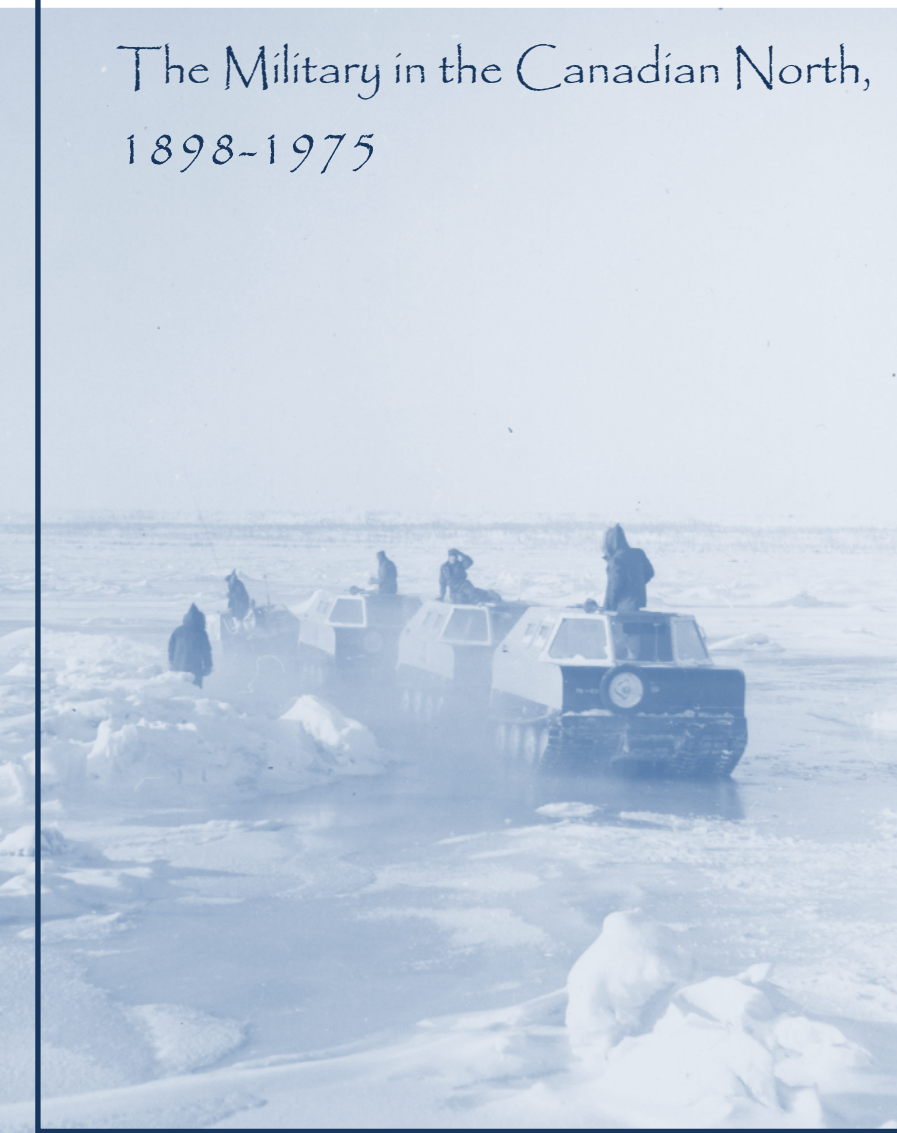


CUSTOS BOREALIS

The Military in the Canadian North,
1898-1975

Kenneth C. Eyre

Edited by P. Whitney Lackenbauer



CUSTOS BOREALIS

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The Military in the Canadian North, 1898-1975

Kenneth C. Eyre

Edited with an Introduction and Afterword by
P. Whitney Lackenbauer

Foreword by
BGen Patrick Carpentier



Monograph Series

2020

This book is dedicated to the men and women of the Canadian Forces who have served in the North, and to the Northerners who have supported them.

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Acronyms

AEPS	Arctic Environmental Protection Strategy
AMAP	Arctic Monitoring and Assessment Programme
ANPF	Arctic and Northern Policy Framework
AOPS	Arctic and Offshore Patrol Ships
AOR	area of responsibility
ASW	anti-submarine warfare
ATB	Advisory Technical Board
BGen	Brigadier General
CADIZ	Canadian Air Defence Identification Zones
CAF	Canadian Armed Forces
Canol	Canadian Oil
CBC	Canadian Broadcasting Corporation
CCGS	Canadian Coast Guard Ship
CDS	Chief of the Defence Staff
CE	Common Era
CF	Canadian Forces
CFNA	Canadian Forces Northern Area
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
CJOC	Canadian Joint Operations Command
CRPG	Canadian Ranger Patrol Group
CSIS	Canadian Security Intelligence Service
DCASS	Documents on Canadian Arctic Sovereignty and Security
DEW Line	Distant Early Warning Line
DFAIT	Department of Foreign Affairs and International Trade
DHH	Directorate of History and Heritage
DIAND	Department of Indian Affairs and Northern Development
DIS	Directorate of Information Services
DM	Deputy Minister
DND	Department of National Defence (Canada)
DoD	Department of Defense (United States)
DoT	Department of Transport
DPW	Department of Public Works

Acronyms

DRB	Defence Research Board
DRDC	Defense Research and Development Canada
FOL	Forward Operating Location
HMCS	His / Her Majesty's Canadian Ship
HME	Highway Maintenance Establishment
<i>HMS</i>	His / Her Majesty's Ship
ICBM	Intercontinental Ballistic Missile
IMO	International Maritime Organization
JAWS	Joint Arctic Weather Stations
JTFN	Joint Task Force (North)
LAC	Library and Archives Canada
LORAN	Long Range Aid to Navigation
LCol	Lieutenant Colonel
Lt	Lieutenant
MP	Member of Parliament
NARA	National Archives and Records Administration
NATO	North Atlantic Treaty Organization
NDHQ	National Defence Headquarters
NESP	Northern Employment Support Plan
NORAD	North American Air/Aerospace Defense Command
NORPAT	Northern Patrol (air)
NORPLOY	Northern Deployment (maritime)
NRHQ	Northern Region Headquarters
NSC	National Security Council
NWHS	Northwest Highway System
NWS	North Warning System
NWSR	Northwest Staging Route
NWT	Northwest Territories
NWT & YRS	Northwest Territories and Yukon Radio System
OGD	other government department
OGDAs	other government departments and agencies
PAME	Protection of the Arctic Marine Environment
PCMR	Pacific Coast Militia Rangers
PJBD	Permanent Joint Board on Defence
PPC	Lester B. Pearson Canadian International Peacekeeping Centre

PSEPC	Public Safety and Emergency Preparedness Canada
RC Sigs	Royal Canadian Corps of Signals
RCAF	Royal Canadian Air Force
RCCS	Royal Canadian Corps of Signals
RCE	Royal Canadian Engineers
RCMP	Royal Canadian Mounted Police
RCN	Royal Canadian Navy
RG	Record Group
RN	Royal Navy
RNWMP	Royal North-West Mounted Police
SAC	Strategic Air Command
SAR	search and rescue
SCEAND	Subcommittee on Maritime Defence of the Standing Committee on External Affairs and National Defence
Shoran	short-range navigation
SLBM	submarine-launched ballistic missile
SSBN	nuclear-power, ballistic-missile carrying submarine
SSE	<i>Strong, Secure, Engaged</i> - Canada's June 2017 defence policy
SSN	nuclear-powered attack submarines
STOL	short-take off-and-landing
ULMS	Ultra Long Range Missile System
UN	United Nations
US	United States of America
USAAF	United States Army Air Forces
USAF	United States Air Force
USCGS	United States Coast Guard Ship
USN	United States Navy
USNI	United States Naval Institute
USNORTHCOM	United States Northern Command
USS	United States Ship
USSR	Union of Soviet Socialist Republics / Soviet Union
WoG	whole of government

FOREWORD

BGen Patrick Carpentier

Canada's military has operated in the North for more than one hundred years. As Commander of Joint Task Force (North) (JTFN), reporting to the Canadian Joint Operations Command (CJOC), I am responsible for leading Canadian Armed Forces (CAF) continental operations in the Canadian North. The Arctic, integral to Canada and an avenue of approach to North America, necessitates defence across all domains enabled by partnerships. The CAF must be prepared to counter hostile foreign state and non-state actors, or respond anywhere in our vast area of responsibility (AOR) if help is requested, whether intervention for disaster relief, support in critical incidents or for search and rescue in the region.

As the area's strategic importance grows, the Government of Canada continues to increase its Arctic and northern footprint in support of defence safety and security. This effort is anchored in Canada's defence policy, *Strong, Secure, Engaged*. This policy recognizes the need to enhance the CAF's presence in the region over the long term by setting out the capability investments that will give our armed forces the mobility, reach, and footprint required to project force across the region in ways that further our national interests. To be strong at home, we seek to defend the North and work with our Arctic partners to plan and coordinate operations to enable defence, safety and security in this austere environment.

As Ken Eyre describes in detail in *Custos Borealis*, the Canadian military has operated in the North since the days of the Klondike Gold Rush and the Canadian Arctic has always demanded resiliency which is endemic to life in the North and Arctic. Learning from our past experience, the CAF became one of the major partners in the Arctic and a key capability building asset within the federal family through planning knowhow, enhanced presence, interoperability, and readiness.

Maintaining a good relationship with our northern partners is essential. Sharing knowledge across areas of expertise has allowed us to effectively support Arctic programs, monitor our internal waterways, and conduct northern operations. Indigenous and northern communities are at the heart of Canada's North. As such, we work to deepen our extensive relationships,



JTFN's area of responsibility is massive, spanning three territories, 75 per cent of Canada's coastline, and 40 per cent of our country's total land mass.

engaging local populations and Indigenous governments as part of routine operations and exercises. Moreover, we often work in close partnership with other federal, territorial, and local governments and departments in addition to private entities. In doing this, we leverage our capabilities to support whole-of-Nation initiatives, helping them deliver their mandates and, in turn, supporting Government of Canada priorities in the Arctic region. Furthermore, Canada's contributions to enhancing regional Arctic security form a core tenant of the Canada-United States defence relationship. These domestic and international collaborations perpetuate a long history of facilitating, supporting, and coordinating northern activities to ensure that Canada is protected and Canadians are safe.

The Arctic is changing and has been for decades. The increasing interconnectedness of global events compels an "all domain, all the time" focus for Arctic defence, security and safety. Globalization and growing interest in large-scale development of natural resources mean more activity in the Arctic. This increasing activity means a growing need to understand, monitor and react to activities impacting the security of Canada's Arctic.



Overlaying JTFN's AOR over the continental United States illustrates the tyranny of time and distance with which JTFN personnel must grapple on a daily basis.

Through enhanced collaboration with federal departments and agencies, Indigenous and territorial governments, and international and northern partners, JTFN helps develop scenarios that stress, yet support, partner objectives to tackle northern defence, security, and safety concerns. This is one of the reasons why we conduct interagency operations and activities such as hosting the Arctic Security Working Group.

It must also be mentioned that Operation NANOOK – the CAF signature operation which delivers Arctic capability demonstration/presence, develops partnerships, and improves readiness of its participants – reinforces the CAF as a key organization and expert in Arctic defence, security and safety matters not only in Canada's North, but in the circumpolar strategic context. Operation NANOOK is no longer a month-long operation during late summer. It is now a year-long operation with four distinct facets to provide

more persistent presence and surveillance in the North while keeping northern partners connected.

Persistent challenges relating to communications, energy and transportation resonate with the lessons that Eyre observes in this book. The North has little infrastructure and remains a unique, vast, challenging, sparsely-populated, and expensive place to operate. We recognize that more global human activity and technological advances are increasing activity in the Arctic. It is therefore of utmost importance to modernize our Arctic equipment. Today, as in decades past, Defense Research and Development Canada (DRDC) technicians, researchers, and scientists often deploy with CAF members to some of the most austere locations in the world to test out new operational concepts and equipment. Furthermore, a bi-national Analysis of Alternatives has been launched through NORAD to examine the technologies that will form the basis of the next generation of systems to surveil, defend and control this avenue of approach from evolving threats. JTFN, through the Canadian Joint Operations Command (CJOC), supports Tri Command (NORAD, CJOC, USNORTHCOM) initiatives by enabling science and technology research in the North that will contribute to future systems.

The knowledge that JTFN, the Royal Canadian Navy, the Canadian Army, the Royal Canadian Air Force and especially the 1800 Rangers of the 1st Canadian Ranger Patrol Group (1 CRPG), are ready to deal with any eventuality is something Canadians can be proud of. This being said, the complexity of this AOR and increasing activity necessitates constant evolution and review of our procedures and plans. We operate in the Arctic and preparedness is essential. An awareness of the rich history of the military in the Canadian North is part of this preparedness, and helps to contextualize the contributions that the military has made to Northern development and to the broader well-being of Northerners. In the Arctic and in the north, as in the rest of Canada, defence, safety, and security are essential prerequisites for healthy communities, strong economies, and a sustainable environment. The staff at JTFN are dedicated to their mission, and *Custos Borealis* serves as a reminder that they continue a proud legacy of commitment to ensure a safe, secure, and well-defended North and Arctic.

BGen Patrick Carpentier
Commander, Joint Task Force (North)
Yellowknife, NT
December 2019

KEN EYRE, *CUSTOS BOREALIS*, AND THE MILITARY HISTORY OF THE CANADIAN NORTH

P. Whitney Lackenbauer

Military officer Kenneth C. Eyre defended his Ph.D. thesis at King's College, London, in 1980 on the history of military involvement in the Canadian North from the Klondike gold rush to the mid-1970s. Four decades later, it remains the essential starting point for students interested in the military history of Canada's North through the first seven decades of the twentieth century. While a small cadre of scholars have always turned to *Custos Borealis* as an essential source, it is particularly fitting that his pioneering work become available to a broader readership in 2020 – the fiftieth anniversary of the establishment of Northern Region Headquarters (now Joint Task Force North) in Yellowknife.

As Eyre charts in this important book, the intensity and degree of military involvement in the Canadian North has reflected changing perceptions of the region over time. For the first half century after Confederation, government and military officials simply ignored the North as a strategic frontier. During the interwar period, nation-building exercises invited the first military forays into the region. Strategic planners, however, could still dismiss the need for Arctic defences on the basis that the geography and environment posed a natural barrier more formidable than either the Atlantic or Pacific oceans. Northern defence projects during the Second World War heralded the emergence of the region as a military frontier, however, and the growing strategic relevance of the northern approaches to the North American political and industrial heartland. Geographical realities make it “virtually impossible to separate strategic threats to the United States from strategic threats to Canada,” and Eyre identified three “surges of military interest in the North” involving the two countries during the Cold War. “The American interest has been almost exclusively driven by perceptions of a transpolar strategic threat posed by the Soviet Union,” he observed. Accordingly, American-sponsored defence projects in the Canadian North “waxed and waned in harmony with changes in military technology in the nuclear age.” He explains how the form and pace of military activity related not only to continental defence, but to nation

building, the “protection” of sovereignty, and changing political and military priorities. Only in the 1970s, he astutely observed, would defence officials begin to appreciate the North’s intrinsic value as a region worthy of being “watched over, protected and, if necessary, defended.”¹

Chapter 1 introduces the Canadian North – a region, Eyre suggests, that most Canadians consider to be “more of an idea than a place.” This, of course, is not the case for Northern Indigenous groups who have occupied the region since “time immemorial.” As hunter-gatherer societies, their use and occupancy of the lands and waters form a core consideration of what is now widely accepted to constitute Canadian sovereignty. Apart from short-lived Norse footholds around the turn of the first millennium CE, the earliest European interest in what is now the Canadian Arctic fixated on trying to find a route *through* the region to reach the riches of Asia. The attempts to navigate through the icy labyrinth of islands north of the Canadian mainland from the sixteenth through the nineteenth centuries proved futile, however, and the much sought-after Northwest Passage did not materialize as a feasible commercial frontier. Instead, the fur trade drew both French and English interests further into the northern reaches of the continental mainland. This economic activity played a pivotal role in forging relationships between Indigenous and Euro-Canadian peoples, eventually supplemented by the presence of missionaries, whalers, police, and the sporadic appearance of explorers.

Although Eyre notes that the Canadian Arctic was largely insulated from large-scale armed conflict before the twentieth century, the oral histories of Indigenous peoples tell of clashes over land and resources, often against rival cultural groups, and of battles for vengeance.² When European explorers started to enter into the region, small-scale conflicts often broke out with Indigenous groups that they encountered. Interactions during Martin Frobisher’s brief forays to Qikiqtaaluk (Baffin Island) in the 1570s are a case in point. While these exchanges point to the violence of colonization and empire building, at this point Europeans did not conceptualize the region

¹ Kenneth C. Eyre, “Forty Years of Military Activity in the Canadian North, 1947-87,” *Arctic* 40:4 (December 1987): 292, 294.

² See, for example, Robert McGhee, *Ancient People of the Arctic* (Vancouver: UBC Press, 1996), 223; George Blondin, *Yamoria: The Lawmaker* (Edmonton: NeWest Press, 1997), 130-135; and Kerry Abel, *Drum Songs: Glimpses of Dene History* (Montreal and Kingston: McGill-Queen’s University Press, 1993).

through a military lens.³ The French-English struggle for mastery of North America “occasionally spilled over into the settlements clinging precariously to the shores of Hudson Bay,” but the North remained largely insulated from Euro-Canadian conflict – apart from the competition and at times violent clashes between rival fur trade empires into the nineteenth century. When members of the Royal Navy entered the Far North in that century, Eyre explains, they did so:

not as warriors, but as explorers. They explored the upper reaches of the boreal forest and the barrens of Keewatin. The search for the Northwest Passage and the quest for the Pole intrigued Victorian-era British and Americans. A by-product of the search for the lost Franklin expedition was the preliminary mapping and charting of the High North. The gazetteer of the Arctic Archipelago reads like the nominal role of the mid-Victorian Royal Navy. For the military men of Canada, however, the North remained *terra incognita* until the turn of the century.⁴

While the search for Sir John Franklin’s ill-fated 1845 expedition proved the existence of an Arctic maritime route, it also demonstrated its lack of utility. Norwegian explorer Roald Amundsen’s 1903-6 transit of the Passage would not be repeated until Henry Larsen’s transits in the RCMP schooner *St. Roch*

³ See Peter Kikkert and P. Whitney Lackenbauer, “The Militarization of the Arctic to 1990,” in *The Palgrave Handbook of Arctic Policy and Politics*, eds. Ken Coates and Carin Holroyd (London: Palgrave, forthcoming 2020). We note that “more sustained violence broke out between imperial Russian forces and the Indigenous peoples of Siberia during Russia’s colonial expansion to the Arctic coast between the sixteenth and eighteenth centuries. In particular, the Chukchi, inhabiting the Chukchi Peninsula and shores of the Chukchi Sea and Bering Sea, faced frequent hostile expeditions in the first half of the eighteenth century from a Russian government that endeavoured to destroy ‘aggressive Chukchi’ with a ‘military hand,” and “Russian expansion into Alaska and the Pacific Northwest also led to periodic violence between the Aleut and Tlingit and the troops of the Russian American Company, supported by the Imperial Russian Navy.”

⁴ Eyre, *Custos Borealis*, and “Forty Years,” 293.

in 1940-42 and 1944.⁵ The waters between Canada's Arctic islands would support community resupply, not large-scale transit shipping.

As a vast territory containing untold riches, Canada's northern expanses would sporadically fire up imaginations as a prospective resource frontier. "From the dawn of nationhood, the North has been the land of tomorrow- a region to be developed, if not today, then at some time in the future," Eyre observed. "There has never been a northern imperative in Canada."⁶ After Confederation in 1867, Euro-Canadians invested their resources and energies into establishing east-west linkages to consolidate the Dominion of Canada. The northern limits of the young country, inherited from the Hudson's Bay Company in 1870, remained ambiguous, and defining them seemed a remote, future consideration.⁷ Canada inherited whatever rights Great Britain had to the High Arctic in 1880, but for more than a half century thereafter governed its northern territories in what Prime Minister Louis St. Laurent famously characterized as a "fit of absence of mind."

No one worried about the absence of defences in northern North America. In those regions, "those two famous servants of the Czar, Generals January and February, mount guard for the Canadian people all year round," historian C.P. Stacey would memorably quip.⁸ "At the start of the 20th century, no Canadian soldier had ever been into the North," Eyre notes. "Neither had any Canadian sailor, for Canada, with the longest coastline of any nation on earth, had no navy. Unlike many other nations, Canada had not elected to station soldiers on its frontiers and beyond but had raised the Mounted Police to fulfil that role." Canada's fledgling militia was designed in the context of imperial defence or the threat posed by the United States. In the latter context, the Klondike Gold Rush starting in 1896 prompted the first official assertions of authority. To complement the North-West Mounted Police, Ottawa despatched a small contingent of Canadian soldiers – the Yukon Field Force – to the region. As Eyre details in his first chapter, this "quasi-police auxiliary" had the dual purpose of upholding the rule of

⁵ P. Whitney Lackenbauer and Shelagh Grant, eds., *"The Adventurous Voyage": St. Roch and the Northwest Passage, 1940-42 and 1944* (Antigonish: Mulroney Institute on Government, Arctic Operational History Series 7, 2019).

⁶ Eyre, *Custos Borealis*, and "Forty Years," 293.

⁷ For a sweeping overview, see Shelagh Grant, *Polar Imperative: A History of Arctic Sovereignty in North America* (Vancouver: Douglas & McIntyre, 2011).

⁸ C. P. Stacey, *The Military Problems of Canada: A Survey of Defence Problems Past and Present* (Toronto: Canadian Institute for International Affairs, 1940), 5.

Canadian law and exercising sovereignty – a “role that was to become so important three-quarters of a century later.” The field force did not remain in the Yukon for long, however, and within a few years most of its soldiers withdrew to the south, “its presence as ephemeral as the event that caused its creation in the first place.” This fit with what Eyre observed to be “the classic pattern of military involvement in the North - activity has been sporadic and keyed to a particular set of circumstances.”⁹ It was a “false start” for the military in the North – but the gold rush etched in the public mind the promise of northern resource riches and concomitant concerns about sovereignty.

With the departure of the Yukon Field Force, there were no regular force soldiers stationed in the Canadian North from 1900-22. State activity in the region remained modest during these “empty years,” as Eyre characterizes this period in his short third chapter. Official expeditions into the Northwest Passage, matched by flag planting and asserting a Canadian “sector claim” up to the North Pole, were complemented by diplomatic activities to confirm Canadian sovereignty over the islands of Canada’s Arctic archipelago.¹⁰ The delivery of services to Inuit and other Northern Indigenous groups remained minimal, however, with the government preferring to leave responsibilities for welfare and education to the Hudson’s Bay Company and missionaries, and only half-heartedly resourcing assimilationist programs such as residential schools. Instead, the official logic that Indigenous peoples were “best left as Indians” or encouraged to remain in a “state of nature” prevailed until after the Second World War.¹¹

⁹ Eyre, “Forty Years,” 293.

¹⁰ On sovereignty in the Canadian Arctic before the Second World War, see Gordon W. Smith, *A Historical and Legal Study of Sovereignty in the Canadian North: Terrestrial Sovereignty, 1870–1939*, ed. P.W. Lackenbauer (Calgary: University of Calgary Press, 2014); Janice Cavell and Jeff Noakes, *Acts of Occupation: Canada and Arctic Sovereignty, 1918-25* (Vancouver: UBC Press, 2011); and P. Whitney Lackenbauer and Peter Kikkert, eds., *Legal Appraisals of Canada’s Arctic Sovereignty: Key Documents, 1904-58*, Documents on Canadian Arctic Sovereignty and Security (DCASS) 2 (Calgary and Waterloo: Centre for Military and Strategic Studies/Centre on Foreign Policy and Federalism, 2014).

¹¹ See, for example, Ken Coates, *Best Left as Indians: Native-White Relations in the Yukon Territory, 1840-1973* (Montreal and Kingston: McGill-Queen’s University Press, 1991) and William R. Morrison, “Canadian sovereignty and the

Chapter 4 introduces the theme of the military's role in nation building, explaining how defence activities were a significant factor in the development of Canadian northern infrastructure, both as deliberate national development programs and as the by-product of defence-related construction activities. Eyre begins with an overview of Squadron Leader Robert A. Logan's participation (without an aircraft) in the 1922 Eastern Arctic Expedition, which anticipated the opening of a northern frontier for both civil and military aviation - and contained "the first suggestion that the Far North had an important strategic role to play in the defence of Canada." Five years later, the Royal Canadian Air Force (RCAF) and the Royal Canadian Corps of Signals (RCCS) contributed to the Hudson Strait Expedition, which sought to determine if the strait could be used as an economical way of shipping grain from the port of Churchill to Europe. Aerial survey patrols, reports on weather and ice patterns, and charting helped to determine navigation requirements, as well as yielding important insights into winter flying, Arctic clothing and equipment, and how to establish semi-permanent bases in the Arctic.¹²

After a brief overview of other subarctic RCAF air operations during the interwar period (which reached the top of the continent, but never ventured out over the Arctic Archipelago),¹³ Eyre turns to the story of the Northwest Territories & Yukon Radio System (NWT & YRS) – the first occasion when a Canadian government turned to the military to deliberately support national development activities in the North. In 1923, the RCCS opened the first radio stations in a system designed to allow various federal departments to control their northern operations with greater efficiency. It also handled paid commercial traffic, facilitated mining exploration, and managed the rapid expansion of bush flying in the Northwest. "By establishing the only

Inuit of the central and eastern Arctic," *Études/Inuit/Studies* 10:1-2 (1986): 245-59.

¹² See also Ken Eyre and P. Whitney Lackenbauer, eds., *Unfurling the Air Force Ensign in the Canadian Arctic: The 1922 Eastern Arctic and 1927-28 Hudson Strait Expeditions*, Documents on Canadian Arctic Sovereignty and Security (DCASS) 3 (Calgary and Waterloo: Centre for Military and Strategic Studies/Centre on Foreign Policy and Federalism, 2015, rev. ed. 2019).

¹³ For more details on these activities, see Edward P. Wood, *Per Ardua ad Arcticum: The Royal Canadian Air Force in the Arctic and Sub-Arctic*, ed. P. Whitney Lackenbauer (Antigonish: Mulroney Institute on Government, Arctic Operational History Series 2, 2017).

communications grid in the Yukon and Mackenzie District, the System provided an absolutely key element for northern development,” Eyre explained. The NWT & YRS remained in operation throughout the Second World War, expanding and contracting in response to commercial and industrial development in the Yukon and the Mackenzie Valley and to the needs of American-sponsored defence projects.

“Opening the North”: The Second World War and the Northern Strategic Frontier

The Second World War brought the Canadian Northwest into new strategic focus, imprinting the novel idea that the region also constituted a military frontier. In chapter 5, Eyre observed that “the most important factor affecting development of the North during the war years was the relationship between Canada and the United States—with the United States dominating the partnership.” In 1940, fears that Nazi Germany might conquer Britain led to the Ogdensburg Agreement between Canada and the U.S. to provide for the shared defence of North America. Although military planners did not assess a serious threat of invasion from the north, the Americans acknowledged that Alaska was vulnerable to attack. In early 1942, the United States government, alarmed by the thought that Japanese submarines might cut the sea link between Alaska and the contiguous lower 48 states, drew up a plan to build a road link to Alaska through the Canadian Northwest. The Alcan (later Alaska) Highway linked airfields along the Northwest Staging Route, winding a circuitous and treacherous course through 2,400 kilometres of country in remarkably short order. The Canol (“Canadian Oil”) project, initiated that same year to ensure a supply of oil to Alaska if the maritime route was cut off, linked the small Imperial Oil facility at Norman Wells on the Mackenzie River to a new refinery in Whitehorse. As Eyre describes, the project was plagued by morale and infrastructure problems and the pipeline only operated sporadically for a year after it was finished in 1944 and was dismantled soon thereafter.

These northern military projects generated acute Canadian concerns about sovereignty. Nearly forty thousand U.S. military personnel and civilians worked on the wartime projects in the Canadian Northwest, dwarfing the prewar population of the region. In March 1942, Prime Minister William Lyon Mackenzie King expressed his worries that the Alaska Highway “was less intended for protection against the Japanese than as one of the fingers of the hand which America is placing more or less over

the whole of the Western hemisphere.”¹⁴ His prophecy proved incorrect, but Eyre shows how American activities stimulated Canadian officials to action. Ottawa appointed a special commissioner for defence projects in the northwest, blocked American plans to build more roads and air-staging routes, secured assurances that the American troops would leave the North after the war, and agreed to buy back from the United States those facilities and installations that were already built or in progress in the North. The Americans conceded to each of these requests.¹⁵

In other northern regions the effects of the war were less acute but initiated a process of military modernization that culminated during the 1950s.¹⁶ The Crimson Staging Route, a series of airfields and depots that the U.S. established (with Canadian approval) to facilitate the transfer of planes and other material from North America to Europe, established footprints in Frobisher Bay (now Iqaluit), Southampton Island, Churchill, and The Pas. By 1943, Goose Bay, Labrador (then part of the separate colony of Newfoundland) boasted the largest airfield in the Western Hemisphere. As the region’s first large-scale development project, the military base changed life in Labrador. Radio sites were also established throughout the Canadian North, greatly facilitating communications over vast distances. In the words of Malcolm MacDonald, the British High Commissioner to Canada, the Americans “treated...with indifference the obstacles which Nature – whose

¹⁴ William Lyon Mackenzie King Diary, 21 March 1942, <https://www.bac-lac.gc.ca/eng/discover/politics-government/prime-ministers/william-lyon-mackenzie-king/Pages/item.aspx?IdNumber=23949>. The original typescript seems to say “dangers of the hand” but “fingers” is more likely King’s original word choice.

¹⁵ See Shelagh Grant, *Sovereignty or Security?: Government Policy in the Canadian North, 1936-1950* (Vancouver: UBC Press, 1988); Coates and Morrison, *The Alaska Highway in World War II: The U.S. Army of Occupation in Canada’s Northwest* (Norman: University of Oklahoma Press, 1992); and P. Whitney Lackenbauer, “Right and Honourable: Mackenzie King, Canadian-American Bilateral Relations, and Canadian Sovereignty in the Northwest, 1943-1948,” in *Mackenzie King: Citizenship and Community*, eds. John English, Kenneth McLaughlin and P. Whitney Lackenbauer (Toronto: Robin Brass Studios, 2002), 151-68.

¹⁶ On this theme, see Matthew Farish and P. Whitney Lackenbauer, “High Modernism in the Arctic: Planning Frobisher Bay and Inuvik,” *Journal of Historical Geography* 35:3 (2009): 517-44.

sovereignty in the Arctic is even more supreme than that of the Canadian Government – put in their way.”¹⁷ The potential value of the Canadian North to both friend and foe became apparent. Although the Americans withdrew from the region at war’s end and the ownership of permanent facilities passed into Canadian hands, senior officials in Ottawa acknowledged a tension between continental defence imperatives and Arctic sovereignty. An enduring pattern also emerged: when American security interests and activities in the region diminished, Canada’s efforts to assert its sovereignty and invest in Arctic defences declined precipitously.

The First Surge: Northern Approaches, 1947-64

The onset of the Cold War renewed pressures on Canada to balance sovereignty concerns with continental security imperatives. Polar projection maps revealed how Canada’s strategic situation had changed when the U.S. and the Soviet Union became rivals. “As the superpowers and their allies drifted into cold war, the importance of the northern approach to North America came to the fore with a vengeance,” Eyre summarizes in chapter 6. “The ghastly one aircraft, one bomb, one city arithmetic of the nuclear age made it inevitable. No longer was the North a strategic barrier. It is significant that neither the United States nor Canada looked on the North as a place to be protected because of some intrinsic value. Rather it was seen as a direction, as an exposed flank.”¹⁸

The dictates of geography placed the Arctic at the centre of Cold War superpower geopolitics now that the intercontinental bomber and atomic weapons changed the continental air defence equation. When the U.S. pushed for access to Canada’s Far North to build airfields and weather stations beginning in 1946, Canadian officials proved apprehensive in authorizing new installations and journalists began to talk about a looming sovereignty crisis.¹⁹ Some scholars argue that Canadian apathy in the face of American security interests threatened our sovereignty in the late 1940s,²⁰

¹⁷ Quoted in Shelagh Grant, *Sovereignty or Security? Government Policy in the Canadian North, 1936-1950* (Vancouver: UBC Press, 1988), 275.

¹⁸ Eyre, “Forty Years,” 294.

¹⁹ For example, Shelagh Grant, *Sovereignty or Security?: Government Policy in the Canadian North, 1936-1950* (Vancouver: UBC Press, 1988).

