

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](#) ».

CSC 28 New Horizons : Arctic Sovereignty by Major Bowerman

The age of the Arctic is coming. After centuries of benign neglect, the once-forbidding Arctic is now the scene of developments that are increasingly drawing the world's attention.¹

INTRODUCTION

The 100,500 Canadian Arctic inhabitants living in an area that is 3.5 million square kilometres account for 0.35% of Canada's population and 40% of its territory. The region is vast, sparsely populated, rich in mineral deposits, oil and gas reserves, and has an abundance of wildlife, and 10% of the world's fresh water. However, the arctic ecosystem is extremely susceptible to damage by pollutants, exploitation of resources, and by human settlement. Due to its short summers and harsh climate, the arctic environment is slow to recover from physical destruction connected with natural and manmade activities. Indigenous people's livelihood, which relies on hunting and fishing for subsistence, is threatened if their environment is destroyed by unregulated, unmonitored economic activities. Canada must ensure that the Arctic's ecosystem is protected, because "it is central to the livelihood and identity of [indigenous] peoples."²

Fiscal resources, the vastness and restricted accessibility of the arctic and limited threats to Canada's arctic sovereignty have caused a benign neglect of this region by Canada throughout its history as a nation. Only when a nation questions or threatens Canada's arctic sovereignty claim, do Canadians and its government demonstrate the

¹ John Honderich, Arctic Imperative: Is Canada Losing the North? (Toronto: University of Toronto Press, 1987) 3.

² National Symposium on the North: Changing Times, Challenging Agendas (Ottawa: Canadian Arctic Resources Committee Publishing Programme, 1988) 131.

interest or resolve to spend financial resources to protect its arctic sovereignty.³ “The recurring issue [of sovereignty] of the North West Passage thus symbolizes both Canada’s identification with the North and its traditional dilemma of backing sovereignty claims with an active presence in the Arctic waters.”⁴

The disappearance of arctic ice due to a warming climate has led to recent discussions concerning the improving accessibility in the arctic, which has brought world attention to an area that has an abundance of wealth, natural beauty, and a potentially lucrative maritime trade route. Improved accessibility in the arctic will cause this region to become increasingly important politically, economically, and environmentally to Canadians. Furthermore, the Canadian Arctic will become more relevant to foreign nations that are seeking a safe and secure source of non-renewable resources, and rely on the rapid movement of goods to global markets for economic stability. To maintain its sovereignty over this increasingly important region, Canada must enhance its control over foreign activity in the Canadian Arctic.

The conclusion will state that Canada’s current capabilities are severely inadequate for projecting its sovereignty in the arctic, and that sovereignty projection must be enhanced to maintain Canada’s claim and effectively protect its national interests in the arctic. This paper will recount the history of Canada’s territorial claim in the arctic, assessing the legality of Canada’s claim, and determining whether there are threats to Canada’s Arctic sovereignty claims. Arctic activity will then be reviewed to ascertain whether there is increasing foreign interest in the arctic. Finally, Canada’s current

³ John Honderich 219,220.

activities to protect arctic sovereignty will be identified and its capabilities to protect Canadian sovereignty against future interests or activity in the arctic will be assessed.

BACKGROUND

The Department of Foreign Affairs and International Trade (DFAIT) introduced in June 2000 the Northern Dimension of Canada's Foreign Policy that has the following objectives:

Enhance the security and prosperity of Canadians, especially northerners and Aboriginal peoples. Assert and ensure the preservation of Canada's sovereignty in the North. Establish the Circumpolar region as a vibrant geopolitical entity integrated into a rules-based international system. Promote the human security of northerners and the sustainable development of the Arctic.⁵

The Department of National Defence (DND) and Other Government Departments (OGD) create departmental policy and commit resources to support DFAIT's northern policy. The Canadian Government's 1994 White Paper on Defence states, "sovereignty is a vital attribute of a nation-state. For Canada, sovereignty means ensuring that, within our area of jurisdiction, Canadian law is respected and enforced."⁶ DND's Defence Planning Guidance Defence Objectives (DO) derived from this statement are as follows:

DO 2. Protect Canadian Sovereignty through surveillance and control of Canada's territory, airspace and maritime areas of jurisdiction.

⁴ Elizabeth B. Elliot-Meisel, Arctic Diplomacy: Canada and The United States in the Northwest Passage (New York: Peter Lang Publishing, 1998) 168.

⁵ http://www.dfait-maeci.gc.ca/circumpolar/exec_sum-e.asp

⁶ 1994 Defence White Paper (Ottawa: Department of National Defence, 1994)

DO 5. Assist Other Government Departments and other levels of Government, at their request, in achieving national goals in areas such as fisheries protection, drug interdiction and environmental protection.⁷

OGDs, such as the Department of Fisheries and Oceans (DFO)/Canadian Coast Guard (CCG), Customs Immigration Canada (CIC), Royal Canadian Mounted Police (RCMP), Canadian Security Intelligence Service (CSIS), and Environment Canada (EC), are involved in protecting Canadian sovereignty and its territorial claim in the arctic.

CANADA'S TERRITORIAL CLAIM IN THE ARCTIC

Canada's claim over the islands in the Arctic Archipelago began in 1880, when the British transferred the islands to Canada. The 1825 Treaty between Russia and Britain and the 1867 Treaty between Russia and United States (US) established the boundaries of the territories. In 1907, Senator Pascal Poirier made a speech to the Canadian Senate proposing Canada make a formal declaration for claiming all lands and islands from the northern coast of Canada to the North Pole.⁸ The claim was based on the sector theory,⁹ but the proposal was never seconded. Captain J. E. Bernier on 1 July 1909 placed a plaque on Merville Island declaring possession of the Arctic Archipelago from 60° W to 141° W up to 90° N for Canada. In 1924, Canada used the sector theory to claim sovereignty of this area; however, it is extremely important to note that "the sector theory

⁷ Canadian Defence Planning Document 2001 (Ottawa: Assistant Deputy Minister Policy, 11 April 2000) 2-3.

⁸ Donat Pharand,

has no validity as a source of title or State jurisdiction in the Arctic.”¹⁰ Canada’s western arctic neighbour, the United States, and its eastern arctic neighbour, Denmark, do not accept the sector theory as a method of claiming sovereign territory.

