in the security of the entire country. The former Martin government put in place several

initiatives to protect the Arctic and promulgated security policy documents. Also, technological advancements such as UAV and satellite will contribute significantly to the security of the Arctic in the years to come. These initiatives seem to be achievable because they consider the limited threat and the limited resources available. On the other hand, the new Conservative government decided to put the Arctic at the forefront of its defence political platform. It will be interesting to see if the Conservative government will be capable of executing its expensive promises. Given the lack of discernible threat in the Arctic, it seems that the Conservative promises are too expensive. If there were a clear military threat, the Canadian population would probably support a major increase of its funding for the defence of the Arctic. However, the current challenges that face the Arctic do not necessarily require an influx of money into its defence. The Canadian government strategy of using diplomacy and investing in technology to address the security of the Arctic seems adequate considering the reality of finite fiscal resources. Given established priorities, it is unlikely that Canadians would be ready to sacrifice services such as health care to contribute to the security of the Arctic when there is not a clear threat to the North. So far, our commitment toward the Arctic has been sufficient to maintain an appropriate degree of security in the North. This paper has demonstrated that, despite many critiques, the Canadian government has generally taken the right steps to ensure security in the Canadian Far North.

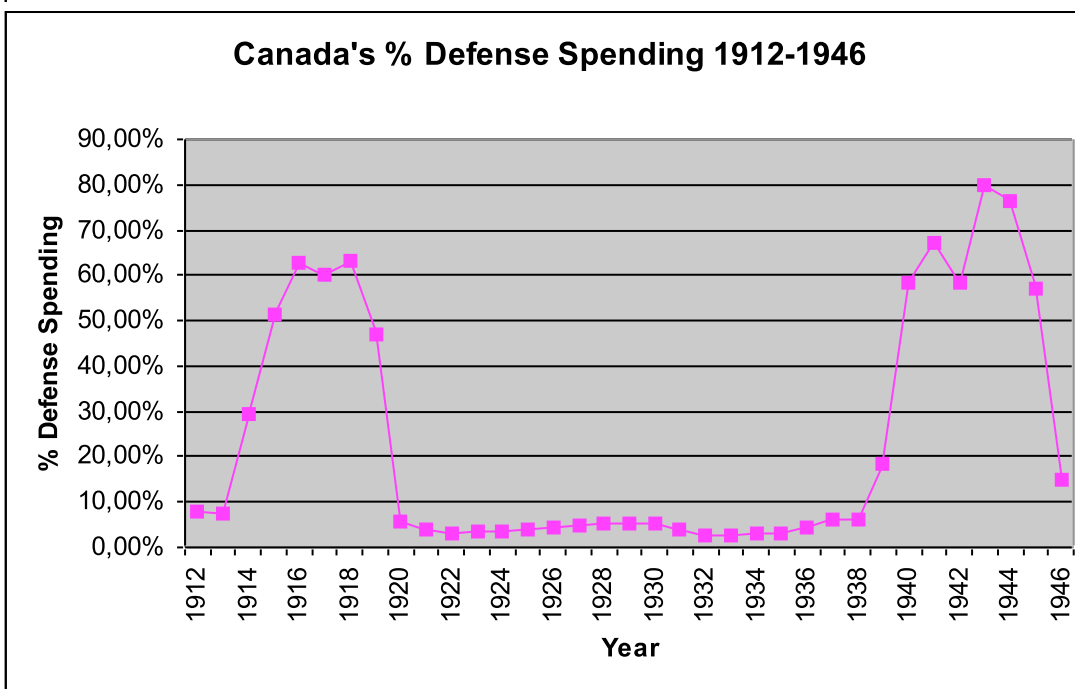
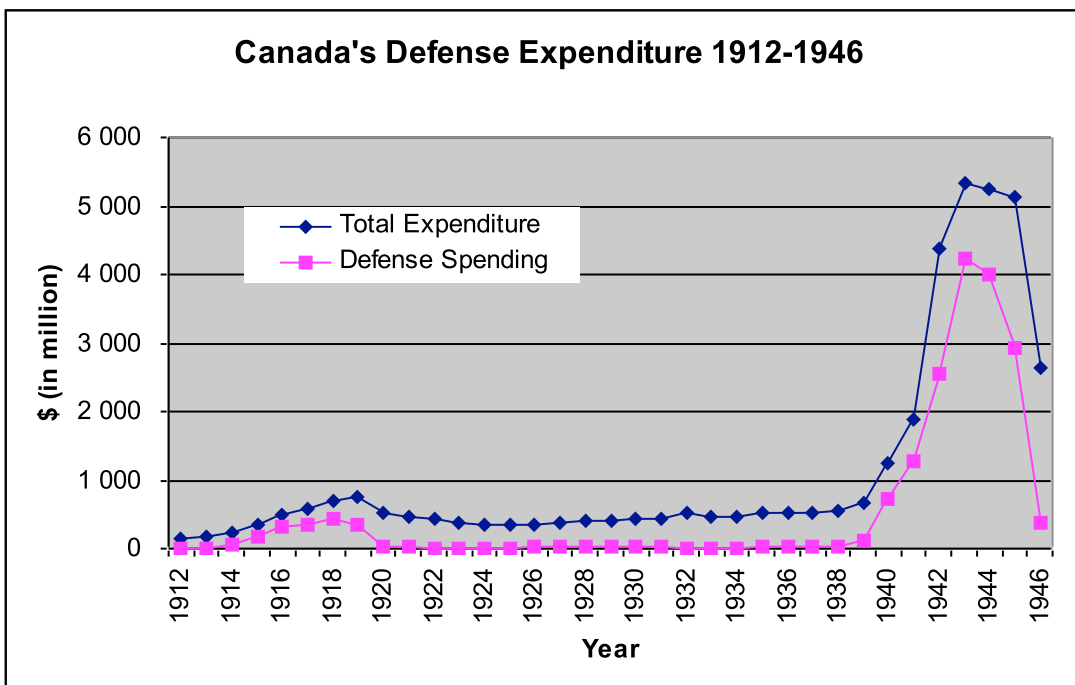
Although there is no discernible threat to the North, issues of sovereignty and security need to be addressed. Canada faces the paradox that the United States provides Canada with security through its military might and continental defence policy, yet it is also the only country which has made any significant challenge to Canada's sovereignty in the Arctic. However, the