²⁰ See, for example, Shelagh Grant, *Sovereignty or Security? Government Policy in the Canadian North, 1936-1950* (Vancouver: UBC Press, 1988); Adam

while others paint a more benign portrait of bilateral cooperation, with Canadian policy-makers preserving and extending Canadian sovereignty through quiet diplomacy and careful negotiations that extended into the 1950s and beyond.²¹ Whatever the verdict, the notion that there were “no boundaries upstairs” when it came to North American air defence²² had entered the military imagination and could no longer be simply ignored.

When Canadian and American authorities first considered the possibility of building a radar chain in the Arctic to give advanced warning of a transpolar Soviet bomber attack in 1946,²³ the available technology

Lajeunesse, “Lock, Stock, and Icebergs? Defining Canadian Sovereignty from Mackenzie King to Stephen Harper,” CMSS Occasional Paper No. 1 (Calgary: Centre for Military and Strategic Studies, 2007); and J.L. Granatstein, “The North to 1968,” in *The Arctic in Question* ed. Edgar Dosman (Toronto: Oxford University Press, 1976), 13-33.

²¹See, for example, W.R. Morrison, “Eagle Over the Arctic,” *Canadian Review of American Studies* 18:1 (1987): 61-85; David Bercuson, “Continental Defense and Arctic Security, 1945-50,” in *The Cold War and Defense* eds. K. Neilson and R.G. Haycock (New York: Praeger, 1990), 153-70; P. Whitney Lackenbauer, “Right and Honourable: Mackenzie King, Canadian-American Bilateral Relations, and Canadian Sovereignty in the Northwest, 1943-1948” in *Mackenzie King: Citizenship and Community* eds. John English, Kenneth McLaughlin, and P.W. Lackenbauer (Toronto: Robin Brass Studio, 2002), 151-68; Lackenbauer and Peter Kikkert, “Sovereignty and Security: The Department of External Affairs, the United States, and Arctic Sovereignty, 1945-68,” in *In the National Interest: Canadian Foreign Policy and the Department of Foreign Affairs and International Trade, 1909-2009*, eds. Greg Donaghy and Michael Carroll (Calgary: University of Calgary Press, 2011), 101-20; Lackenbauer and Kikkert, “The Dog in the Manger – and Letting Sleeping Dogs Lie: The United States, Canada and the Sector Principle, 1924-1955,” *International Law and Politics of the Arctic Ocean: Essays in Honour of Donat Pharand*, eds. Suzanne Lalonde and Ted McDorman (Leiden: Brill, 2014), 216-39.

²² See Joseph Jockel, *No Boundaries Upstairs: Canada, the United States, and the Origins of North American Air Defence, 1945-1958* (Vancouver: UBC Press, 1987). For a recent reflection on this important book, see Daniel Heidt, “Revisiting Joseph Jockel’s No Boundaries Upstairs,” *International Journal* 70:2 (2015): 339-49.

²³ On the ambitious Air Warning and Air Interceptor plan, see Jockel, *No Boundaries Upstairs*, 17-20; Kenneth Schaffel, *The Emerging Shield: The Air Force and the Evolution of Continental Air Defense, 1945-1960* (Air Force

could not guarantee complete coverage of the northern frontier or accurate tracking of aircraft, so investing huge sums in an ineffective early-warning system was ill-advised. After the Soviets detonated an atomic device in 1949 (earlier than intelligence estimates had expected),²⁴ strategic assessments began to change.²⁵ Although the U.S. continued to focus on offensive capabilities associated with SAC, the potential benefits of early warning radar systems to protect the deterrent became more appreciable. In early 1950, NSC-68, the U.S. “blueprint for the Cold War,” highlighted the dangers posed by growing Soviet military power and aggressive behavior. Declaring that the Soviet Union wanted “to impose its absolute authority over the rest of the world,” defence analysts highlighted that the Soviets were approaching technological parity in bombers and atomic weapons, and the most direct route for those bombers to the military and industrial heartland of North America was over the Arctic.²⁶ “By extending the air defence

History Support Office, 1991), 130; and Steve Zaloga, *The Kremlin’s Nuclear Sword: The Rise and Fall of Russia’s Strategic Nuclear Forces, 1945-2000* (Washington, DC: Smithsonian Institution Press, 2002), 12-16.

²⁴ See, for example, Michael S. Goodman, *Spying on the Nuclear Bear: Anglo-American Intelligence and the Soviet Bomb* (Chicago: Stanford University Press, 2007), 45-46.

²⁵ Memorandum by Chief of Staff of the U.S. Air Force for Joint Chiefs of Staff on Radar Fence Program, November 23 1949, National Archives and Records Administration (NARA), RG 218 Records of the Joint Chiefs of Staff Central Decimal File, Box 213, File CCS 413-44 (7-1-8) Sec 2; Harry R. Borowski, *A Hollow Threat: Strategic Air Power and Containment Before Korea*, (Westport, CT: Greenwood Press, 1982), 191.

²⁶ On this landmark document, see Ernest R. May, ed. *American Cold War Strategy: Interpreting NSC 68* (New York: Macmillan, 1993); “NSC-68: United States Objectives and Programs for National Security (April 14, 1950),” in *Containment: Documents on American Policy and Strategy, 1945-1950*, eds. Thomas H. Etzold and John Lewis Gaddis (New York: Columbia University Press, 1978), 387, 398-400; John Lewis Gaddis, *Strategies of Containment* (Oxford: Oxford University Press, 2005); Jockel, *No Boundaries Upstairs*, 35; and Steven Casey, “Selling NSC-68: The Truman Administration, Public Opinion, and the Politics of Mobilization, 1950–51,” *Diplomatic History* 29:4 (2005): 655-90. While the Soviet Union had tested its first atomic bomb in August 1949 and had a growing number of Tu-4 bombers – reverse-engineered from the American B-29 – in service, the number of nuclear weapons available to Soviet

system northwards, such bombers could be engaged before reaching their intended targets,” Canadian strategist R.J. Sutherland explained. “Almost equally important, by extending the area of radar coverage the risk of saturation of the defences could be reduced. Finally, by locating strike aircraft or refuelling aircraft on the northern bases, the range and speed of response of the strike forces could be improved.”²⁷ As Eyre summarizes, the North American allies sought strategic defence in depth. By extending their military outposts to the farthest reaches of the continent, they might gain four to six hours notice before Armageddon – enough time to get their own strategic bombers in the air and respond in kind.

As the Cold War heated up in the 1950s, both the U.S. and Canada announced dramatic increases in military spending and committed to improve their air defence systems. Sensational media coverage on the superpower race to develop a hydrogen bomb coupled with a growing Soviet capability to launch an aerial attack on North America created a crisis atmosphere, driving defence planners, the military, and politicians on both sides of the Canada-U.S. border to propose and accept increasingly ambitious continental defence plans in the early 1950s.²⁸ The initiation of the

forces was extremely limited, and the Tu-4 was less reliable and capable than the B-29 original. Most importantly, the Tu-4 had about half the range of the B-29, which greatly reduced the number of targets within its reach. These limitations were not readily apparent to Western intelligence agencies, which credited the Tu-4 with performance comparable to the B-29. The Soviet capability to deliver a nuclear attack against North America in the early 1950s, therefore, was extremely limited, but this was not immediately apparent to the West. Zaloga, *Kremlin's Nuclear Sword*, 5-18; Schaffel, *Emerging Shield*, 181; and Norman Friedman, *The Fifty Year War: Conflict and Strategy in the Cold War* (Annapolis: Naval Institute Press, 2000), 199-201.

²⁷ R.J. Sutherland, “The Strategic Significance of the Canadian Arctic,” in *The Arctic Frontier*, ed. R. St. J. MacDonald, (Toronto: University of Toronto Press, 1966), 267.

²⁸ See Schaffel, *The Emerging Shield*; Andrew Richter, *Avoiding Armageddon: Canadian Military Strategy and Nuclear Weapons, 1950-1963* (Vancouver: UBC Press, 2002), 37-47; James Eayrs, *In Defence of Canada, vol. 3: Peacemaking and Deterrence* (Toronto: University of Toronto Press, 1972), 356-72; Eayrs, *In Defence of Canada, vol. 4: Growing Up Allied* (Toronto: University of Toronto Press, 1980), 275-283; and Jockel, *No Boundaries Upstairs*, 40-78.

joint Canadian-American Pinetree Line along the 50th parallel, as well as new or upgraded RCAF bases across Canada, were an initial reaction to this threat. As the threat grew, the lines pushed further north – but not the actual defence assets to defeat an airborne attack. “Rather than push the first line of defence into the Far North, defence planners elected to use the North to provide strategic depth,” Eyre observes. “Radar chains were used to provide early warning and to identify attack lines. Active defence facilities - interceptors and anti-aircraft missiles - were deployed in the South well within the grid of social infrastructure.”²⁹ The Mid-Canada Line (or “McGill Fence”), which Canada built between 1954 and 1957 and operated along the 55th parallel, was based on a simple principle of an electronic “fence” or “tripwire” that used the Doppler effect to indicate the passage of an aircraft. Because of its location, and the simple fact that its equipment was the result of a joint research product involving McGill University, the Defence Research Board (DRB), and the RCAF, this system did not raise concerns about Arctic sovereignty.³⁰

By contrast, the Distant Early Warning (DEW) Line, built across the 70th parallel, was the boldest mega-project in Arctic history. Its construction, completed in just over two years, “was an extraordinary feat of geographical engineering, planned and sequenced in minute detail,” historical geographer Matthew Farish observes.³¹ As Eyre intimates, the project dramatically altered the military, logistic and demographic characteristics of the North American Arctic. Although Canadian officials negotiated a favourable agreement that protected Canada’s sovereignty and secured economic benefits for Canadian companies, journalists and opposition politicians suggested throughout the construction and operational phases that Canada lacked practical control over its northland. The DEW Line, in the words of *Maclean’s* editor Ralph Allen, was “the charter under which a tenth of Canada may very well become the world’s most northerly banana republic.”³² This dire forecast proved erroneous, but there is debate on

²⁹ Eyre, “Forty Years,” 294.

³⁰ See Jeffrey Noakes and P. Whitney Lackenbauer, eds., *Special Contract: A Story of Defence Communications in Canada* (Antigonish: Mulroney Institute on Government, Arctic Operational History Series 6, 2019).

³¹ Matthew Farish, “Frontier engineering: from the globe to the body in the Cold War Arctic,” *The Canadian Geographer* 50:2 (2006): 187.

³² Ralph Allen, “Will DEWline Cost Canada its Northland?,” *Maclean’s*, 26 May 1956, 16-17, 68-72.

whether Canada protected its interests effectively.³³ Another reading of the evidence suggests that the countries effectively managed bilateral problems related to the DEW Line.³⁴ After visiting the Line in 1969, Erik Wang of the Department of National Defence's (DND) legal department noted that journalists who had taken "masochistic pleasure" in decrying American control and dwelling on potential sovereignty encroachments were both misleading and unfounded in the evidence. "Indeed we might be tempted to congratulate ourselves [...] for enjoying a 'free ride' at least in this area of our defense activities on our own soil, without any unpleasant side effects," Wang noted in his report.³⁵ While there were no negative effects in terms of sovereignty, there certainly were industrial benefits and lasting cultural and environmental impacts.³⁶

The DEW Line and previous military development projects certainly reshaped the socio-economic and cultural geographies of Arctic Canada. "The outlook of the Eskimos ... has been changing since the construction of the northern airfields, the weather and radar stations, and the D.E.W. Line, opened their eyes to the advantages of wage-employment," anthropologist

³³ Historian Adam Lajeunesse, for example, cites a 1964 report by defence liaison officer J.C. Brown that Canada's sovereignty on the Line was like "the Cheshire cat's smile from Alice in Wonderland; it had become little more than an illusion which gradually disappeared if you looked hard enough." Adam Lajeunesse, "Lock, Stock and Icebergs: Defining Canadian Sovereignty from Mackenzie King to Stephen Harper," *The Calgary Papers in Military and Strategic Studies* 1 (2008), 3-4.

³⁴ My forthcoming book with Matthew Farish, *The DEW Line: A Spatial History*, will develop this argument more systematically.

³⁵ E.B. Wang, "The Dew Line and Canadian Sovereignty," May 26, 1969, Library and Archives Canada (LAC), Record Group (RG) 25, file 27-10-2-2 part 1. See also: R.J. Sutherland. "The Strategic Significance of the Canadian Arctic," in *The Arctic Frontier*, ed. by R. St. J. MacDonald (Toronto: University of Toronto Press, 1966), 271.

³⁶ See, for example, R. Quinn Duffy, *The Road to Nunavut: The Progress of Eastern Arctic Inuit since the Second World War* (Montreal and Kingston: McGill-Queen's University Press, 1988) and Melanie Gagnon and Iqaluit Elders, *Inuit Recollections on the Military Presence in Iqaluit* (Iqaluit: Nunavut Arctic College, 2002). On environmental impacts, see Lackenbauer and Matthew Farish, "The Cold War on Canadian Soil: Militarizing a Northern Environment," *Environmental History* 12:3 (2007): 920-50.

Diamond Jenness observed in 1964.³⁷ Although planners had intended to protect Inuit so that military activities did not disrupt their lives, this proved impossible once airplanes and ships began shipping southern materiel into the Arctic. “Every place a box landed became a beach-head for industrialized society,” documentary filmmaker Kevin McMahon later observed. “The boxes soon became the foundation for the Canadian government, which the military had given cause to worry about its sovereignty. Boxes were added, and more of our society – with its various virtues and vices, machines and organizations, ideals, morals, values and goals – were shipped north.”³⁸ Opening the North also brought benefits from a national development standpoint. “Canada fell heir to the by-products of the DEW Line construction,” Eyre notes. “Airfields were built, beach landing sites were developed, charts and maps were improved, aids to navigation were installed. These developments significantly improved access to what had hitherto been a virtually inaccessible area. There was some initial anticipation that a flood of mineral exploration would follow in their wake. This notion proved to be as chimerical as Frobisher's search for gold.”³⁹

³⁷ Diamond Jenness, *Eskimo Administration II: Canada* (Montreal: Arctic Institute of North America, 1964), 97.

³⁸ Kevin McMahon, *Arctic Twilight* (1987). On this theme, see also P. Whitney Lackenbauer and Ryan Shackleton, “Inuit-Air Force Relations in the Qikiqtani Region during the Early Cold War” in *De-Icing Required: The Canadian Air Force's Experience in the Arctic*, eds. P.W. Lackenbauer and W.A. March (Trenton: Canadian Forces Air Warfare Centre, *Sic Itur Ad Astra*: Canadian Aerospace Power Studies Series 4, 2012), 73-94; and Lackenbauer, “At the Crossroads of Militarism and Modernization: Inuit-Military Relations in the Cold War Arctic,” in *Roots of Entanglement: Essays in Native-Newcomer Relations*, eds. Myra Rutherdale, P. Whitney Lackenbauer, and Kerry Abel (Toronto: University of Toronto Press, 2018), 116-58.

³⁹ Eyre, “Forty Years,” 294-95. In this article, Eyre notes that “For 25 years the DEW Line kept its long, lonely polar watch in the age of the ICBM and its seaborne equivalent, the SLBM. The Soviet strategic bomber fleet never developed into a significant force when compared to the other weapons systems. Technological improvements permitted the closing of the intermediate stations. While dismantling the system was contemplated on several occasions, its very existence served to prevent what came to be known as the ‘Soviet Free Ride’ strategic option.”

The defence of Northern lands posed a different set of challenges to Canada. Second World War training exercises in the North studied techniques of winter warfare, often in or on the fringes of the Subarctic, and Exercise Musk Ox in 1946 showed that existing technology allowed a joint army-air force effort to supply and maintain a small ground force crossing the Arctic barrens.⁴⁰ The resources to do so were extraordinary, however, even for Canada operating on its own soil in a non-combat context. While army officials acknowledged the Arctic as a Cold War avenue of approach, only a few extremists touted scenarios involving “Slavic hordes” invading the continent “via the Yukon-Mackenzie Valley route,” Eyre notes. “Their voices soon vanished once the geographic realities of the concept were examined.” Instead, strategists grappled with “lodgement scenarios” wherein enemy paratroops might seek to capture airfields or other critical infrastructure in the region where bombers could refuel and return to the Soviet Union to rearm. “Given the plethora of bases that had already been developed and the immensity of the area, the cost in both dollars and manpower to emplace fixed defences at all of these facilities would have been staggering,” Eyre observed. “Canada elected to develop forces with the capability of recapturing a Soviet-occupied airfield in the North” – a sharp contrast to the U.S. decision to garrison nearly a division of combat troops in Alaska.⁴¹

The after-action reports from the Northern exercises conducted between 1945 and 1955 provide a road map of the trials and errors, failures and successes, and lessons learned that shaped the Canadian Army’s experience in the North.⁴² Eyre’s narrative reinforces how soldiers faced significant mobility challenges related to terrain, distance, and seasonal conditions. “In order to capture an objective, adequate combat power had to be concentrated in time and space,” he notes. “The isolation factor - the absence

⁴⁰ Kevin Mendel Thrasher, “Exercise Musk Ox: Lost Opportunities” (unpublished M.A. thesis, Carleton University, 1998). See also John Lauder, *Tracks North: The Story of Exercise Muskox*, eds. P. Whitney Lackenbauer and Peter Kikkert (Antigonish: Mulroney Institute on Government, Arctic Operational History Series 5, 2018).

⁴¹ Eyre, “Forty Years,” 295.

⁴² P. Whitney Lackenbauer and Peter Kikkert, eds., *Lessons in Arctic Operations: The Canadian Army Experience, 1945-1956*, Documents on Canadian Arctic Sovereignty and Security (DCASS) 7 (Calgary and Waterloo: Centre for Military, Strategic and Security Studies/Centre on Foreign Policy and Federalism/Arctic Institute of North America, 2016).

of a road grid dominated training exercises, the vast majority of which were carried out in winter when movement in the North is at its easiest. Then, as now, there was an unfortunate tendency to equate northern operations to winter operations, a serious logical fallacy.⁴³ Equipment, sustainment systems, command, control, surveillance, liaison, and planning all had to be tested on the ground in order to determine whether capabilities, concepts, and doctrine were appropriate to Canada's vast and diverse Northern expanses.⁴⁴

Eyre's pioneering work was amongst the first to draw attention to the Canadian Rangers: a unique sub-component of the Canadian Forces (CF) Reserves established in 1947 to draw upon local expertise in isolated northern and coastal communities. The Rangers' official mission was (and remains) "to provide a military presence in sparsely settled northern, coastal and isolated areas of Canada that cannot conveniently or economically be provided for by other components of the Canadian Forces." Canada did not have the military resources to station large numbers of regular soldiers in remote regions, but it still needed eyes and ears in those areas. Consequently, officials resurrected the Pacific Coast Militia Ranger concept from the Second World War, this time to span all of Canada's sparsely populated coastal and northern areas. By design, the Rangers would remain in their home communities in both war and peace. Their existing local knowledge would allow them to serve as guides and scouts, report suspicious activities, and (if needed) delay an enemy advance using guerrilla tactics until professional forces arrived. Rangers provided intelligence reports on strange ships and aircraft, participated in training exercises with the Mobile Striking Force and other army units, and conducted search and rescue. Observers highlighted the grassroots nature of the organization, which draws upon the diverse Inuit, First Nations, Metis, and non-Indigenous populations across the Canadian North. (Women, however, faced a gender barrier that remained until the early 1990s.)⁴⁵

By 1955 the Canadian Army had spent a decade operating in the Arctic and Subarctic and had developed an adequate northern capability—although

⁴³ Eyre, "Forty Years," 296.

⁴⁴ See Andrew B. Godefroy, *In Peace Prepared: Innovation and Adaptation in Canada's Cold War Army* (Vancouver: UBC Press, 2014), 91, and contrast with Ken Eyre, "Custos Borealis," 161.

⁴⁵ See P. Whitney Lackenbauer, *The Canadian Rangers: A Living History* (Vancouver: UBC Press, 2013).

on a more modest scale than originally intended. As its capability improved, however, the changing strategic environment started to undermine the perceived military value of these efforts on the ground. Army activity in the Canadian North peaked in the mid-1950s and thereafter declined until, by the mid-1960s, the military had virtually abandoned the region as a potential operational theatre. Sub-units continued to train episodically at Churchill, but after this military base closed in 1964 training became increasingly rare. The Canadian Rangers were seriously affected by the diminished army interest in the North and left to wither on the vine. The 1964 *White Paper on Defence*, which did not contain a single reference to the North, gave official utterance to what had become an informal reality. “It is, for the foreseeable future, impossible to conceive of any significant external threat to Canada which is not also a threat to North America as a whole,” the policy document noted, although it allowed that “the minimum requirements for the defence of Canada are: the ability to maintain surveillance of Canadian territory, airspace and territorial waters; the ability to deal with military incidents on Canadian territory.”⁴⁶ While these may have been the minimum requirements, there is no indication that the subsequent structuring of the Canadian Armed Forces involved any specific steps to develop a surveillance or combat capability in the forces appropriate to the needs of the North in the 1960s. Instead, the lessons learned by the Canadian Army in the decade after the Second World War were forgotten, a casualty of the arrival of the missile age and, as historian Andrew Godefroy observes, the fixations of “an army increasingly concerned with fighting on the north German plains.”⁴⁷

In chapter 8, Eyre explains how naval operations in Canada’s “other ocean” also reflected the interplay between American activities in the Canadian Arctic and Ottawa’s desire to show the flag and “Canadianize” operations. The Royal Canadian Navy (RCN) did not venture into Canada’s Arctic water until after the Second World War, when American security considerations intersected with Canada’s maritime domain. While Canada pondered its needs and options in the early postwar period, the U.S. Navy and Coast Guard sailed into the far north on a series of exercises designed to increase military knowledge and operating capabilities in the Arctic. The emotional appeal of the region—and attempts to draw attention to its

⁴⁶ DND, *White Paper on Defence, 1964*, reproduced in Douglas Bland, ed., *Canada’s National Defence, vol. 1: Defence Policy* (Kingston: Queen’s Policy Series no. 38, 1999).

⁴⁷ Godefroy, *In Peace Prepared*, 91.

dwindling numbers and budget—eventually drove the RCN to conduct a Northern Cruise in September 1948, which saw the aircraft carrier *Magnificent* and two destroyers venture into Hudson Strait and then the destroyers into Hudson Bay. Although the Canadian media made much of this cruise and a subsequent voyage by the frigate HMCS *Swansea* the following year, these operations demonstrated the futility of spreading the RCN's resources too thinly.⁴⁸ Although the Minister of National Defence announced Canada's intention to build a naval patrol vessel (eventually commissioned as the icebreaker HMCS *Labrador*), the RCN's Arctic foray was brief. The RCN had little operational interest in the North, and the *Labrador* was an anomaly in an anti-submarine navy. Thus, the RCN focused on the Atlantic theatre and opted out of an Arctic role by 1957 when it transferred the *Labrador* to the coast guard.⁴⁹ Thereafter it vanished from the North until Pierre Trudeau's government ordered it back.

Nevertheless, the growing strategic importance of the Arctic waters created complex problems for Canadian sovereignty. In 1958, the nuclear-powered submarine U.S.S. *Nautilus* crossed under the polar ice cap in its voyage from Pearl Harbor to Iceland. International law expert Maxwell Cohen wrote in *Saturday Night* magazine:

now that the *Nautilus* has made the full undersea voyage that Jules Verne visualized for his readers and Sir Hubert Wilkins actually planned a few years ago—with much less manageable equipment—the Arctic seas have become another arena among the many that now provide military and strategic vantages in the continuing contest of East and West.

⁴⁸ For more on these voyages, see Elizabeth Elliot-Meisel, "Arctic Focus: The Royal Canadian Navy in Arctic Waters, 1946-1949," in *Canada and Arctic Sovereignty and Security: Historical Perspectives*, ed. P.W. Lackenbauer (Calgary: Centre for Military and Strategic Studies/University of Calgary Press, 2011), 121-44.

⁴⁹ On *Labrador*, see also J.M. Leeming, "HMCS *Labrador* and the Canadian Arctic," in *RCN in Retrospect, 1910-1968* ed. James Boutillier (Vancouver: UBC Press, 1982): 286-307; and Naval Historical Section, Royal Canadian Naval Headquarters, *HMCS Labrador: An Operational History*, eds. P. Whitney Lackenbauer, Adam Lajeunesse, and Lieutenant(N) Jason Delaney (Antigonish: Mulroney Institute on Government, Arctic Operational History Series 1, 2017).

For it will not be lost upon the Russians that atomic-fueled submarines can roam beneath the ice pack, not only under that portion of the pack regarded as the North American “sector” but also within the Soviet angle of “presumed” authority as well. How dangerous this may be to either side, with submarine-launched missiles such as the Polaris having a 1,500-mile range—and perhaps in the near future a 2,000 and 3,000-mile range—requires no great military imagination to understand. So the Arctic waters, now with Arctic air-space, are all a potential battleground while the romance of exploration and dog-team yields to the cruder demands of polarized power.⁵⁰

Canada could not pretend to exist in a vacuum, its sovereignty issues divorced from geostrategic considerations. Friend and foe alike were taking a greater interest in the Arctic waters. Nuclear-powered submarines were “the quintessential arctic vessel,” Eyre notes. “Rather than going through the ice - as man had been trying to do for centuries the ultimate solution was now at hand: go under it.” By the 1960s, the nuclear submarine fleets of the United States, the Soviet Union, and Britain “challenged the Arctic Ocean” and undoubtedly transiting waters claimed by Canada (including the Northwest Passage), while “Canada remained a mute spectator throughout the period.”⁵¹ Covered by a dense (and noisy) ice pack, Arctic waters offered natural protection from aerial surveillance and sonar detection. Commander James F. Calvert of the U.S.S *Skate* told public audiences that the U.S. could “best hold its world leadership by gaining superiority in the Arctic,” and that the Arctic waters would soon become an “entirely nuclear sub-ocean.”⁵²

Concerns about the status of the waters within Canada’s ostensible “sector” (between 60° and 141° west longitude running up to the pole) catapulted to the forefront of internal deliberations about sovereignty. Canada had not adopted a clear position on the status of these waters beyond

⁵⁰ Maxwell Cohen, “Polar Ice and Arctic Sovereignty,” *Saturday Night*, 30 August 1958, 12-13.

⁵¹ Eyre, “Forty Years,” 295. On submarines, see Adam Lajeunesse, “A very practical requirement: under-ice operations in the Canadian Arctic, 1960–1986,” *Cold War History* 13:4 (2013): 507-24.

⁵² Diplomatic telegram Washington DC to External Affairs, Ottawa, 10 October 1958, LAC, RG 25, file 9057-40 pt. 7.

the territorial sea but would benefit the most if these waters were deemed internal and subject to complete national control. No country disputed that Canada held rights to territorial waters extending seawards from either its coast or from baselines that enclosed its internal waters, but there was potential for conflict about how far these extended. In the nineteenth century, the U.S. and Britain adopted a three nautical mile (3.45 miles or 5.55 km) limit on territorial waters, which became a standard in many parts of the world. By the 1960s, however, most states were attempting to claim territorial waters of 12 nautical miles or more, a move supported by Canada. Under this regime, foreign ships still had the right to “innocent passage” through territorial waters, which would limit Canadian control.⁵³

In the 1960s, Lester Pearson’s Liberal government continued to officially endorse a three-mile territorial sea, but it also announced its intention to expand its control beyond those limits. When Canada decided to declare a nine nautical mile fishing zone adjacent to its three nautical mile territorial sea using straight baselines on the east and west coasts, a sharp reaction from the United States kept the Canadians from trying to do the same in the Arctic. Consequently, Canada did not officially issue any geographical coordinates to delineate its claim to baselines in the Arctic for another twenty-three years.⁵⁴ “With the North seemingly secure, the sovereignty question could wait. Time seemed to be on Canada’s side,” political scientist Edgar Dosman observed. “As the years went by *de facto* occupation would result in an even more irrefutable claim to the Arctic, along with diminishing U.S. resistance to a Canadian initiative enclosing the waters of the Canadian

⁵³ See, for example, Donat Pharand, *Canada’s Arctic Waters in International Law* (New York: Cambridge University Press, 1988); Lajeunesse, *Lock, Stock and Icebergs*; and Peter Kikkert, Adam Lajeunesse, and P. Whitney Lackenbauer, “Lester Pearson, the United States, and Arctic Sovereignty: A Case of Un-Pearsonian Diplomacy?” in *Mike’s World: Lester Pearson and Canadian External Relations, 1963-1968*, eds. Asa McKercher and Galen Perras (Vancouver: UBC Press, 2017), 149-68.

⁵⁴ Gordon W. Smith, “Sovereignty in the North: The Canadian Aspect of an International Problem,” in *The Arctic Frontier*, ed. R. St. J. MacDonald (Toronto: University of Toronto Press, 1966), 236-37; and Elizabeth B. Elliot-Meisel, *Arctic Diplomacy: Canada and the United States in the Northwest Passage* (New York: Peter Lang, 1998), 140.

Arctic Archipelago as internal waters.”⁵⁵ New challenges, however, would eventually push the federal government to adopt a more activist stance.

In chapter 8, Eyre describes how a wide variety of Cold War military projects contributed to general knowledge about the North and to social infrastructure. While some activities were purely military (and thus development spin-offs were accidental), most defence projects were designed and implemented to maximize northern development. The RCCS in the Northwest Territories & Yukon Radio System, first established in the interwar years, supported industrial development and humanitarian efforts. In 1946, the Canadian Army took over the responsibility for the maintenance of the Canadian portion of the Alaska Highway. Improvements in the road network “fostered a modest amount of economic development and resource exploitation in northern British Columbia and the Yukon,” Eyre observes, “but there was no great boom of development as some optimists had forecast when the road was built.” Nevertheless, the military’s responsibilities in running the highway had a major social impact, particularly in Whitehorse which hosted the Northwest Highway System headquarters, a military communications research facility, and an airbase. It developed into the first, substantial garrison town in the North. The military even devised Indigenous training programs to contribute to national development “beyond the frontier.” When the military withdrew from the North in the early 1960s, however, these military development projects were cancelled and communities like Whitehorse, Churchill, and Frobisher Bay were hit hard socially and economically.

“Military interest in the North peaked in the late 1950s and diminished rapidly thereafter, as the world entered the missile era,” Eyre observes:

The Navy gradually stopped its northern summer cruises. Army exercises ceased. The radio system and the Alaska Highway were turned over to civil departments of government. The Canadian Rangers were left to wither on the vine. Aerial surveillance flights were curtailed. In the later part of the Diefenbaker years, Canadian defence policy was dominated by the three “Ns” of NORAD, NATO and nuclear weapons. Lester Pearson’s Liberal administration during the

⁵⁵ E.J. Dosman, “The Northern Sovereignty Crisis, 1968-1970,” in *The Arctic in Question*, ed. E.J. Dosman, (Toronto: Oxford University Press, 1976), 35.

following five years completed the process of withdrawal. By 1965, only the DEW Line stations remained.⁵⁶

With the decline of American security interest in its Northern lands, Canada lost the perceived need to “defend against help.” Now that technological advances shifted the continental defence emphasis from static radar lines to satellites and ballistic missile submarines, Canada could safely reduce its military *presence* in the region without concern that this would undermine its *de facto* sovereignty over its Arctic lands.

During the 1960s, Ottawa’s Northern focus shifted from military and sovereignty considerations to socio-economic priorities. The introduction of the Canadian social welfare system meant that Indigenous Canadians now had access to a wide array of programs, from family allowances to old-age pensions, and then housing, schooling, health care, and economic development grants. As a result, the federal government became increasingly involved in the lives of Northerners at a time of tremendous socio-political change. To seek wage employment at military installations or to receive government services, Northern Indigenous peoples (particularly Inuit) who had followed a seasonal cycle were drawn into small permanent communities sprinkled across the North. By the close of the decade, the vast majority of Indigenous peoples no longer lived in tents or igloos (snow-houses) but in government housing.⁵⁷ “In communities, traditional methods of subsistence were difficult for Inuit to maintain because of the lengthy travel distances required to find animal resources, and the need to maintain a steady family income through wage employment,” historian Sarah Bonesteel explains.⁵⁸ Although federal programs hoped to improve living standards through a diversified economy that would offer wage labour opportunities in industries such as mining as well as the continuation of the subsistence economy, the result of the transition to settlement-based living was to produce cultural dislocation and wide-sweeping economic dependency.

⁵⁶ Eyre, “Forty Years,” 296.

⁵⁷ For the most convincing assessment of this process, see David Damas, *Arctic Migrants/Arctic Villagers: The Transformation of Inuit Settlement in the Central Arctic* (Montreal and Kingston: McGill-Queen’s University Press, 2002).

⁵⁸ Sarah Bonesteel, *Canada’s Relationship with Inuit: A History of Policy and Program Development* (Ottawa: Indian and Northern Affairs Canada, 2008).