Canada’s future claim over the terrestrial areas in the arctic was assisted in 1933 by an International Court of Justice (ICJ) ruling, which concerned sovereignty of territory in remote and uninhabited areas. This ruling stated that a country does not have to occupy all the territory to claim sovereignty.¹¹ Royal Northwest Mounted Police were stationed in northern settlements to provide Canadian authority in the region and to support Canada’s territorial claim. All the terrestrial disputes in the Archipelago, with the exception of one, were resolved in the 1930s.¹² Today, the remaining terrestrial dispute is with Denmark. Greenland and Canada claim the uninhabited Hans Island in the Nares Strait.

Canada’s creation of the territory of Nunavut on 1 April 1999, which was the result of a land claim settlement and a right to self-government for the Inuit, creates a historical claim of sovereignty to the islands of the archipelago. Thus, in a future ICJ sovereignty case, the strength of Canada’s claim over the terrestrial area in the arctic is significantly enhanced with the creation of this territory.¹³

¹⁰ Donat Pharand 249.

¹¹ John Honderich, Arctic Imperative: Is Canada Losing the North? (Toronto: University of Toronto Press, 1987) 31.

¹² Rob Huebert, “The Impact of Climate Change on the Northwest Passage,” To be published in forthcoming edition of *Isuma: Canadian Journal of Policy Research*, 2002, 3.

¹³ John Honderich, Arctic Imperative: Is Canada Losing the North? (Toronto: University of Toronto Press, 1987) 37.

The other unsettled Canadian Arctic territorial claims, which are significant, pertain to maritime disputes. The western maritime border of the Canadian Arctic, which is based on an 1825 boundary treaty between Russia and Britain, is in the Beaufort Sea. Canada claims a western maritime boundary, which extends north along the 141⁰ W line of longitude. The US does not accept the terms of this treaty. If the US method for determining the border location were utilized,¹⁴ then a large section of the Beaufort Sea would become US territorial waters. The Beaufort Sea is an important economical region in the north because it is rich in non-renewable hydrocarbons will create territorial disputes between Canada and the US.

The most significant maritime dispute centers on the legal status of the Northwest Passage. The Northwest Passage is a 16,000 km route through the Canadian Archipelago that consist of five different routes (see figure 1). Canada claims the Northwest Passage as Canadian historic internal waters, but the US and European Community (EC) claim the passage is an international strait. Interestingly, any nation could challenge Canada's sovereignty claim over the passage because there has not been a legal ruling by the ICJ.

The US has challenged Canada's sovereignty claims over the Northwest Passage by sailing US vessels, including nuclear submarines, through the passage without the consent of the Canadian government. The first widely publicized incident occurred in 1969 when the S/T Manhattan, a US registered ship, sailed through the passage to prove that tankers of 120,000 tonnes could successfully transit the passage. The Manhattan incident demonstrated the potential of yearly use by ice breaking bulk carriers for shipping petroleum products from Alaska to the eastern US. The potential for a

¹⁴ The United States make the claim that the border should be drawn at a 90-degree angle to the coastline.

catastrophic environmental accident caused Canada to assert her legal position over these arctic waters by passing the Arctic Waters Pollution Prevention Act in 1970. This Act created a 100 mile environmental protection zone.¹⁵ Additionally, Canada extended her territorial waters from three to 12 nautical miles, which subsequently became an acceptable international standard. Canada claimed a 200 mile Exclusive Economic Zone in 1977. In December 1982, Article 234 of the United Nations Law of the Sea Convention (UNCLOS) was adopted, which supports Canada's 1970 legislation. This article states

Coastal States have the right to adopt and enforce non-discriminatory laws and regulations for the prevention, reduction and control of marine pollution from vessels in ice-covered areas within the limits of the exclusive economic zone, where particularly severe climatic conditions and the presence of ice covering such areas for most of the year create obstructions or exceptional hazards to navigation, and pollution of the marine environment would cause major harm to or irreversible disturbance of the ecological balance. Such laws and regulations shall have due regard to navigation and the protection and preservation of the marine environment based on the best available scientific evidence.¹⁶

The United States has not ratified this 1982 UNCLOS and does not recognize Canada's environmental legislation from 1970.

The second widely publicized violation from Canada's perspective was the voyage of the USCGC Polar Sea through the Northwest Passage in 1985. As a result of this incident, Canada declared straight baselines around the Canadian Archipelago (see figure 1), which took effect 1 January 1986. Thus, Canada claimed all waters within the

¹⁵ The Arctic Waters Pollution Prevention Act, which applies to all waters north of 60°N, enables Canada to enforce pollution standards on all vessels, including foreign flagged vessels that are navigating through Canadian northern waters. Vessels that do not meet specific safety standards could be denied entry into Canadian arctic waters. The Northwest Passage is encompassed within the 100 mile protection zone.

¹⁶ Donat Phard, The Northwest Passage Arctic Strait (Boston: Martinus Nijhoff Publishers, 1984) 108.

baselines as historic internal waters. The 1958 Convention on the Territorial Sea and the UNCLOS of 1982 has authorized the use of baselines for coastal nations. Thus, Canada claims the passage as a national sea route, without the right of innocent passage by foreign vessels. The US and the EC do not accept this interpretation. Considering the significant divergence of opinions between Canada, the US and the EC on the status of the Northwest Passage, one must assess the validity of Canada's legal interpretation of the passage.

Donat Pharand, a legal expert on Arctic Ocean law and policy, states

An international strait is one which has been used for international marine traffic, the sufficiency of the use being determined mainly by reference to the number of foreign ships having crossed the strait and the number of flags represented. The Northwest Passage is not an international strait because it has never been used for international navigation.¹⁷

Currently there is insufficient foreign vessel traffic using the Northwest Passage for international navigation to legally declare the Northwest Passage an international strait. The straight baselines have made the passage internal Canadian waters and a national sea route. The Canadian Government does not want to prohibit vessels from transiting through the passage, but rather it wants vessels transiting the passage to adhere to Canadian laws. If an increasing number of vessels from foreign nations navigate through the passage, the future legal status of the passage could change to an international strait. Preventing the passage being declared an international strait is largely dependent on whether Canada takes effective control of foreign shipping in the passage. Therefore, the magnitude of the threat to Canadian sovereignty in the arctic hinges upon Canada's

¹⁷ Donat Phard, The Northwest Passage Arctic Strait (Boston: Martinus Nijhoff Publishers, 1984) 120.

ability to enforce its jurisdiction over its territorial claim in the arctic, and especially in the area of the Northwest Passage.