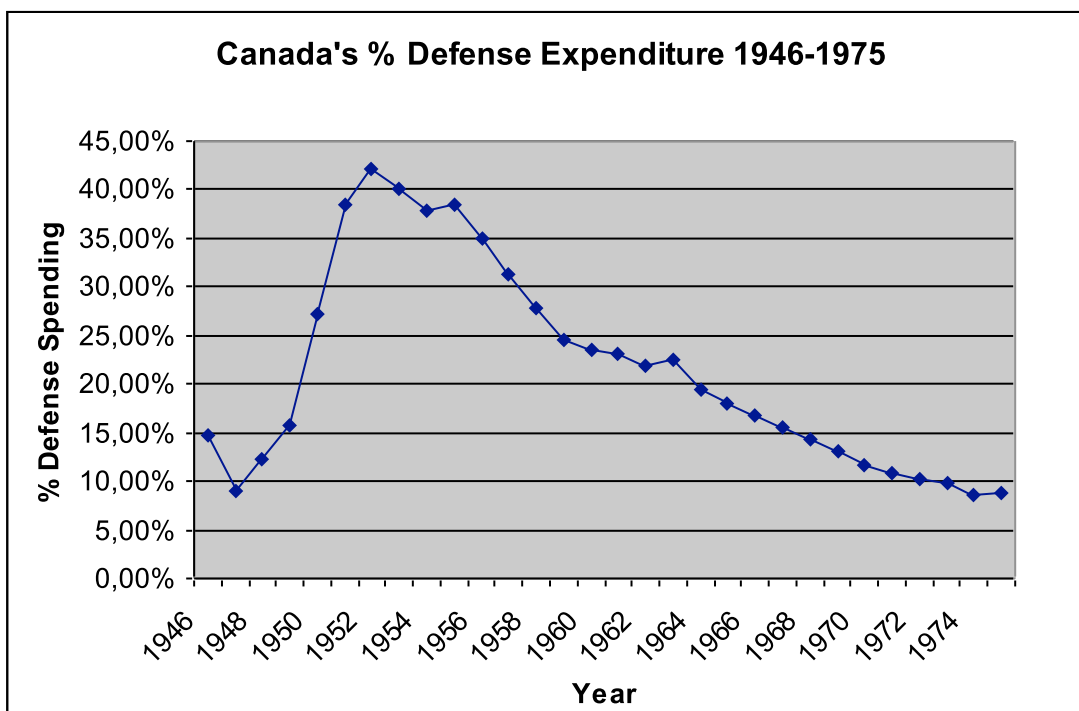
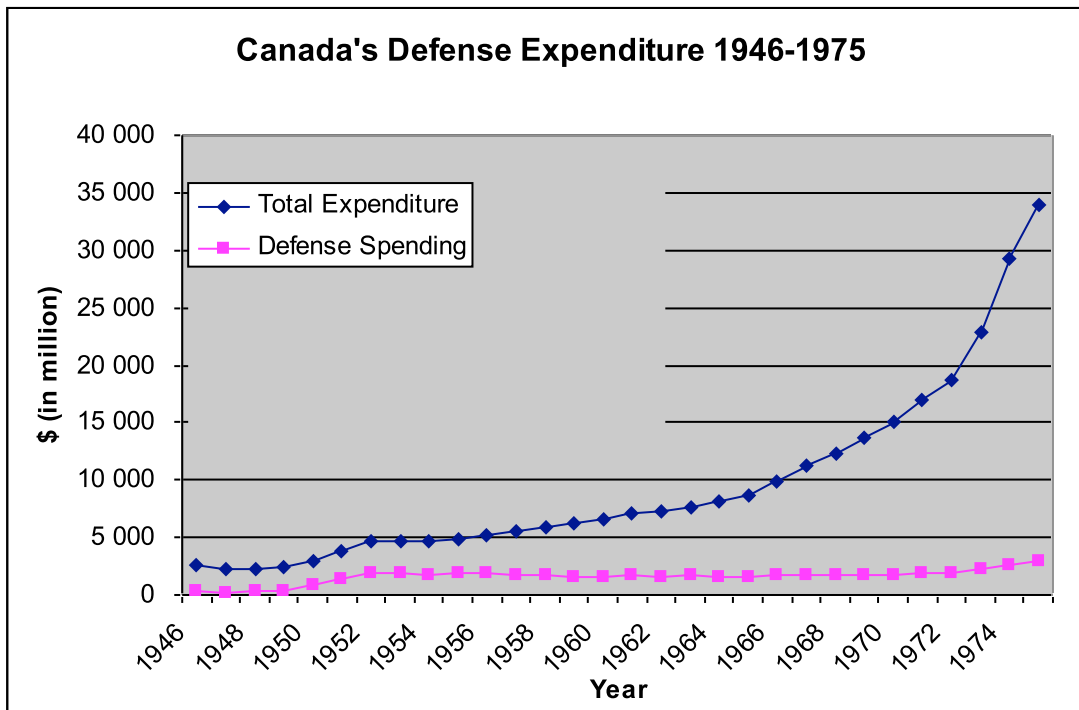
United States poses no security threat to Canada. It is possible that given the riches in Canada's North that the United States could attempt measures in the future to control Canada's resources in the North, but Canada cannot respond to this possibility using military means.

It seems reasonable for Canada to want to be able to monitor and regulate activities in the Arctic, respond to crises in the Arctic, establish a viable northern military command, and maintain a Coast Guard capable of operating in the Arctic. With these and other measures, Canada will be seen to use and protect the Arctic and therefore these steps will bolster Canada's claim to the Arctic as sovereign territory in the eyes of the international community. Canada does not require a significant new influx of spending on Arctic security or expensive new acquisitions such as armed icebreakers to strengthen its claims to the region. Its presence is already clear and its sovereignty well established.