Although Prime Minister John Diefenbaker's "northern vision" for Canada was only partially implemented, it helped to awaken southern Canadians to the prospective role of the abundant natural resources in the Northern frontier in the country's future economic prosperity.⁵⁹ The search for petroleum in the Arctic Archipelago began in earnest during the Second World War, and large-scale exploration in the Queen Elizabeth Islands started in 1959. By the mid-1960s, an exploration boom drew unprecedented attention to the Beaufort Sea north of Canada and Alaska, as well as to the Mackenzie Delta and the Sverdrup Basin.⁶⁰ Oil companies and economists began to look at the isolated Canadian Arctic as a source of untapped wealth and potential. Great riches rested underneath the ice just waiting to be exploited. Oil companies secured exploration permits, conducted geological mapping and geophysical prospecting, drilled at a few sites, and began to prepare for the possibilities of shipping oil in the Canadian Archipelago. "This has presented the first opportunities for use of part of the Northwest Passage for strictly commercial shipping," Trevor Lloyd predicted in the prominent American journal *Foreign Affairs* in 1964. "Even if oil in commercial quantities were to be discovered shortly, there might well be considerable delay before it could reach world markets as the method of transportation is still to be determined."⁶¹

Four years later, the discovery of massive petroleum deposits on the north slope of Alaska by the Atlantic Richfield Company suddenly and dramatically changed the situation in the Arctic, setting off an exploration boom that persisted until oil prices declined precipitously in the mid-1980s.⁶² The viability of these northern projects depended upon the ability to transport resources to market. How could the estimated ten billion barrels of

⁵⁹ W.W. Nassichuk, "Forty years of northern non-renewable natural resource development," *Arctic* 40:4 (1987), 275. On Diefenbaker's Northern Vision, see Philip Isard, "Northern Vision: Northern Development during the Diefenbaker Era" (unpublished M.A. thesis, University of Waterloo, 2010).

⁶⁰ Dosman, "Northern Sovereignty Crisis," 35.

⁶¹ Trevor Lloyd, "New Perspective on the North," *Foreign Affairs* 42:2 (1964): 293-308.

⁶² The Norman Wells field had yielded petroleum since the 1920s, but exploration in the northern Yukon, Mackenzie Delta, and High Arctic islands began in the 1950s. On oil and gas activities in the 1970s and 80s, see Robert Page, *Northern Development: The Canadian Dilemma* (Toronto: McClelland & Stewart, 1986).

oil extracted from the north slope be transported thousands of kilometers to southern markets in the United States in a cost effective and expedient manner? The oil industry laid plans to test the use of tankers to transport oil through the Northwest Passage to east coast refineries, explaining that, “if successful, the test could result in the establishment of a new commercial shipping route through the Arctic region with broad implications for future Arctic development and international trade.”⁶³ The Liberals under Pierre Elliott Trudeau, who had swept into power with a majority in the 1968 federal election, faced increasing popular and political pressures to “defend” Canada’s Arctic sovereignty in the wake of the 1969 and 1970 voyages of the ice-breaking supertanker *Manhattan* through the Northwest Passage. In both cases, Canada provided Coast Guard icebreakers as escorts through what it considered its internal waters, but the Americans insisted that the Passage constituted an international strait and thus did not fall under Canadian sovereign control.⁶⁴

The Second Surge: Sovereignty and Symbolism, 1970-80⁶⁵

By the spring of 1969, Trudeau started to promote the new focus of the CF by publicly declaring that his government’s “first priority in our defence

⁶³ Christopher Kirkey, “The Arctic Waters Pollution Prevention Initiatives: Canada’s Response to an American Challenge,” *International Journal of Canadian Studies* 13 (Spring 1996): 41-42.

⁶⁴ On the *Manhattan* voyages, see Dosman, “Northern Sovereignty Crisis”; John Kirton and Don Munton, “The Manhattan Voyages and their Aftermath,” *Politics of the Northwest Passage*, ed. Franklyn Griffiths (Montreal and Kingston: McGill-Queen’s University Press, 1987), 206-21; Ross Coen, *Breaking Ice for Arctic Oil* (College, AK: University of Alaska Press, 2012); and P. Whitney Lackenbauer and Adam Lajeunesse, eds., *Defining Ice: Lieutenant E.B. Stolee’s Accounts of the Canadian Arctic Voyages of CCGS John A. Macdonald, 1969/70* (Antigonish: Mulroney Institute on Government, Arctic Operational History Series 8, 2019).

⁶⁵ Portions of this section are drawn from P. Whitney Lackenbauer and Peter Kikkert, “Building on ‘Shifting Sands’: The Canadian Armed Forces, Sovereignty, and the Arctic, 1968-72,” in *Canada and Arctic Sovereignty and Security: Historical Perspectives*, ed. P.W. Lackenbauer (Calgary: Centre for Military and Strategic Studies/University of Calgary Press, 2011), 283-308, with the permission of Dr. Peter Kikkert.

policy is the protection of Canadian sovereignty.”⁶⁶ This was followed by Mitchell Sharp’s claim that the new defence policy would be centered on “the surveillance of our own territory and coastlines in the interests of protecting our sovereignty.”⁶⁷ While Lester Pearson’s government had funneled the lion’s share of defence resources and attention into NATO responsibilities and United Nations peacekeeping, Trudeau adopted a “Canada first” approach with particular emphasis on the North.⁶⁸

Although the Canadian Forces had the task of defending Canada’s sovereignty, Eyre explains in chapter 10 how the specific nature of this role was ambiguous, and doubts existed about the extent to which the government was ready to commit men and resources. In the following years the Departments of National Defence and External Affairs attempted to define this new role for the CF and determine the most effective way for the military to fulfill its duties. In their assessments, planners did not worry about a short-term, direct military threat to the Arctic. In fact, defence experts largely dismissed the possibility of conventional forces operating in the Canadian Arctic. Military analysts confidently asserted that the only real direct threat through the Arctic and the Canadian northland would come in the context of a general nuclear war. There was no challenge to Canada’s northern lands, territorial waters, and seabed, and that the only likely challenge was to the Northwest Passage – a challenge that would be commercial and peaceful. “At the same time, Canada’s Armed Forces had been given the primary mission of protecting sovereignty,” Eyre observes ironically. “Yet, by the government’s own admission, the only possible challenge to Canadian claims - and that in a very specific and restricted area - was mounted not by an international rival or threat, but by the United States, Canada’s closest ally and major trading partner.” Given this confusion, Eyre was not surprised that both the CF and the broader public had difficulty discerning what the military’s role should be in the North.⁶⁹

⁶⁶ E.B. Wang, “Role of Canadian Armed Forces in Defending Sovereignty,” 30 April 1969, Lackenbauer and Kikkert, eds., *Canadian Forces and Arctic Sovereignty*, Doc. 1-4.

⁶⁷ *Globe and Mail*, 18 September 1969, A7.

⁶⁸ Bernd Horn, “Gateway to Invasion or the Curse of Geography? The Canadian Arctic and the Question of Security, 1939-1999,” in *Forging a Nation: Perspectives on the Canadian Military Experience* ed. Horn. (St. Catharines: Vanwell, 2002), 324.

⁶⁹ Eyre, “Forty Years,” 296-97.

Throughout the early 1970s defence planners continued to wrestle with the question of the military's proper role. At a Chief of the Defence Staff (CDS) Advisory Committee meeting on 18 February 1970, questions arose as to "whether the primary purpose of CF participation in northern affairs is in the interest of sovereignty or to assist other government departments in the development and protection of the North"?⁷⁰ The committee agreed that the CF had to resolve this issue before it could decide upon the types of operations, size and composition of forces, and the location of a northern headquarters. It concluded that "without a rational, long term policy the effectiveness of DND, and the Canadian Forces in particular, will be suspect." Defence planners recognized the dangers and limitations of short-term planning. "We must be careful not to allow ourselves to be drawn into programs which might be short-lived as this would bring into question the credibility of military activity and would have a disruptive effect on local economy," one report asserted.⁷¹ In any case, the military acknowledged how costly a large-scale, long-term role in the North would be.⁷²

As Eyre reveals, most defence planners did not have any appetite for investing significantly in expensive northern capabilities, instead emphasizing the importance of a military presence and surveillance to strengthen Canada's legal claims. Indeed, as plans for the North developed throughout the summer of 1970, the military became more fixated on building its role around sovereignty. Although DND plans did identify specific activities in support of the other government departments operating in the North, the real focus of planning remained on surveillance and establishing a presence. Planners considered long-range aerial patrols an ideal solution to Canada's sovereignty worries for they demonstrated a Canadian presence over an extensive area. They worried, however, that these aircraft only established a strong and visual presence when "they are on an airstrip in the North and/or can be seen by others." Accordingly, they looked to the land units and ships of Mobile and Maritime Commands to contribute to this visual presence with their "exercises and visits." Still, the military

⁷⁰ Summary Record, CDS Advisory Committee Meeting 4/70, 18 February 1970, Lackenbauer and Kikkert, eds., *Canadian Forces and Arctic Sovereignty*, doc. 3-3.

⁷¹ Lackenbauer and Kikkert, eds., *Canadian Forces and Arctic Sovereignty*, doc. 3-3, annex A: DC Plans Presentation to CDSAC on Canadian Forces Policies Objectives and Activities in the Canadian North [c. February 1970].

⁷² See, for example, Vice Admiral J. C. O'Brien, "Address to Canadian Naval Officers Association," *Montreal Star*, 2 March 1970.

sought to achieve the “more permanent aspect of presence” in the eyes of Northerners and foreign visitors. The concept for Northern operations maintained that “it will be necessary...for Commander Northern Region and his staff to engage in the personal contact type of reconnaissance and planning which demonstrate not only a military presence but also a long term interest and involvement.”⁷³ Rather than establishing a real strategic rationale for operating in the Arctic, DND emphasized persistent “presence” as the main justification for an increased level of military activity in the North. The new motto for Canada’s Arctic patrols, one journalist noted, was “to see and be seen.”⁷⁴

In 1970, naval vessels again sailed into Arctic waters, initiating annual northern deployments or “NORPLOYS” that continued through the decade. Maritime Command began Arctic surveillance patrols using medium- and long-range patrol aircraft, performing tasks such as surveying northern airfields, examining ice conditions, monitoring wildlife and pollution, and documenting resource extraction and fishery activities. The army began regular, small unit “Viking” indoctrination patrols, as well as elaborate paratroop assault exercises in the archipelago involving the Canadian Airborne Regiment. All these activities were short-term, as were long-range air surveillance patrols (which were often limited by weather and the lack of northern airfields) and naval activities confined to select waters only in ice-free months. To provide a permanent presence, the Canadian Forces set up a new Northern Region headquarters in Yellowknife in May 1970, which boasted that it was responsible for “the largest single military region in the world.” To cover forty percent of Canada’s land mass, the resources at Northern Region’s direct disposal in the early 1970s consisted of a small headquarters staff, less than two hundred active Canadian Rangers in units that were resurrected after their abandonment during the 1960s, and a few hundred personnel at communications research and radar stations.⁷⁵ These

⁷³ Concept of Operations – Canadian Forces Northern Region, 14 July 1970, in Lackenbauer and Kikkert, eds., *Canadian Forces and Arctic Sovereignty*, Doc. 3-10.

⁷⁴ Wain King, “New Look for Arctic Patrols: To See and Be Seen,” *Ottawa Journal*, 3 April 1971.

⁷⁵ Ron Purver, “The Arctic in Canadian Security Policy, 1945 to the Present,” in *Canada’s International Security Policy* ed. D.B. DeWitt and D. Leyton-Brown (Scarborough: Prentice-Hall, 1995), 87-89; Eyre, “Forty Years of Military Activity,” 297.

modest measures provided fodder for the opposition parties in Ottawa, who chastised the government for doing too little.⁷⁶

Capabilities remained modest in the years ahead. “The 1971 White Paper on Defence, *Defence in the 70s*, stated that defence policy must ... also take into account the possibility that other challenges to Canada’s sovereignty and independence, *mainly non-military in character* [emphasis added], may be more likely to arise during the 1970s,” Eyre highlights. “The crux of the matter lies in the appropriateness of a military response to a non-military challenge.” The main task for the CF in the “protection of sovereignty” would be surveillance, but this would be limited to operations “by existing long-range patrol aircraft, configured as they were for anti-submarine warfare,” and only in favourable weather and a small number of “suitable northern airfields.” The navy could only patrol in “the few ice-free months of the year, and then only in certain waters,” while “ground surveillance by soldiers was seen as simply impracticable because of the huge size of the area involved.” The government provided no funding to acquire new “northern sovereignty equipment,” such as special reconnaissance aircraft or surveillance equipment for the air force, ice-capable surface ships or submarines, or all-terrain vehicles.

In short, the military’s main effort remained concentrated in southern Canada and its Arctic presence overwhelmingly transient. Eyre summarizes that:

In the government’s view, while protection of sovereignty was the first military priority, the threat to that sovereignty was minimal and, under existing conditions, did not warrant a major commitment of men, resources and money. To protect sovereignty in the North, the government adopted a policy strikingly analogous to the situation that existed in Canada at the time of the 1922 Eastern Arctic Expedition. In the 1920s, Canada established sovereignty in the Arctic with a symbolic presence of the Royal Canadian Mounted Police. In the 1970s, Canada prepared to protect that same sovereignty with a symbolic presence of the Canadian Armed Forces, with defence planners insisting that persistent presence and surveillance were essential to affirm Canada’s legal claims in the Arctic. “In uninhabited regions, a government should at

⁷⁶ See, for example, House of Commons *Debates*, 16-17 April 1970.

least be able to maintain effective surveillance, if only for the purpose of asserting its authority if the need should arise,” one policy paper asserted. “India’s claim to Ladakh, never too strong in any case, has not benefited from the fact that the Chinese were able to occupy 12,000 square mile of it, and build a road across it, without the Indian Government becoming aware of what was happening for several years.” Even in areas where little direct military threat existed, the military needed to maintain some kind of presence for ‘insurance’ purposes and to assist in the maintenance of law and order, disaster relief, search and rescue, and the prevention of violations against Canadian territory. While there was already a government presence in the Arctic, defence planners believed that the establishment of regular patrol flights in the region could reinforce Canada’s claim to sovereignty.⁷⁷

In practice, operational units were stationed at southern bases and sent north for specific, short-duration activities. “Those few military elements stationed permanently in the North” at communication stations in Inuvik and Alert and at the DEW Line main sites “were *in* the North, not *of* the North,” Eyre notes.⁷⁸

Although public (and thus political) concern about Arctic sovereignty wound down when the resource sector moved from tankers to pipelines in the mid-1970s, the Canadian government’s symbolic program appeased the public and cost little. “In some inchoate way,” Eyre observes in *Custos Borealis*, the idea that Canada needs to have a military “presence is adequate for Canadian governments and the Canadian population at large. That presence does not imply a significant operational capability has either not dawned on the nation, or, again in the absence of a northern imperative, it does not seem to matter.” Budget freezes stymied any substantive progress

⁷⁷ Arthur Kroeger, DND, “The Canadian Forces and the Maintenance of Canadian Sovereignty,” 6 August 1968, P.W. Lackenbauer and Peter Kikkert, eds., *The Canadian Forces and Arctic Sovereignty: Debating Roles, Interests, and Requirements, 1968-1974* (Waterloo: Laurier Centre for Military Strategic and Disarmament Studies / WLU Press, 2010), Doc. 1-1.

⁷⁸ Eyre, “Forty Years,” 298.

on the Arctic priorities in the 1971 White Paper.⁷⁹ The government's failure to deliver on the bold plans hatched by the commander of Northern Region Headquarters, Brigadier Ramsay Withers, proved in the minds of two prominent historians "that the emphasis on sovereignty in the north ... was a political *and* a military sham."⁸⁰

Eyre ends *Custos Borealis* on a more optimistic note. "By 1975 the Canadian Forces had re-established themselves in the North to an unprecedented degree," he observes. "While there were fewer troops permanently stationed in the region than there had been in the late 1950s, Canadian servicemen from all three services were continually being exposed to the northern environment." By creating a Northern Region headquartered in Yellowknife, "the Department of National Defence was prepared to admit that the North had an intrinsic value to the country as a whole and that a military presence was required in the area." He also noted strong indications that the Canadian Forces "recognized and accepted the uniqueness of the North, which is the first step in understanding the area," and despite equipment and funding constraints military personnel were learning "how to live and to a limited extent operate north of 60—and found the challenge of doing so an interesting one."

Editor's Note

I first encountered *Custos Borealis* as a graduate student at the University of Calgary interested in the role of the military in the Canadian North. At that time, I began conducting research into the histories of the Canadian Rangers and the Distant Early Warning (DEW) Line, both important subjects about which little had been written. Eyre's dissertation was the exception, situating these aspects of Canada's military history (and many others) in broader and deeper contexts. As a postdoctoral fellow at the University of Saskatchewan in early 2004, I reached out to Dr. Eyre to inquire if he intended to publish a book based on his dissertation given recent indications that climate change and sovereignty concerns were

⁷⁹ House of Commons *Debates*, 12 June 1972, Lackenbauer and Kikkert, eds., *Canadian Forces and Arctic Sovereignty*, Doc. 6-4.

⁸⁰ J.L. Granatstein and Robert Bothwell, *Pirouette: Pierre Trudeau and Canadian Foreign Policy* (Toronto: University of Toronto Press, 1990), 257. On Withers' plans, see Doc. 6-1, BGen R.M. Withers, "Northern Region Concept for Force Development," 15 June 1971.

resurrecting popular and political interest in Arctic sovereignty and security issues—and that contemporary discussions seemed devoid of historical context. He told me that he had no plans to do so, but he said that if I was interested in updating it for publication, he would be happy to be a second co-author. I agreed immediately – but soon became bogged down in other projects.

As the years passed, I gathered more information on the myriad themes and subjects that Dr. Eyre had covered in his dissertation. The sheer breadth and depth of his coverage left me continuously searching for additional archival research to make my promised contribution. In the meantime, I reached out to Dr. Eyre to publish sections from his dissertation in other contexts. His important work on military contributions to civilian development formed the basis for a chapter on “The Military and Nation Building in the Arctic, 1945-1964” that appeared in an edited book on sovereignty and security,⁸¹ and his insights on the role of the Canadian Air Force and Royal Canadian Air Force in the opening of the Arctic during the interwar period served as the basis for a co-authored introduction to a volume for the Documents on Canadian Arctic Sovereignty and Security (DCASS) series that reproduced the landmark reports by Major Robert A. Logan (1922) and Flight Lieutenant Thomas A. Lawrence (1928).⁸² Eyre’s pioneering research on army exercises during the Second World War and early Cold War also served as the basis for a chapter on “Lessons in Arctic Warfare: The Canadian Army Experience, 1945-55” co-authored by Peter Kikkert and myself.⁸³

Alas, I did not manage to complete my promised updates to *Custos Borealis* before Dr. Eyre’s passing in August 2017. Accordingly, I have decided that his ground-breaking manuscript deserves to be published as he wrote it in 1981. I hope that this decision ensures that he gets the credit for

⁸¹ Ken Eyre, “The Military and Nation Building in the Arctic, 1945-1964,” in *Canada and Arctic Sovereignty and Security: Historical Perspectives* ed. P.W. Lackenbauer (Calgary: Centre for Military and Strategic Studies/University of Calgary Press, 2011), 201-32.

⁸² Lackenbauer and Eyre, *Unfurling the Air Force Ensign in the Canadian Arctic*.

⁸³ P. Whitney Lackenbauer, Peter Kikkert, and K.C. Eyre, “Lessons in Arctic Warfare: The Canadian Army Experience, 1945-55,” in *Canadian Armed Forces Arctic Operations, 1945-2015: Historical and Contemporary Lessons Learned*, eds. P.W. Lackenbauer and Adam Lajeunesse (Fredericton: Gregg Centre for the Study of War and Society, 2017), 47-104.

his innovative ideas and observations. While the historiography has expanded on topics covered in this study, the breadth and depth of information that he provided remains an essential foundation for future research on the military history of the Canadian North.

As editor, I have sought to retain the original language that Dr. Eyre used in his thesis and have tried to avoid replacing his written voice with my own. Nevertheless, the text has been extensively edited for spelling, grammar, and style (although I have left some of the passive voice that marked his writings). I have relegated some sentences that I considered superfluous to footnotes to improve flow. Furthermore, the author's writing style and turns of phrase reflect the era in which he researched and wrote. For example, his original manuscript included the terms "Indian" and "Eskimo," which were still in common usage when he wrote his dissertation. As Eyre acknowledged in his introduction, "modern Canadian convention and the Eskimos themselves favour the term 'Inuit' (the people)" but "inasmuch as the majority of events examined in this study occurred during the period when 'Eskimo' was the common usage, the term is used as a standard convention throughout, except in those cases where the term 'Inuit' is essential to the point of the argument." I have made the editorial decision to replace his use of the word "Indians" with "First Nations," "Eskimos" with "Inuit," and "Native peoples" with "Indigenous peoples" to ensure that his work resonates with audiences today.

Historians, political scientists, international lawyers, geographers, and scholars from a range of other disciplines have written extensively on Arctic sovereignty and security over the last decade. Rather than trying to integrate additional primary and secondary sources into references throughout Eyre's text, I have appended a list of further readings that provides readers with a sampling of scholarship on subjects covered in this book that has appeared since he completed his research in 1980. While Eyre had comparatively limited access to unclassified archival materials at the time that he conducted his research, future researchers are encouraged to view his work not only as a source of original interpretation and synthesis, but also as a foundation for further in-depth study.

Based upon my previous discussions with Dr. Eyre, I have written an afterword that provides an overview of military developments in the Canadian North since the late 1970s. I am writing a history of Northern Region Headquarters / Canadian Forces Northern Area / Joint Task Force (North) for its fiftieth anniversary in 2020 which will both deepen Eyre's

assessment in chapter 9 and extend his coverage of “the military in the contemporary North” to present.

In preparing Eyre’s manuscript for publication, research assistants Dr. Thirstan Falconer and Nanci Henderson helped with initial transcription, basic formatting, footnotes, and the bibliography. Dr. Peter Kikkert, Ryan Dean, and Dr. Adam Lajeunesse provided critical feedback on the foreword and afterword and generously allowed me to draw upon articles and chapters that we have co-authored over the years. Peer-reviewers also offered helpful comments that encouraged me to address oversights. Corah Hodgson, Ryan Dean, and Jennifer Arthur-Lackenbauer all lent their critical proofreading eyes to the manuscript, and Jenn and Ryan completed the layout with typical professionalism and attentiveness to detail. A St. Jerome’s University Faculty Research Grant in 2007-08 facilitated early work on this project, the Canada Research Chair program enabled me to bring the project to completion, and a DND Mobilizing Insights in Defence and Security (MINDS) Collaborative Network Grant supporting the North American and Arctic Defence and Security Network (NAADSN) / Réseau sur la défense et la sécurité nord-américaines et arctiques (RDSNAA) allowed for its publication and dissemination. My foremost appreciation goes, of course, to the late Dr. Ken Eyre for agreeing to share his wonderful research and analysis.

Kenneth Charles Eyre: A Biographical Profile⁸⁴

Kenneth Charles Eyre was born in Shelburne, Nova Scotia, on 23 November 1942 to Winnie and Ralph Eyre. His father was a member of the Army Corps of Engineers and as Ralph carried out his duties, including the building of the Alaska Highway, Ken and his family lived in various places across Canada. He spent his formative high school years in Whitehorse, Yukon, where he developed a lasting respect for Canada’s North.

Ken graduated from the Royal Military College of Canada (B.A.) and served in the Canadian Army from 1965-82, primarily with infantry and airborne forces. He was commissioned into the Queen’s Own Rifles and was subsequently rebadged to the Princess Patricia’s Canadian Light Infantry. During his military career he served twice on peacekeeping missions in

⁸⁴ This profile is reprinted, with slight edits and additions of content from letters of condolence, from his obituary at <https://kaulbachfamilyfuneralhome.com/tribute/details/729/Kenneth-Eyre/obituary.html>.

Cyprus, including during the period of the coup d'etat and Turkish invasion in 1974.

As a soldier-scholar, Ken received an M.A. in History from Duke University in 1967 and in 1974 became the first serving officer awarded a Department of National Defence Fellowship. He chose to work towards a Ph.D. at King's College, University of London, on the history of defence policy and military operations in the Canadian North. Historian LCol (ret'd) Alex Morrison, a long-time colleague, reminisced how Ken:

was, of course a scholar and a very good one at that. He was sent to London, England to do PhD studies. So, the story goes, he reports to the head of the particular school within the university where he was to study and research. On hearing that Ken was interested in the Arctic, the Head told him that no one there knew much about that but why doesn't he go chat with Prof so and so down the hall. Ken did. The Prof was not an expert in Arctic affairs so told Ken to go off, research, write, etc. and come back to consult every so often. Ken did and in due course returned to Canada and military duties and completed his dissertation and sent it to England.

The people at National Defence HQ received a telegram from Canadian High Commission in London saying the university had a PhD dissertation and wanted an outside reader/examiner (they did not say it was Ken's). NDHQ officers chatted and sent back the reply "we suggest Major Ken Eyre."

As part of his field research, he was posted to Yellowknife and had the opportunity to travel extensively throughout the Canadian North, with emphasis on the Northwest Passage and the High Arctic. The dissertation was accepted and Ken was granted his doctorate in 1981. In recognition of all his original work relating to Canada's North, the Department of National Defence nominated him for the 1982 Massey Medal.

Ian Nicol, who served with Ken in the Canadian Airborne Regiment, remembered:

him as a very clever and innovative officer who had the knack of approaching problems from many different perspectives and who remained undaunted by those who said that something simply couldn't be done. This latter unorthodoxy resulted for example, in Ken approaching a local Edmonton

college to enlist the aid of its Radio and TV Arts students to produce a video about the steps the Regiment took to mount an airborne operation in Canada's high Arctic. Needless to say, the traditionalists among us were appalled to see all those long-haired "hippies" wandering around our unit lines with cameras and microphones, but the resulting product, called "Quick Rig," was a howling success.

After retiring from the army, Ken worked for several years at National Sea Products, then became Principal Scientist at Crisis Simulations, a research company designing military battle and disaster training simulations. Morrison recalled how:

In the early 90s, I was shopping around the idea of a peacekeeping education and training centre and somehow renewed contact with Ken. We went to [United Nations (UN) Headquarters] in New York and briefed some of the political and peacekeeping UN officials I had met during my six years on the staff of the Permanent Mission of Canada to UN. When the Canadian government asked Canadian Institute of Strategic Studies (of which I was Executive Director) to establish an international peacekeeping centre at Cornwallis, I immediately thought of Ken. He was one of the very first persons I hired. I asked him to take a look at the methodology we could employ in educating civilians and military in various aspects of peacekeeping. He accepted enthusiastically.

In 1994, Eyre was appointed the first Director of Studies at the Lester B. Pearson Canadian International Peacekeeping Centre (PPC) established by the Government of Canada in Clementsport, Nova Scotia. Morrison explains:

Ken and his team of Peter Dawson and others then developed, implemented, supervised and enhanced as necessary the system we used at the PPC. Ken was an expert in exercises and played major roles in that area as well. In my various travels overseas, former PPC students would tell me that when they had a challenge, they looked in "the PPC book." It was lesson plans, references, etc that had been devised by Ken. He was both a strategic and operational thinker and actor. I remember well occasions when he would stand up and dictate to Ingrid

intricate but eminently workable solutions to challenges [that we] faced. He was also an expert in hunting and fishing and guiding and seized every opportunity he could to show around our national and international students and visitors - one of the highlights being the goods at the back of the Lequille Country Store.

During his tenure at the Centre, Ken served in various other positions, including Director of Research and Development, Director of Exercises, and Executive Vice President. Ken was instrumental in developing an intellectual focus and a dynamic multidisciplinary approach for the Centre's peacekeeping training, one that was unique in the world and studied by other countries. Many people still working in the fields of peacemaking and rebuilding conflict ridden countries around the globe are using concepts and principles learned from his work.⁸⁵

Ken had an incisive and active intellect and curiosity, and did not tolerate intellectual sloppiness. As a teacher, friend and husband, he could be gentle and reassuring and was a loyal friend and inspiring mentor to many people. LCol (ret'd) David Last, Ph.D., a professor in the Department of Political Science at the Royal Military College of Canada, noted that:

Ken Eyre was the animating spirit of the Pearson Peacekeeping Centre, as Alex Morrison was its political father. Without Ken, it could not have achieved what it did.

I first met Ken in Lahr in 1987, when he was running a table exercise for 1st Battalion R22eR, and saw his mischievous delight in upsetting carefully laid plans – something the old Cold War square dance sorely needed. We worked together on the Peacekeeping Interview Project, visiting Croatia in 1994 to survey, interview, and video hundreds of Canadian soldiers – a project which later resulted in negotiation training aids and insights that Ken incorporated in PPC courses with his hallmark creativity.

I benefitted enormously from Ken's friendship and support over three years at the Pearson Peacekeeping Centre, when I arrived slightly damaged after 13 months in the

⁸⁵ On Ken's time at the Pearson Peacekeeping Centre, see his reflections in Royal Military College Class of 65 Newsletter #47 (March 2012), <http://www.rmc65.ca/newsletter47.pdf>.

Balkans. In the frigid open space of our offices, we wore school scarves. In the spring, he took interns down to the water to teach them to skip stones. We car pooled from Annapolis Royal to Cornwallis, and every day was fun. An eccentric Englishman had planted rhododendrons under the trees somewhere along the route; Ken stopped to show them to me, but explained that we were looking for places to hunt rabbits, because real men don't stop to look at rhododendrons! He would break into song, "Moon River," as we crossed over Moose River.

One day, I asked him about an odd noise my aging Volvo was making. He waved his hands in exasperation, "I don't know," he said, "I took Latin! But I know how to fix it..." and he leaned forward and turned on the radio – no more noise! When Ken paraded in the sartorial splendour of his Frenchy's acquisitions, I would enter as he intoned a solemn warning that you could also make horrible fashion mistakes. Ken's exercise designs were phenomenal, and his wonderful partnership with Peter Dawson showed his nurturing leadership at its best. "Sneaker faxes," ethnic characterizations, newspaper articles, advertisements, encyclopedia articles, potted histories, and complex genealogies flowed from Peter's creative mind, and Ken and Peter wove them into exciting, entertaining, and memorable events. I once mistakenly called the little details "fluff" and Ken gently corrected me – those were the details that participants remembered and learned from. Ken was a brilliant teacher, and I have used his aphorisms and observations repeatedly over the years.

"Plate coverage" was an image from his days in the fish processing business – however many ounces the piece of fish, you want to cut it so that it fills up the plate. It was a rule to live by in course design and presenting. A good theory is the most practical thing in the world, because it shows you how to look at things. So you think experience is enough? Napoleon's mule was on 13 campaigns, but it was still a mule!

Ken also had a great sense of fun and whimsy. In his retirement years, Ken took up Cowboy Action Shooting, combining boyhood pursuits with a

love of target shooting. He and his friends spent many happy days participating in matches with titles such as "High Noon", "The Shooting of Dan McGrew," and "Ghostriders in the Sky." Also, in retirement, he created driftwood art and garden octopi – huge creatures made from spruce burls he harvested from local forests and lakes that he painted fanciful colours and often named after friends.

Ken never lost the love for the outdoors that he learned as a boy. He was an avid fly fisherman, both in salt and freshwater, and was most content when fishing, particularly on Nova Scotia's brooks and rivers in the spring of the year and on Florida's inland waterways during the winters he spent there. He used to quote from a Babylonian proverb often: "The gods do not deduct from man's allotted span the hours spent fishing."

Ken died on 13 July 2017, shortly after being diagnosed with Acute Myeloid Leukemia.

CUSTOS BOREALIS

PREFACE

I was a high school student living in the Yukon in the late 1950s when I had my first contact with the military in the Canadian North. During summer holidays I worked for the Canadian Army on a construction crew rebuilding the bridge at Mile 588 on the Alaska Highway, the point where American engineers working from the south met their compatriots descending from the north to open up the pioneer military road to Alaska in the dark days of 1942. Later I worked on the road along the Canol Pipeline—possibly one of the greatest white elephants in military history, but nevertheless an impressive feat of engineering in itself.

Ten years later as a professional soldier I had my first look at the barren lands during a winter warfare course held at Churchill, Manitoba. A few years later, training with the Canadian component of NATO's Allied Command Europe Mobile Force North took me back to my old stomping grounds along the Alaska Highway in preparation for a deployment to Norway.