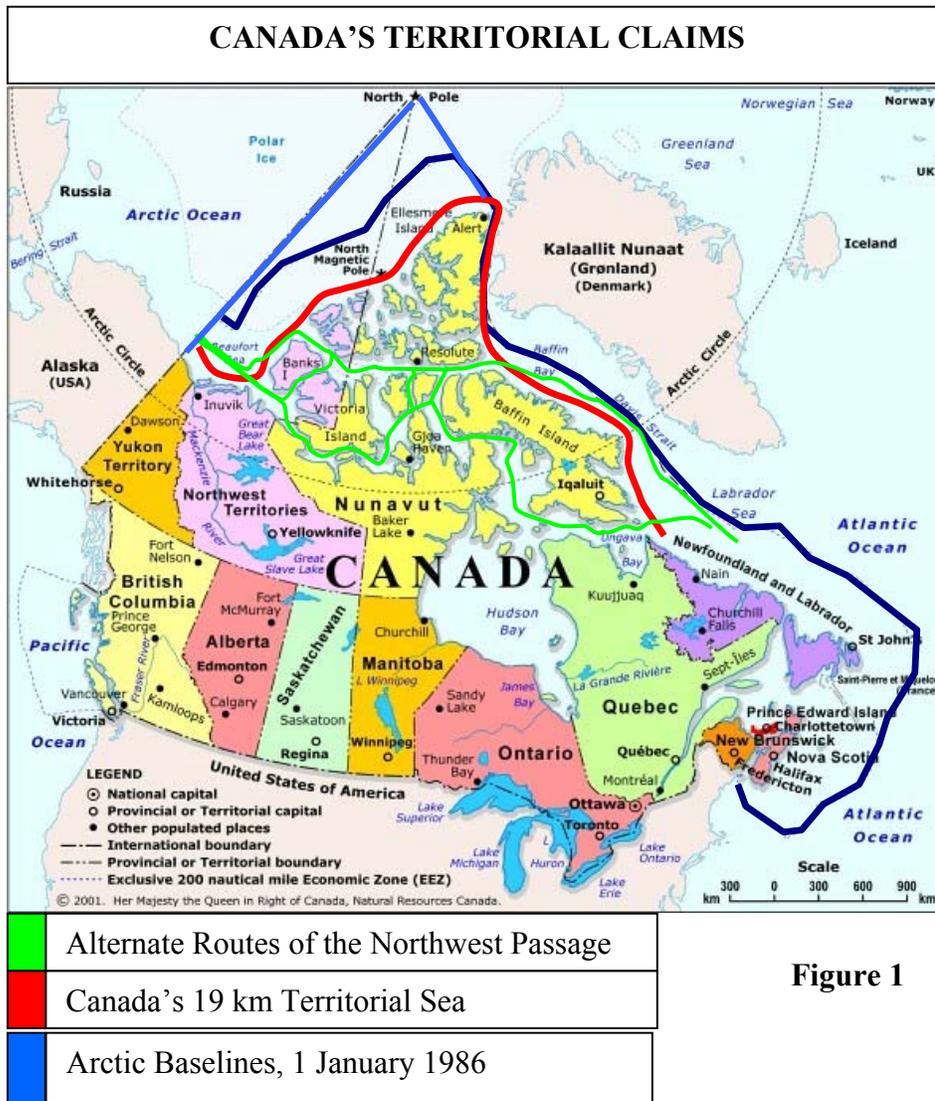


Figure 1

John Honderich states “the age of the Arctic is coming. After centuries of benign neglect, the once-forbidding Arctic is now the scene of developments that are increasingly drawing the world’s attention.”¹⁸ How accurate is John Honderich’s prediction of increasing commercial developments in the Archipelago and maritime

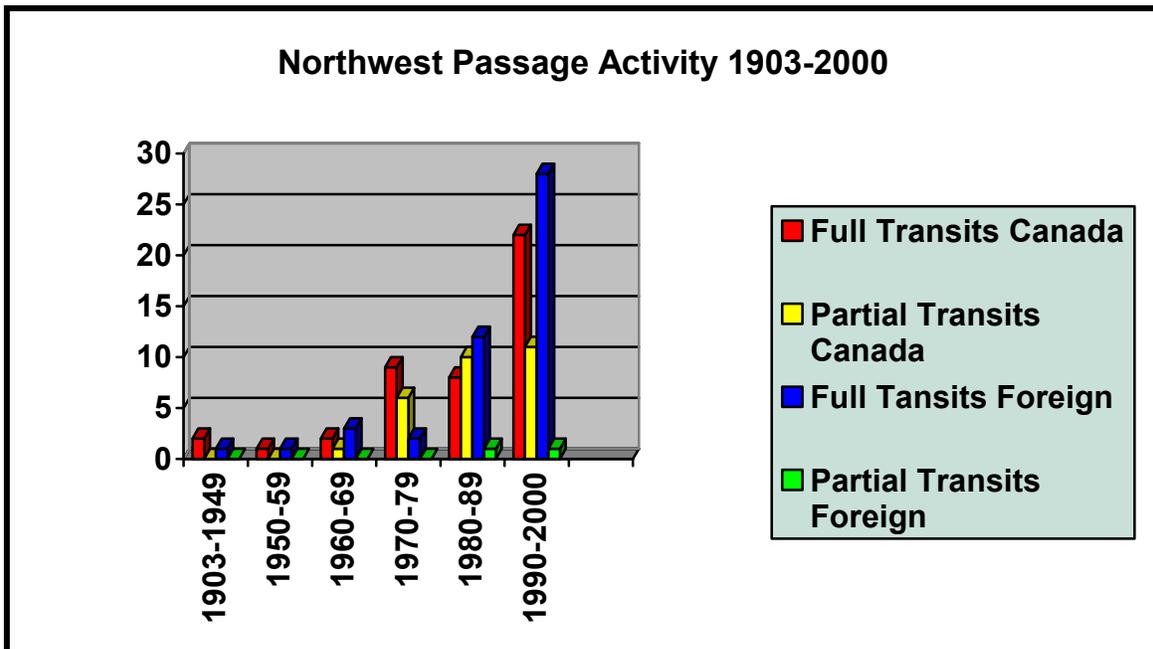
¹⁸ John Honderich, *Arctic Imperative: Is Canada Losing the North?* (Toronto: University of Toronto Press, 1987) 3.

traffic in the Northwest Passage? An analysis of the recent and anticipated activity in the region will provide a good indication.