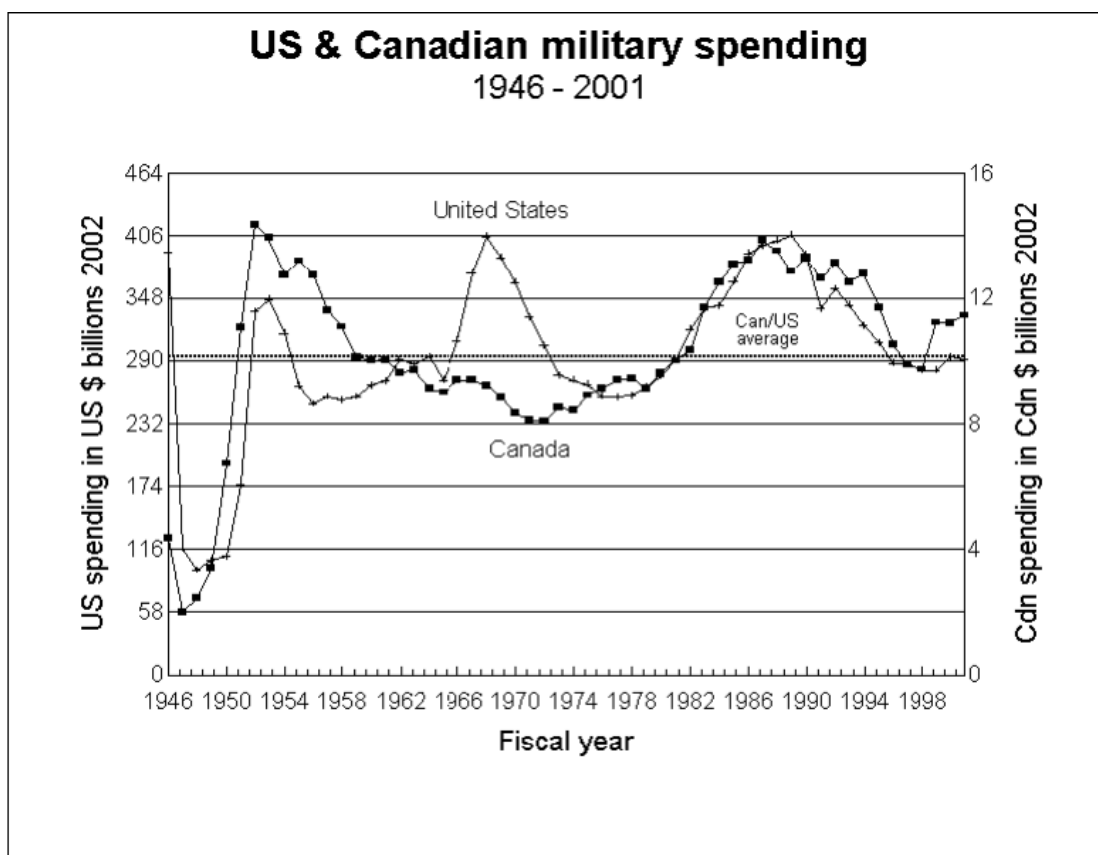
All things considered, Canada is not about to lose the North and Canada does not face significant security threats. Despite what the critics say about a lack of resources spent on the Arctic, and despite some of the indecisions of our governments, the Arctic remains our "true north strong and free".