When my battalion returned from winter training in northern Norway, I brashly informed my commanding officer that I was cold long enough, and that I was ready "to hang up my snow shoes." His sympathy was minimal. He sent me off on the first regular serial of New Viking, a foot patrol exercise series in the Canadian North designed to provide Arctic indoctrination while at the same time creating a modest military presence in the interests of Canadian sovereignty. My patrol area took me to the north and west of the village of Coral Harbour on Southampton Island in Hudson Bay. Here I came into contact with the utter isolation that characterizes so much of the Canadian North and the navigator's bug-bear, the unreliable magnetic compass. I also met my first Inuk, an elderly gentleman on his way to his char fishing grounds "two sleeps away." He used up most of our meagre supply of sugar in the cup of tea he shared with us, but more than repaid us for our humble hospitality by supervising our initial attempt to build an igloo.

My next posting was as a company commander in I^{er} Commando of the Canadian Airborne Regiment at the time of major northern exercises in 1971 and 1972. These took me on training parachute assaults into Resolute and Frobisher Bays in the High Arctic and in later years back to Churchill and Whitehorse.

In the spring of 1974, as a staff officer at Regimental Headquarters, Canadian Airborne Regiment, I was assigned the task of preparing a staff college presentation on “Northern Operations.” I had as much northern experience as any officer then serving in the Regiment, but when I actually sat down to write the script I was astounded to discover how little I really knew about the military in the North. Major published works on the Canadian military contain only passing references to northern operations; the same may be said of standard texts on the North itself. I did discover that fragments of northern military history can be found in some rather obscure military periodicals. Overall, it was a rather discouraging revelation. These thoughts were still in my mind when, a few weeks later, I was named a National Defence Scholar for 1974-76. My doctoral thesis was the outcome of my northern experience and interest.

A word about the timeframe is perhaps in order. I chose 1898 to begin as it marked the first occasion that a Canadian military force was deployed into the North. 1975 was selected as a closing date for detailed analysis, as it marked a point of stabilization of military activity in the North following the re-orientation of Canadian defence policy in 1969.

The term “North,” as used in this study, refers to those Canadian lands and waters lying generally north of the 60th parallel of latitude. The term “Arctic” is used to describe lands and waters situated north of the treeline. “Far North” and “High Arctic” are used synonymously and apply to those regions lying north of the continental land mass. The term “Northwest” is used, not in the political sense of Northwest Territories, but in the popular sense to encompass the Yukon Territory and the Mackenzie Valley.

The title *Custos Borealis* (Keeper of the North) is taken from the motto of Canadian Forces Northern Region [now Joint Task Force (North)], the contemporary military headquarters with the responsibility of coordinating all military activity in the Canadian North.

The study is written from a Canadian perspective, draws upon Canadian sources in the main, and is primarily concerned with the activities of the Canadian defence establishment. Since the beginning of the Second World War, however, Canadian and American policies relating to continental defence have been intertwined in a most complex fashion. The United States has had a hand in all the great defence projects undertaken in the North since that time. American military activities in the Canadian North are therefore included in this study since most of these were, at least nominally, joint projects and have done much to shape the modern North.

The aim of this study is to examine the historic involvement of military forces in the Canadian North between 1898 and 1975. It seeks to answer two main questions: what effect the Canadian North has had on the defence policies of Canada and, to a lesser extent, of the United States; and, second, what effect has the presence of Canadian and American military forces had on the Canadian North? Military activity and programs in the North relating to this focus are analysed in terms of national defence, national sovereignty, and national development.

Since both military studies and northern studies are legitimate academic disciplines in Canada, I have attempted to satisfy the needs and interests both of defence scholars who may know little of the North, and of northern scholars who may know little of military matters. This study takes the form of a total overview. Hopefully, it will serve as a structural form and perspective for other scholars who will subsequently address the wide-range of topics and issues raised here but which remain to be studied in detail.

There are several individuals and agencies whose support in the writing of my thesis who I wish to acknowledge.

The Canadian Department of National Defence released me from regular duties for a two-year period and funded both my attendance at King's College and my research travel program. In particular, Captain (Navy) Bernard C. Thillaye, the Director of Strategic Policy Planning, supported my efforts in many ways. The opinions expressed in this study are not necessarily those of the Department of National Defence.

Dr. Wolf Mendl of the Department of War Studies of King's College, London, supervised the thesis.

Brigadier-General K.J. Thorneycroft, Commander, Canadian Forces Northern Region between 1975 and 1978, and his staff were most helpful in arranging for me to see much of the modern North during the four-month period I was attached to Northern Region Headquarters for research purposes.

Dr. W.A.B. Douglas, Director of History, National Defence Headquarters, and his staff, provided me with a working area, access to the open documents held by the directorate and the company of an astute group of military historians. Dr. G. de Q. Robbins and the staff of the Scott Polar Research Institute, Cambridge University, made me welcome in that great centre of northern studies during the period that I was actually writing the thesis.

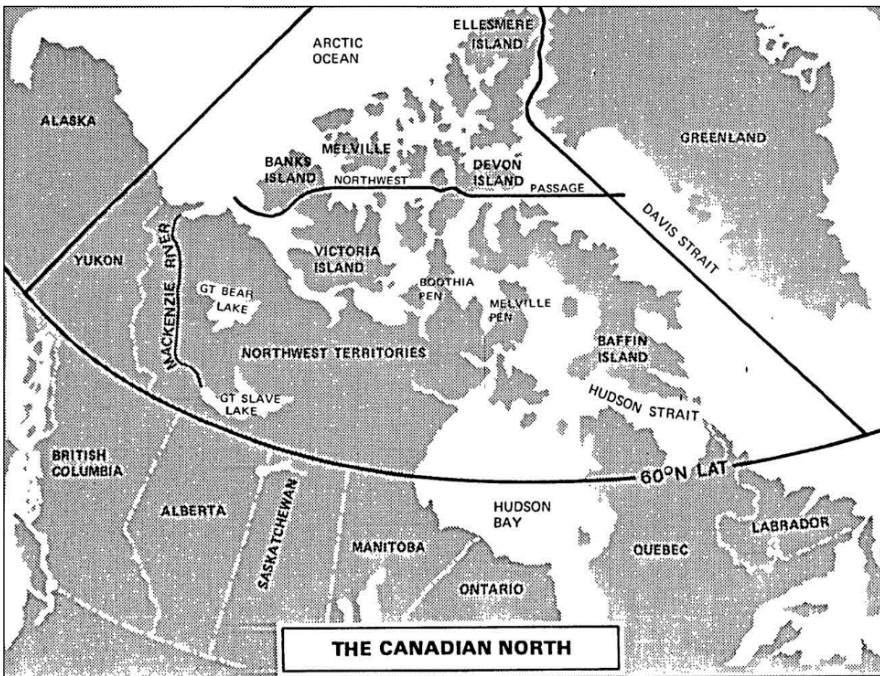
The typescript and bibliography were prepared by Ms. Raymonde Bissonnette.

The maps were prepared by the Graphic Arts Section of Mobile Command Headquarters.

The above list is by no means all-inclusive. Many other people contributed in different ways to this project; I apologize for not listing everybody here.

What errors and omissions that do remain are, of course, entirely my own responsibility.

Kenneth C. Eyre, 1981



1

INTRODUCTION

The “North,” to Canadians, is more of an idea than a place.

At the time of Confederation in 1867, Canada encompassed a relatively small area centered on the St. Lawrence River watershed and the Atlantic seaboard. Anywhere north or west of Lake Nipigon was termed “The North.” A full range of economic, political, social, and nationalistic factors were at play, however, and combined in the new nation to create a strong imperative of expansion. In those early years, there was some question as to the ultimate direction expansion should take, and of the priorities for national development.¹

In 1870, Canadian territory was increased by 2.5 million square miles. The Pacific coast colony of British Columbia became a province, and the imperial government gave Canada the vast tracts of land formerly controlled by the Hudson’s Bay Company. This latter area, composed of Rupert’s Land and the North-Western Territory, gave the Dominion de jure control over the entire continental land mass north of the 49th parallel except for Labrador, part of the British Crown Colony of Newfoundland, and the American territory of Alaska.

While the Canadian government grappled with the problems of a route for the essential transcontinental railway and other development problems, another territorial accession came into the offing—the Arctic Archipelago. Knowledge of the North American High Arctic was still imperfect in 1870, but most of the larger islands were identified and claimed for Britain by early explorers of the late sixteenth and early seventeenth centuries and by the Royal Navy in the nineteenth century. In 1874, Britain asked the Canadian government if the Dominion had any interest in taking up sovereignty over these Arctic Islands. The Liberal government of Alexander Mackenzie

¹ See Morris Zaslow, *The Opening of the Canadian North 1870-1914* (Toronto: McClelland and Stewart Limited, 1971), for a detailed discussion of Canadian national expansion. The most useful single volume history of the Canadian North is R. A. J. Phillips, *Canada’s North* (Toronto: Macmillan of Canada, 1967).

replied affirmatively, and the imperial government issued an Order-in-Council to that effect.

It took six years and constant prodding by Britain to effect the transfer. The reality of the situation was that Canada was already faced by an embarrassment of territorial riches, and the prospect of more land was almost overwhelming. Few Canadian public figures had any idea of what to do with the islands. At best, it was thought that they might prove to be of use at some distant, future date. Probably the most perceptive analysis of the Canadian attitude at the time of the transfer of the islands was made by a member of the Colonial Office who observed:

The object in annexing these unexplored territories to Canada is, I apprehend, to prevent the United States from claiming them, and not from their likelihood of their proving of any value to Canada.²

With the accession of the Arctic Archipelago, the northward expansion of Canada was complete. Canadians, and the government in particular, could not have cared less. There is no evidence that anybody gave a thought to these far northern lands at the time.

The Canadian Pacific Railway finally was completed in 1885. By selecting a southerly route, the government effectively set the pattern for Canadian population expansion and industrial development for at least two generations: Canada was to develop on an east-west axis. The lands beyond the communities that sprang up along the rail lines became “The North” and were, overall, forgotten. Given the limited population and available capital of the country, the North could be developed later. In many ways, the North is still waiting.

If the North was forgotten in the sense that it was eliminated from national programs of development, North Americans and many Britons retained a deep and abiding romantic interest in the area. Images of mystery and unbounded potential were strong. Adventure stories of the fur trade and the Arctic whale fishery, the only two northern industries, were heady stuff in the age of Victoria. The challenge of the unknown was equally compelling, and accounts of attempts to gain the North Pole, to discover the Northwest

² Cited in Gordon W. Smith, “Sovereignty in the North: The Canadian Aspect of an International Problem,” in R. St. J. Macdonald, ed., *The Arctic Frontier* (Toronto: University of Toronto Press, 1966), 203.



Passage, or to find the lost Franklin expedition were avidly read in Canadian, American, and British homes alike.

The potential of the North was seen as latent. In terms of common mineral resources, the southern reaches of the country had already proved all that could possibly be exploited in the nineteenth century. Iron, lead, zinc, nickel — these were the minerals of early Canada. Precious metals were different, for no matter how far from civilization the sources might be, a man could always make a fortune beyond his wildest dreams if only he could make that one big strike. There had been major finds in the undeveloped territories of North America. Silver was found in Colorado, and gold in California and the Cariboo Mountains of British Columbia. As the nineteenth century ended, a few hardy souls were probing distant reaches of the Canadian Northwest convinced that somewhere there was gold for the taking.

The third aspect of the North that interested nineteenth century Canadians and others were the peoples of that frozen land. The “Eskimo”³

³ The term “Eskimo” came into the English language when early explorers were told of that northern race by Cree Indians. The term is pejorative in that in the Cree tongue it means “eater of raw flesh.” (Not to be outdone, the Eskimo called the Cree “louse eggs.”) Modern Canadian convention and the Eskimos

(Inuit) fascinated southern-dwelling white men. Accounts of the harsh environment in which Inuit lived and the incredibly fine adaption of his culture and technology to that environment were read with great interest. Those whites who actually encountered Inuit tended to chronicle their contacts in no small detail. Northern-dwelling First Nations, on the other hand, were ignored as literary subjects in favour of their culturally more sophisticated kinsmen of the plains and the Pacific coast.

This then was the Canadian North around the turn of the century: an area cloaked in mystery and romanticism; an area partially explored and largely unmapped; an area where Canadian title and sovereignty had not been tested. The Inuit in the Arctic barrens and the northern First Nations below the treeline still lived, in the main, as they had since time immemorial, touched here and there by the white man's culture in the persons of explorers, fur traders, whalers, and the occasional missionary. It was a land of unrealized potential, a land encompassing a frontier and a mind-numbing expanse of territory beyond that frontier.

There is an unfortunate tendency for Canadians even today to think of the entire North as a snow-covered, treeless wasteland. Nothing could be further from the truth. The Yukon consists of plateaus and towering mountains. Coniferous trees are found throughout the territory except, of course, at higher altitudes on the mountain slopes. The Northwest Territories are dominated by the Canadian Shield, a low-lying, rough land with innumerable lakes on the continental land mass, but tip up along the islands that fringe the Eastern Arctic into mountains that rise to over 8,000 feet. The islands of the western Arctic Archipelago, on the other hand, are flat and rolling.

The treeline, which defines the southern limit of the Arctic, begins near the mouth of the Mackenzie River and cuts southeast to the foot of James Bay and then swings northeast to the south of Ungava Bay. The treeline is not sharply defined. The coniferous trees of the boreal forest, or taiga, become smaller and sparser until eventually they are gone, giving way to the scrub, moss and lichens of barrens, or tundra. It is the tundra that most closely coincides with the popular image of the North.

Permanent ice caps and glaciers cover much of Devon and Ellesmere Islands and the islands of the Sverdrup group. These are the only areas that are permanently covered with ice or snow. Throughout the rest of the North,

themselves favour the term "Inuit" (the people). Most events examined in this study occurred during the period when "Eskimo" was the common usage.

summer can be as long as June-September in the southern portions of the territories to a brief month on Ellesmere, the most northerly Arctic island. The traditional seasons of spring and autumn are replaced by break up and freeze up—referring to the departure of the winter ice from rivers, lakes, and bays and its inevitable reformation marking the onset of the next winter.⁴

* * *

The military is a comparative newcomer to the North. Before the coming of the white man, there doubtlessly were unchronicled clashes between hunting bands of Inuit and First Nations in those few areas where these peoples were in occasional contact. There was nothing, however, that even remotely approached the tribal warfare that was endemic in the more southerly reaches of the continent. It is possible that the constant struggle with the environment left northern inhabitants with little energy for organized violence.

Europeans came to the North for many reasons.⁵ There is evidence that around 1000 C.E. Vikings from Greenland or Iceland were prowling around Baffin Island, either because they were lost or simply curious. Martin Frobisher first came in 1576 searching for the Northwest Passage to the Orient. He returned again and again looking for gold. It is difficult to say which of his objectives was the more chimerical. The North's treasure house of resources remained locked for another century. "The Gentlemen Adventurers of England trading into Hudson's Bay" were granted a charter on 2 May 1670 to exploit the classic northern resource—fur. Over three centuries the fur trade has had its moments of glory and its times of disaster; today it still thrives. The Hudson's Bay Company is unquestionably one of the great northern institutions that have done much to shape the face and culture of the region. The dozens of northern communities that have "fort"

⁴ Terrence Armstrong, George Rogers, and Graham Rowley, *The Circumpolar North: A Political and Economic Geography of the Arctic and Sub-Arctic* (London: Methuen, 1978), 73-6.

⁵ A useful and immensely readable collection of primary source accounts of the opening of the Far North is the *Polar Trilogy* (Toronto: McClelland and Stewart), edited by Farley Mowat. Included in the series are: *Ordeal by Ice: The Search for the Northwest Passage* (1960); *The Polar Passion: The Quest for the North Pole*, (1967); and *Tundra: Selections from the Great Accounts of Arctic Land Voyages* (1973).

place names—Fort Reliance, Fort Good Hope, Fort Resolution, Fort Nelson, Fort St. John—were founded, not as military garrisons, but as trading posts.

The Canadian North has known war only once. In the latter years of the seventeenth century and into the early years of the eighteenth, France and Britain struggled for mastery of a continent. The conflict spilled into the southern reaches of Hudson Bay. Today, massive Fort Prince of Wales stands abandoned, a forlorn reminder of those days. The North has been at peace ever since.

In the nineteenth century, military men of Great Britain and, to a lesser extent, of the United States, swarmed into the North. They came not to fight, not to conquer, but to explore. They explored the upper reaches of the boreal forest and the barrens of Keewatin. Most of all, their efforts were concentrated in the Arctic waters where they sought, first, a Northwest Passage, and later the Pole. They also came as part of official naval cruises and as leaders of privately-funded ventures to search for Franklin.⁶ For the military men of Canada, however, the North remained *terra incognita* until the turn of the century.

The preliminary exclusion of the military from a frontier role was a result of the special set of circumstances and political perceptions that existed in Canada during the early 1870s. In 1870, the maintenance of law and order in the new territories became a problem. The Red River Rebellion, which flared up in the summer, resulted in a small expeditionary force being raised to put it down. An illicit whiskey-fur trade which had sprung up near the American border destabilized relations between settlers and the First Nations of the area. It was apparent to the federal government that some sort of garrison force would have to be raised for service in the Northwest.

The western situation continued to deteriorate and, in the summer of 1872, Colonel P. Robertson-Ross was dispatched on “A Reconnaissance of the North-West-Provinces and Indian Territories of the Dominion of Canada.”⁷ He strongly advocated the creation of a force to provide law and order. Similar demands came from Hudson’s Bay Company traders and

⁶ A by-product of the Franklin search was the preliminary mapping and charting of much of the Arctic Archipelago. The gazetteer of the Arctic Islands reads like a nominal roll of the nineteenth century Royal Navy.

⁷ Capt Ernest J. Chambers, *The Royal North-West Mounted Police: A Corps History* (Montreal: The Mortimer Press, 1906), 11. The full text of Robertson-Ross’ report is published herein on pages 11-16. Robertson-Ross was a regular British officer seconded to Canada to act as Adjutant General of the Militia.

other law-abiding citizens living in the area. The cry was taken up in both the House of Commons and the Senate. Consensus held that what was needed was either a military force with the powers of police, or a police force with military organization, discipline, and equipment.

Robertson-Ross, perhaps reflecting his background and perspectives as a professional soldier, recommended the raising of a military force and a supporting local constabulary. Sir John A. Macdonald, the prime minister, had different ideas: he envisioned a para-military police force modeled on the Royal Irish Constabulary.⁸ As early as the winter of 1869-70, he outlined his ideas to a prospective commander:

The best Force would be Mounted Riflemen, trained to act as cavalry, but also instructed in the Rifle exercises. They should also be instructed, as certain of the Line are, in the use of artillery; this body should not be expressly Military but should be styled Police, and have the military bearing of the Irish Constabulary.⁹

Various factors combined to bring a halt to the initial attempt to raise a frontier security force, and the matter remained in abeyance for three years while the government considered the seriousness of the problem and possible other means of dealing with it. Macdonald spoke frequently of “mounted rifles,” but he remained steadfast in his determination to have a police force. The *North-West Mounted Police Act*, an enabling act, was given Royal Assent on 23 May 1873.

The organization of the force proceeded slowly during the summer and autumn. Macdonald, whose government was facing the scandal that would ultimately bring it down, was fighting for his political life and had little time to spare to consider the problems of the North-West. His successor, Alexander Mackenzie, was less convinced than Macdonald that a federal police force was preferable to a military garrison. In point of fact, Macdonald’s ideas had not gained wide acceptance in political circles and the Canadian military establishment continued to maintain that only regular troops could adequately control the situation. Support for the police force was strongest in the Department of Justice, and it was arguments from that

⁸ S. W. Horral, “Sir John A. Macdonald and the Mounted Police Force for the Northwest Territories,” *Canadian Historical Review* 53:2 (June 1972): 179-200.

⁹ Horral, “Sir John A. Macdonald and the Mounted Police Force,” 181.

quarter that ultimately led Mackenzie to continue the police project.¹⁰ The rest of the story is the history of the Royal Canadian Mounted Police.

The 1873 decision to raise a special police force effectively eliminated the Canadian military from what could have been a challenging responsibility, a magnificent training vehicle, and a real *raison d'être*. When the tide of development later began its slow flow northward, succeeding Canadian governments turned instinctively to the Mounted Police to carry the flag; the success of the Force in the Prairies was a fine recommendation to select that option. In the Yukon during the Klondike Gold Rush, down the Mackenzie River, around the rim of Hudson Bay, and later into the far reaches of the High Arctic, it was the men of the Mounted Police who brought the authority of the federal government into the new territories. Canadian soldiers remained in the South with the thankless task of preparing to protect a country which most politicians and many citizens felt required little, if any, defence.

* * *

Canada inherited the beginnings of a military establishment from Great Britain at the time of Confederation. In 1871 the Treaty of Washington dealt with the points of contention between Britain and the United States that had arisen out of the American Civil War. With relations regularized, the British battalions which had garrisoned Canada even after Confederation were withdrawn and, in a sense, Canada was left to fend for herself. In reality, Canada was probably as secure from aggression as any nation on earth. Sheer distance removed it from the European and Asian arenas of conflict. The Atlantic and the Pacific were formidable barriers to invasion. That some nation might attempt to invade Canada across the polar wastes was unthinkable and technologically impossible. To further strengthen the Canadian bulwarks of defence there was the ubiquitous Royal Navy. The only possible foe was the United States, and as long as the maintenance of friendly relations with that country remained one of the cardinal tenets of British foreign policy, Canada was secure. Given these strategic considerations, it is little wonder that the Canadian defence establishment was impoverished from the very start.

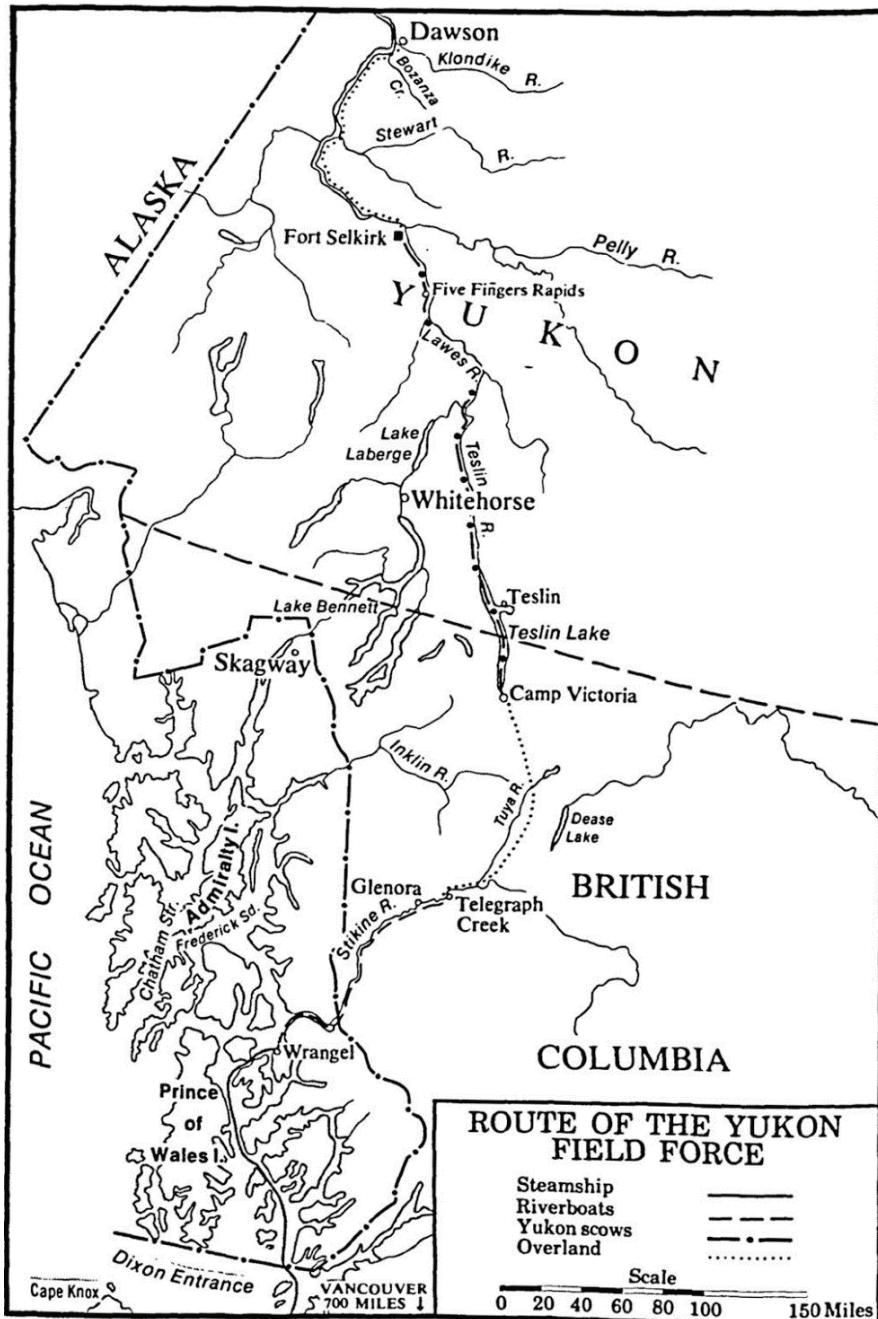
¹⁰ Horral, "Sir John A. Macdonald and the Mounted Police Force," 198-99.

Immediately following the Treaty of Washington, the Canadian military establishment plunged into a decline from which it was just emerging when the country was engulfed by the First World War. Military enthusiasm, which had run high during the time of the Irish-American Fenian Raids, waned. The withdrawal of the British units represented the loss of the professional core and the vital training cadre of Canada's soldiers. An economic depression led to slashed defence budgets, smaller establishments, and curtailed training periods. There was a nation to build, a continent to conquer: opportunities and challenges abounded. Few Canadians had much interest in "playing soldier."

The heart of the Canadian military establishment was the Active Militia, a part-time volunteer force that trained up to two weeks per year. A tiny Permanent Force was raised in the 1870s to maintain the military installations abandoned by the British Army and to provide a training cadre for the Active Militia. With its small size and plethora of tasks, the Permanent Force was hard pressed to attend even to its own training, let alone that of the Active Militia. A fair description of the army nearing the turn of the century would be a minimal force, indifferently trained, and poorly equipped.

Canada, with the longest coastline of any nation on earth, had no navy.

As the nineteenth century drew to a close, few Canadians had ever seen, let alone understood, even part of the North. Of the whites who had probed various regions, few were Canadians. Of the handful of Canadians who had shared the North with American whalers, Scottish fur traders, English missionaries, and the Indigenous peoples, none were soldiers. No situation had ever arisen which, in the government's view, required a Canadian military presence in the North. No Canadian military-leader had ever shown the slightest interest in the country's northern frontier. Before the century closed, however, the discovery of gold in the Yukon presented a situation which neither the government nor the Militia could ignore. This marked the beginning of an association between the Canadian military and the North which has endured, sporadically, to the present.



2

FALSE START

The Yukon Field Force: 1898-1900

In February 1898, Parliament opened in a Canada rushing towards the twentieth century. Wilfrid Laurier's Liberal party was at the beginning of its long tenure of power and the dynamism of the new administration was still growing. The country was finally sloughing off the effects of a long depression and moving confidently towards prosperity. The Empire was at peace. In the Northwest, the Klondike Gold Rush, that fine example of fin du siècle madness, was in full swing.

Gold was discovered in the Klondike region of the Yukon District in the summer of 1896. During the winter, the handful of prospectors who were in the area and staked the early claims made their fortunes. The rest of the world knew nothing of this. In the summer of 1897, two steamers arrived in San Francisco and Seattle bearing jubilant miners who literally staggered off the ships under the weight of the gold they were carrying. The news of the strike spread like wildfire and captured the imagination of a continent. The Rush was on. In many ways, the news of the strike happened at just the right point in history. Describing the mood of the era, Pierre Berton wrote:

It was an era occupied with money or preoccupied with the lack of it. It was an age, in the words of its historian Mark Sullivan, "when moneymaking was the most prized career." No wonder the continent went insane when two ships loaded with gold steamed in from out of the Arctic mists.

For "gold" was the magic word of the nineties.¹

If the popular attitude was "right," so was the time:

The Klondike stampede did not start slowly and build up to a climax, as did so many earlier gold rushes. It started instantly

¹ Pierre Berton, *Klondike: The Life and Death of the Last Great Gold Rush* (Toronto: McClelland and Stewart, 1958), 101.

with the arrival of the Excelsior and Portland, and reached a fever pitch at once, and remained at fever pitch until the following spring, when, with the coming of the Spanish-American War, the fever died almost as swiftly as it arose.²

As Parliament met, its members could not have known that the rush was already over. The previous year, both the American and Canadian Ministers of the Interior had issued public warnings against attempting the arduous trip to the Klondike. They were ignored.³ What was known was that a horde of people were in the process of descending upon the town of Dawson. How many more were on their way was anybody's guess. Some said fifty thousand, others said a hundred thousand; still others claimed that a full quarter million would arrive in the Yukon.

The subtle nature of this problem emerges in the prolonged debate in the House of Commons and the Senate over the proposed Canadian Yukon Railroad. There was general agreement on both sides of the House that an all-Canadian railroad to the Yukon would be a desirable feature for both nationalistic and economic reasons. There was a general underlying fear held by most Canadian politicians that a crisis could develop in the Yukon. It was envisioned that a lack of food, a breakdown in government services, or even a failure of the law enforcement agency to control the situation might result in a complete loss of Canadian control of the area. The situation was further complicated by the stated intention of the United States to send a relief expedition with food supplies into the Alaskan area of the gold fields via the Canadian route. The fact that it was the hope of the United States to use troops to carry out this re-supply mission, albeit not under arms, caused no little concern in Ottawa.

The Yukon Railway Bill was introduced in the House of Commons on 8 February 1898. In arguing the case for the proposed system, the Liberals painted a grim picture of what might happen were the Yukon transportation system to fail, given the huge influx of people into the region. They spoke of the possibility of thousands of starving men struggling for a scanty food supply. Such a situation, it was claimed, would result in "a perfect carnival of crime" which the North-West Mounted Police would be unable to control.⁴

² Berton, *Klondike*, 100.

³ Berton, *Klondike*, 122.

⁴ Canada, *Debates, House of Commons* (henceforth *Debates*), 1898, 189.

From the opposition benches, Nathaniel Clarke Wallace rose to refute the breakdown of law and order scenario. He noted that in the various mining communities in the isolated wilds of British Columbia there was no such breakdown of government services in similar conditions to that which the Yukon miners were facing. He did allow, however, that:

I think it a quite proper safeguard to send a force to the Yukon territory, a moderate force, not one involving such an enormous expense; because I think the returns will show that the expense of sending so large a force up there at the time has been very great.⁵

Wallace's concern was more with the perceived threat posed by the United States. He foresaw the need for a small expeditionary force to counterbalance the anticipated foray into the area by the troops of the United States Army on the planned relief mission:

They wanted to get a military foothold, they wanted to get some sort of possession of our Canadian territory. We know what their dealings with Canadians and British people have been. They get a foothold here and a foothold there and when they once get possession, it is extremely hard to dispossess them.⁶

At this point, the Minister of the Interior, Clifford Sifton, entered the debate. He scorned the opposition's view of the United States as a hostile and aggressive power with respect to the Yukon situation. He could envision no deliberate act on the part of the government of the United States that would weaken Canadian sovereign claims to the Yukon. He returned to the theme of the breakdown of law and order, but here he admitted implicitly that there was an American threat. It was noted that the majority of the Klondike adventurers were citizens of the United States. He emphasized the need for a Canadian railroad into the area so that food supplies, government services, and law enforcement personnel could easily enter the region. Without the railroad, he anticipated a winter in which:

We would have to face the fact that 200 or 300 of our officers would be surrounded by starving thousands of armed men, of alien men, not citizens of Canada, but citizens of foreign countries, and these men would have possession of the Yukon

⁵ *Debates*, 1898, 222.

⁶ *Debates*, 1898, 234.

district instead of the Government of Canada.... We have before us the great danger of the authority of this Government being overridden, being destroyed, and the Government of that district being, theoretically, if not actually, taken out of our hands.⁷

Railroad or not, the government began to consider steps to be taken to reinforce the forces of law and order operating in the Yukon.

Those forces of law and order were, admittedly, rather weak. In August 1897, when Klondike fever was only a few months old, there were forty members of the North-West Mounted Police stationed in the Yukon. Their numbers were quickly increased to a hundred, and then increased again. In February 1898 their strength rose to 162, including scouts, special constables, and dog handlers; by June the figure was 239. The recruiting of new constables forged ahead, but it soon became evident that, for both financial and manpower reasons, there were simply not enough federal police to fill the anticipated need in the Yukon.⁸ The government turned to the Department of Militia and Defence.

Military planning for the Yukon force began immediately. Rumours of the expedition began to circulate throughout the Active Militia and a veritable flood of volunteers applied to the Adjutant General for a place in the force.⁹ The need, however, was for trained men, and the personnel of the Active Militia in 1898 could not have been considered trained by any stretch of the imagination. The burden fell on the Permanent Force.