INTEREST IN THE ARCTIC

CONFIDENTIAL

century (see figure 2). During the first 66 years of the 20th century there were a total of 5 full transits through the Northwest Passage, of which two were foreign vessels. Over the past 34 years there have been 41 Canadian and 55 foreign vessels that transited the passage. Since 1969, the majority of the 29 partial transits have been Canadian vessels. During the 90s, the 28 foreign transits were completed by eight different nations. These transit numbers do not include the number of foreign submarines that transit the passage. One is seeing an increase in commercial vessels and pleasure craft, such as passenger ships, barges and yachts, transiting the passage, and they are coming from an increasing number of foreign nations. The effects global warming is having on ice conditions in the arctic allows for easier access, which is creating an increase in commercial maritime traffic, and an increasing interest in the arctic.



Courtesy of Brian J. McDonald Operations Officer, Canadian Coast Guard, Central & Arctic Region

Figure 2

A preponderance of scientists believes global warming is having an influence on the ice levels in the arctic. The United Nations Intergovernmental Panel on Climate Change (IPCC) predicts the snow cover and sea-ice extent will continue to decrease and the glacier and ice cap will continue to recede.²¹ Furthermore, the *IPCC Special Report On The Regional Impacts of Climate Change* states

There is likely to be substantially less sea ice in the Arctic Ocean (IPCC 1996, WG II, Chapter 7 Executive Summary). Major areas that are now ice-bound throughout the year are likely to have long periods during which waters are open and navigable. Some models even predict an ice-free Arctic, although most scenarios maintain significant summer ice centered on the North Pole.²²

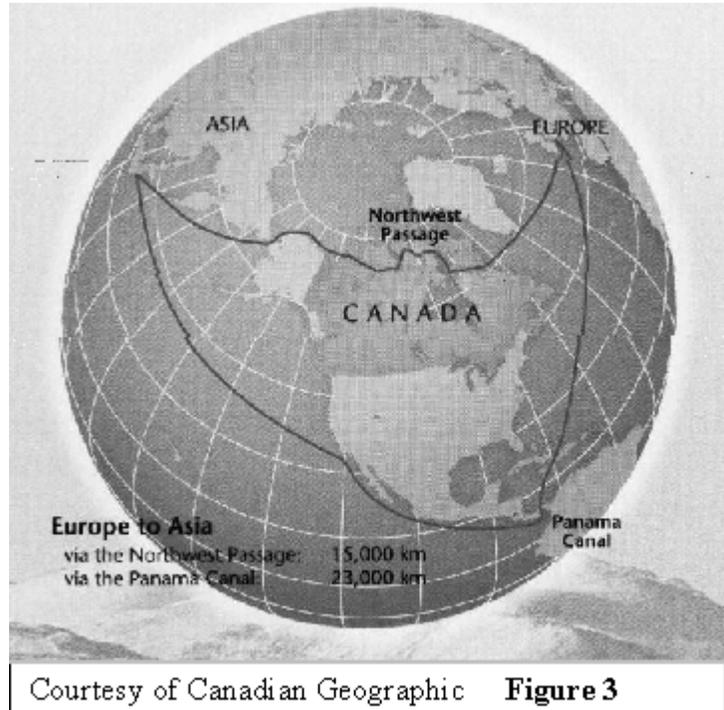
Some scientists predict an ice-free arctic in 50 years. An ice-free arctic would have a severe impact on the arctic, but the current affects from the warming climate in the arctic are having a significant and immediate impact. As shown by the number of transits in the 90s (figure 2), global warming has had an immediate affect on the volume of maritime traffic transiting the passage. As the ice in the arctic continues to thin or disappear, shipper's insurance costs will decrease, passage transit time will be reduced, and the navigation season will be extended. These conditions will probably result in exponential growth of vessel traffic in the Archipelago and the Northwest Passage.

A prediction of exponential growth in the number of Northwest Passage transits is based upon its strategic location. Currently, commercial maritime traffic utilize the Panama Canal to transit between the European market and Asia the world's fastest

²¹ Climate Change 2001: The Scientific Basis A Report of Working Group I of the Intergovernmental Panel on Climate Change (Cambridge: Cambridge University Press, 2001) 16.

²² IPCC Special Report on The Regional Impacts of Climate Change: An Assessment of Vulnerability 1996, [<http://www.grida.no/climate/ipcc/regional/046.htm>]

growing market. Utilizing the Northwest Passage would reduce the transit distance from Europe to Asia, by 8,000 kilometers (see figure 3).²³ There were 12,185 oceangoing



commercial transits through the Panama Canal in 2001 and eight percent (8%) of the total tonnage was transiting from Europe to Asia.²⁴ If the percentage in tonnage equated to the same percentage in ships, there would be 971 ships transiting between Europe and Asia. Just three percent of the yearly European shipments would equal the number of foreign transits through the passage over the last decade.

If ice-free periods become an occurrence in the passage, then a shift in maritime traffic from the canal to the passage would occur because of the substantial benefits derived from no canal transit fees, reduced shipping costs, and reduced merchandise

²³ Morris Maduro, "Northern Shortcut," *Canadian Geographic* November/December 2000

²⁴ Panama Canal Web Site <http://www.pancanal.com/eng/index.html>

delivery time to markets. Transiting the Northwest Passage means further savings, for ships, such as super oil tankers that are too large to transit the canal. A reduction of ice in the Archipelago would not only allow for increase Northwest Passage transits, but also would increase maritime traffic in support of commercial development of the arctic, such as oil and gas exploration.