APPENDIX 1

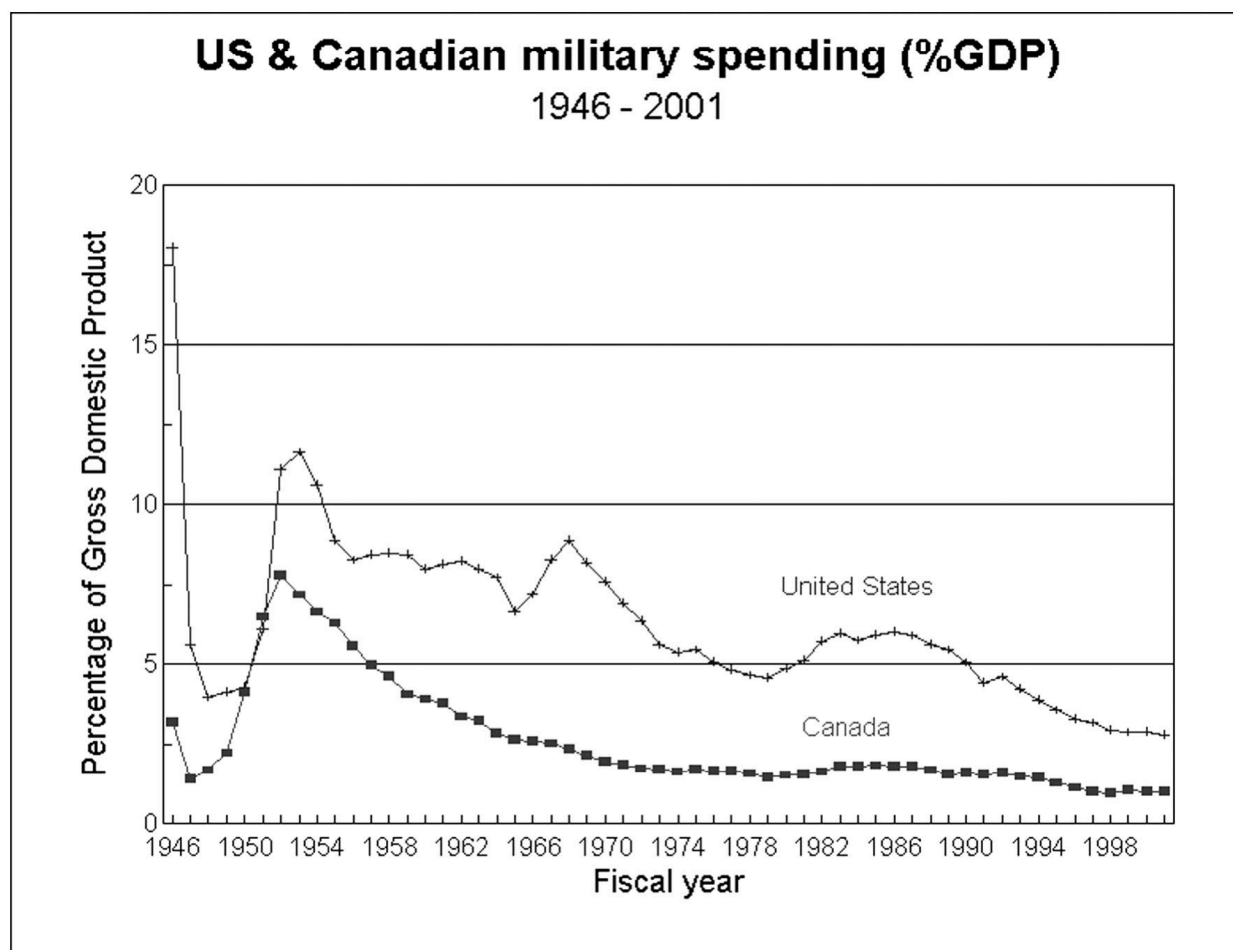




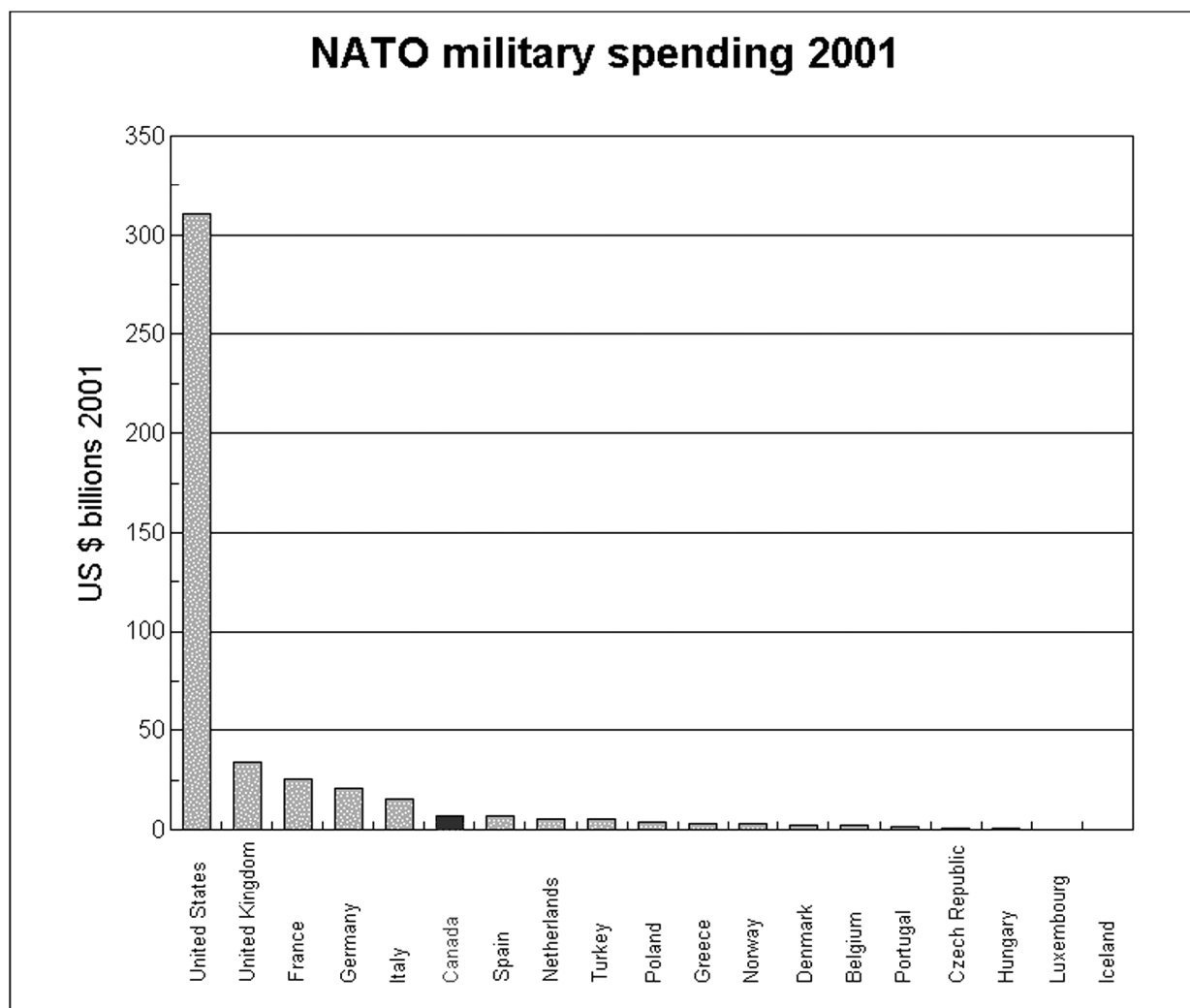
APPENDIX 2



APPENDIX 3



APPENDIX 4



APPENDIX 5

Health care remains top priority looking forward (unprompted)

Q: Thinking not just of today, but over the next five years, what would you say is the most important issue facing Canada?