On 10 March, when an opposition member asked in the House of Commons about the rumours that were circulating about “a detachment of the militia or of the permanent force of Canada to be sent to the Yukon to supplement the Mounted Police force there,” Prime Minister Laurier replied:

In view of the very large influx of people who are expected to crowd into the Yukon, it has been thought advisable to have a sufficient force there to maintain law and order. This could not be done unless the Mounted Police, which is practically a military body, were largely increased. But we have thought it well to follow the practice that has obtained in other countries

⁷ *Debates*, 1898, 625.

⁸ *Debates*, 1898, 452, 7353.

⁹ Library and Archives Canada (henceforth LAC), RG 9 11 B1 (Correspondence of the Adjutant General's Office), vol. 1, 499.

and since we have a small permanent force, to employ it in that country, where the need has recently arisen.¹⁰

Accordingly, on 21 March, 1898, an Order-in-Council was signed to the effect that “a Field Force composed of volunteers from the permanent troops of the Dominion should be dispatched to Fort Selkirk.”¹¹ The issue was not immediately raised in the House, and in point of fact the troops were already on their way when an opposition member asked for details, noting that “it is going to cost a large amount of money, and that the matter has not been discussed in the House at all.”¹²

In replying to the question, Sir Frederick William Borden, the Minister of Militia and Defence, provided insight into the government’s rationale in what was for Canada an unprecedented event, saying “the principal object of the militia is to support the civil power, and it is for the purpose of aiding in this respect that it is proposed now to send this force into the Yukon country.”¹³ The Minister went on to note:

it was intended to increase the mounted police force, but on further consideration it was thought that it would better serve the objects in view to send a detachment of the permanent force, which would establish a central force in that country, would have a certain decided moral effect upon the scattered population through the district and, if necessity demanded, would be ready to assist in enforcing law and maintaining order there.¹⁴

Questioned on comparative costs of the two options, Minister Borden was quick to point out that the force of soldiers would cost the government considerably less than would an equivalent-sized body of Mounted Police.¹⁵

The deployment of the Yukon Field Force in many ways went beyond simple aid of civil power. A centralized military force in the heart of the Yukon also stood as a formidable symbol of national sovereignty. In this respect, the sovereignty function of a pure military force went beyond even

¹⁰ *Debates*, 1898, 1577.

¹¹ Cited in Canada, Sessional Papers, *Report of the Department of Militia and Defence* (henceforth *Militia Report*), 1898, 24.

¹² *Debates*, 1898, 4604.

¹³ *Debates*, 4795.

¹⁴ *Debates*, 4795.

¹⁵ *Debates*, 4795.

that which could be established by a para-military force such as the Mounted Police were at the time. When deployed, the force would indicate to all and sundry the will and intention of the government to use as much force as necessary to maintain the rule of Canadian law in the Yukon.

A further aspect of the decision to form the Yukon Field Force that merits attention is the cost factor. It was intended to use the military as virtual auxiliaries to the Mounted Police. To this end, the government went so far as to confer honorary military ranks on the two senior police officers in the district.¹⁶ All other things being equal, the savings offered by the military alternative were attractive to the government.

There is no evidence that any responsible official of the United States government advocated a policy of American territorial expansion into the central Yukon. Similarly, Laurier's government did not believe that the Americans were seeking to expand geographically at Canadian expense in this instance. Extreme remarks by a few elected representatives on both sides of the border may safely be ignored.

The "loss of control" scenario, however, was a real Canadian concern. At least eighty per cent of the gold seekers in the Yukon were citizens of the United States. Virtually every adventurer had a personal firearm of some kind. It was feared that a spontaneous riot, or even a planned "coup," could effectively neutralize the agents of the Canadian government in the area. From there it would be a short step to the establishment of a "provisional government" and a request to the United States to take over the administration of the territory. A development such as this was by no means without precedent: California and Oregon had come into the American Union along generally similar lines.¹⁷

The Yukon Field Force emerged as a hybrid unit. It appears that there was no way in which any of the three Permanent Force units alone would have been able to meet the requirement for troops, given their multitude of other tasks related to the training of the Active Militia. Thus, the Royal Canadian Dragoons, the Royal Canadian Artillery, and the Royal Regiment

¹⁶ LAC, RG 9 II A1 (Correspondence of the Deputy Minister of Militia and Defence), folio 16937.

¹⁷ There is no explicit expression of this concern by Canadian government officials, but it is implicit in many of the statements made in the House of Commons by members of the cabinet. Windsor draws the same conclusion. See John B. Windsor, "The Yukon Field Force" (unpublished honours B.A. thesis, University of Victoria, 1972), 90-93.

of Canadian Infantry were all ordered to provide troops. Command of the Force was given to Major Thomas D.B. Evans of the Royal Canadian Dragoons, who was promoted to the local rank of lieutenant-colonel for the period of his command.¹⁸ The Force concentrated in the Ottawa area in April 1898.

It was immediately apparent that the kitting and equipping of the Force would be no simple matter. For the first time, the Canadian defence establishment was forced to consider the single most important military characteristic of the North: isolation. In the Yukon, there were no established sources of services and supply. There could be no local purchase of essential commodities. The Force would have to be prepared to operate self-sufficiently once it was in the Yukon. The lists of the general stores that had to be transported, and even of the items of the individual soldier's kit, were huge.¹⁹ Even such a mundane item as uniforms presented problems, for not only did the troops require their regular field and garrison dress, but they also needed a durable fatigue uniform and special environmental clothing that would allow them to face the rigours of the winter.

It is not surprising that all the necessary equipment and environmental clothing for northern operations had to be obtained from civilian sources on special contract. The fact that Canada's soldiers were neither trained nor equipped to operate in the northern half of the nation had never previously concerned Canadian political or military leaders.

As the scheduled departure date for the force drew near, various individuals and groups made efforts to have themselves attached to the party, for the great problem facing anybody intending to work in the Klondike was to get there. A government-organized expedition presented itself as a heaven-sent opportunity for civilians to solve transportation, shelter, and food problems. Four members of the Victorian Order of Nurses were accepted into the group. Their mission was to provide medical services in the Yukon, and their presence in the district was in the interest of the government in terms of supplying needed services.²⁰ Two Roman Catholic

¹⁸ E. Pye, "Yukon Field Force," *Canadian Army Journal* 4:6 (November, 1956): 30.

¹⁹ LAC, RG 9 11 A1, folio 71958.

²⁰ *Ottawa Evening Citizen*, 26 March 1898. That the ladies managed to get themselves attached to the Yukon Field Force is perhaps attributable to the fact that Lady Aberdeen, the wife of the Governor General, was the founder of the order.

priests managed to join the expedition based on what appears to have been nothing more than the personal friendship of one of the clerics with the Prime Minister. A similar application by a British scientific party was turned down.²¹

By May 1898, the news of the Klondike was pushed off the front pages of Canadian newspapers by reports of the events of the Spanish-American War. Perhaps inevitably, some of the “glamour” spilled over onto the Yukon Field Force. After all, there was Canada also dispatching its own, albeit small, expeditionary force. As the *Ottawa Evening Citizen* pointed out, the Canadian troops too were going to a far-off land where they would face danger and hardship, although of a different scale and magnitude than that being encountered by American troopers and bluejackets.²²

The capital gave the Force an impressive send-off. The troops were inspected by both the Prime Minister and the Governor General on different occasions. On the eve of their departure, the Minister of Militia and Defence hosted a farewell dinner for the officers to which several parliamentary notables and senior military officers were invited. On the morning of 6 May 1898, just prior to entraining for the west, the Force officers breakfasted with the Governor General and the Prime Minister. A substantial crowd saw the troops off at the station.²³

The crossing of the continent via the Canadian Pacific Railroad special train was something of a triumphant procession. The Force was feted in Winnipeg where they spent the night and paused briefly to pick up an additional draft of troops from the Royal Canadian Dragoons. Their arrival in Vancouver just after noon on 11 May was similarly a grand occasion. The *Vancouver Province* noted that the Force was “welcomed to the city by a huge crowd of citizens,” and was later extended a formal welcome by the mayor and aldermen.²⁴

It is interesting that both newspapers cited here fully supported the government’s reasons for the dispatch of the troops. The sovereignty and law and order themes were paramount. The *Ottawa Evening Citizen*, editorializing on the need for a Yukon railroad, noted:

We were given to understand that famine and rebellion were lurking among the fastnesses and along the trails and that, if

²¹ LAC, RG 9 11 A1, folios 16688, 16713.

²² *Ottawa Evening Citizen*, 7 May 1898.

²³ *Ottawa Evening Citizen*, 7 May 1898.

²⁴ *Vancouver Province*, 11 May 1898.

troops could not be hurried into the Klondike on short notice, the richest mining districts of the world might pass under the control of an alien population.²⁵

The 203 members of the force, plus their associated hangers-on, departed Vancouver on 14 May aboard the steamship *Islander*.²⁶ The selected route was certainly not the easiest. The simplest and most direct route to the Klondike was undoubtedly via the American port of Skagway and over the White or Chilkoot Passes into the Yukon. There were several exclusively political reasons that led to the rejection of the direct route. The selected route followed the proposed course of the Canadian Yukon Railroad. After having touted the advantages of such a route in the House of Commons for months preceding the dispatch of the Force, the government was obliged to support its own contentions about the advantages of the “all-Canadian” route and to order the troops to follow it. The second reason was the diplomatic problems that might have ensued if a formed body of Canadian troops had to cross through American territory. There were many vocal objections in Canada against allowing American troops to traverse the Yukon on their way to Alaska. The government could hardly have gone hat in hand to Washington and ask that Canadian troops be permitted to cross Alaska on their way to the Yukon. Thus, the Yukon Field Force was to be subjected to the rigours and difficulties of the Wrangell-Telegraph Creek-Teslin route: the Stikine Trail.

Actually, the so called all-Canadian route was not all-Canadian at all, as it was necessary to pass through American territorial waters in the Alaskan Panhandle and also to transship from ocean-going steamer to riverboat at the American port of Wrangell. The best that could be said for the route was that it was less American than the alternatives. No difficulties were encountered in the United States territory. The weapons and supplies of the troops cleared U.S. Customs in bond and the troops of the American Army garrison at Wrangell welcomed their Canadian counterparts in the community during the two days it took to transfer the Force’s supplies to a pair of river boats.²⁷

²⁵ See *Vancouver Province*, 11 May 1898, and *Ottawa Evening Citizen*, 11 May 1898.

²⁶ R.C. Featherstonhaugh, *The Royal Canadian Regiment, 1883-1933* (Montreal: Gazette Printing Company, 1936), 67.

²⁷ Featherstonhaugh, *The Royal Canadian Regiment*, 230.

The river voyage to Glenora was accomplished with no more than the usual number of mishaps, groundings, and mechanical breakdowns. At Glenora, the Force began an intensive training period designed to accustom the troops to the rigours of marching over what passed as a trail in the vastness of the North. There was no railroad from Telegraph Creek to the head of navigation at Teslin. The great railroad project had foundered in the Senate where the Conservative majority would have nothing to do with what was considered an excessive land grant accompanying the contract. The troops, like the rest of the hapless gold seekers using the route, would have to walk.

The rigours of the Stikine Trail, and indeed all of the routes to the Klondike, have been well chronicled. The troops of the Yukon Field Force suffered no more and probably a good deal less than their fellow civilian trekkers. Pierre Berton paints a picture of the conditions on the trail:

A wagon road was supposed to lead overland to Teslin Lake, one hundred and fifty-six miles distant, but the road was largely nonexistent.... The route to Teslin became black with people and animals of all description[,] ... piles of useless equipment strewn along the wayside sacks of sugar, discarded clothing, the wreckage of broken sleds.²⁸

The presence of the Yukon Field Force was also noted:

And in the midst of all this hurlyburly, the most outlandish sight of all: two hundred and three uniformed soldiers in scarlet jackets and white helmets marching as best they could in close order ... trudging in step through the mudholes and over rocks and stumps, performing barrack-square evolutions, spearing fish with their bayonets, and dragging their Maxim guns along with them.²⁹

²⁸ Berton, *Klondike*, 230.

²⁹ Berton, *Klondike*, 230. Berton exaggerates in some respects here. There is no evidence that the troops attempted to march in formation or to keep step as they struggled along the trail; nor did they wear regular dress uniform. At evening bivouac sites, however, drill periods were regular features of the Force's daily routine. Parade square drill in the middle of the wilderness may seem ludicrous today, but the notion was in keeping with turn of the century ideas of military discipline and how best to maintain it. The officers of the Force justified the drill sessions on the grounds that it helped to remind the troops that they were part of

In retrospect, the march to Teslin was a significant accomplishment for the Force. No casualties were sustained, and the main body arrived in that small community by mid-August. In his Report for the year, the Major General commanding the Canadian Militia, Sir Edward T.H. Hutton, wrote:

The march of the force across an hitherto but little known and very difficult country was conducted with judgement and skill on the part of the officer in command.

The difficulties encountered were not unlike those experienced by the Red River Expedition in 1870. It may fairly be said that this small force of Canadian troops has well sustained the reputation of British soldiers for perseverance, persistence of purpose, endurance and discipline under trying circumstances.³⁰

On 11 September, the Force reached Fort Selkirk, a former Hudson's Bay Company post. Selkirk was selected by an optimistic government as the future administrative center of the Yukon because it was centrally located in the region and was not plagued by the swampy conditions of low-lying Dawson. Accordingly, Evans was ordered to establish his main base at that site. An advanced party of artisans and skilled axemen had preceded the main body, and work was well advanced on the construction of the barracks and the associated buildings. The epic journey—by rail, steamship, river boat, foot and scow—was over. The Yukon Field Force had arrived in its theatre of operations.

In Dawson, there was some question as to whether the Force was needed. The editor of the *Klondike Nugget*, which had begun publication in June, commented in July on the "police reinforcements" who were rumoured to be on their way. The story had become somewhat warped in transmission and the members of the Yukon Field Force were identified as "a body of two hundred and fifty Winnipeg special policemen."³¹ In any case, the editor observed that the great rush of people that the Dominion government had envisioned had not really materialized. As a result, "that number will be

an organized military force and not members of the rabble that surrounded them. Featherstonhaugh, *Royal Canadian Regiment*, 70. Documents held in Library and Archives Canada do not record what the troops thought of it all.

³⁰ *Militia Report*, 1898, 25.

³¹ *Klondike Nugget* (Dawson), 12 July 1898.

superfluous. The present force is ample and is effectually and satisfactorily policing the district without any addition to their number.”³²

The opinions of the local journalist to the contrary, however, upon the Force’s arrival in Selkirk, Superintendent S. B. Steele of the Mounted Police in Dawson immediately applied to the Yukon Commissioner to have fifty men deployed to Dawson to supplement the police. Again, the law and order issue was paramount, as Steele felt that there were not sufficient police available in the gold field area to respond to possible emergencies. By December 1898, the strength of the Dawson detachment was increased to two officers and seventy other ranks.³³

While the first winter for the Force in the North passed, thoughtful people in Ottawa began to consider the Force and ask questions as to precisely what the troops did. An inquiry by the Minister to Militia Headquarters concerning the exact nature of the troops’ duties must have caused some embarrassment to the senior staff officers there. They were forced to admit that they were not sure just what two hundred of their men were doing, but it was allowed that they would ask the commander.

Colonel Evans replied to the query at some length on 1 August 1899. At Fort Selkirk, he reported, there was a barrack guard of five men and a regimental fire piquet of four. Aside from these regular duties the troops were occupied in “routine garrison drills and duties.” At Dawson, the list of responsibilities of the Force was somewhat more impressive. The troops mounted guard on a regular basis on the office and residence of the Commissioner of the Yukon Territory and a guard was mounted during the evening hours on the three banks of the community. The Dawson detachment also provided escorts for civil prisoners when the latter were engaged on labour projects. In addition, a section was employed two or three times a month in escorting the gold shipments that came in from the diggings on the creeks to the city banks.³⁴

It is obvious that the Force was making itself useful by acting as a form of police auxiliary. In addition, as the *Klondike Nugget* noted, their presence was most welcome whenever Dawson suffered one of the periodic fires that devastated the town. It is equally obvious that the anticipated crisis that prompted the Force’s deployment in the first place had not emerged.

³² *Klondike Nugget* (Dawson), 12 July 1898.

³³ LAC, RG 9 11 A1, folio 17743.

³⁴ LAC, RG 9 11 A1, folio 17743.

Whether the presence of the troops contributed significantly to the continued peace cannot be determined. By the summer of 1899, the rush was over, and the population of Dawson was rapidly dwindling. The North-West Mounted Police was established in the community from the beginning and had never lost control. In retrospect, Dawson was a very peaceful city, particularly in comparison to American frontier mining communities of the nineteenth century.

Pressure from both within the military establishment itself and from the ranks of the opposition in the House of Commons began to mount to withdraw the Force. As early as the winter of 1898, General Hutton wanted his troops back. The War Office had seconded Hutton, a British officer, to Canada and he came dedicated to the concept of imperial defence and the development of a militia army. There were several much-needed reforms that he wanted to institute in the Active Militia, and to carry out these reforms he required the services of the troops of the Permanent Force stationed in the Yukon. As he noted in his annual Report:

With reduced number of Permanent troops now available, it is found to be impossible to satisfactorily carry out the instructional system for officers and N.C. officers of the Active Militia at the various Schools of Instruction. It is even difficult to carry out the ordinary routine duties appertaining to troops in barracks. I have already represented that officers and men at the various schools of instruction are overworked.³⁵

Hutton wanted the troops to be withdrawn in the summer of 1899. Failing that, he recommended that the establishment of the Permanent Force be increased to offset the loss of men to the Yukon. He noted that the 203 soldiers of the Permanent Force serving in the North amounted to 24.4 percent of the regular army of Canada.³⁶

The eventual result was a compromise. A portion of the Force was withdrawn, including the commander, who was slated to go to South Africa as part of the Canadian contingent serving there. The 88 soldiers who remained, now styled "The Yukon Garrison," abandoned Fort Selkirk and established themselves in Dawson City.³⁷

³⁵ *Militia Report*, 1898, 36-37.

³⁶ *Militia Report*, 1898, 36-37.

³⁷ *Militia Report*, 1899, 18-19.

In the House of Commons, an opposition member accused the government of wasting money on the Force, claiming that the Yukon was perfectly peaceful and the Mounted Police who were on the scene at the time of the rush would have been adequate to control the situation. Frederick Borden replied that the increase in the police establishment and the raising of the Yukon Field Force was a precautionary measure based upon the anticipated influx of people into the territory. He went on to produce a fine argument for the value of military presence and the deterrent and stabilizing effect a garrison has on the population:

In mining communities such as that in the Yukon, there is always danger to peace and order ... as the presence of a force amongst the population will serve to preserve order.... It is altogether unjustifiable ... to attempt to argue that because that force has not been actually called out to use its firearms, it, therefore, is unnecessary. It is true there has been good order in that country, but there has been good order because the Government had taken the precaution of sending the Mounted Police there and sending the militia there to see good order was preserved.³⁸

The difficulty inherent in such a proposition is that it is impossible to prove one way or the other. Prudence dictates that it is better to react on the side of strength.

The winter of 1899 passed for the Yukon Garrison much as had the previous year. The rush was clearly over, and former citizens of Dawson continued to leave. The days of the Force were numbered, for the requirement for the troops' presence had now passed. In his year-end Report, the General Officer Commanding the Militia noted that a decision on the Force would be required early in 1900. By May the period of service of the volunteers would have expired and it would be necessary either to replace the troops or to renew their terms of service if it were decided to retain the garrison.³⁹

In March, Sir Charles Tupper, the Leader of the Opposition, again brought up the issue of the troops in the Yukon. In view of the drastically decreased population of the territory and the continued presence of the Mounted Police, he called for the withdrawal of the remainder of the Force

³⁸ *Debates*, 6321-2.

³⁹ *Militia Report*, 1898, 19.

on the grounds that it represented a needless expenditure of public monies. He maintained that, as events had turned out, there never was any need to dispatch the Force in the first place for “the Yukon has been one of the most orderly places in the Dominion.”⁴⁰ The Prime Minister’s reply repeated the argument that the reason for the tranquillity of the area even at the height of the gold rush was “largely due to the care taken by the government to provide such a police and military force as to check the possibility of any demonstration.” He did agree, however, that the reports of the Force at the end of the winter season would be carefully studied and that there was the possibility that the government would decide to withdraw the Force.⁴¹

The Cabinet considered the situation in May. A report submitted by the Minister of Militia and Defence noted that if a garrison were to be maintained in the Yukon, it would have to be kept at the present strength of about 88 to be efficient. He further noted that few, if any, of the members of the Permanent Force volunteers then serving in the Yukon intended to re-engage for a further period of service in the North and hence the government would be faced with the expense of dispatching replacements the coming summer. In any case, the minister admitted that there was no longer any justification for keeping the Force in the Yukon as the situation had stabilized completely. The government resolved to withdraw the troops on the opening of navigation in the summer of 1900. The men were needed elsewhere to meet the Canadian commitment to South Africa and the new requirement to garrison the former imperial naval fortress at Halifax.

Upon receipt of the withdrawal order, the Yukon Garrison quickly made the necessary preparations. Rifles and ammunition were left in Dawson under the care of the police, available for issue should any unanticipated emergency arise. In July 1900, the Yukon Field Force was no more.⁴² In recognition of their services, the General Officer Commanding the Militia commented: “A soldier-like spirit and zealous attention to duty characterized all ranks of this Force during its two years’ service in the Yukon.”⁴³

For a few years an Active Militia Company existed in the Klondike. The Dawson Rifle Company with an established strength of 45 all ranks was authorized on 1 July 1900. The unit paraded regularly in mufti until the

⁴⁰ *Debates*, 1900, 1209.

⁴¹ *Debates*, 1900, 1210-11.

⁴² LAC, RG 9 11 A1, folio 18637.

⁴³ *Militia Report*, 1900, 43.

following year when uniforms, arms, and ammunition were received from Ottawa. The organization existed for five years, during which time it acted much like any other Active Militia unit.⁴⁴ The continuing fall of Dawson's population resulted in the disbandment of the unit in November 1905.⁴⁵

In this manner, the Canadian military vanished from the North. The Yukon Field Force must be looked upon as an aberration in the development of the Canadian military establishment. The military presence in the North was as ephemeral as the event which had prompted it. The townsite at Fort Selkirk was never built and the Field Force barracks slowly crumbled into decay, eventually to vanish beneath encroaching vegetation. With the gold rush over, there was no military interest in the North and precious little governmental interest. In the realm of defence, interest continued to focus on the reform of the Militia, in the developing concept of imperial defence, and to the role that Canada was to play in the Empire of which it was a part. For many years, the only uniforms to be seen in the North were those of the Royal North-West Mounted Police. A pattern of sporadic military involvement in the North had begun. None of the soldiers who had served in the Yukon ever returned. What experience they had gained was quickly lost to the Militia.

⁴⁴ Department of National Defence (DND), Directorate of History and Heritage (henceforth DHH), folio 5001.009 (D7), "Lieut Col. H. D. Hulme Tells of Early Days of Rifle Company," newspaper (unidentified) clipping. The author of the article was the first commanding officer of the Dawson Rifle Company.

⁴⁵ Cited in Pye, "Yukon Field Force," 34.

3

HIATUS

The Empty Years: 1900-1922

There is an historic Canadian tendency to be concerned with the North only during times of crisis or periods of economic prosperity. At the turn of the century, the Klondike crisis had passed, but a booming economy allowed Laurier's Liberals to turn some of their attention to the North. In the few years that remained before the outbreak of war, Canada made some progress towards exerting national authority in the Arctic. A series of flag-showing, proclamation-issuing, cairn-building expeditions was sent into the Eastern Arctic. These voyages also acted as bases for scientific study, customs collection, and fishery control. RNWMP detachments were established along the western shore of Hudson Bay and on the Beaufort Sea. A study was commissioned to investigate the strength and validity of Canadian claims to the territories and waters of the Arctic. Legislation was enacted organizing the Arctic territories for administrative purposes. In the Senate, Senator Pascal Poirier proposed that Canada declare sovereignty over all lands lying between its eastern and western borders from the mainland to the pole. The resolution, which came to be known as an expression of "The Sector Principle," was in time to become an important issue in northern sovereignty.¹

Several factors precipitated this sudden flurry of interest. Probably the most important of these was the concern over Arctic sovereignty. It was appreciated by a few thoughtful politicians, civil servants, and private citizens that unless Canada showed some interest in the Arctic and took at least some symbolic actions to demonstrate its authority, whatever legal claims the country had to the territory might slip away in the face of occupation and development of the region by citizens of other nations.

¹ Morris Zaslow, *The Opening of the Canadian North 1870-1914* (Toronto: McClelland and Stewart, 1971), 249-68.

It was clear that despite what Canada and Great Britain might claim, foreign nationals operating in the High Arctic around the turn of the century regarded the area as no man's land. They had little reason to think otherwise, for aside from a government-sponsored expedition in the mid-1880s to investigate shipping possibilities in the Hudson Straits area, agents of the Canadian government had never been into the Arctic. American whalers occupied semi-permanent base camps in the Eastern Arctic, where they carried out an increasingly profitable fur and ivory trade as a subsidiary activity. They also penetrated into the Beaufort Sea in the Western Arctic, established prosperous fishery, and (if one could believe contemporary Canadian newspaper accounts) debauched the local Inuit. Robert Peary's polar expeditions of 1898, 1905, and 1908 were carried out with a cavalier disregard for the environment, the Indigenous peoples, and the sensibilities of Canada. Peary's expeditions were all supplied with a generous quantity of Stars and Stripes which he did not hesitate to plant along his routes.² To the west of Ellesmere Island, Norwegian explorer Otto Sverdrup and his partners were carrying out important geographical and scientific work, discovering in the process some hitherto unknown islands. This expedition was in time to raise some delicate questions of Canadian sovereignty. While Britain had ceded to Canada all the islands between the mainland and the pole, the question arose over the international validity of the scope of the bequest: could one nation cede to another something that the donor did not even know it owned?

Much of the government sponsored activity in the 1897-1914 period was designed either to control the above-mentioned ventures or to act as a Canadian counterpoise to the international implications of such foreign activity. There were, however, other reasons for the Canadian programs. As a sovereign state it was the right of Canada to levy customs duties on trade being conducted in its territory. Similarly, it was its right to demand that whalers operating in Canadian waters take out the appropriate licences. While this aspect had strong overtones of maintenance of sovereignty, there was also the simple fact that the country was losing revenue because it had no means either of enforcing the regulations or even of collecting the money. Another factor was that several departments of the federal government had an interest in the North as a direct extension of their regular responsibilities. The Geological Survey Branch wanted more basic data about all aspects of

² R.A.J. Phillips, *Canada's North* (Toronto: Macmillan, 1967), 101.

the North. Economically, there was increasing interest in a possible Hudson Bay shipping route for rapidly expanding wheat exports. Before regular shipping schedules could be established, however, it was realized that much basic data on ice conditions in the Bay and the Straits would have to be collected. In all, several departments of the federal government became involved in research and exploration activities in the Arctic during this period. The Department of Militia and Defence was conspicuous by its absence.

By no stretch of the imagination was the North at the turn of the century, and in the first two decades beyond, a potential battle area or invasion route. Isolation, distance, and climate all combined to secure Canada's North. What little local shipping there was did not represent a worthwhile target for anti-shipping operations. There were no strategic targets in the North. Aviation, still in its infancy, had not developed the necessary technology to permit trans-polar flights.

In 1903, in response to public pressure to dispatch an Arctic patrol to reinforce Canadian sovereign claims, most other nations would have sent a gunboat or a cruiser. The significance and utility of naval units "showing the flag" was well understood in the western world. The option was not even considered, for Canada still had no navy. In the same vein, there was a clear need to deploy agents of the federal government to occupy land and enforce the laws of Canada in the Arctic, so the government turned instinctively to the Mounted Police. There was no consideration whatsoever of using troops, even though the Mounted Police were fully occupied with their responsibilities in the Yukon. Canada simply marked time in the Arctic, doing the absolute minimum required to reserve its claim to the far northern lands against the day when they might prove to have some utility to the nation.

It was a two-way street. Political leaders never thought of the Militia, and Militia leaders certainly never suggested military involvement in the North. A mere two hundred men dispatched to the Yukon had seriously disrupted the Permanent Force. Canada's General Officers Commanding the Militia and later Chiefs of Staff were not about to suggest a further commitment for their tiny force. Internal reform, training, and imperial defence—these issues and these alone occupied the attention of military leaders. Not only was a potential not utilized, it was not even realized that it existed. The annual Reports of the Department of Militia and Defence from 1901 to 1922 made not one single reference to the North.

In the pre-war years, what Canada did, albeit slowly and with no great sense of urgency, was build a Militia Army along the lines that General Hutton had envisioned. Beginnings were made on the establishment of the various support arms and services that a modern field army required. Militia staff courses and staff rides were undertaken with a view to increasing the technical competence of Canada's part-time soldiers. A mobilization plan was drafted. The size of the force continued to grow. In the summer of 1914, over 50,000 volunteers attended the annual training period; the Permanent Force approached 3,000 all ranks.³

Canada also laid down the beginnings of a navy. The early history of the Royal Canadian Navy was by no means smooth. There was fundamental disagreement within the country as to the purpose, role, and, most importantly, the relationship that Canada's maritime force should have with the Royal Navy. The eventual decision was that Canada should have its own navy which would come under the higher command of the Admiralty during time of war. In August 1914 Canada's navy consisted of two aged ex-Royal Navy cruisers, one on each coast.

There was no air force, nor were there any military aircraft. In view of the eventual course of the First World War, it is manifestly obvious that Canada was in no way even vaguely prepared for the scale of conflict that developed. In this respect it was not alone. No nation had even begun to appreciate the implications of total war or the vast technological superiority that the defence had over the offence.

Canada's war effort can be seen as a national spasm. The Canadian contribution was out of proportion to the pre-war military capability, and in many ways was out of proportion to the size of the Dominion. It is clear now that Canada went to war with a good deal of enthusiasm and patriotic fervour. Many of those who volunteered during the hot days of August did so with the nagging fear that the war would be over before they got to Europe.

They need not have worried. Three years later, a reluctant government was forced to begin conscription to keep the deployed forces up to strength. The bulk of these forces were embodied in the Canadian Expeditionary

³ See K.C. Eyre, "Staff and Command in the Canadian Corps" (unpublished M.A. thesis, Duke University, 1967).

Force, the teeth of which was, by 1917, a large, powerful four-division corps fighting on the Western Front.⁴

The Royal Canadian Navy virtually withered on the vine during the war years. Canada ended the conflict with a handful of trawlers and drifters engaged in coastal patrol work. The two old cruisers had long since been laid up. Those Canadians who wished to serve at sea joined the Royal Navy.

Canada made no serious attempt to develop its own air force during the war. Those Canadians with a bent for aviation served in the Royal Flying Corps and, later, in the Royal Air Force. Their numbers and their accomplishments were significant. By the war's end, it has been estimated that fully 25 per cent of the aircrews of the RAF were of Canadian origin.

The war in Europe dominated Canada. For four years, the nation looked east. The North was forgotten—with one exception. In 1913, the Conservative administration of Robert Laird Borden sponsored an expedition of exploration and scientific research into the Western Arctic. Under Vilhjalmur Stefansson, a portion of the Canadian Arctic Expedition remained in the field throughout the war. Apart from this handful of men, the Arctic was devoid of federal government representation.

With the Armistice, Canada quickly divested herself of the trappings of war. The mighty Canadian Expeditionary Force vanished almost overnight. The country lapsed into its traditional defence posture: a voluntary militia supported by a small Permanent Force of professional soldiers. Miniscule naval and air forces were also retained.

In the immediate postwar years, the federal government perceived an imperative to respond to the twin demands of sovereignty and national development in the North. With respect to the former, neither the government nor the defence establishment anticipated any role for the military, although inherent in the situation were certain possibilities that were ignored by both. In the field of national development, however, two of the war-inspired technologies, aviation and wireless communications, were seen to have tremendous importance for the future development of the North. The Canadian military establishment was uniquely qualified to make significant contributions in both areas.

⁴ See John Swettenham, *To Seize the Victory: The Canadian Corps in World War I* (Toronto: Ryerson Press, 1965).

4

NATION BUILDING I

The Interwar Years 1922-1939

The 1922 Eastern Arctic Expedition

Soon after the end of the Great War, Canadian attention again turned to the unresolved issue of sovereignty over the islands of the Eastern Arctic. There was no official Canadian presence in the area since the visit in 1910 of Captain J.-E. Bernier on the third of his prewar patrols in the Coast Guard Ship *Arctic*. This was despite the fact that in 1904 the Dominion Astronomer, Dr. W.F. King, on completion of his commissioned study of the problem of sovereignty in the Arctic, had concluded that Canada's claim was in many ways imperfect. In addition, there were strong rumours circulating in Ottawa that other nations were preparing to occupy sites in the "Canadian North." The Danes, long established in Greenland, were reportedly planning an expedition to Ellesmere Island, an area they regarded as unclaimed. The Norwegians had an historic but undeveloped claim to the islands west of Ellesmere, thanks to the explorations and discoveries of Otto Sverdrup in 1903-05. American sponsored explorations were apparently in the offing and it was reported that a recently published American atlas showed Ellesmere in the same colour as Alaska—an ominous sign to concerned Canadians.