The arctic is rich in renewable natural resources, minerals, and non-renewable energy resources. It is estimated that Canada's "northern basins contain approximately 48% of Canada's undiscovered conventional light crude oil potential and 46% of its undiscovered conventional gas potential."²⁵ Offshore oil and gas exploration and production would benefit from easier access, by reduced costs associated with operating in a maritime ice environment. Similarly, mining operations in the Canadian Archipelago will increase as production costs in relation to world mineral prices decrease. Costs are significant for supporting mining operations and shipping raw materials from the arctic. However, despite the higher operating costs, "the Canadian Arctic has witnessed a steady increase in the exploration and exploitation of its mineral resources."²⁶

There is an abundance of renewable resources in the arctic, which many of the indigenous people rely on for subsistence. As the arctic becomes more accessible, these resources will come under pressure from foreign Nations and illegal activities. Poaching of animals has become a concern and the RCMP has increased their activity on Ellesmere

²⁵ Northern Science and Technology in Canada: Federal Framework and Research Plan April 1, 2000- March 31, 2002 (Ottawa: Department of Indian Affairs and Northern Development, 2000) 23.

²⁶ Erik Franckx, Maritime Claims in the Arctic: Canadian and Russian Perspectives (Boston: Martinus Nijhoff Publishers, 1993) 29.

water transport, tourism, and trade will increase. The Arctic Ocean could become a major trade route. Increasing economic activities combined with increasing prosperity in the region will increase the number of foreign travellers visiting or transiting through the region. In the area of ecotourism, the arctic is already seeing an increase in tourists.³² Unfortunately, synonymous with increasing travellers and economic activities is an increase in criminal activity.

The projected increase in maritime traffic will generate the requirement for increased surface and air surveillance for environmental and fishing infractions, illegal transits, pollution infractions, and criminal activity. Increased maritime traffic will create the potential for more Search and Rescue (SAR) missions in response to maritime accidents. Additionally, the potential for a SAR mission in response to a Major Air Disaster (MAJAD) in the North has increased. This is attributable to recent changes in over flight regulations that allow commercial aircraft to fly over the North Pole region. This polar route provides airlines with substantial fuel savings. Colonel Leblanc, Commanding Officer CFNA, predicts 500 polar flights per day within five years.³³

Surface and air traffic, commercial development, fishing, tourism, and other economic activities are increasing in the arctic. This trend will continue slowly, but if the rate that ice is thinning or disappearing in the arctic increases, then the rate of activity will expand correspondingly. This raises the question, are Canadian sovereignty

³² Northern Security: Old Problems in New Times Conference hosted by Canadian Arctic Resources Committee, University of Calgary, and Canadian Polar Commission, 25 January 2002. [<http://dgpa-dgap.mil.ca/dgpa/Transer/2002Jan/02012510.htm>]

³³ James Brooke, "Arctic Shortcut for Shipping Raises New Fears in Canada," The New York Times 29 Jul 2000.

activities in the North adequate to meet the sovereignty challenges of today and of the future?

CURRENT CANADIAN SOVEREIGNTY ACTIVITIES

DND expended \$163M in 98/99 in support of CF and NORAD activities north of the 60th parallel, which is \$171M in 2001 dollars, or 1.5 percent of this years \$11.119B defence budget.³⁴ The Army through Canadian Forces Northern Area Headquarters (CFNA) maintains sovereignty over Canada's northern terrestrial territory. The Air Force maintains air sovereignty through 1 Canadian Air Division/Canadian NORAD Region Headquarters (1 CAD/CANR). The Navy through its regional headquarters, Maritime Pacific formation (MARPAAC) and Maritime Atlantic formation (MARLANT), maintains sovereignty over the maritime area of the arctic, with regional responsibility divided at 95^o W.

DND's presence in the north consists of Canadian Forces Station Alert on Ellesmere Island, which is an important intercept station for monitoring the former Soviet Union. CFNA is a joint headquarters, which is located at Yellowknife, Northwest Territories (NWT) and its detachment is located in Whitehorse, Yukon. CFNA's role is to assist in maintaining sovereignty north of 60^oN, co-ordinating Canadian Forces activities in the north, and liaising with the territorial governments and other federal departments concerning northern issues. CFNA expends \$3.5M to \$4M of a \$9.3M

³⁴ Maj Lessard D Air CBM 2-2, E-mail dated 20 March 2002.

budget per year in direct support of sovereignty.³⁵ An important function of CFNA is to chair the Arctic Security Interdepartmental Working Group (ASIWG). The objectives of the ASIWG are to co-ordinate security and sovereignty activities, gain efficiencies and effectiveness through joint exercises, and sharing of resources.

The Army supports CFNA by conducting company sized (130 man) Sovereignty Operations (SOVOPS) in the North. Up to 1980, the Army had a winter warfare school in Churchill, Manitoba and conducted an Infantry Battle Group (1000 man) exercise in the arctic annually. This was reduced to five company sized SOVOPs annually, which have been further reduced to two Company sized SOVOPs. During FY 2000/01, SOVOPs were conducted at Haines Junction, Yukon and Hall Beach, Nunavut.³⁶ These northern exercises serve the dual purpose of maintaining Canadian sovereignty and providing individual and collective training to Army personnel on the unique challenges of operating in severe arctic climatic conditions. Instructors from 1 Canadian Ranger Patrol Group assist the Army's arctic training.

1 Canadian Ranger Patrol Group (1 CRPG) consists of 1,250 Rangers in 58 Ranger Patrols, but four are south of 60⁰. There will be a Transfer of Command Authority (TOCA) to Land Forces Western Area's Area of Operation (AO) for those patrols south of 60⁰. The Canadian Rangers support CFNA's sovereignty role by conducting surveillance/Sovereignty Patrols (SOVPATs), reporting on unusual activities, and collecting local data that is of significance to the Canadian Forces.³⁷ There is one

³⁵ LCol Kilburn COS CFNA, E-mail dated 12 February 2002.

³⁶ Arctic Capability Study 2000 (Yellowknife: Canadian Forces Northern Area Headquarters, December 2000) Serial 8, p 4/8.