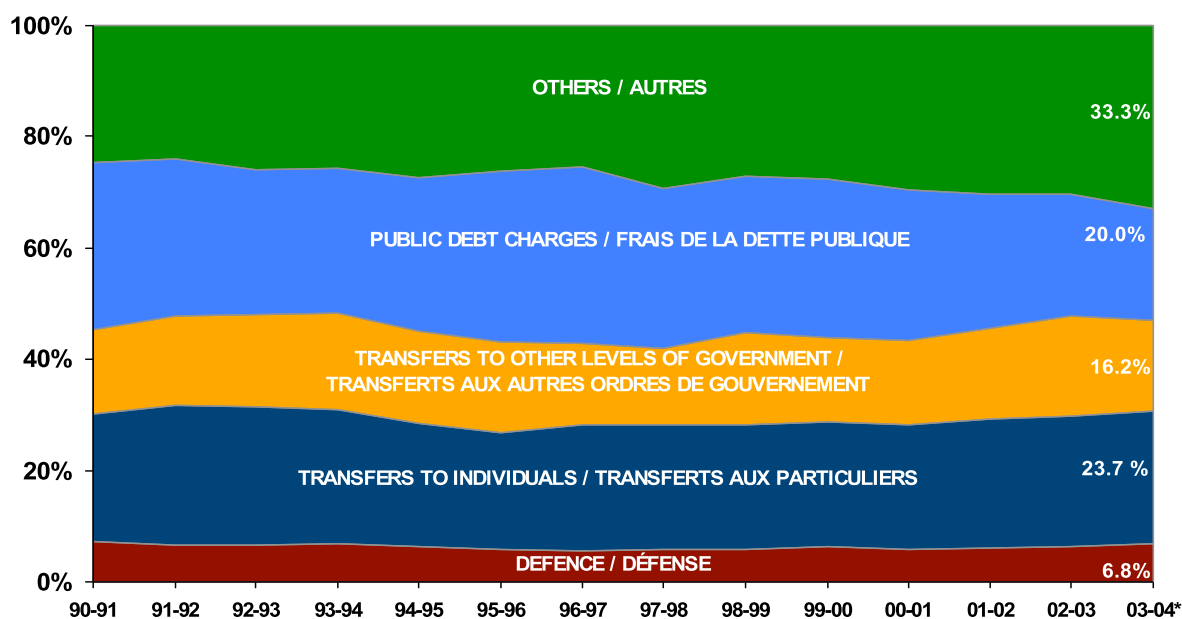
Issue	Election 2005-06	Election 2004	Election 2000
Social concerns (e.g., poverty)	4	4	3
National unity	4	1	3
Canada-US relations	3	2	--
Economic growth	6	4	7
Unemployment and jobs	3	1	3
Education	4	5	6
Debt	5	2	11
DK/NR	8	6	7
Other*	4	5	18
Level of taxation	2	6	9
Employment	2	2	5
Accountability	6	7	2
Crime and justice	6	2	2
Environment	8	3	2
Health care	33	51	36

*category includes options mentioned by 1% of respondents including energy issues, national defence, and immigration

Base: All Canadians; Jan. 4-5, n=1186

APPENDIX 6

**TREND IN SHARE OF FEDERAL GOVERNMENT EXPENDITURES /
ÉVOLUTION DE LA RÉPARTITION DES DÉPENSES DU GOUVERNEMENT
FÉDÉRAL**



SOURCE: THE BUDGET PLAN 2004 AND FISCAL REFERENCE TABLES – OCTOBER 2003
SOURCE: LE PLAN BUDÉTAIRE DE 2004 ET TABLEAUX DE RÉFÉRENCE FINANCIERS - OCTOBRE 2003

* ESTIMATE / ESTIMATION

BIBLIOGRAPHY

BOOKS

- Armstrong, Terence E. "Industrialization and Its Consequences." *Arctic Alternatives: Civility or Militarism in the Circumpolar North*, edited by Franklyn Griffiths, 125-135. Toronto: Canada Papers in Peace Studies, 1992.
- Dunbar, M.J. "The Physical and Biological Environment." *Arctic Alternatives: Civility or Militarism in the Circumpolar North*, edited by Franklyn Griffiths, 103-124. Toronto: Canada Papers in Peace Studies, 1992.
- Eayrs, James. *In Defence of Canada: From the Great War to the Great Depression*. Toronto: University of Toronto Press, 1964.
- Freeman Milton M.R. "Ethnoscience, Prevailing Science, and Arctic Co-operation." *Arctic Alternatives: Civility or Militarism in the Circumpolar North*, edited by Franklyn Griffiths, 79-93. Toronto: Canada Papers in Peace Studies, 1992.
- Honderich, John. *Arctic Imperative: Is Canada Losing the North?*. University of Toronto Press, Toronto, Buffalo, London, 1987.
- Lynge, Aqqaluk. "Inuit Culture and International Policy." In *Arctic Alternatives: Civility or Militarism in the Circumpolar North*, edited by Franklyn Griffiths, 94-99. Toronto: Canada Papers in Peace Studies, 1992.
- Middlemiss, D.W. and Sokolsky, J.J. *Canadian Defence: Decisions and Determinants*. Toronto: Harcourt Brace Javanovich, 1989.
- Pharand, Donat. "The Role of International Law for Peace and Security in the Arctic." *The Arctic: Choices for Peace and Security*, edited by The True North Strong & Free Inquiry Society, 105-111. Vancouver: Gordon Soules Book Publishers Ltd., 1989.
- Simon, Mary. "Militarization and the Aboriginal Peoples." In *Arctic Alternatives: Civility or Militarism in the Circumpolar North*, edited by Franklyn Griffiths, 55-67. Toronto: Canada Papers in Peace Studies, 1992.
- Stanley, George F.G. *Canada's Soldiers: The military History of an Unmilitary People*. Toronto: Macmillan of Canada, 1974.
- Stacey, C.P. *The Undefended Border: The Myth and the Reality*. Ottawa: The Canadian Historical Association Booklets, 1967.

PAPERS

Gordon, Jesse Alan, Meade, Andre. "Making Sense in the Arctic Political Climate, An Environmental Economist's Argument Against Drilling in Alaska." http://www.ontheissues.org/spectrum/anwr_cba.htm; Internet; accessed 18 February 2006.

Griffiths, Franklyn. "New Illusions of a Northwest Passage." 15 June 2004.

Lackenbauer, P.W. "The Rangers: A Canadian Success Story." Paper delivered at the Canadian Arctic Research Council (CARC) Conference "On Thinning Ice: Climate Change and New Ideas about Sovereignty and Security in the Arctic," Ottawa, January 2002.

Sainty, Guy Stair. The Sovereign Military Hospitaller Order of Malta. "The Order of Malta, Sovereignty, and International Law." <http://www.chivalricorders.org/orders/smom/maltasov.htm#BM20>; Internet; accessed 15 March 2006.