In response to these perceived threats, the Department of the Interior formed the Advisory Technical Board in 1919. It consisted of a small group of senior civil servants under the chairmanship of the Surveyor General, Dr. Edouard Deville. The Board's mandate was twofold: to determine whether the Canadian title to the Arctic islands was worth developing; and, if so, to recommend what steps should be taken to establish such a title. The focus of the study was on the islands of the Eastern Arctic, but in some respects, it touched on factors affecting the entire archipelago.

Neither the potential value nor the importance of the islands was generally perceived in the Dominion. Still, the Board found many compelling reasons for Canada to perfect its claim to the region, noting that "Ellesmere and the other northern islands, have always been regarded in

Canada as Canadian, and there doubtless would be strong sentiment against their being taken possession of by any other flag.”¹ It is probable that the emotional and nationalistic nature of the issue would in itself have been strong enough to cause the Board to recommend development of the Canadian claim.

In any case, the Board produced several other reasons that were both perceptive and far-sighted. They noted the role that the islands might play in civil and military aviation. Dealing with national security, they broached a subject that was to beguile and haunt defence planners in the late 1940s and early 1950s. As the Board saw it, “It would be undesirable and dangerous to allow another nation to get a foothold in the north now that aerial navigation has become so far advanced.” Nor was the significance of the Alaska precedent lost on the Board members. They understood the unknown land that was dubbed “Seward’s Folly” at the time of purchase not only turned out to be a literal gold mine but also eventually yielded substantial other resources. It was anticipated that the Arctic Archipelago might well contain vast reserves of mineral wealth. There was even at that early date the suspicion voiced that oil might be discovered in the more westerly islands. Clearly, for a wide variety of reasons, the Board thought that it was in Canada’s immediate interest to develop its sovereign claim.

Of the various methods by which a state can acquire territory within the established conventions of international law, occupation was seen by the Board as most appropriate to the case of the islands of the Eastern Arctic. Occupation required more than just a symbolic act such as the hoisting of a flag. A real claim to sovereignty, through occupation, had to be based upon a physical presence and the establishment of government administration in the area.² Obviously, some agents of the Canadian government were going to have to go north.

The Board was quite definite as to who these agents ought to be: sovereignty in the Eastern Arctic was to be established by the Royal

¹ Canada, Department of the Interior, *Report by the Sub-Committee of the Advisory Technical Board* (henceforth *ATB Report*) (n.d. 1919?). There are apparently several drafts of this report extending well into 1920. The one referred to here is probably the first draft. It was submitted to the Commissioner of the RCMP in January 1920. The report is held in RCMP, Historical Section, File G-516-37, *Sovereignty over Islands Lying North of the Mainland of Canada* (henceforth *RCMP Northern Sovereignty*), vol. 2.

² *RCMP Northern Sovereignty*, vols. 2.

Canadian Mounted Police. The men of the Force had already established a presence in the Yukon, the Mackenzie, and along the fringes of Hudson Bay. It seemed natural that now they should be sent farther afield. The Board does not appear even to have considered such alternatives as a military garrison or a civil agency of the Department of the Interior.

The *Report* produced by the Advisory Technical Board became the key planning document for subsequent Canadian occupation of the Eastern Arctic. Virtually all its recommended programs and approaches were eventually implemented. The one area where the opinion of the Board differed from that of the Cabinet was the need for haste. The bureaucrats thought that immediate action was imperative; the politicians perceived no such pressure.

The members of the Board were concerned with the need “to get there first,” but by the time the *Report* was fully considered in the Department and the Cabinet it was mid-1920 and the summer shipping season was too far advanced for Canada to do anything concrete that year. It was the potential Danish “threat” to Ellesmere Island that most concerned the Department of the Interior. The Board went so far as to outline a tentative plan to be used if definite evidence became available that the Danish government was going to support an expedition in 1920. They recommended that Canada should attempt to borrow an airship from the imperial government. This airship was to be loaded with a group of RCMP constables and a winter’s worth of supplies and launched from Scotland towards the Pole.

Over Ellesmere, the police were to parachute onto the island in time to greet the Danes.³ Given the state of the art of Arctic aerial navigation and parachuting technology, it is fortunate for the police that there never was a need to implement this hare-brained pre-emptive scheme.

At first glance, it would have been reasonable to turn to the Department of Militia and Defence for the men for this contingency plan. “Airborne operations,” as the mass parachuting of troops was to become known in the next war, were still a phenomenon of the future. Parachuting in the early 1920s was still very much a fairground display stunt or, increasingly, a

³ Actually the Danish government was quite helpful to Canada when the expedition was actually launched and continued to provide assistance during the period 1922-25. See *RCMP Northern Sovereignty*, vols. 2, 3.

lifesaving means for aviators. The link between parachuting and the military had yet to be formed.⁴

In another sense, this minor plan is illustrative of the way that the defence establishment was regarded in Canada. There is no evidence that the Department of the Interior ever even considered consultation with the Department of Militia and Defence on any aspect of the problem. On the other hand, it is unlikely that the military would have had the slightest interest in the project had they been approached. Canadian attitudes were very fixed. The business of the military establishment was the defence of the country and the support of the forces of law and order. The protection of sovereignty was the responsibility of the RCMP. There is no evidence whatsoever that anybody—politician, civil servant, professional soldier, or private citizen—at the time considered that the military had or could have a role to play in the establishment and protection of sovereignty.

The Danes did nothing in 1920, and Canada was able to proceed at a leisurely pace with the planning and the preparations for an expedition in 1921. A wooden-hulled sailing ship, the *Arctic*, was procured for the expedition and a massive refit was begun. Its former Master, Captain J.-E. Bernier, Canada's most experienced Arctic mariner, was called out of retirement. J.D. Craig of the Department of the Interior was appointed commander of the expedition, and staff officers at RCMP headquarters examined the nominal roll of the Force in search of likely candidates for the northern deployment.

Then, all activity ceased; the expedition was cancelled. William Lyon Mackenzie King, the Leader of the Opposition, wanted to know why. Prime Minister Arthur Meighen claimed that the expedition had not actually been cancelled but had merely been put off until the following year because of the high costs involved. The issue was pursued with the suggestion that Canada should accept the additional expense in view of the rumour that "another power just might be contemplating the same action." The Prime Minister's disagreement with the time assessment of his civil servants was most apparent when he stated that there was no pressing need for action, and that Canada's claims would not be harmed by waiting a year. He did assure the House, however, that if any other power made a move in the Canadian

⁴ Brigadier-General William Mitchell's plan to drop the 1st Division of the American Expeditionary Force behind German lines at Metz in support of the 1919 offensive had naturally not come to fruition—fortunately for the American troops, because the concept was ahead of the technology required to support it.

Arctic, “the Government will not hesitate to take action to protect the interests of Canada.”⁵ Just what that action would be, and how the government would take it, the Prime Minister did not say.

The plan for the occupation of the Eastern Arctic continued to be developed and refined during the year-long lapse in activity. Government officials paid considerable attention to the notion that a claim to sovereignty based upon the fact of occupation required both physical presence and the provision of government administration. In the Canadian case, however, the occupiers and the administrators were to be one in the same: the RCMP. As W.W. Cory, the Commissioner of the Northwest Territories, saw it, “in order to establish occupation it is necessary to perform certain administrative acts and that the Police Force should be empowered to act as Customs Officers, Immigration Officers, Postmasters, etc.”⁶

It is often popularly assumed that the men of the RCMP who performed basic tasks of government administration in the early years in the High Arctic did so on an unofficial basis as and when the need arose in the areas they patrolled. It was always intended, because of the legal needs of the sovereignty claim, that such services should be provided on an official basis. The RCMP had approached all the departments concerned to have the Force’s detachment commanders in the North formally appointed (without salary) to the posts of Immigration Officer, Customs-Excise Officer, Justice of the Peace, Coroner, and Postmaster.⁷

The year 1922 marked a turning point in the history of the Canadian North. The Canadian Arctic Expedition finally departed from Quebec City on 18 July. Aboard the *Arctic* was a force of nine members of the Royal Canadian Mounted Police, commanded by Inspector C.E. Wilcox. Cargo included a two-year supply of food and fuel, along with the necessary materiel to build Quarters for the men who would occupy and administer the Eastern Arctic. By the end of the summer, Wilcox and his men were established in the forlorn camps that were to be their homes for the next two years. The RCMP posts established at Craig Harbour on Ellesmere Island and Pond Inlet on Baffin were the beginnings of what was to become a far-flung net of police posts. The subsequent story of the RCMP presence in the High Arctic has been woven into the basic fabric of the history of the area.

⁵ *Debates*, 30 May 1921, 4106.

⁶ *RCMP Northern Sovereignty*, vol. 1, Cory to Perry (Commissioner, RCMP), 12 March 1921.

⁷ *Ibid.*

The summer cruise of the *Arctic*, and those of its successors, to re-supply the police posts and to provide an ever-increasing range of government services was to become an annual feature in the North.⁸

Symbolic acts such as the building of a cairn, the reading of a proclamation, or the hoisting of a flag were deemed by international convention to be inadequate to support a claim to sovereignty. Canada's response was to provide a symbolic presence and a symbolic administration. It mattered not that it was extremely unlikely that anybody would require the services provided by the police detachments. The presence of the police detachments in the North was seen from Ottawa to "close up what might be called the front door of the Arctic Archipelago."⁹

In addition to the members of the RCMP and several representatives of the Department of the Interior, Squadron Leader Robert A. Logan of the Canadian Air Force sailed with the 1922 Eastern Arctic Expedition. In doing so he became the first member of the Canadian military establishment ever to serve in the Arctic. The Advisory Technical Board had sensed that the war-inspired technology of aviation, and the promise of extensive further development, would have an important significance to the Canadian North. Logan was ordered, at the last minute, to join the expedition, the Department of the Interior having approached the Air Board to supply such a specialist. His task was "to endeavour to obtain as much information as possible regarding flying conditions (in the Arctic Archipelago), and from investigations made actually in the country concerned to submit suggestions which might be of assistance in determining the types of aircraft suitable for use and methods for their employment in various ways in the northern Archipelago."¹⁰

Logan's report naturally reflects his personal background and the organizational environment of which he was a part. As a member of the military establishment, he looked at the Arctic Archipelago from the point of view of a defence strategist. He also assumed that pioneering aviation enterprises in the North would, of necessity, be carried out under govern-

⁸ For a more detailed study and analysis of the sovereignty establishing aspects of the 1922 Expedition, see K. C. Eyre, "Policemen and Post Offices: Canadian Sovereignty 1922 Style," *North/nord* 23:3 (May/June 1976): 2-5.

⁹ *ATB Report*.

¹⁰ R.A. Logan, Report of Investigations on Aviation in the Arctic Archipelago carried out during the summer of 1922 (henceforth Logan Report) held in DHH 74/414.

ment sponsorship and that the Canadian Air Force would be the agency that carried out the actual work involved. This latter aspect does not mean, as it appears to, that Logan saw the Air Force specifically as having an important role to play in the opening up of the North. Rather it reflects the primitive state of the organization of aviation in Canada at the time. In 1922, the Mackenzie King Government was in the process of merging civil and military aviation under a single Director of the Canadian Air Force within the Department of National Defence. While it was possible to distinguish between flying done as purely military training and flying done “in support of other government departments,” all the actual work was done by the same group of people using the same group of aircraft. Logan was selected by the Air Board in his capacity as an expert on aviation, not in his capacity as an officer of one of the three fighting services.

The *Logan Report* is an important historic document for it contains the first suggestion that the Far North had an important strategic role to play in the defence of Canada. In many respects, Logan’s thoughts were a generation ahead of their time. Given what are now understood to be realities, his thoughts on the strategic importance of the North would have been much more appropriate to 1952 rather than 1922, for Logan correctly anticipated the developing technology of aviation and even the potential enemy.

Logan built an analytic model which depicted four classes of global aviation. The last two classes, which included Subarctic and Arctic flying, he maintained, required special equipment, skills, and support facilities. On the grounds of defence alone, he urged Canada to take the necessary steps to master northern flying. The opinion that it would be necessary to develop such an obviously costly capability reflected Logan’s adherence to the then current western democracies’ concern with international communism in general, and the success of the Bolsheviks in Russia in particular:

Much has been said of the possibilities of future hordes of Slavs overrunning Europe. Aircraft operated from Arctic or sub-Arctic bases which would swoop down and leave trails of destruction throughout the rest of the world, but from the very nature of their bases of operation they would be almost inaccessible to aircraft of countries to which “cold weather” flying was unfamiliar.¹¹

¹¹ Logan Report, 2.

Logan saw it as a Canadian responsibility to develop an ability to deal with any northern threat. He wrote:

Whether war with such a country as Russia would ever come or not, should not affect the determination to develop flying in the Canadian Arctic and sub-Arctic regions because Canada, if it considers itself worthy to be called a Nation, should have enough pride and spirit to take at least ordinary precautions and be prepared to defend itself in any emergency.

... It now remains for (Canada) to show the rest of the world that she can defend herself, and the whole British Empire if necessary, from all comers from the cold countries in the north of Asia—or Europe—by having men trained and proper material and information available through actual practice within her own boundaries.¹²

This notion was strikingly out of accord with the then-current Canadian political and public mood. Canadians as a whole were war-weary, anti-military, and cautious about defence spending from some prospective enemy in the far distant future. Actually Canada, led by Prime Minister Mackenzie King, was disinclined to spend much money on defending Canada, let alone the entire British Empire. Logan was shrewd enough to realize this and he showed a fine grasp of Canadian political and economic reality when he wrote:

Canada cannot afford at the present time to carry on expensive investigation and research work unless some immediate benefit is to be obtained, and it is probable that the best policy will be to encourage flying which will materially assist many civil operations, and at the same time a knowledge of aircraft operation in cold climates for defence purposes will automatically be gained.¹³

This passage expresses a philosophy essentially the same as that put forth by J.A. Wilson, the Naval Director of Stores, who in April 1919 proposed the establishment of a Canadian Air Board:

The upkeep of large Air Force establishments for purely Naval and Military duties in time of Peace will be expensive and a

¹² Logan Report, 3.

¹³ Logan Report, 37.

constant object of criticism. It should therefore be advantageous to the country generally to encourage and assist the Civil development of aeronautics in every way, and to so guide and regulate its organization and any aircraft industry which may develop in Canada, so that it may form a reservoir on which to draw in any emergency.¹⁴

Canadian officials perceived that, unlike the other armed services, military aviation could be adapted to fulfill a wide range of civil support functions in peacetime. Logan experienced no apparent difficulty in identifying several useful tasks to which aircraft could be put in the developing North. He realized that airplanes were the ideal means for “the exploration and investigation of the extent of the natural resources of the territory.” He also noted that the work of the Royal Canadian Mounted Police, both in respect of their civil tasks in support of sovereignty and in the more fundamental task (for them) of the administration of law and order, would be greatly facilitated by the use of aircraft. In anticipation of the development of a major caribou and musk-ox herding industry, he pointed out that aircraft would be the ideal means to identify existing and potential breeding and feeding grounds. It is evident from the tenor of his writings that Logan was anticipating a tremendous boom of development and exploitation throughout the North. The domesticated caribou and musk-ox herds, as he saw it, provided a ready and economical source of food for workers “if a mineral or oil strike were ever made in the Arctic Islands, or even in the sub-Arctic.”¹⁵

Logan was generally correct in his assessment of the direction of northern development; he was wrong in his sense of the tempo of that development. What he saw as taking place in the immediate future has taken, in fact, over five decades and the process is still far from complete. But who, in 1922, could have forecast the Great Depression and another world war? What is important about Logan’s work, however, is his realization that before development could take place, a considerable amount of groundwork—experimentation and investigation—had to be done. He realized that development would be greatly facilitated if modern communications and air transportation infrastructure were established. He saw the Canadian Air Force as the agent of the establishment of the Arctic air routes. Canada

¹⁴ Cited in Eayrs, *In Defence of Canada*, vol. 1, 188.

¹⁵ Logan Report, 15.

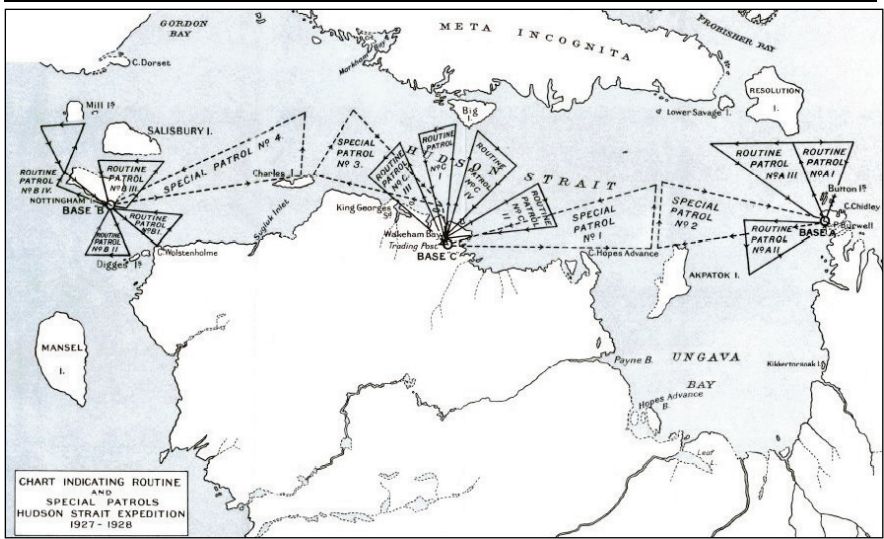
overall was not ready to get into the business of Arctic flying. The Arctic air exploration role that Logan envisioned for the Canadian Air Force did not even begin to develop seriously until after the end of the Second World War.

The 1927-1928 Hudson Strait Expedition

The vision of a seaport on the south of Hudson Bay, linking the Canadian West to the grain markets of Britain, was as old as the Dominion. The vision of a Hudson Bay port endured since the early seventeenth century. It was a vision that was to take considerable time to be realized. As has been repeatedly noted already in this study, Canadians did not want to look northward. To suggest that Canada should build a railroad to the margin of Hudson Bay and then, at the end of the line, to construct a port facility was an idea bound to cause incredulity in most Canadians.

Sir John A. Macdonald was confronted with the proposition, as was Sir Wilfrid Laurier a generation later. There appears to have been an almost unending series of studies undertaken in respect of the shipping season in Hudson Bay and Hudson Strait.¹⁶ However, in the absence of a decision to open the Hudson Bay route, the studies continued. One should not be surprised, therefore, to learn that in 1927 the Canadian government once more undertook a survey of the shipping conditions in Hudson Strait. This expedition marks the first use of Canadian military aircraft in the Arctic.

¹⁶ As early as 1878-80, Dr. Robert Bell, a physician by profession and a geologist by inclination, spent two years as an agent of the Canadian Geological Survey on Hudson Bay in order to determine the length of the season of navigation and the general feasibility of the route. An examination of two centuries worth of Hudson Bay's Company shipping records should have provided all the necessary data on shipping seasons and ice conditions. In 1884, the government sponsored a three-year study of the meteorological conditions, tides, geology, wildlife, and native inhabitants of the Hudson Strait area. This expedition was led by Lt. A. R. Gordon, RN, the deputy director of the Canadian Meteorological Service. In the summer of 1897, William Wakeham, a veteran of the Gulf Fisheries Patrol, was dispatched to Hudson Bay to report on the duration of the shipping season and navigation conditions in Hudson Bay. Captain Irving B. Miles of the Department of Naval Service while carrying out a hydrographical survey of potential port sites in 1910 also reported on the shipping conditions in the Strait and Bay. See Zaslow, *The Opening of the Canadian North*, 255-9 and Howard A. Fleming, *Canada's Arctic Outlet: A History of the Hudson Bay Railway* (Berkeley: University of California Press, 1957), 9, 69.



In the spring of 1927, Charles A. Dunning, the Minister of Railways and Canals, announced in the House of Commons that it was the government's intention to complete the railroad "known as the Hudson Bay route." He stated that the government had considered the problem of navigation in Hudson Strait, and to this end it was proposed to send an expedition north to study the situation over a period of a year.¹⁷ This latest survey had the same aims as all of the previous expeditions: to acquire more data on the shipping season and information on required aids to navigation. An interdepartmental committee, consisting of representatives of the Departments of Railroads and Canals, Marine and Fisheries, and National Defence, was formed to work out the details of the expedition.¹⁸ It was directed that the means of acquiring the necessary data was to be a year-long aerial survey of the area.¹⁹ The committee proposed to establish three bases: one at either end of the Strait with a third in a central location.

The government accepted this plan, and on 17 July, the 44 men of the 1927 Hudson Strait Expedition sailed northbound from Halifax. The Department of Marine and Fisheries, the sponsoring agency, provided general support personnel such as doctors, wireless engineers, ground radio operators, storekeepers, and cooks. The Royal Canadian Air Force provided six officers and twelve airmen to operate and maintain six Fokker Universal

¹⁷ *Debates*, 8 April 1927, 2146.

¹⁸ Canada, *Privy Council Order 85*, 22 January 1927.

¹⁹ N.B. McLean, *Report of the Hudson Strait Expedition 1927-28* (Ottawa: King's Printer, 1929), 5.

aircraft; the Royal Canadian Corps of Signals provided an officer and three other ranks as well as the necessary equipment to establish air-to-ground communications; and the RCMP detailed three members for duty with the expedition.²⁰

During the summer the base camp sites were selected and the necessary support facilities were installed: Wakeham Bay in the center was designated expedition headquarters; Nottingham Island in the west; and Port Burwell in the east completed the line. Each base was assigned two aircraft and by mid-autumn all three sites were conducting flying operations. The open cockpit Fokkers were not the ideal vehicle to conduct an Arctic survey even though they were modified to permit ski, float, or wheel operation, depending upon the prevailing climatic condition.²¹ Flights were carried out “whenever the weather was favourable and it was considered advisable.”²² The work of the expedition ended in mid-August 1928. By that time one aircraft was lost in an accident, another crashed on an administrative flight soon after, and the remaining four were in no condition to fly back to southern Canada. They were dismantled and shipped home with the rest of the expedition which arrived in Halifax in October 1928.²³

The data accumulated during the flights was compiled and tabulated by the Department of National Defence and then turned over to the Department of Marine. The results of the reconnaissance patrols are interesting in many ways. Even though explorers, traders, whalers, the Royal Navy, and various other private and government sponsored expeditions were poking around the area for nigh onto three centuries, it was found that the existing maps and charts were very inaccurate. From the bird’s eye view provided by aircraft, it was soon discovered that it was impossible to identify many parts of the coastline from the maps. In addition, numerous islands were found which had not been previously charted; others, although charted, turned out to be incorrectly located.

The flights proved what many of the proponents of the Hudson Bay route had been claiming for years: even during the heart of winter, Hudson Strait never froze over completely. From ten to twenty per cent of the area

²⁰ McLean, *Report of the Hudson Strait Expedition*, 7.

²¹ Flight Lieutenant E. P. Wood, *Northern Skytrails: The Story of the work of the RCAF in Canada’s Arctic and Sub-Arctic* (serialized in *Roundel*, the journal of the Royal Canadian Air Force), part 8, 20-21. Also, *DND Report 1929*, 72.

²² McLean, *Report of the Hudson Strait Expedition*, 9.

²³ Wood, *Northern Skytrails*, part 8, 22.

remained open.²⁴ There was no practical utility in this knowledge, however, for the open lanes constantly shifted due to the action of tides, wind, and current. It was felt that any attempt to force the Strait in late winter or early spring would be exceedingly dangerous.²⁵

The flight data is also interesting because it underlined the extreme difficulty of operating aircraft in the Arctic. Each base was assigned three or four routine patrols, two of which were to be carried out daily, weather permitting. The program included photographing the ice conditions on each patrol; those situations that permitted flying, but no photography was to be covered by detailed patrol reports. In addition to the routine patrols around each base, four special patrols were laid out: aircraft from adjacent bases flew out to a central rendezvous point and then returned to their home bases. Since these special patrols took the aircraft considerably farther from their bases than did the routine patrols, they were not attempted until all six aircraft were operational and the air-to-ground radio communication system was installed and tested.²⁶ The aircraft flew when they could, but on numerous occasions they were “weathered in” for days on end. For example, from the start of the expedition until the end of 1927, Port Burwell was able to launch only four flights, of which only two were actual ice patrols. At Wakeham Bay eighteen flights were carried out over the same three-month period, while at Nottingham Island twenty-two flights were made. It was noted that “it has been impossible, owing to weather conditions, to carry out flying operations as freely as was expected.” The problem presented by freeze-up was insurmountable for the forming ice denied the use of both floats and skis. Fog accounted for most of the other lost days. The flying operation was a success in the sense that no lives were lost, but on four occasions aircraft were forced down because of inclement weather; on two of these occasions the aircraft had to be abandoned and was lost. Upon superficial examination, four forced landings over a ten-month period may appear to be a reasonable level. When one considers the actual number of hours flown, however, a different picture emerges. A total of 227 patrols flew for a total of 370 hours.²⁷ Using rough averaging, one out of every fifty-five patrols was forced down, or, more ominously still, there was one forced landing for every ninety hours of flying. The lack of aids to navigation,

²⁴ McLean, *Report of the Hudson Strait Expedition*, 12-13.

²⁵ Fleming, *Canada's Arctic Outlet*, 80.

²⁶ McLean, *Report of the Hudson Strait Expedition*, Appendices 3-6.

²⁷ *DND Report*, 1929, 74.

coupled with compass unreliability in the area, made Arctic flying in 1928 a hazardous occupation.²⁸

Miscellaneous Air Operations

RCAF operations between 1923 and 1932 were dominated by the requirements of “civil government air operations.” These air operations included forest fire patrols, reconnaissance, fisheries patrols, rust control dusting, photography, customs preventive service, treaty payment flights, air mail route finding, experimental work, aircraft testing, and transporting government personnel. Such a huge and diverse set of responsibilities occupied a good percentage of the personnel of the RCAF. Tasks falling under one or more of the above categories brought the RCAF into the North between 1927 and 1932, but the effects of the Depression made themselves felt by the latter year. The RCAF was reduced by a third of its strength and was simply unable to meet many of these extraneous commitments. In addition, commercial firms and provincial government aviation agencies developed during the 1920s to the point where many of the former RCAF tasks were taken over by the new organizations. After 1932, except for continued topographical work and the occasional special flight, the RCAF concentrated on training for war—and stayed in the South. In the interval, however, aircrew and ground support personnel of the RCAF gained considerable experience operating aircraft under the varied and difficult

²⁸ Norman B. McLean of the Department of Marine and Fisheries, the expedition commander, recommended in his report that safe ship navigation of the route required stationary lights, accurate charts, reliable tidal information, and a series of radio direction finding stations. He also recommended that Canada acquire two icebreakers, one to be used in the Strait, the other to operate out of Churchill in support of commercial navigation. Radio stations were built at Cape Hopes Advance and on Nottingham Island in 1928, and on Resolution Island and at Churchill in 1929. In 1930, the icebreaker *N.B. McLean* began her patrol duties in Hudson Strait. For a generation, the route failed to live up to its promise. While the northerly route offered a saving of approximately a thousand miles for prairie grain over the conventional Great Lakes-St. Lawrence route to British markets, the high Lloyd’s insurance rates for the Bay route, coupled with the short shipping season, virtually eliminated any cost saving. See McLean, *Report of the Hudson Strait Expedition*, 18-22, and Fleming, *Canada’s Arctic Outlet*, 89-92.

conditions of the continental North.²⁹ The irony was that this experience proved to be irrelevant during the war.

Most of the “civil” flying done by the RCAF in the 1920s and early 1930s was carried out in the northern reaches of the central provinces. In terms of isolation and terrain, there was little distinguished between the boreal forest north or south of the 60th parallel of latitude. Aerial photography and geodetic survey work were done by No. 2 General Purpose Detachment mainly in the area between Great Slave and Great Bear Lakes, for it was in this region that mining activity centered during the 1930s. In 1934 the aerial survey shifted to the headwaters on the South Nahanni River, the “headless valley” of northern legend. In 1935 photographic flights launched out of Aklavik north over the Reindeer Reserve and west across the Richardson and Mackenzie mountain ranges to the Porcupine River. The RCAF provided a pair of Bellanca seaplanes in 1930 for a “treaty flight” to the Indigenous bands along the western shore of Hudson Bay, and later provided lift for officers of the Royal Canadian Corps of Signals and the Department of Indian Affairs on inspection trips of government facilities in the Mackenzie Valley. Another major flight made in 1930 was the 12,000-mile operation across the barren lands made by a Vedette flying boat. The project included photographic work, inspection of northern fuel caches, and the opening up of air routes in areas that had never been visited by aircraft before. In 1936, the Department of National Defence provided a Fairchild 51 and aircrew to the RCMP for the purpose of transporting Sir James MacBrien, the Commissioner, on an inspection of prairie and northern detachments. This trip covered 11,000 miles in just under one month, one of the longest single journeys made in Canada by air at the time. In a route that is best described as a colossal “figure 8,” the Fairchild ventured into the Yukon, along the Mackenzie, to the Arctic coast, into the barrens of Keewatin, and along the western shore of Hudson Bay. The entire trip was carried out without mishap.³⁰

In summary, practical aviation in the Arctic Archipelago remained an unrealized dream. Flights were made all over the northern continental land mass, but the emphasis on aviation, private, commercial, and governmental, was in the Yukon and Mackenzie, where economic activity in the form of

²⁹ Wood, *Northern Skytrails*, part 1, 29-31.

³⁰ Wood, *Northern Skytrails*, part 5, 22-26.

mineral exploration and mining operations was concentrated. It was in these two regions that the great reputations of the “bush pilots” were made.

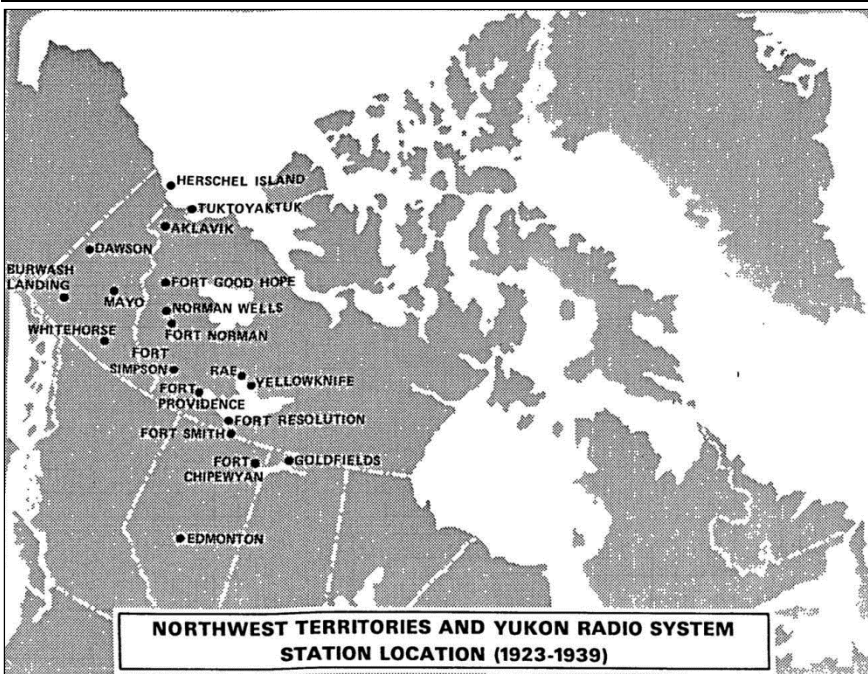
The Northwest Territories and Yukon Radio System (NWT & YRS)

While Canada staked its claim in the Eastern Arctic with the establishment of the remote police posts and the institution of an annual resupply cruise in northern waters, no major attempt was made to exploit the commercial potential of the area. Resource development in the interwar period was concentrated far to the west in the Yukon and Mackenzie Districts. In 1922, the communications facilities in these areas were either nonexistent or else unreliable and costly. In the Mackenzie region there were no radio or telegraph facilities north of Fort McMurray, Alberta. From McMurray to Aklavik at the mouth of the Mackenzie River, a direct line distance of 1,200 miles, messages had to be carried by hand. In the Yukon there was a commercial telegraph line linking the government centre at Dawson to the national telegraph grid via a terminal at Hazelton, British Columbia. Because of the vast distances involved and the difficulty of access to the line, maintenance costs were extremely high, and reliability was poor.