³⁷ http://www.rangers.dnd.ca/rangers/intro_e.asp

SOVPAT conducted annually by each Ranger Patrol, and they cover “a maximum distance of 300 kilometres from their home community.”³⁸ The Rangers perform security checks at the North Warning System (NWS) sites, which are unmanned radar sites that support the NORAD mission of aerospace warning and aerospace control for North America.

The NWS, which stretches across the north at approximately 70⁰N, provides surveillance of Canadian air space in the defence of North America against military airborne air breathing threats. There are four FOLs, which support the NORAD mission, that are designed to accommodate 6 CF-18s each and the associated support personnel and equipment. Three are co-located with civil airports in the NWT at Inuvik, Yellowknife and Rankin Inlet, and the fourth at Iqaluit in Nunavut. These facilities are currently in warm storage,³⁹ but can be rapidly reactivated for fighter air sovereignty operations. The cost to maintain these facilities is \$8M per year.⁴⁰ Additionally, these facilities are suitable as northern staging bases for the CF Disaster Assistance Response Team (DART) when deploying to the North. These facilities have been used to support Army and Air Force Sovereignty exercises, community cultural events, and disaster relief.

In addition to the Air Force’s FOL facilities, 440 Transport Squadron located at Yellowknife has four CC-138 Twin Otter aircraft. This Squadron supports CFNA’s

³⁸ Arctic Capability Study 2000 (Yellowknife: Canadian Forces Northern Area Headquarters, December 2000) Serial 7, p 9/10.

³⁹ Warm storage entails keeping the temperature in the buildings at 48⁰F. Additionally, the sites are unmanned and the security and maintenance systems are monitored electronically. Alarms will sound if there are any security violations and maintenance malfunctions, and the appropriate maintenance or security contractor will investigate and resolve the specific problem.

⁴⁰ Maj Lessard D Air CBM 2-2, E-mail dated 20 March 2002

mission, SAR missions and provides utility transport, which includes supporting the Canadian Rangers. The Air Force's CC-130s provide airlift support for deploying personnel and equipment to the arctic in response to SAR missions or MAJAID that occur in the region. The Aurora aircraft provides maritime surveillance. CP-140 Auroras are tasked to conduct northern surveillance patrols (NORPATs) to maintain surveillance and control of Canadian northern territorial waters. These missions could be in support of OGDs. However, in 1995 a reduction in the Aurora Yearly Flying Rate (YFR) has reduced NORPAT flights to one per year.⁴¹

The Navy conducts Northern Deployments (NORPLOYS) to northern waters; however, the last NORPLOY was in 1990.⁴² Furthermore, the Navy's ships are incapable of operating in an ice environment, which restricts ship operations to the eastern and western edges of the arctic. Given current ice conditions, the Navy is extremely limited in its ability to assist OGDs in the arctic maritime environment.

As mentioned previously, various federal government departments perform Canadian Sovereignty activities. DFO provides aerial pollution surveillance of Canadian waters through the CCG's National Aerial Surveillance Program (NASP). Two aircraft operated by Transport Canada and one aircraft owned and operated by Provincial Airlines Limited (PAL) support the program. PAL conducts aerial surveillance while performing fishery surveillance. However, there are no aerial surveillance missions conducted north

⁴¹ Robert Huebert 8.

⁴² Robert Huebert 8.

of 60⁰.⁴³ Aurora aircraft support DFO by conducting illegal discharge surveillance in the performance of their long-range patrol missions.

CCG supports the supply of northern ports during the Canadian Arctic shipping season, which is 6 months long. CCG's icebreaker program supports Canadian sovereignty in the arctic through convoying and escorting foreign ships through ice-covered waters. The program also provides ice information and routing information to ships. During periods of average ice conditions in the arctic, the CCG can have an icebreaker on the scene within 10 hours of receiving a request for icebreaker assistance. The CCG has five dedicated icebreakers, of which two are capable of operating for extended periods of time in Arctic ice zone six.⁴⁴

CCG established in 1977 a voluntary Vessel Traffic Reporting System for the Arctic Canada Traffic Zone (NORDREG), which includes those waters of Ungava Bay, Hudson Bay and James Bay south of the parallel of 60⁰ north latitude and the waters to which the Arctic Waters Pollution Prevention Act applies. The objectives of NORDREG are to enhance safety and movement of traffic, prevent pollution of arctic waters by establishing a method of screening vessels, and to strengthen Canadian sovereignty in arctic waters.

Two other significant government departments protecting arctic sovereignty are DFAIT, and RCMP. The RCMP has 56 detachments throughout the northern territories

⁴³ National Aerial Surveillance Program 1997-2001-Final Report (Ottawa: Fisheries and Oceans Canada Coast Guard, September 2001) iii.

⁴⁴ The Arctic Waters Pollution prevention Act (1970) was followed by Regulations in 1972 that established 16 shipping safety control zones in the arctic, and the requirements for construction, manning and equipment for ships operating in waters north of 60⁰ N. The shipping safety control zones regulate the time of year that a specific class of ship can operate in that zone. For example, a class six icebreaker can operate from July 15 to 28 February in zone 6.

to enforce Canadian laws. DFAIT through its foreign policy continues to fight for the protection of arctic environments, to resolve arctic problems, and to receive international level acceptance of its various arctic legislation and its sovereignty position on the Canadian Arctic. These efforts are pursued as a member of the Arctic Environmental Protection Strategy and Arctic Council. The council consists of the eight Arctic countries and the indigenous northern people. It allows nations to forge

closer ties with other Arctic states with similar interests, and in working collaboratively to develop better international regimes for preserving the Arctic's unique ecosystems and securing rights to sustainable human development under pressures of rapid change.⁴⁵

Since “the Arctic is increasingly significant to the long-term interests of all Canadians - economic, political, social, and environmental,”⁴⁶ it is vital that Canada is capable of protecting the arctic environment from foreign activities and challenges, and defending its territorial claim. Yet, Canada has insufficient sovereignty resources to control the North and the demands on these limited resources are increasing.

SOVEREIGNTY CAPABILITY GAP

This sovereignty capability gap has been created by the Canadian government's lacklustre northern policy, lack of perceived threats to the North, and its fiscal policy over the past century.