Sokolsky, Joel J. "Canada, getting it right this time: The 1994 Defence White Paper." http://www.dtic.mil/doctrine/jel/research_pubs/canada.pdf; Internet; accessed 22 January 2006.

PERIODICALS

Anderson, Ian. "Northern Deployments: Naval Operations in the Canadian North." *Canadian Naval Review* 1 no. 1 (Winter 2006): 6-12.

Eyre, Kenneth C. "Forty years of military activity in the Canadian North, 1947-87," *Arctic*, no. 4 (Dec 1987), available from <http://proquest.uni.com>; Internet; accessed 29 November 2005.

CARC. "The Canadian Rangers: Sovereignty on a Shoestring." *Northern Perspectives* 27, no. 2 (Spring 2002); http://www.carc.org/pubs/spring2002/CARC_news_spring_02.pdf; Internet; accessed 2 April 2006.

CARC. "The Question of Sovereignty." *Northern Perspectives* 14, no. 4, <http://www.carc.org/pubs/v14no4/6.htm>; Internet; accessed 14 January 2006.

CARC. "Sovereignty, Security, Surveillance in the Arctic." *Northern Perspectives* 22 no. 4 (Winter 1994-95), www.carc.org/pubs/v22no4/sss.htm; Internet; accessed 25 January 2006.

- DeMille, Dianne, Priestley, Stephen. "Stephen Harper announces the new defence policy put forward by the Conservative Party of Canada." *Canadian American Strategic Review*, <http://www.sfu.ca/casr/ft-harper1-1.htm>; Internet; accessed 10 February 2006.
- Goren, Lilly J., Lackenbauer, P. Whitney. "The Comparative Politics of Military Base Closures." *Canadian-American Public Policy*, no. 43, September 2000.
- Griffiths, Franklyn. "The Shipping News: Canada's Arctic Sovereignty not on thinning ice." *International Journal* 58, no. 2 (Spring 2003).
- Huebert, Rob. "Canadian Arctic Security Issues: Transformation in the post-cold war era." *International Journal*, no. 2 (Spring 1999).
- Huebert, Rob. "Climate Change and Canadian Sovereignty in the Northwest Passage." *ISUMA* 2, no. 4 (Winter 2001). www.isuma.net/v02n04/huebert/huebert_e.shtml; Internet; accessed 11 January 2006.
- Huebert, Rob. "Renaissance in Canadian Arctic Security?." *Canadian Military Journal* 6, no. 4 (Winter 2005-2006). http://www.journal.dnd.ca/engraph/Vol6/no4/Home_e.asp; Internet; accessed 4 March 2006.
- Kerr, Richard A. "A Warmer Arctic Means Change for All." *Polar Science: News* 297, no. 5586; available from www.ephost@epnet.com; Internet; accessed 14 August 2005.
- Lackenbauer, Whitney. "The Canadian Rangers: A 'Postmodern' Militia that works." *Canadian Military Journal* 6, no. 4 (Winter 2005-2006). http://www.journal.dnd.ca/engraph/Vol6/no4/Home_e.asp; Internet; accessed 4 March 2006.
- Leighton, Elizabeth. "U.S. Arctic Policy Undergoes reassessment." *Northern Perspectives* 21, no. 4, (Winter 1993-94), www.carc.org/pubs/v21no4/us.htm; Internet; accessed 25 January 2006.
- Nunez, Joseph R. "Canada's global Role: A Strategic Assessment of its Military Power." *Parameters* (Autumn 2004).
- Segal, Hugh. "Canadian Foreign Policy and the International Environment." *Canadian Speeches*, 16, 3 (Jul/Aug 2002), available from <http://proquest.umi.com>; Internet; accessed 17 January 2006.
- Stone, J. Craig and Solomon, Binyam. "Canadian Defence Policy and Spending." *Defence and Peace Economics* 16, no. 3 (June 2005); 161.

Welch, Harold E. "Marine Conservation in the Canadian Arctic: A Regional Overview." *Northern Perspectives* 23, no. 1 (Spring 1995). www.carc.org/pubs/v23no1/marine3.htm; Internet; accessed 11 January 2006.

REPORTS

- Canada. Canadian Directorate of Defence. "Arctic Capabilities Study." 1948-3-CC4C (DGSP) Jun 2000, <http://www.natice.noaa.gov/icefree/Arctic%20Study%20Final%20-%20Canada1.pdf>; Internet; accessed 26 February 2006.
- Canada. "Canada's International Policy Statement, A Role of Pride and Influence in the World, Defence." Her Majesty the Queen in Right of Canada, 2005.
- Canada. "Canada's International Policy Statement, A Role of Pride and Influence in the World, Diplomacy." Her Majesty the Queen in Right of Canada, 2005.
- Canada. "Canada's International Policy Statement, A Role of Pride and Influence in the World, Overview." Her Majesty the Queen in Right of Canada, 2005.
- Canada. Defence Research and Development Canada. "Annual Report 2004-2005 – Impact Making a Difference." http://www.drdc-rddc.gc.ca/publications/annual/contribute_e.asp; Internet; accessed 10 February 2006.
- Canada. Department of Foreign Affairs and International Trade. "The Northern Dimension of Canada's Foreign Policy." http://www.dfait-maeci.gc.ca/circumpolar/sec06_ndfp_rpt-en.asp; Internet; accessed 20 February 2006.
- Canada. Privy Council Office. "Securing an Open Society: Canada's National Security Policy," Her Majesty the Queen in Right of Canada, 2004.
- Canadian Polar Commission. "Canadian Polar Commission Annual Report 2004-2005." http://www.polarcom.gc.ca/english/pdf/annualreport_2004-2005_enfr.pdf; Internet; accessed 18 February 2006.
- Christensen, Kyle D. *Arctic Maritime Security and Defence: Canadian Northern Security Opportunities and Challenges*. Report Prepared for the Chief of Maritime Staff. Ottawa: Directorate of Maritime Strategy, 2005.
- Conservative Party. "Stand Up for Canada." <http://www.conservative.ca/media/20060113-Platform.pdf>; Internet; accessed 11 February 2006.
- Intergovernmental Panel on Climate Change. *Climate Change 2001: Synthesis Report Summary*

for Policymakers. <http://www.ipcc.ch/pub/un/syrenng/spm.pdf>; Internet; accessed 7 January 2006.