Some thoughtful government officials began to consider the use of wireless to bridge the North. Again, the name of Robert Logan appears as one of the northern innovators. Logan had previously served at the Canadian Air Force's flying school at Camp Borden, Ontario and had been involved with a Royal Canadian Corps of Signals (RCCS) project of providing a wireless link between the base and headquarters in Ottawa.³¹ Logan was aware of the signallers' capabilities and also knew that the senior officers of the Corps were looking for opportunities to train a cadre of experienced operators through the medium of providing wireless services to other departments of government. Following the return of the Eastern Arctic Expedition, Logan met with O. S. Finnie, the Director of the Northwest Territories Branch of the Department of the Interior to discuss the possibility of establishing a radio net in the Northwest. Logan undertook a study of the existing files on northern communications and unofficially contacted the RCCS to determine their views on the project.³² By the autumn of 1922 the issue had become the subject of official interdepartmental correspondence. Finnie was primarily concerned with communications in the Mackenzie

³¹ R. A. Logan to author, 9 July 1976, DHH “Logan File.”

³² R. A. Logan to author, 10 July 1976, DHH “Logan File.”



Valley, but he saw the utility of an east-west link between stations to be established there and stations that could be set up in the mining district of the Yukon.³³

G.J. Desbarats, the Acting Deputy Minister of National Defence, replied a few weeks later outlining his department's attitude to the Department of the Interior proposal. DND was prepared to undertake the work but insisted that the Department of the Interior provide the funding for the project, including the salaries of the soldiers manning the stations.³⁴ In his view:

Such an arrangement makes it possible to send men into these Northern areas for a certain tour of duty, and to replace them at the end of this period by other members of the Corps, thus avoiding the trouble which all commercial companies have

³³ O. S. Finnie to Deputy Minister of National Defence, 23 October 1922. Document held (uncatalogued) in NWT&YRS exhibit collection, RC Sigs Museum, Vimy Barracks, Kingston, Ontario.

³⁴ The final arrangement, however, resulted in the operating cost of the System remaining within the defence budget but as the subject of a special vote. Thus, the Department of National Defence differentiated between those costs incurred to train signallers for purely military purposes and those costs associated with national development tasks.

experienced in getting operators to go to out-of-the-way places without having to pay excessive bonuses.³⁵

As DND saw it, the main purpose of the proposed radio system was to permit various departments of the federal government to control their northern operations with a greater degree of efficiency than had hitherto been possible. The system also handled paid commercial traffic and was thought that, as northern development proceeded, the revenues realized might pay the full operating costs.³⁶

With the interdepartmental agreement worked out, the matter went to the Cabinet for approval. In December, a Privy Council ruling was made to the effect that DND could undertake work for other departments of government in cases where commercial contract costs were excessively high.³⁷

The Royal Canadian Corps of Signals was organized as a distinct and separate corps of the Canadian Militia in late 1918 as a result of war needs and experiences. At war's end, both the Permanent Force and the Active Militia faced a major reorganization. The requirements of the war effort and the expedients and organization adopted to meet these requirements had completely disrupted the old pre-war system. A Reorganization Committee was appointed to deal with this complex problem. There was limited training and organization until the plan was complete and it was not until 1923 that lines of development were seen clearly.

Militia General Order 27 of April 1919 decreed that the RCCS's slice of the planned 4,000-man Permanent Force was to be five officers and fourteen non-commissioned officers. The Militia Report for 1920 observed that the Corps was "only partially organized, and requires considerable attention if it is to be developed to the necessary degree of efficiency."³⁸ The following year, the deficiencies were spelled out in some detail, with the observation

³⁵ Desbarats to Finnie, 9 November 1922, RC Sigs Museum collection.

³⁶ Desbarats to Finnie, 9 November 1922, RC Sigs Museum collection.

³⁷ John S. Moir, ed., *History of the Royal Canadian Corps of Signals 1903-1961* (Ottawa: RC Sigs Corps Committee, 1962), 276. This condition of employing the military on national development tasks was not discussed in Parliament. The decision was probably recorded as a Cabinet Minute. The secretariat of the Privy Council was unable to locate the original note when it searched, at the author's request, in 1975.

³⁸ *Militia Report, 1920*, 7.

that “this establishment does not provide for even sufficient officers and instructors to supply the requirements of one quarter of the Military Districts in Canada, and does not provide for a Central Training Depot, or Permanent Army Signal School.”³⁹ The limited establishment was increased to ten officers and 26 other ranks later in 1921, not to meet the instructional and training requirements identified above, but to permit the provision of wireless communication for the Canadian Air Force based at Camp Borden, Ontario. The Corps was further committed to support air force forestry patrols in northern Manitoba the following summer.

The precedent established by the provision of RCCS support to the Canadian Air Force led to the realization in the Department of Militia and Defence that the potential inherent in this role had barely been tapped. The Militia Report for the fiscal year ending 31 March 1922 noted that “a very large field exists for the employment of Signal Service personnel in connection with Federal and Provincial Government Departments requiring communication by wireless telegraphy and telephony.”⁴⁰ The nucleus of officers who formed the RCCS in the early 1920s saw the potential national development role as an excellent training vehicle for military signallers, and a means of building up the Corps to a more realistic size. It should be noted, however, that DND did not go out and actively seek these training opportunities. It was the Department of the Interior, encouraged by Logan, that actually took the initiative in the case of the NWT & YRS.

At the time DND agreed to take the project, the ability of the RCCS to run the system was purely theoretical. They had neither the men nor the equipment to undertake the job. The Deputy Minister warned the Department of the Interior that if the stations were to be opened in 1923, a final decision to go ahead had to be made by the end of November 1922. “Of the personnel required, two officers and seven other ranks must be enlisted and trained,” he noted. “In addition, the greater part of the equipment must be obtained from England...; further, work must be commenced in our own shops on the receivers and amplifiers which cannot be bought outside.”⁴¹ The creation of the NWT & YRS provided the RCCS with a heaven-sent opportunity to increase its authorized establishment, and to acquire modern long-range equipment and an excellent training environment for its personnel—all at no additional cost to DND.

³⁹ *Militia Report*, 1921, 27.

⁴⁰ *Militia Report*, 1922, 32.

⁴¹ Desbarats to Finnie, 4 November 1922, RC Sigs Museum collection.

A decision was made to defer the installation of the Mackenzie stations until the following year because of a specific problem that demanded immediate solution in the Yukon. While the gold rush had run its course by 1901, prospecting continued on a heavy scale throughout the territory. A silver strike in the area of Mayo had developed into a modern mining operation that had grown in importance during the war and in the years immediately following. In the early 1920s the problem of communications between the mine area and the government centre at Dawson became acute. Radio stations provided a means of linking the Gold Commissioner, the Mining Recorder, and the District Superintendent of the RCMP, all at Dawson, with their branch offices at Mayo.

What was in time to become an extensive northern communications network had its modest beginnings in August 1923. An eight-man party (commanded by Major W.A. Steele) departed for the Yukon with two 120watt radio transmitters. The Yukon Field Force would have envied them on their journey: steamship from Vancouver to Skagway, rail to Whitehorse, and riverboat to their bases at Dawson and Mayo Landing. On 20 October 1923 the first message was transmitted between the two stations.⁴² The stations were an immediate success and a popular innovation. Commercial firms were also quick to use the facility: banks, mining interests, and shipping companies transacted business by wireless with the "outside." Nor did the general public hesitate to avail itself of the service.

For the 1924 season, the Department of the Interior requested the establishment of the additional stations down the Mackenzie Valley. Fort Smith was the government administrative centre for the Mackenzie District; Fort Simpson was the site of a busy trading post at the junction of the Liard and Mackenzie Rivers; and Herschel Island in the Beaufort Sea was an important summer post for fur trading and the transshipment of goods destined for settlements up the Mackenzie. At the same time, DND came to realize that reliance upon the Dawson-Hazelton telegraph line was unacceptable for the expanded operations. Accordingly, it was decided to construct a terminal wireless station at Edmonton, Alberta, from whence traffic could be switched directly to the nation-wide Canadian National and Canadian Pacific telegraph systems.

⁴² *A Short History of the Northwest Territories and Yukon Radio System RC Sigs* (henceforth *Radio System Short History*) (Edmonton: unpublished manuscript, 1960, prepared under the direction of the Commanding Officer NWT & Y Radio System RC Sigs), 1.

The 1924 program was only partially completed during the year. The Edmonton and Fort Simpson stations were finished as planned; and by October, all the traffic from the system, including the Dawson-Mayo link, passed through to Edmonton. The equipment destined for Fort Smith was temporarily installed on the Hudson's Bay Company steamship *Distributor* in order to provide a means of communication for the Governor General, Lord Byng, on his 1925 tour of the Mackenzie River area. This innovation underlined the utility of a communications infrastructure and the inherent flexibility of the system. The equipment was finally installed in Fort Smith in late 1925. The Herschel Island station did not open on schedule because the ship that carried the equipment (and the supplies for the detachment) sank in the Bering Sea. The detachment personnel travelled to Herschel via the Mackenzie route, so a relief craft bearing winter clothing, food, and supplies was dispatched down the Mackenzie. It also sank.⁴³

The idea held by the senior officers of the RCCS that service on the NWT & YRS would not only provide valuable communications training, but also would bring out such admirable qualities as self-reliance and a flair for improvisation, was well borne out by the performance of the stranded Herschel detachment. Under the command of Lt. H.A. Young, the detachment members built a radio out of bits and pieces from their personal luggage and established communications briefly with the Dawson station to inform their confreres that all was well. Occupying an abandoned hut, they survived quite nicely, having bought a small store of food and supplies from a passing whaler. The four-man detachment supplemented their food supply by hunting, acquired a dog team, traded for native fur clothing, and, it is claimed, even learned how to speak Inuktitut.⁴⁴ Because of what they learned of developing trade and commerce patterns in the area, the replacement station, when it finally arrived in 1925, was installed at the community of Aklavik in the Mackenzie Delta rather than at Herschel. In 1926, Herschel was occupied as a summer substation of Aklavik during the trading season. By then, the NWT & YRS was firmly established in the North. As the DND Report for fiscal 1924-25 noted, "the amount of paid traffic (i.e. messages sent by commercial concerns or private individuals) shows a steady increase month by month and reports from the Yukon and Northwest Territories emphasize the importance that this radio system bears in the every day life of

⁴³ Moir, *History of the Royal Canadian Corps of Signals*, 279.

⁴⁴ Edward Romaine, "Unsung Heroes Who Broke the Silence of the North," *Weekend Magazine* 10:14 (1960): 19.

the inhabitants of that northern country.”⁴⁵ It was generally realized that the potential of the system had barely been tapped in terms of size or ability to perform ancillary functions. For these first few years, the NWT & YRS did not contribute to any developmental expansion. It permitted previously established northern activities to be carried out with greater efficiency.

The establishment of the NWT & YRS was not a simple matter for the Royal Canadian Corps of Signals. Having jumped at the chance to run the system because of the training advantages it offered, the Corps was faced with the continuing problem of manning it. In early 1924 it was observed:

The limited establishment (6 officers/57 other ranks) of the Royal Canadian Corps of Signals is not sufficient at present to enable the Unit to supply the Administrative and Training Staffs for the Militia and the special Communications Services that are now being carried out by the Department of National Defence for other departments and branches of the Dominion Government.

The Northwest Territories and Yukon Radio System ... is being conducted without a sufficient margin of safety as regards staff and personnel training, engineering, supervision, etc.⁴⁶

As arguments for increases of the defence establishment went in the 1920s, the Signals Corps was in a powerful position. The navy could cry out for destroyers, the air force could call for modern combat aircraft, and the Militia could lament the lack of funds to support training or to purchase tanks. The various Canadian administrations of those years were going to pare defence expenditure to the bone. Canadians lived in “a fire-proof house,” and no government was going to “waste” money raising forces or purchasing equipment to defend against a non-existent enemy. The RCCS was different. The NWT & YRS proved valuable to the civil life of northern Canada; at the same time, it was obviously a secondary function of the Corps. Given financial restraints, a secondary function would be the first to be dropped over purely defence-related manpower commitments of the Corps. The fact that the responsibility of NWT & YRS remained a separate and distinct part of the Militia role guaranteed the continued growth of the System. The RCCS kept its unique training ground and developed an ever-growing pool of highly trained communicators. From 1920 to the beginning

⁴⁵ *DND Report*, 1925, 39.

⁴⁶ *DND Report*, 1924, 31.

of rearmament in 1936, the RCCS was the only component of the Permanent Force which increased in size.

In addition to the loftier aspects of manning as related to departmental policy and funding, the RCCS met the retention problem which is faced by any military branch whose tradesmen have skills that were directly applicable to the civilian economy. When military pay rates were lowered in August 1924, thirty other ranks, or twenty-five per cent of the actual strength of the Corps, took their discharges. The *DND Report* for 1924-25 noted:

It requires a minimum of sixteen months intensive training before a man is fit for employment on a radio station. The majority of the personnel who left the service had arrived at a degree of efficiency which rendered them valuable to the corps and by their loss the RCCS was faced with a very difficult task in finding the requisite number of trained personnel required for employment on the Northwest Territories ... Radio Stations.⁴⁷

Despite these internal and domestic problems, the NWT & YRS continued to thrive. A new station was added in 1927 at Fort Resolution on the south side of Great Slave Lake at the point where the Slave River enters the lake. Since any river traffic destined for the Mackenzie or Beaufort Sea ports from Fort Smith had to descend the Slave and cross the southern portion of Great Slave Lake itself, the radio station at Fort Resolution, which initially operated only during the July-October shipping season, was ideally located to serve the varied needs of lake and river shipping.

The next year, the System expanded in scope if not in the number of permanent stations. The Royal Canadian Mounted Police schooner *St. Roch*, which usually operated in the Western Arctic, and the Hudson's Bay Company schooner *Baymaud*, became low-powered out-stations on the net, transmitting through the relay facility provided by the Aklavik station. The first reported regular use of the NWT & YRS in meteorological work occurred in 1928. Special arrangements were made with the Director of the Meteorological Service: to have military signallers selected for duty on the NWT & YRS trained as Meteorological Observers. It was claimed that all personnel working on the system were so trained. Each station produced a twice daily reading which was transmitted to the Dominion Weather Office

⁴⁷ *DND Report*, 1925, 33.

in Toronto.⁴⁸ By 1929, the System began to realize its full potential in terms of service. In addition to providing a communications link from the Northwest to the rest of Canada, stations repeated daily news bulletins that were transmitted from the main terminal at Edmonton. Weather reports for aircraft flying in the North, and even stock quotations, were also available on an “as required” basis.

1929 marked the beginning of NWT & YRS’s direct support of the increasing mineral exploration activity that was taking place in the Northwest: the search for precious metals dominated the expansion of the System from the beginning of the Great Depression to the outbreak of war. As mines were opened, the NWT & YRS built a radio station nearby. When mines were worked out or, as was often the case, went into bankruptcy, the supporting stations were closed.⁴⁹ All of these stations, in addition to providing communications for the associated mining activity, joined the national weather reporting grid and supported flying operations in the local area.

It was the development of commercial aviation—bush flying—that permitted mineral exploration and development to be carried out efficiently. Bush flying in the North was a hazardous occupation at the best of times. Meteorological data from military radio stations provided a much-needed margin of safety for the new breed of pilots who routinely operated beyond the frontier. Initially, aviators obtained weather reports through the rather crude means of landing at a radio site and walking over to the station. In the mid-1930s, however, commercial companies installed modern high-powered radios, allowing pilots to transmit and receive messages while in flight. Eventually, the aviation support role became one of the most important services provided by the System. Some radio stations were established for the specific purpose of supporting flying operations in the Northwest.

By September 1939, the NWT & YRS operated for sixteen years and was an important northern institution. By establishing the only communications grid in the Yukon and Mackenzie District, the System provided a key element for northern development. Its original purpose—to support other

⁴⁸ *DND Report*, 1929, 32.

⁴⁹ During the period a total of nine new stations were opened of which three closed after only a few years’ operation. The expansions and contractions of the System during the 1930s, in response to the vagaries of the mining industry are well chronicled in Moir, *History of the Royal Canadian Corps of Signals*, in a chapter devoted to the NWT & YRS.

departments of government by transmitting administrative messages—was eclipsed by other roles. The dominating reasons for the location of most sites added after the first few years were the requirements of the mineral exploration industry, and, as a corollary, the needs of developing northern aviation. By accepting small commercial stations as system outstation subscribers, the full potential of the NWT & YRS was realized. The weather reporting functions of the various stations grew throughout the interwar years. As it was noted in the *DND Report* for 1939, “the NWT & Yukon Radio System has become of increasing importance in the development of the vast Hinterland of Canada lying to the north of the Peace River District.”⁵⁰

While the Department of National Defence was prepared to admit that the work of the System was important to the area, this contribution to the creation of a frontier infrastructure was not seen by Canada’s military leaders as a role of the national military establishment. The running of the System was an ancillary task to the “proper” work of the Department — of defending the country and insuring internal order and stability. Similarly, the national development role taken on by the Royal Canadian Corps of Signals was never a political issue. The System was created by senior civil servants as an expedient solution to what was, in the national scope of things, a minor problem.

It was not until 1936, fourteen years after its establishment, that a Member of Parliament even bothered to ask a question about Canada’s soldiers in the North. Ian Mackenzie, the Minister of National Defence, spoke briefly to the subject. He described the many roles that the NWT & YRS filled in support of other government departments, such as the meteorological service. He admitted, however, that “it is largely a service for the civilian population.” Agnes Macphail, probably the most vehement anti-militarist who sat in the House of Commons during the interwar years, suggested that the appropriation should be taken out of the National Defence supply bill.⁵¹ Mackenzie replied: “If any other department of

⁵⁰ *DND Report*, 1939, 62.

⁵¹ Macphail was in somewhat of a quandary here because she favoured the complete elimination of the defence establishment, but here was a component of the Militia providing a demonstrably useful and important function to Canadian society.

government in Canada can get the same efficiency in service I have no objection to having it transferred.”⁵²

The government’s decision to use troops to man the northern radio system was a matter of expediency rather than deliberate policy. The Minister’s rather offhand reply also indicates that he had forgotten, for the moment, the original reason why the Department took on the running of the system in the first place. When the issue came up again in the House two years later, the Minister did recall the System’s original purpose. A question was asked of him concerning the relationship between the NWT & YRS and the Department of Transport (DoT) radio system. The Minister revealed that an interdepartmental committee had studied this very question the previous year, noting that “the actual finding was that there was very little duplication as between the Royal Canadian Corps of Signals and the Department of Transport.” Mackenzie supported the findings of the committee in that “operation of the system by military personnel had distinct advantages from a defence standpoint,” because the necessary training could not be gained in any other way. Mackenzie argued that, in this sense, the existing organizations were the most economical, for to remove the RCCS from the System would necessitate an increase in the Permanent Force vote in order to provide necessary communications training.⁵³ In Depression-burdened Canada, as likely as not, the ultimate result would not have been an increase in the Permanent Force vote, but rather a curtailment or elimination of the training.

The Eve of War

Between the two world wars, northern development in Canada was never an important national priority. Until the southern, more hospitable reaches of the country were fully developed, the North continued to wait. As in the past, a small population and limited capital made the taming of the distant, unknown North a “someday” proposition.

The frontier advanced but little. The Eastern Arctic saw virtually no development at all, although the RCMP and the annual Eastern Arctic Patrol protected the nation’s sovereignty claims against the day when development would come. In Mackenzie District and in the Yukon a nascent mining industry was established. Aviators tentatively probed the far distant places.

⁵² *Debates*, 19 May 1936, 2980.

⁵³ *Debates*, 13 May 1938, 2884-5.

Perhaps the most significant example of the restricted nature of northern development is that, on the eve of war, there were no roads connecting either of the northern territories with southern Canada.

The defence concepts and strategic considerations relative to the North held in 1914 were still valid in 1939 while the northern flank of Canada remained secure. Geography required no assistance from Canadian sailors, soldiers, and airmen. Northern defence was never a political, military, or popular issue during the interwar period, although some visionaries anticipated the future capabilities of long-range aircraft and the resultant military significance of such a development. During this period, military involvement in the North was carried out for the purposes of national development. The typical employment pattern saw elements of the military establishment operating in support of other federal government departments. In some cases, the military actively sought out these roles for reasons of internal departmental objectives. In other cases, the forces were directed to provide the necessary support, either because they held a monopoly on the necessary skills and equipment or, more commonly, because using DND resources in this way represented a means of saving public money.

The total military involvement in the North during the period was quite limited. The Royal Canadian Air Force undertook a small number of specific projects, but there was no continuity in these. Southern-based aircraft, crews, and support facilities were deployed into the North, completed their mission, and returned to the South to await another call for their services. No RCAF northern operations were undertaken for military purposes.

The Militia's contribution to the North consisted solely of the men of the Royal Canadian Corps of Signals who established over the years a wireless communications grid over much of the Northwest. This particular program differed from the RCAF's northern approach in the sense that the radio stations run by army signallers were permanent installations.

The Royal Canadian Navy never ventured into northern waters during these years. In the absence of any evidence to the contrary, it must be assumed that a northern cruise by any of His Majesty's Canadian Ships was never even considered.

It is interesting to note that neither the political nor military leaders of the day generalized from the precedent of the Northwest Territories and Yukon Radio System. If signallers could run a communications grid, then military engineers could build bridges, airfields and roads. Military flyers could survey, map, carry out resource exploration, and establish a sovereign

presence. Sailors could gain valuable sea time and operating experience by taking over the northern re-supply role or cruising in support of scientific expeditions. Without a strong national imperative for northern development, however, it is not surprising that the interdepartmental structures necessary to create such integrated programs were neither attempted nor considered.

5

OPENING THE NORTH

Northern Military Projects during the Second World War

The most important factor affecting development of the North during the war years was the relationship between Canada and the United States—with the United States dominating the partnership. A familiarity with United States-Canadian defence relations is essential to an understanding of the great northern military expansion of the Second World War. The strategic outlook of both the United States and Canada differed in many ways, but a great commonality of interest lay in the area of the defence of North America as a whole.

The first step towards establishing an understanding about mutual defence problems was made by Franklin Roosevelt in the mid-1930s. The “good neighbour” policy he had articulated in 1935 was sharpened in the summer of 1936, when, during a speech at Chatauqua, N.Y., the U.S. President said: “Our closest neighbours are good neighbours. If there are remote nations that wish us not good but ill, they know that we are strong; they know that we can and will defend ourselves and defend our neighbourhood.”¹ This was, of course, only a generalized statement of intent, but it did indicate the direction in which the president wished to take his country in defence matters.

As American concern over the Japanese threat grew, so did their apprehension over the exposed and relatively isolated position of the Alaska territory. Following a visit to British Columbia in the autumn of 1937 where he discussed aspects of Pacific coast defence with Premier T.D. Pattullo of that province, President Roosevelt directed the American ambassador to Canada to raise the issue of military conversations between the general staffs

¹ Cited in Eayrs, *In Defence of Canada*, vol. 2, 177. In the chapter entitled “The Road to Ogdensburg,” Eayrs discusses the genesis of the Canadian-American defence relationship during the 1930s.

of the two nations. This contact led to occasional military liaison visits during 1937 and early 1938, but the nature of the discussions remained general and no commitments were made by either side. At a higher political level, the leaders of both countries discussed defence matters on those occasions when they met. In August 1938 at a ceremony marking the opening of an international bridge near Kingston, Ontario, both President Roosevelt and Prime Minister William Lyon Mackenzie King made public statements to the effect that neither nation would stand by idly if the other were attacked.

There was a hiatus in military liaison between the two countries from January 1938 until July 1940. In the interval Canada went to war while the United States remained neutral. Successive waves of allied disaster in the spring and summer of 1940 made Canadians apprehensive over their future security, and in June 1940 Canada took the initiative and attempted to re-establish defence liaison. A military relationship between a belligerent and a neutral raised serious, if subtle, political issues in the United States, and the American administration approached the Canadian proposals with some trepidation. During July, however, high level staff talks were held, their prime focus being defence if Britain should fall to the German offensive. The following month, a major step forward in defence coordination was made with the establishment of the Canada-United States Permanent Joint Board of Defence (PJBD). Suggested by Roosevelt and warmly accepted by Mackenzie King, the PJBD provided the machinery for joint defence planning. In the words of the press release issued by the two leaders at Ogdensburg, N.Y. on 18 August 1940:

The Prime Minister and the President have discussed the mutual problems of defence in relation to the safety of Canada and the United States. It has been agreed that a Permanent Joint Board of Defence shall be set up at once by the two countries. This Permanent Joint Board of Defence shall commence immediate studies relating to sea, land and air problems including personnel and materiel.²

The structure, operation, and work of the PJBD has been examined in detail by the official military historians of both countries.³ The Board did not

² Cited in Eayrs, *In Defence of Canada*, vol. 2, 208.

³ For Canada, see C.P. Stacey, *Arms Men and Governments: The War Policies of Canada 1939-1945* (Ottawa, Queen's Printer, 1970). For the United States, see

have executive authority; rather it was a coordinating agency. It produced recommendations that required executive approval by the President in the United States and the Cabinet War Committee in Canada. What is important to this study is that it was the means by which most, but surprisingly not all, of the joint Canadian-American defence projects in the Canadian North were initiated.

The Northwest Staging Route

The tripartite agreement between Germany, Italy and Japan was announced in September 1940. Suddenly a secure air route between the continental United States and the Alaska Territory became strategically important. The matter was considered by the PJBD and its First Report, issued on 4 October 1940, recommended that “Canada develops air staging facilities for aircraft en route.” The report, in addition, recommended extensive defence works in Alaska and suggested arrangements that would permit the free passage of American military aircraft over Canadian territory in transit to Alaska.⁴

The precise nature of the Canadian requirement to develop what was to become the Northwest Staging Route was spelled out in the 10th Recommendation of the Board, issued on 14 November 1940:

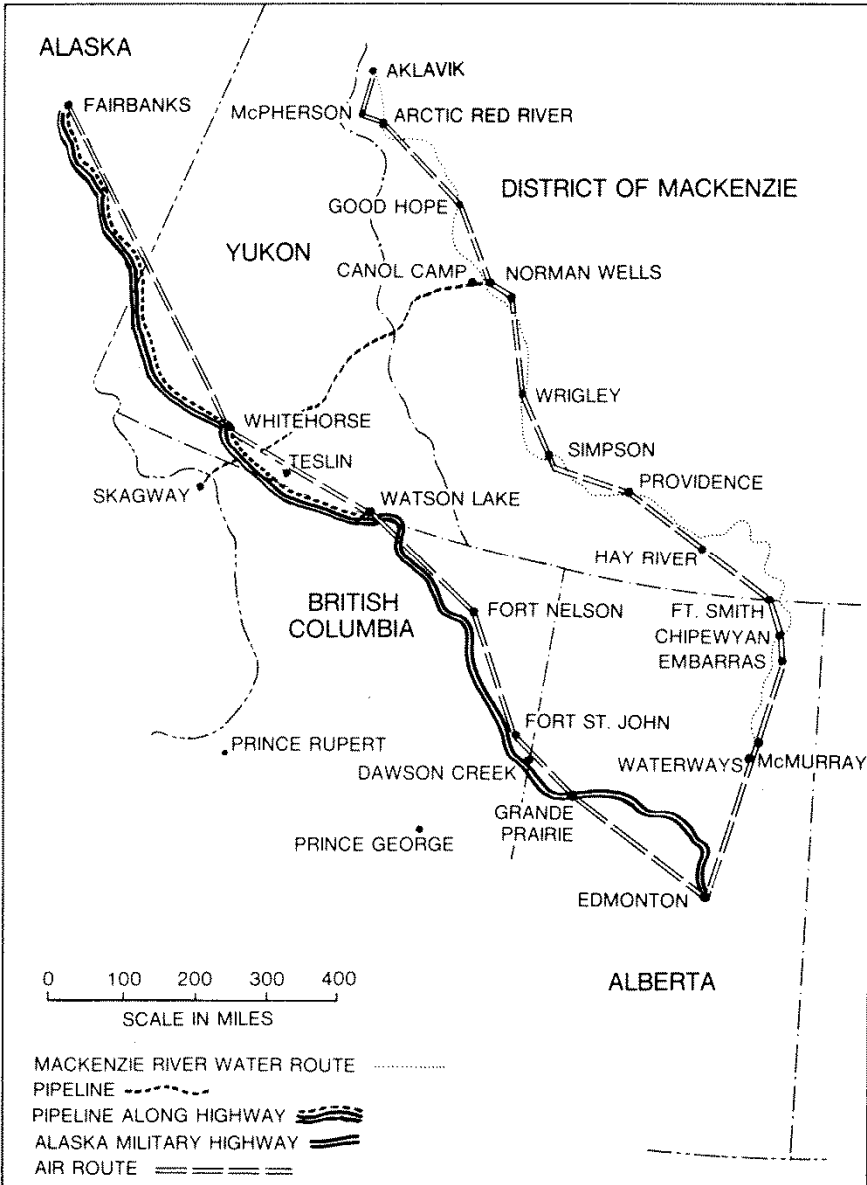
The Board recommends that, to implement the recommendation contained in its First Report to the respective governments regarding the development of air staging facilities across Western Canada between the United States and Alaska, suitable landing fields, complete with emergency lighting, radio aids, meteorological equipment and limited housing for weather, communication, and transient personnel be provided at the earliest possible date by Canada at Grande Prairie, Fort St. John, Fort Nelson, Watson Lake, Whitehorse....

This development will provide means for rapid movement of light bombers and fighter aircraft into Canada, into Central

Col Stanley W. Dziuban, *Military Relations Between the United States and Canada 1939-1945* (Washington: Office of the Chief of Military History, Department of the Army, 1959), in the subseries “Special Studies” of K.R. Greenfield (ed), *United States Army in World War II*. The PJBD documents were not an open source at the time this thesis was written.

⁴ Published in Dziuban, *Military Relations*, appendix B.

JOINT MILITARY PROJECTS (1943)



Alaska via Whitehorse ... and is considered essential to the defence of Western Canada, Alaska and the United States. Such means are vital to the effective use in joint continental defence of both the rapidly expanding air forces of the United States and the extension of air operating facilities in Alaska.⁵

The Board recommended this route following a meeting held at Victoria, British Columbia on 13 November. The Canadian Chairman of the Board, Colonel O.M. Biggar, was aware of existing Canadian Department of Transport (DoT) plans for the development of a Northwest Airway and arranged for two former officials of the department to brief the Board.⁶ A recommendation by the PJBD was one thing; governmental approval of a recommendation was another. While President Roosevelt approved the recommendation within a week, the Canadian Cabinet War Committee delayed until 15 December. In granting its approval, the Cabinet War Committee noted that, in future, the Canadian government would withhold acceptance of PJBD recommendations until the Treasury Board considered the expenditures involved. Despite the urgency conveyed in the PJBD recommendations, it was not until early February 1941 that the Ottawa bureaucracy authorized and funded construction for the airway.

The construction of these various aerodromes underscores how any northern development project must consider the formidable obstacles created by climate, great distances, and wilderness terrain. Grande Prairie and Fort St. John presented no problems as they were located in “settled” areas of the country. Grande Prairie was on a rail line, while Fort St. John was located only 60 miles north of the railhead at Dawson Creek. A road that

⁵ Published in *Ibid*, appendix A.

⁶ A pioneer Northwest Airway east of the mountains was developed by commercial firms using float and ski-equipped aircraft during the 1930s. In 1939 the Department of Transport began work to establish a modern airway complete with the necessary aerodromes and aids to navigation. The plan called for 3,000-foot landing strips located at Grand Prairie, Fort St. John, Fort Nelson, Watson Lake, and Whitehorse, with emergency landing sites located approximately half way between each major field. The surveys for these fields were completed in January 1940, but no immediate work on the sites was undertaken. See Canada, DND, Directorate of Information Services morgue (DIS morgue) for “The Northwest Staging Route: A Summary of its History and Development during the Peace-Time Years and in War Time,” unpublished staff monograph, March 1945.

was usable in all, but wet weather joined Dawson Creek and Fort St. John. Both locations already boasted modest aerodromes. The shipment of men and materials over rail and well-established roads was carried out easily. The construction of the Whitehorse facility was only moderately more difficult, and then only because of the distances involved. Equipment was shipped north from the port of Vancouver to the Alaskan community of Skagway. From there it was transported by the narrow-gauge White Pass and Yukon Railway to the railhead at Whitehorse. Whitehorse, too, had an airstrip which was improved over the years by the Yukon Territorial government, the British Yukon Navigation Company, and Pan-American Airways. All that was required by the Northwest Airway project was to re-grade, lengthen, widen and pave the strip to meet national standards. Established transportation routes made all the difference.