⁴⁵ Canada and the Circumpolar World: Meeting the Challenges of Co-operation into the Twenty-First Century (Ottawa: 7th Standing Committee on Foreign Affairs and International Trade, 1997) http://www.parl.gc.ca/committees352/fore/reports/07_1997-04/concle.html

⁴⁶ Canada and the Circumpolar World: Meeting the Challenges of Co-operation into the Twenty-First Century (Ottawa: 7th Standing Committee on Foreign Affairs and International Trade, 1997) http://www.parl.gc.ca/committees352/fore/reports/07_1997-04/concle.html

From the time of Confederation to World War II, there had been periodic bursts of government interest and activity in the north, primarily in reaction to real or perceived American threats to Canadian jurisdiction in the remote regions of the territories.⁴⁷ Since the late 1950s, Canada has joined in a collective arrangement with the United States for defence of North America and, for the most part, the Americans have paid for⁴⁸ and conducted the defense of [Canada's] North.⁴⁹

This wavering interest in the North is the result of a “lack of national consensus on the importance of the North.”⁵⁰ Furthermore, Canadians focus little attention on the North because of the lack of a perceived military or security threat in the North.⁵¹ Canada's northern frontier is secure with the existence of the NORAD collective defence agreement with the US. As a result, Canadians and the government usually only focus attention on the region when an issue involving sovereignty occurs, and these incidents have usually involved the US.⁵²

The lack of consistent interest by Canadians and the government's perception that threats to the security of the region are minimal has been and continues to be reflected in

⁴⁷ Shelagh D. Grant, Sovereignty or Security?: Government Policy in the Canadian North, 1936-1950. (Vancouver: University of British Columbia Press, 1988) 239.

⁴⁸ The Radars of the North Warning System and the Forward Operating Locations were constructed on a 60% United States and Canada 40% funding formula.

⁴⁹ John Honderich 16.

⁵⁰ National Symposium on the North: Changing Times, Challenging Agendas. (Ottawa: Canadian Arctic Resources Committee Publishing Programme, 1988) 114.

⁵¹ John Honderich 16.

⁵² The unauthorised transiting of the Northwest Passage by US vessels, S/T Manhattan and Polar Sea, are two specific incidents when Canadians became interested in the region. These incidents resulted in the Canadian government introducing environmental legislation and altering territorial sea boundaries.

the government's fiscal policy.⁵³ Government funding priorities commence with economic development and social programmes in the South, where the majority of voters reside and the revenue is generated, and then the financial programmes that support the North are funded.

The funding for the North is insufficient for such a vast region, and those funds allocated to the North are primarily expended for Northern Government operating costs, social programs, and northern development.

This lack of funding for northern sovereignty activities was exacerbated in the 90s by the federal government's policy to reduce the national debt. Federal government departments responsible for arctic sovereignty faced substantially reduced budgets and were reluctant to expend limited financial resources o97are funded.

number of Ranger Patrols to 60, as recommended by CFNA,⁵⁴ would be beneficial from the viewpoint of showing increased interest in the arctic. However, replacing NORPATs with Unmanned Aerial Vehicles (UAVs) and satellites would be the more economical, efficient, and effective method for conducting aerial surveillance.

The government's limited financial resources and the vastness of the area will always hinder efforts to effectively patrol the terrestrial area of the arctic. This will have a substantial impact on monitoring and enforcing Canadian laws. Fortunately, Canada's terrestrial claim in the arctic, with the exception of Hans Island, will probably not be jeopardised by a limited presence, because its terrestrial claim is not currently being challenged internationally.

However, Canada's maritime claim in the arctic is being challenged internationally and the greatest threats to Canada's sovereignty in the arctic are and will come from the maritime environment. Unfortunately, DND's resources positioned in the north are there to defend against a military threat from the air, and not a maritime threat.

Resources for surveillance and control of the arctic maritime jurisdiction are limited in all government departments with the mandate to protect arctic sovereignty. DFO does not currently conduct aerial surveillance in this region. DND possesses the largest number of air assets for aerial surveillance, with the Aurora being the best platform for conducting surveillance missions in the north. However, there is an insufficient number of Auroras to adequately perform the mission, and it would be

⁵⁴ Funding has been approved for 60 Ranger Patrols within CFNA's AO by 2007/08; however, reaching this target will be difficult because there are only 8 communities within the CFNA AO in which a Ranger Patrol would be viable. Additionally, these communities are not located in the Arctic Archipelago. Therefore, CFNA will have to utilize SOVPATs to provide surveillance in this area. Arctic Capability Study 2000. (Yellowknife: Canadian Forces Northern Area Headquarters, December 2000) Serial 7, p 9/10

unaffordable within the existing military budget. Furthermore, using Auroras is not a cost-effective method for conducting ongoing aerial surveillance. The most cost effective way to provide aerial surveillance in the north is with either satellites or unmanned aerial vehicles. Currently the Air Force does not possess either of these assets.

Aerial surveillance of the north is currently inadequate to provide the situational awareness of maritime traffic required for protecting Canada's sovereignty. To provide adequate surveillance coverage in the arctic, prior to further increases occurring in arctic maritime traffic, the Air Force should acquire surveillance assets that can cost effectively carry out surveillance in the North. In the interim period, as much use as possible should be made of the Canadian commercial satellite RADARSAT 1, which crosses over the Canadian Arctic every three days.

Maintaining control over foreign maritime traffic in the Canadian Archipelago is the most critical aspect of Canada's maritime claim in the arctic. Control, which is enforcing Canadian laws, will become more difficult as maritime traffic increases. The Canadian Navy is not capable of operating in the arctic; therefore DFO/CCG has the sole capability of controlling maritime traffic. Despite this fact, DFO conducts no fisheries patrols or pollution surveillance missions in the north, and the CCG does not have icebreakers that can operate year round in the arctic. Furthermore, CCG's dedicated icebreaker fleet is close to the end of its operational life, and it has no plans to construct new vessels.⁵⁵ As Donat Pharand states, Canadian sovereignty in the arctic will be determined by Canada's ability to enforce its recognised jurisdiction over its territorial claim in the arctic, and especially in the area of the Northwest Passage. Maritime surface

⁵⁵ Robert Heubert 9.

assets in the arctic are currently extremely limited and would be incapable of enforcing Canadian laws, should traffic increase significantly.