Learning for a Sustainable Future. “Canada’s Freshwater: A Commodity for Export, A Resource for Conservation?” <http://www.lsf-lst.ca/en/teachers/water.en.pdf>; Internet; accessed 18 February 2006.

Mackenzie gas Pipeline and the Boreal Environment Information project. “The Mackenzie Gas Pipeline.” *The Berger Inquiry*, <http://www.colorado.edu/geography/blanken/GEOG%206181%20Fall%202003/ryen/berger.html>; Internet; accessed 18 February 2006.

Socio-Economic Impact Assessment, Hay River Reserve Community Report. “Environmental Impact Statement for the Mackenzie Gas Project.” [http://www.ngps.nt.ca/Upload/Environmental%20Impact%20Statement%20and%20Supplemental%20Filings/Community-Specific%20Socio-Economic%20Reports/Vol6C_Hay_River_Reserve_SEIA_Final_\(May_6_05\).pdf](http://www.ngps.nt.ca/Upload/Environmental%20Impact%20Statement%20and%20Supplemental%20Filings/Community-Specific%20Socio-Economic%20Reports/Vol6C_Hay_River_Reserve_SEIA_Final_(May_6_05).pdf); Internet; accessed 18 February 2006.

Robinson, Bill, Ibbott, Peter. “Canadian military spending: How does the current level compare to historical levels? ... to potential threats?” <http://www.ploughshares.ca/libraries/WorkingPapers/wp031.pdf>; Internet; accessed 2 March 2006.

The Multilaterals Projects, the Fletcher School, Tufts University. Convention on the High Seas – Article 2.” <http://fletcher.tufts.edu/multi/texts/BH364.txt>; Internet; accessed 18 February 2006.

U.S. Department of State. “U.S. Arctic Policy.” <http://www.state.gov/g/oes/ocns/arc/>; Internet; accessed 25 January 2006.

NEWSPAPER ARTICLES

ArcticNet. “Our Arctic sovereignty is on thin ice.” *Global & Mail*, 01 August 2005. <http://www.arcticnet-ulaval.ca/index.php?fa=News.showNews.fr&home=4&menu=55&sub=1&id=77>; Internet; accessed 26 February 2006.

Canadian Press. “Tories’ ambitious defence plan needs more money.” *Canadian Press*, 18 February 2006. http://www.ctv.ca/servlet/ArticleNews/story/CTVNews/20060218/tory_defence_plan_060218?s_name=&no_ads=; Internet; accessed 15 March 2006.

CBC News. “Canada, Denmark dispute ownership of tiny Arctic island,” CBC News, 26 July 2005. <http://www.cbc.ca/story/canada/national/2005/07/25/hansisland050725.html>; Internet; Accessed 15 March 2006.

CBC News. “Harper brushes off U.S. criticism of Arctic plan.” CBC News, 26 January 2006.

<http://www.cbc.ca/story/canada/national/2006/01/26/wilkins-harper060126.html>;
Internet; accessed 18 February 2006.

CTV News. "Engineers test Airbus A380 in cold of Nunavut." CTV News, 9 February 2006.
http://www.ctv.ca/servlet/ArticleNews/story/CTVNews/20060209/airbus_nunavut_060209/20060209?hub=SciTech; Internet; accessed 18 February 2006.

Mason, Chris. "Sovereignty issues a part of nationhood." *Times Colonist*. 2 August 2005, A2.

Struck, Doug. "In bitter Arctic, a race to build natural gas pipelines heats up Obstacles include tribes, ecology." *Washington Post*, 11 December 2005, http://www.boston.com/news/world/canada/articles/2005/12/11/in_bitter_arctic_a_race_to_build_natural_gas_pipelines_heats_up?mode=PF; Internet; accessed 14 January 2006.

Wattie, Christ "U.S. sub may have toured Canada Arctic zone." *National Post*. 8, no. 46, 19 December 2005, A1, A10.

Weber, Bob. "Epic Arctic military trips reinforce sovereignty, brace for northern disaster." *National News*, 9 February 2006. <http://start.shaw.ca/start/enCA/News/National/NewsArticle.htm?&src=n020937A.xml>, Internet; accessed 9 February 2006.

GOVERNMENT WEBSITES

Canada. Canadian Security Intelligence Service. "Speeches and Presentation." <http://www.csis-scrs.gc.ca/en/newsroom/speeches/speech02042003.asp>; Internet; accessed 26 February 2006.

Canada. Department of National Defence. "CFNA Fact Sheet." http://www.cfna.forces.gc.ca/aboutus/fact_sheet_e.asp; Internet; accessed 26 February 2006.

Canada. Department of National Defence. "CFNA News Details." <http://www.cfna.forces.gc.ca/news/newsdetail.asp?recordid=70&langid=english>; Internet; accessed 10 February 2006.

Canada. Department of National Defence. "CFNA's Mission." http://www.cfna.forces.gc.ca/aboutus/mission_e.asp; Internet; accessed 26 February 2006.

Canada. Department of National Defence. "Federal Government Revenues, Expenditures, Deficits and Surpluses." http://www.admfincs.forces.gc.ca/financial_docs/Msood/2003-2004/Making-Sense-Out-of-Dollars-2003-2004-Pages-1-to-40_b.doc; Internet; accessed 26 February 2006.