To immediately address the threat from increasing maritime activities, it should be made mandatory for maritime vessel traffic to report through NORDREG prior to entering the arctic. Mandatory reporting would assist surveillance assets, and it would demonstrate to mariners that they are entering Canadian sovereign waters with Canada's permission. However, enforcement of Canadian jurisdiction requires a maritime presence and the Law. DFO should have the necessary aircraft and or fiscal resources to conduct or contract out fisheries patrols and pollution surveillance missions in the north, and mandatory reporting would assist DFO. Future naval purchases should consider increasing hull thickness to provide a minimum operating capability in the arctic. CCG should plan the acquisition of the requisite number of Class 8 icebreakers, which can operate year round in the arctic, to replace the two dedicated icebreakers.

There are numerous other initiatives that could enhance Canadian Arctic sovereignty, but require a thorough examination, which is beyond the scope of this paper.⁵⁶ Canada can no longer afford to follow its past practices in the north because the sovereignty capability gap has begun to widen in the past two decades as foreign interest and activities have increased in the Canadian Arctic. The arctic is important to Canada's future and this sovereignty capability gap must be closed to ensure that Canada can enforce its control over the Arctic.

⁵⁶ Create an integrated C⁴I structure among all government departments responsible for protecting Canadian Arctic sovereignty. Reinvestigate the requirement to have an Arctic Subsurface Surveillance System installed at the choke points into the Canadian Archipelago. Procure a strategic airlift capability for the rapid northern deployment of DART, and response to other natural disasters. Improve the NWS radar coverage to include the Northwest Passage. The recent US creation of North America Command will have an impact on how Canada projects control over the Canadian Arctic.

CONCLUSIONS

Arctic activity in areas of maritime traffic, air over flights, resource exploration and exploitation, commercial ventures, and tourism are increasing. Canada's ability to conduct surveillance missions and exercise control in the arctic is degrading because of budget reductions and purchases of equipment that are not suitable for operating in the arctic. Whether the rate of ice disappearance is rapid or slow, there exists a requirement to increase arctic operating budgets and procuring equipment capable of operating in the arctic. However, the rapidity of ice disappearing is correlated to the increase in arctic activity. Thus, the rate that ice is disappearing and creating ice free navigable waters will determine the time that Canada has to prepare for projecting effective control in the arctic, and especially in the area of the Northwest Passage. Canada must either improve its ability to control foreign activities in the Canadian Arctic or risk losing its sovereignty over this region.

BIBLIOGRAPHY

BOOKS

Elliot-Meisel, Elizabeth. Arctic Diplomacy. New York: Peter Lang Publishing, 1998.

Griffiths, Franklyn. Politics of the Northwest Passage. Kingston: McGill-Queen's University Press, 1987.

Grant, Shelagh D. Sovereignty or Security? Government Policy in the Canadian North, 1936-1950. Vancouver: University of British Columbia Press, 1988.

Honderich, John. Arctic Imperative: Is Canada Losing the North?. Toronto: University of Toronto Press, 1987.

Pharand, Donat. Canada's Arctic Waters in International Law. Cambridge: Cambridge University Press, 1988.

Pharand, Donat. The Northwest Passage Arctic Straits. Boston: Martinus Nijhoff Publishers, 1984.

Rothwell, Donald. The Polar Regions and the Development of International Law. Cambridge: Cambridge University Press, 1996.

Franckx, Erik. Maritime Claims in the Arctic: Canadian and Russian Perspectives. Boston: Martinus Nijhoff Publishers, 1993.

PERIODICAL ARTICLES

Bagole, Joel. "Northern Thaw Raises Defense Concerns---A Canadian Waterway Free of Ice May Bring Commerce—and Foes". The Wall Street Journal. 20 Dec 2000.

Brooke, James. "Arctic Shortcut for Shipping Raises New Fears in Canada". The New York Times. 29 Jul 2000.

Brooke, James. "Arctic Energy Reshapes A Village". The New York Times. 2 Sep 2001.

Cable, Colonel. "Aurora: Surveillance Without Policy". The Naval Officer's Association of Canada: ON Line Library.

Johansen, Bruce E. "Arctic Heat Wave". The Progressive. Oct 2001.

Maduro, Morris. "Northern Shortcut". Canadian Geographic. Nov/Dec 2000.

Mitchell, Alanna. "The Northwest Passage Thawed". The Globe and Mail 5 Feb 2000.

Senthilnathan, R. "Canadian Security Melts with Arctic Ice." The Strait Times 16 Dec 2000.

Walker, Ruth. "Arctic Thaw Opening up Lucrative Shipping Route." The Christian Science Monitor. 7 June 2000.

Walsh, Dan. "Over the Top: Sailing the Northwest Passage". United States Naval Institute Proceedings. Jun 2001.

OTHER SOURCES

Canada. Canadian Defence Planning Document 2001. Ottawa: Assistant Deputy Minister Policy, 11 April 2000.

Canada. Canadian Forces Northern Area Headquarters. Arctic Capability Study 2000. Yellowknife: Canadian Forces Northern Area Headquarters, December 2000.

Canada. Department of Foreign Affairs and International Trade. Canada and the Circumpolar World: Meeting the Challenges of Cooperation into the Twenty-First Century. Ottawa: 7th Standing Committee on Foreign Affairs and International Trade, 1997.

Canada. National Aerial Surveillance Program 1997-2001-Final Report. Ottawa: Fisheries and Oceans Canada Coast Guard, September 2001.

National Symposium on the North: Changing Times, Challenging Agendas. Ottawa: Canadian Arctic Resources Committee Publishing Programme, 1988.

Northern Security: Old Problems in New Times. Conference hosted by Canadian Arctic

Canada. 1994 Defence White Paper. Ottawa: Department of National Defence, 1994.

Indigenous Peoples and Sustainable Development in the Canadian Arctic.

Eighth Session of the United Nations Commission on Sustainable Development, April 24 to May 5, 2000. [http://www.ainc-inac.gc.ca/pr/pub/indigen/ipsdca_e.html#a3d]

http://www.rangers.dnd.ca/rangers/intro_e.asp

<http://www.sonic.net/bantam1/dltj.html#art1>