- Canada. Department of National Defence. "Section II Departmental Overview." http://www.vcds.forces.gc.ca/dgsp/pubs/rep-pub/ddm/rpp/rpp98/sec2_e.asp, Internet; accessed 22 January 2006.
- Canada. Department of National Defence. "The Minister." http://www.dnd.ca/site/Minister/eng/94wpaper/seven_e.html Internet; accessed 22 January 2006.
- Canada. Environment Canada. "Project History." <http://www.pnr-rpn.ec.gc.ca/nature/ecosystems/nei-ien/dh04/index.en.html>; Internet; accessed 26 February 2006.
- Canada. Fisheries and Oceans Canada. "Welcome Aboard." http://www.ccg-gcc.gc.ca/ice-gla/main_e.htm; Internet; accessed 10 February 2006.
- Canada. Fisheries and Oceans Canada. "Icebreaking Program." http://www.ccg-gcc.gc.ca/ice-gla/overview_e.htm; Internet; accessed 10 February 2006.
- Canada. Foreign Affairs Canada. "Arctic Council," http://www.dfait-maeci.gc.ca/circumpolar/sec02_council-en.asp; Internet; accessed 22 February 2006.
- Canada. Indian and Northern Affairs Canada. "Aboriginal and Northern Community Action Program." http://www.ainc-inac.gc.ca/clc/index_e.html; Internet; accessed 20 February 2006.
- Canada. Government of Canada. "Canada and the Kyoto Protocol," http://www.climatechange.gc.ca/cop/cop6_hague/english/overview_e.html; Internet; accessed 18 February 2006.
- Canada. Government of Canada. "Indigenous Peoples and Sustainable Development in the Canadian Arctic Towards a Sustainable Future." <http://www.sdinfo.gc.ca/reports/en/monograph11/indigenous.cfm#a5>; Internet; accessed 26 February 2006.
- Canada. Parliament of Canada. "Chapter 4 – Post-Cold War cooperation in the Arctic: From interstate conflict to new agendas for security." http://www.parl.gc.ca/committees352/fore/reports/07_1997-04/chap4e.html; Internet; accessed 26 February 2006.
- Canada. Transports Canada. "Shipping Safety Control Zones." *Arctic Waters Pollution Act*. <http://www.tc.gc.ca/acts-regulations/GENERAL/a/awppa/act/awppa.htm#0.2.JZ0KIZ.K1D72S.4HEJED.C>; Internet; accessed 26 February 2006.
- Canada. Statistics Canada. "Federal government budgetary expenditure, classified by function,

1867 to 1975.” http://www.statcan.ca/english/freepub/11-516-XIE/sectionh/H19_34.csv; Internet; accessed 26 February 2006.

INTERNET

Arctic Council. “Arctic Council.” <http://www.arctic-council.org/>; Internet; accessed 26 February 2006.

Compact Oxford English Dictionary. “sovereignty and security.” <http://www.askoxford.com/concise>; Internet; accessed 26 February 2006.

Ekos. “Federal Election 2005-06 – A look at the Week of January 7, 2006.” <http://www.ekos.com/admin/articles/7Jan2006Background.pdf>; Internet; accessed 26 February 2006.

Global Security Organization. “International disputes.” <http://www.globalsecurity.org/military/world/war/disputes.htm>; Internet; accessed 18 February 2006.

Inuit Tapiriit Kanatami: 2004 Press Release Archive. “Creation of Inuit Secretariat Important First Step in Addressing Inuit Issues in Specific Manner.” <http://www.itk.ca/media/press-archive-20040419b.php>; Internet; accessed 20 February 2006.

Inuit Tapiriit Kanatami: Canada Aboriginal Peoples Roundtable, “ITK's participation in the Canada Aboriginal Peoples Roundtable,” <http://www.itk.ca/roundtable/roundtable-index.php>; Internet; accessed 20 February 2006.

Kusugak Jose A. Roundtable on Aboriginal Issues: President, Speaking Notes.

<http://www.itk.ca/roundtable/pdf/canada-aboriginal-roundtables.pdf>; Internet; accessed 9 January 2006.

Peterson, Forrest. Minnesota Pollution Control Agency. “Superior Diversion: A thirsty world eyes our water.” <http://www.pca.state.mn.us/publications/mnenvironment/winter2006/mewinter2006.pdf>; Internet; accessed 18 February 2006.

Sierra Club of Canada. “Collapse of Sockeye: 38 Runs endangered.” <http://www.sierraclub.ca/bc/media/item.shtml?x=766>; Internet; accessed 24 February 2006.

The Beverly and Qamanirjuaq Caribou Management Board. “Protecting Beverly and Qamanirjuaq Caribou and Caribou Range.” <http://www.arctic-caribou.com/PDF/Text.pdf>; Internet; accessed 18 February 2006.

The Multilaterals Projects, the Fletcher School, Tufts University, Convention on the High Seas – Article 2,” <http://fletcher.tufts.edu/multi/texts/BH364.txt>; Internet; accessed 18 February 2006.

The Northern Strategy. <http://www.northernstrategy.ca>; Internet; accessed 4 March 2006.

The Nunavut Wildlife Health Assessment Project. “Glossary of Scientific Terms.” www.trentu.ca/nwhp/glossary.shtml; Internet; accessed 20 February 2006.

United Nations Educational, Scientific and Cultural Organization. Chapter 2.3 “International straits and canals.” <http://www.unesco.org/csi/act/russia/legalpro6.htm>; Internet; accessed 15 March 2006.

Vancouver Aquarium Aquanews. “Canada: Northern Research Receives \$10 Million.” <http://www.vanaqua.org/aquanew/fullnews.php?id=806>; Internet; accessed 18 February 2006.

War Museum, “Fortifying Canada,” <http://www.warmuseum.ca/cwm/chrono/>; Internet; accessed 26 February 2006.

IMAGES

Canadian Arctic map. available from <http://www.geobotany.uaf.edu/arcticgeobot/canbio.html>; Internet; accessed 18 February 2006.

Polar Bears image. available from <http://www.polarbearsinternational.org/photo-gallery/>; Internet; accessed 18 February 2006.

Igloo image. available from <http://gorp.away.com/gorp/location/canada/nunavut.htm>; Internet; accessed 18 February 2006.

Hans Island. available from <http://www.cbc.ca/story/canada/national/2005/07/25/hansisland050725.html>; Internet; accessed 15 March 2005.

CFS Alert. available from http://www.img.forces.gc.ca/adm_im/organization/CFIOG/CFS_Alert/index_e.htm; Internet; accessed 5 March 2006.

CCGS Terry Fox. available from http://www.ccg-gcc.gc.ca/ice-gla/gallery_e.htm; Internet; accessed 5 March 2006.