The isolated sites at Fort Nelson and Watson Lake, however, presented major problems. Fort Nelson was 300 miles beyond the railhead and 240 miles from the closest road, while Watson Lake was 200 miles beyond Fort Nelson. The main difficulty was not the actual construction of the airfields but the tremendous transportation problem of concentrating the required men, equipment, and materials at the work site. Virtually every mode of transportation was used to open routes and move supplies. Some parties utilized horses and dog teams, while bulldozers created trails and opened winter roads over the ice of frozen rivers and lakes. Ottawa delayed the approval of construction contracts until the winter transportation season was almost half over which led to a serious interruption in the flow of materials to the isolated sites. The spring thaw and ice break-up effectively brought all movement to a halt. As a result, during the summer every available water route had to be pressed into service, despite the need for frequent trans-shipment of goods and the requirement to move more boats onto the routes. Seaplanes were used to fly in key workers and portable sawmills. There was no limit to the ingenuity used to complete the project.

By September 1941, all five airfields were open for daylight operations during good flying weather. Three months later basic radio ranges were installed at all sites. Given the short time to complete the austere facilities, this represented a major feat of engineering by the standards of the Canadian North. As 1941 progressed, the strategic importance of the Northwest Airway became increasingly evident in view of the deteriorating situation in the Far East. Defence planners monitored progress carefully while the PJBD urged on the project in its 19th Recommendation:

Canadian-Alaskan Staging Fields

On the consideration of the report as to the progress being made with the construction of the Canadian Airway between Edmonton and Whitehorse, attention was directed to the recent change in the far eastern situation the effect of which is to make the completion of the airway to Alaska of extreme urgency. It was pointed out that the urgent needs for air strength in Alaska may suddenly increase beyond those heretofore anticipated; that the preparation of airdromes in Alaska is being expedited by the United States as much as possible, but that large numbers of aircraft if sent there would at present be relatively isolated. In view of this, the Board decided to invite attention to the fact that the completion of both the Canadian and the United States sections of the airway to a point which would permit its use at the earliest possible moment had become of extreme importance and to recommend that other considerations should give way to that of completing as quickly as possible the air route which will permit the rapid reinforcement of the air strength in Alaska.⁷

At the same time as Canadians were struggling with their wilderness to build the Northwest Airway, the Americans attempted a feat of the same magnitude in Alaska. The Americans, like the Canadians, found that transportation problems caused the greatest difficulties. Moreover, the presence of permafrost at many locations made their task more arduous. Whereas in 1940 there were only four airfields in all of Alaska capable of supporting military aviation, by the end of 1941 there were ten strips completed and another six in the final stages of construction.

After Pearl Harbor, it was evident that the airfields would have to be used. American defence plans for the Pacific coast were in disarray. The United States Navy reported on 8 December 1941 that it was unable to carry out tasks assigned to it under the war plan. The British loss of *Repulse* and *Prince of Wales* on 10 December heightened the mood of pessimism that gripped North America. In what, in retrospect, was a wildly inaccurate assessment, the United States estimated on 12 December that Axis forces might succeed to capture Alaska. Were an attack to be launched on Alaska, the United States was incapable of a response. While the United States Navy

⁷ Published in Dziuban, *Military Relations*, appendix A.

bore the responsibility for the strategic defence of the area, the protection of military bases was an Army responsibility. The Army plan to base this defence primarily upon air power was immediately negated by the fact that the 2,200-man Alaskan Air Force possessed only six old medium bombers and a dozen obsolete pursuit planes. The lack of air resources was compounded by the austere state of their limited air fields. There were no bases at all in the Aleutian Islands, the most vulnerable portion of the Territory.

The first attempt to build up the air resources of Alaska was a disaster. The 11th Pursuit Squadron, equipped with twenty-five P40 aircraft, and the 77th Bombardment Squadron, operating thirteen B25s, were ordered to Alaska on 10 December. However, a lack of specialized winter equipment coupled with maintenance delays in preparing the aircraft for northern operations delayed their departure from Spokane, Washington until 2 January 1942. Twenty-five days later, all was a shamble. Six of the pursuit planes crashed, while another six were strung out somewhere along the Northwest Airway; only thirteen had arrived at their destination. The bombers fared as poorly with five of the thirteen crashing en route. These incidents were attributed to “the inexperience of the pilots, together with poor communications and inadequate landing fields along the route.”⁸ Clearly, the Canadian facilities required considerable improvements. The manner, method, and rate by which the improvements took place caused difficulty between Canada and the United States.

Canada faced a dilemma on the need to develop and control airdrome facilities along the suggested route. The original airway was developed in peacetime for the purposes of civil aviation, although Department of Transport officials had acknowledged obliquely the strategic importance of the route for the defence of Alaska. Canadian politicians and government officials were wary of ceding construction and operating rights to the United States for fear of the commercial and sovereign precedents such an abdication of responsibility would create.⁹ On the other hand, the Canadian resources to undertake the required improvements were extremely limited. The tremendous expansion of the navy, army and air force had, by 1942, placed a severe strain on available manpower. Construction industry resources to meet existing defence related commitments were already in

⁸ Dziuban, *Military Relations*, 203.

⁹ Stacey, *Arms, Men and Governments*, 280-81.

short supply.¹⁰ The ultimate solution to the problem was in the best Canadian tradition: a compromise.

The required improvements were discussed in Ottawa on 11 March 1942 at a meeting attended by representatives of the Air Services Branch of the Department of Transport, the RCAF, and the USAAF. At the request of J.A. Wilson, the Canadian Director of Air Services, the Americans submitted a paper entitled "Details of Improvements Desired in Canada to Facilitate Operation of a United States-Canadian-Alaskan Military Air Route." This paper became the basis for discussion at another meeting held on 10 April 1942. Agreement was reached to improve the radio range installations on the airway by installing intermediate stations between Fort St. John and Fort Nelson, between Fort Nelson and Watson Lake as well as between Watson Lake and Whitehorse. Two new stations were to be built between Whitehorse and Northway on the Alaska-Yukon border. In order to standardize the equipment and operation of the airway, the Department of Transport agreed to select and develop the sites, purchase and install the necessary equipment, and operate the stations. It was further agreed that the USAAF could install ground to air radio equipment at each of the main fields along the airway. With respect to needed support facilities at each aerodrome, the American representatives presented a long list including such items as hangars, barracks, mess-halls, and office buildings. The Canadian authorities agreed to carry out the requested construction.

The issue of who was to pay for all this work arose early in the discussions, but Wilson stated that such matters were beyond his competence to discuss. He suggested that the Americans have their State Department approach the Canadian Department of External Affairs to negotiate a financial settlement. In the interval, Wilson sought "authorization to get the various programmes of work upon which an agreement was reached put in hand immediately utilizing Canadian funds."¹¹

While Canada agreed to handle the initial financing, the Department of Transport was faced with two problems: obtaining the necessary funds to undertake the work pending a political decision on the final financial arrangements and calling to the government's attention the requirement for such a political decision. Short-term funding presented no major problem:

¹⁰ Wood, *Northern Skytrails*, part X, 6.

¹¹ DHH 181.009 (D6244), "Northwest Airway Facilities," Minutes of Conference 10 April 1942.

DoT applied to DND for the funds, which were quickly forthcoming.¹² The political issue, however, proved to be somewhat more complex. The senior American representative at the conference indicated that the United States was willing to pay for any or all of the expenses associated with the requested improvements. American concern over the security of Alaska necessitated quick action and the use of U.S. Army engineer units to undertake the required work. Canada was reluctant to agree to extensive American participation in the construction or funding of the project for fear of postwar repercussions that might not be in the sovereign or commercial interest of Canada. Colonel Biggar called these matters to the attention of the government, and on 22 April the Cabinet War Committee decided that the United States could pay for additional work beyond Canadian standards, but that Canada would retain full title and control. Canada also retained responsibility for the construction of intermediate emergency landing fields.¹³

Before much of the required work could even be started, the Japanese carrier-borne attack and occupation of the Aleutian Islands of Kiska and Attu provoked the major crisis of the war for the Northwest. Eleven American commercial airlines provided some fifty aircraft to operate on a round-the-clock shuttle to fly reinforcements and war supplies to Alaska. In the early summer of 1942, with the reinforcement crisis stabilized, the United States decided to use the Northwest Staging Route to ferry war planes to their Russian ally, placing even more pressure on the route. To complicate matters further, the internal administration of the Airway underwent a re-organization in June. By 1942, the modest civilian project became a major military ferry route. As a result of this development, responsibility for the operation of the route was transferred from the Department of Transport to the RCAF. Transport, however, retained responsibility for construction projects along the airway. From 1942 until the spring of 1943, DoT contractors worked towards completion of the project. American military engineers were deployed to assist in the work in August and again in

¹² DHH 181.009 (D6244), "Aerodrome Development Committee Submission no. 591, Edmonton to Whitehorse route," April 1942.

¹³ DHH 348.013 (D2) "Summary of Cabinet War Committee Decisions on Canada-United States Joint Defence Construction Projects in the Northwest," n.d. See also Stacey, *Arms, Men and Governments*, 380; Dziuban, *Military Relations between the United States and Canada 1939-1945*, 203-04.

September but were quickly withdrawn on both occasions when Canadian labour groups protested.¹⁴

New construction and improvement of existing facilities was undertaken as American requirements increased steadily. In February 1943, in its 29th Recommendation, the PJBD suggested that United States military engineers undertake the next phase of construction work. The Cabinet War Committee refused approval,¹⁵ but the Canadian government later gave assent to what amounted to the intent of the 29th Recommendation, and there followed an intense period of American-sponsored development that greatly enlarged and improved the facilities of the Northwest Staging Route. Regardless, Canada continued to advocate that future work be undertaken by Canadian contractors and Canadian labour. This system continued until the war's end.¹⁶

On 20 February 1944, C.D. Howe, the Minister of Munitions and Supply, made a long statement in the House of Commons about the Northwest Staging Route. Howe summarized the pre-war history of the route's development and the work done between 1939 and 1941. He then reviewed the earlier government decision that Canada would only pay for those permanent construction works that were required by Canadian standards and that the United States would bear the cost of those works over and above the Canadian standard. He noted, however, that "the northwest staging route is Canadian property, owned and operated by the Canadian government. It was built and developed by Canada, with the cooperation of the United States army engineers and workmen. The cost of the project is to be borne wholly by Canada."¹⁷ The Canadian government anticipated the airway would play a major role in postwar international aviation and took the necessary steps to ensure that control of the airway remained firmly in Canadian hands.

The operation of the airway was also a source of continuous friction between the United States and Canada. As was noted above, the Northwest

¹⁴ Dziuban, *Military Relations*, 206.

¹⁵ Of the 33 wartime resolutions of the PJBD, the 29th Recommendation is unique in that it was the only one that was not approved by both governments.

¹⁶ Dziuban discusses in some detail (pp. 205-13) the problems of U.S.-Canadian co-operation in the construction of the NWSR.

¹⁷ *Debates*, 1944, 1011-13. Dziuban, in discussing costs of the route, does not mention that Canada paid the United States for the work done during the American construction phase.

Airway was militarized in September 1942 when the RCAF took over responsibility for what became known as the Northwest Staging Route. Six officers were dispatched to each of the stations on the route in mid-July to begin preparations for the eventual takeover of the system by the Canadian military. The instructions given to these officers indicated Canada's sensitivity to the control aspect of the international project. The officers were informed that they "were to act as 'ambassadors' of the Canadian Government for the present," an interesting notion, and perhaps an unfortunate word choice when one considers that these RCAF officers were, after all, serving in their own country. The intent of the instruction is clear. It went on to say that while initially the officers were there in an unofficial capacity, and were to "help out" in any way they could, they were to allow "the impression to grow that at some future date, not far hence, the RCAF would eventually take over the official operation of this route without disturbance to any of the parties now using the present services."¹⁸

In the actual operation of the Staging Route, the RCAF encountered two main problem areas: those arising out of continuing Department of Transport activity and home USAAF activities. While the RCAF was responsible for the control, maintenance, and defence of the route, the Department of Transport continued to supply meteorological reports and some communications services. Cooperation between these two federal agencies was dependent upon local liaison as there was no central overall Canadian airway authority. An RCAF proposal made in early 1944 to bring DoT personnel under military control was resisted and came to nought.¹⁹ The system "muddled through" for the duration of the war.

With respect to the USAAF activities, it appeared that the Americans were rarely satisfied with the level or quality of services provided by the RCAF along the route. American attempts to share the air traffic control duty at Whitehorse were firmly rebuffed. More seriously, when the USAAF began to build a control tower at their Watson Lake facility and stated that it was their intention to build such towers at each of the main stations on the route, the project was seen by the RCAF officers working on the NWSR as "an effort to move towards the establishment of USAAF control organization

¹⁸ DHH 181.009 (D6244), no. 4 Training Command Organization and Policy, March to September 1942, "Northwest Staging route," 15 July 1942.

¹⁹ DHH 181.009 (D6574), "Centralized Local Canadian Authority on the NWSR," 16 February 1944.

along the Route by a procession of limited objectives.”²⁰ The USAAF was instructed by Canada to stop unauthorized constructions and control remained in RCAF hands.

The internal control of the NWSR underwent several administrative and control changes during the war. Initially, the route was run by No. 2 Wing of 4 Training Command, RCAF. On 1 January 1944 control was transferred to Western Air Command. This change is indicative only of the changing wartime structure of the RCAF. The formation of a new command, North West Air Command, on 1 June 1944, with the unique responsibility of running the route, was significant in that it represented a clear and conscious attempt by Canada to exert a greater level of control over American defence activities carried out on Canadian soil. Speaking to a group of officers who were to staff the newly formed North West Air Command, Air Vice Marshal H.D. Lawrence said, “what we are going to do is to Canadianize the Route.”²¹

Joint Canadian-American defence projects in the North were rarely used for their original intended purpose. Three general categories of aircraft operation took place along the Northwest Staging Route: the deployment of short-range tactical aircraft for the purposes of Alaskan defence, administrative and logistic flights in support of the Alaskan garrison, and aircraft being ferried to the USSR through Alaska and Siberia. As was noted above, it was mid-1942 before the Siberian ferry route was accepted by the USSR, yet by far most of the flights along the airway were in support of this program. Of the 8,646 aircraft deployed over the staging route between 1942 and 1945, 7,930 continued to the Soviet Union; only 716 were destined for Alaskan defence. Most of the aircraft delivered to the USSR were short-range tactical aircraft; the Northwest Staging Route was the most secure and most direct means for the United States to provide war aid to its Soviet ally.²²

²⁰ DHH 181.009 (D3391), North West Air Command (RCAF) 31 December 1942- 4 April 1944, “USAAF Control Towers on Hangers – NWSR,” 17 January 1944.

²¹ DHH 181.009 (D2841), North West Air command – North West Staging Route Organization and Administration, “conference – June 10th 1944.”

²² Dziuban, *Military Relations*, 215-16.

The Alaska Highway

The geographic isolation of Alaska was a minor cause of concern to American strategic planners throughout the 1930s.²³ In 1936 the United States government, acting mainly out of economic interest, approached Canada to consider the advisability of undertaking the construction of a northern road. Reflecting Canadian strategic thinking of the day, a Canadian General Staff Memorandum rejected the proposal:

The building of a ... highway through British Columbia and the Yukon would provide a strong military inducement, to the United States to ignore our neutral rights in the event of a war between that country and Japan, a danger which we should do everything in our power to avoid.²⁴

In March 1937, President Roosevelt raised the subject with Prime Minister Mackenzie King during his visit to Washington. The President saw the proposed road to Alaska in terms of a defence facility in the event of a war with Japan. Mackenzie King was noncommittal. Roosevelt found a more enthusiastic supporter in the person of P.D. Pattullo, the Premier of British Columbia, whom he visited in September of the same year. Pattullo's public statements in favour of the proposed highway were based on the anticipated economic advantages for the province. However, the Premier's remarks did little to change the federal government's determination to remain uncommitted. Mackenzie King wrote that "grounds of public policy would not permit the using of funds of a foreign Government to construct public works in Canada. It would be... a matter of financial invasion."²⁵ Canada,

²³ Donald MacDonald, a leading citizen of Fairbanks, Alaska began a crusade to build a northern highway in 1928. Two years later in response to public interest in the project, the Hoover Administration in the United States appointed three commissioners to study the possibilities of an Alaska road. In 1932 an international board, including both Canadian and American officials, studied the problem and concluded that the proposed highway could be built for 27 million dollars and recommended that both countries share the cost. The project was shelved at the time because of the financial problems resulting from the Great Depression. See Philip H. Godsell, *Alaska Highway* (London: Sampson, Low, Marston and Company Ltd., 1946), 109.

²⁴ Cited in Eyre, "Policemen and Post Offices: Canadian Sovereignty 1922 Style," 178.

²⁵ Eyre, "Policemen and Post Offices," 178.

however, agreed to participate in another joint study on the feasibility of the project with respect to prospective routes and costs. In April 1939, the representatives of both countries met in Victoria, and later undertook ground and aerial reconnaissance of the three possible routes that had been identified. A year later, the joint commission recommended the selection of an Edmonton-Fairbanks route. It was estimated that with a 24-foot grade the road would cost approximately 2.5 million dollars and take five to six years to build.²⁶

While all evidence points to the fact that the United States and, to the extent that it was interested, Canada also, saw the proposed highway in terms of defence of Alaska, it was not seen in those terms in Japan. When the Japanese foreign office learned of the development of the Northwest Airway and the proposals to build the Alaska Highway, they treated it as an offensive gesture. The newspaper *Hochi* commented that “American measures in this direction will be regarded as a continuation of the horseshoe-shaped encirclement of Japan by the Washington Government.”²⁷

During 1941, interest in the Alaska Highway project increased in the United States and Canada. States and provinces which stood to benefit in an economic sense from the highway (depending upon which route it took) lobbied for it to be built on a course that favoured their own geographic location. Still, the Canadian federal government remained reluctant. When the United States Secretary of State, Cordell Hull, sought Mackenzie King’s support for the project, the Prime Minister demurred, stating that he favoured developing instead the Northwest Airway, a project already underway. In October 1941, the United States War Department threw its weight behind the highway proposal, declaring the projected road to be “a long-range defence measure.”²⁸

Following the Japanese attack on Pearl Harbor, events relating to the Alaska Highway moved toward a swift conclusion, as apprehension over Japanese capabilities and intentions infected the highest levels of American government. On 16 January 1942, the President directed his Secretaries of War, Navy, and Interior to report on the need for a highway. At the same time, he sounded out his two principal military advisors, General Marshall and Admiral King. Both anticipated a Japanese raid on Alaska, and Marshall favoured a highway. Admiral King, on the other hand, while refusing to

²⁶ Godsell, *Alaska Highway*, 110.

²⁷ Cited in Godsell, *Alaska Highway*, 115.

²⁸ Dziuban, *Military Relations*, 217-18.

guarantee uninterrupted sea communications with Alaska, did not feel that a highway was required.²⁹ Roosevelt's cabinet committee reported that they felt that a highway was necessary if sea lanes to Alaska were cut by Japanese action. It was also recommended that the road follow the general line of the Northwest Airway. From a purely military point of view, this route was attractive in that it was relatively secure, located as it was behind a formidable mountain range. Another advantage was that a completed road would form a valuable navigational aid for pilots flying the airway. On 11 February 1942, the President approved the plan, funded it, and directed that the necessary arrangements be made with Canada through the PJBD.

During the same period, the Canadian Chiefs of Staff Committee examined the highway proposal with a narrow and purely Canadian viewpoint. They concluded that "even if this highway could be completed during the present war, it would only indirectly affect the defence of the West Coast. We are of the opinion that the construction of this road by Canada is not warranted."³⁰ To the Chiefs of Staff, defence against any Japanese threat to Canada required attention on the ports and waters of British Columbia. Alaska, and the road to it, was an "American problem."

Given the prevailing American mood in the early days of 1942, it is unlikely that the United States would have accepted Canadian refusal or continued delay on the highway project. Had Canada not co-operated it is most likely that tremendous American pressure would have been brought to bear to force the issue. The American ambassador to Ottawa had forewarned the Canadian government the previous week that his government had decided that a highway to Alaska was vital to the defence of the territory. On 12 February, the United States ambassador formally requested permission to deploy survey teams to Canada and, subsequently, to construct the road. The Canadian government capitulated and, forgetting its earlier reservations concerning sovereignty, agreed to a survey and the construction of a pioneer road between Fort St. John, B.C., and Boundary, Alaska. The PJBD belatedly considered the project in its meeting of 25-26 February. Although some Canadian members remained skeptical about the wartime utility of the road, discussion was somewhat academic since the two governments had already agreed to build the road. The PJBD's 24th Recommendation read: "as a matter pertaining to the joint defence of Canada and the United States, a

²⁹ Dziuban, *Military Relations*, 218-21.

³⁰ DHH 193.009 (D4), vol. 3, "Chiefs of Staff Committee Memorandum" (To Cabinet War Committee), 9 February 1942.

highway be constructed along the line of staging route airports and connecting with the existing road system in Alaska and Canada.”³¹ The American Section of the PJBD informed their Canadian colleagues that the United States was prepared to pay the entire cost of building and maintaining the highway in view of the Canadian contribution to the war effort since 1939 and Canada’s financial obligation for the Northwest Staging Route.

The agreement to build the Alaska Highway was formalized with the approval of the PJBD’s 24th Recommendation and by an exchange of diplomatic notes between the two countries on 17 and 18 March. The plan was that the United States would survey the route and build a pioneer road using civilian contractors. The United States agreed to maintain the highway until six months after the war’s end, after which it would become part of the Canadian highway network.

Canada, for its part, provided only the right of way for the highway and various financial reliefs and customs exemptions in respect of the entry of equipment, materials, and construction workers destined for the highway. The Canadian Chiefs of Staff Committee maintained their parochial attitude throughout. They allowed that the PJBD recommendation made sense—just if the United States was prepared to pay the bill and do the job.³² For the remainder of the war the Canadian military showed little, if any, interest in the Alaska Highway.

The construction of the Alaska Highway was by far the greatest engineering project undertaken in the Canadian North up to the end of the Second World War. Between Dawson Creek and Fairbanks stretched 1,523 miles of wilderness. Both the climate and the terrain contributed to the obstacles the American engineers had to face. Winter cold, break-up and freeze-up, permafrost, swamp, ice, mountains, virgin forests, and innumerable rivers had to be met and dealt with. The United States Army approach to the problem took the form of a massive military campaign. On 16 March 1942, the initial contingent of construction troops arrived at the railhead at Dawson Creek. The troop build-up continued until there were

³¹ Published in Dziuban, *Military Relations*, appendix A.

³² DHH 193.009 (D5) vol. 4, 3 March 1942.

seven regiments of engineers working on the project, a total of over eleven thousand men.³³

Work was undertaken at both ends of the route and at those intermediate points where it was possible to deploy men and equipment. Initially the project was divided into two independent commands with headquarters for the north at Fairbanks and for the south at Fort St. John. In August, with work well under way, the two formations merged into a single Northwest Command under Major General James A. O'Connor, who established his headquarters at Whitehorse. In mid-August 1942, the engineers were reinforced and assisted by 7,500 men from the U.S. Public Roads Commission in the construction of the pioneer road and began upgrading the highway to a regular two lane, 26-foot highway.³⁴

A long-time northern resident, Philip Godsell, described the impact of highway construction on small northern communities during 1942 and 1943. The boom and bust cycle was no new phenomenon to the North, having been seen in the Klondike at the turn of the century and repeatedly in the Mackenzie during the interwar years. The locals, realizing that it would not last forever, made the most of the opportunity. Godsell recounted:

Dawson Creek pyramided from a few hundred disgruntled settlers to a thriving town of ten thousand.... This unexpected eruption furnished a cash market at boom prices for all their... produce; employment for themselves and their teams at unheard of prices.

Dawson Creek at the end of steel daily added new spurs to accommodate the lines of flatcars loaded with bulldozers, trucks, cranes, giant scrapers and bulging boxcars.

... A boom frontier town of cafes, pool rooms, frame hotels, warehouses and barber shops arose to the eternal tattoo of carpenters' hammers.

Within a miraculously short time the hamlet of Dawson Creek with its three hundred population became a rip-snorting

³³ A detailed account of the engineering aspects of the construction of the Alaska Highway is to be found in Lyman L. Woodman, "Building the Alaska Highway: A Saga of the Northland," *The Northern Engineer* 8:2 (Summer 1976): 11-15.

³⁴ Dziuban, *Military Relations*, 222.

frontier town of ten thousand with a floating population ever passing to and from.³⁵

A similar fate overtook Whitehorse. The administrative centre of the construction work was located there, and it also developed as a major base on the Northwest Staging Route. Despite the lack of recreational facilities (Whitehorse boasted three “dingy” beer parlours and a cinema that featured long-dated news films) the boom was orderly. A newspaper report appearing in November 1942 read in part: “The Royal Canadian Mounted Police of the neighbourhood are high in their praise of the sobriety of the American soldiers who have been building the highway.”³⁶

The construction of the Alaska Highway caused considerable public interest and attention in Canada. In part, this was due to the massive publicity that attended the decision to build it, and the subsequent opening of the route seven months later. This contrasted with many other northern defence-related projects which, if not classified as being secret, certainly did not have public attention drawn to them. Overall, comments in newspapers and journals were strongly in support of the project. The defence aspects of the route were treated in a rather uncritical and simplistic fashion; in other instances, newspaper interpretation of the intended use and significance of the highway was simply wrong. The *Sydney Post-Record* reported:

In building it the Army was interested in just one thing; cutting a swath over which supplies could be slugged from America’s industrial arsenals to the strategic bases in Alaska which extend a friendly hand towards Russia and China and point a potential dagger at the heart of Japan.³⁷

³⁵ Godsell, *Alaska Highway*, 134. It was not all that rip snorting—at least by American frontier standards. A newspaper article of 30 November 1942 was headlined “Man Willing to go to Jail to Get a Few Hours Rest.” The story, however, revealed that because of a housing shortage the jail was the only place in Dawson Creek that was not filled. Local officials, when interviewed, reported that there was no crime problem as “both soldiers and civilians are so busy on the road that there is little time for getting into trouble.” The fact that the closest liquor store was several miles away may have contributed to this happy state of affairs. See *Hamilton Spectator*, 30 November 1942.

³⁶ *Winnipeg Free Press*, 12 November 1942.

³⁷ *Sydney Post Record*, 17 December 1942.

The Northwest Staging Route was important to the supply of combat aircraft to the Soviet Union and was clearly linked to the Alaska Highway, but to argue that the route was built for that purpose is erroneous. In the same vein, the possibility of launching a major offensive from Alaska toward the Japanese homeland was not a significant strategic alternative by the end of 1942.

A member of the Manitoba provincial government toured the highway in early 1943 and spoke of his experience on the service club luncheon circuit after his return. He too showed signs of confusion. In his interpretation, completion of the Highway would permit regular shipping to Alaska to be switched from sea to road, a change that he regarded as desirable,³⁸ presumably because such a move would free shipping for use in other theatres. As noted above, this was never the intention: the highway was built as a backup for use in the event that the more economical and efficient sea route became unusable.

The focus of Canadian public commentary during the 1942-1944 period was the impact that the Highway was expected to have upon northern British Columbia and the Yukon in the postwar era. The highway was a means of opening the Northwest to markets, settlements, and commerce. Thomas H. Ross, a Canadian Member of Parliament who visited the highway in the spring of 1943, predicted “a great rush to populate that part of the Dominion after the war.” In particular, the Peace River District of northern British Columbia, now that access was created to “the abundant farming, mining and trapping opportunities, was expected to fill up fast.”³⁹ Several other visitors to the area commented on the impact that the highway would have in terms of new markets for western Canada and an anticipated high tourist trade in the area itself. Edmonton, it was predicted optimistically, would replace Seattle as the main source of supply for Alaska.⁴⁰

While southerners and transients in the North waxed enthusiastically about the future of the Yukon, northerners overall remained unconvinced that a new day had dawned in the Northwest. Many were doubtful that the highway would remain open after the war. General O'Connor, however, explained in an interview that “the peace time maintenance of the road would probably induce less cost and effort than most people realized,” and expressed his opinion that the road would remain in service. He added that

³⁸ *Regina Leader-Post*, 12 April 1943.

³⁹ *The Ottawa Citizen*, 14 April 1943.

⁴⁰ *Regina Leader-Post*, 12 April 1943.

the upgrading work done by the United States Public Roads Administration personnel had already taken the route well above the required military standard.⁴¹

Public interest in the relationship of the Indigenous peoples of the North to the highway was marginal and provided 'colour' for various articles appearing in Canadian newspapers. It was noted that at Indigenous communities the highway passed by, there was a rush on the souvenir moccasin business. Likely, it was some unknowing American soldier or construction worker who brought measles to the small First Nations settlement at Teslin. The resultant epidemic touched all but four members of the band and killed three of them and was reported in southern newspapers without editorial comment.⁴² There appears that no suggestion was ever made in either Canada or the United States that the Indigenous peoples should be asked what they thought of the project. No effort appears to have been made to safeguard the native way of life or their aboriginal rights which were simply not an issue in Canada at that time, particularly during a period of wartime urgency. Northern Indigenous people stood at the roadside and watched the "black white men" (the African American construction troops of the United States Army) with wonder. Inarticulate in terms of white society, and politically unorganized to challenge state authority, there was nothing that the First Nations could do and no one who would do anything for them. Godsell, who knew the territory and the people as well as any white person living at the time, wrote:

Pinned up on their reservation the ragged remnants of the once powerful Beaver tribe gathered around and gazed with smouldering eyes and tight-drawn lips as convoy after convoy of American troops hurtled through their erstwhile hunting grounds without so much as giving them a passing glance.⁴³

The project to improve the road to highway standard continued until November 1943. Most of the American engineer troops withdrew upon completion of the pioneer road and further work was done by civilian contractors. At the height of the construction season, 81 firms employing a total of 16,000 men operated 11,100 pieces of road-building equipment. American Army engineers returned to the job in its final stages and finished

⁴¹ *Hamilton Spectator*, 30 September 1943.

⁴² *Edmonton Journal*, 24 November 1942.

⁴³ Godsell, *Alaska Highway*, 134.

the construction phase; for the remainder of the wartime period the highway was operated and maintained by the United States Army. Remarkably, the road that was estimated to take five to six years to build was completed in just seven months and was transformed into a higher quality frontier highway in another year.⁴⁴

As the United States Corps of Engineers came to grips with the full range of construction problems that faced them, the United States Navy and the Imperial Japanese Navy clashed at Midway. The American victory marked the turning point of the Pacific war; but this fact was not immediately appreciated in the Northwest, for as a subsidiary operation, Japanese forces struck at Dutch Harbour in Alaska and occupied the barren Aleutian Islands of Attu and Kiska on 7 June 1942. The Japanese stopped there and never planned to invade Alaska. At best, the two lodgements served to tie up a few American units in masking them, and substantially more when, nine months later, the United States and Canada finally mounted a campaign to eject the invaders.

The Alaska Highway, as a backup facility, played no significant part in the build-up of American force in Alaska. By the autumn of 1943 when the Aleutian campaign concluded, a mere 54 tons of supplies were delivered to Alaska Defence Command on the Alaska Highway.⁴⁵ In retrospect, the military leaders of both Canada and the United States were correct in their initial assessment that the highway was not necessary for the defence of Alaska. Their change in views is attributed to the emotional climate of pessimism that swept the West in the wake of the unbroken string of Japanese victories in the early months of the Pacific war. The highway as it stood in the fall of 1943, when there was demonstrably no requirement for it for the needs of Alaskan defence, had an annual capacity of 400,000 tons, with potential to increase it to 720,000 tons in an emergency.⁴⁶

The military importance of the Alaska Highway lay in its relationship to the Northwest Staging Route. The highway played an important part in staging route construction programs and in the routine operation of the airway. By the end of 1943, the United States Army was operating over 1,500 vehicles on the highway, moving an annual total of 134,000 tons of supplies and 42,000 passengers. These figures remained constant through 1944 and only diminished in 1945 with the end of the war.

⁴⁴ Dziuban, *Military Relations*, 222.

⁴⁵ Stacey, *Arms, Men and Government*, 383.

⁴⁶ Dziuban, *Military Relations*, 222.

The Canol Project

The Canol Pipeline was the third in the triumvirate of major defence projects undertaken in the Northwest during the Second World War.⁴⁷ Like the Alaska Highway, which in many ways it complemented, the project was a major feat of engineering undertaken on an intensive “crash” basis. In the end, it turned out to have a marginal impact on the defence of Alaska and an insignificant impact on the conduct of the war.

Canol, an acronym for CANADIAN OIL, had its origins in a United States War Department study of January 1942, wherein the possibility of using oil from the Norman Wells field on the Mackenzie River was examined with respect to the military needs of Alaska and ongoing defence projects in northern Canada. Like the decision to build the Alaska Highway and improve the Northwest Airway, the Canol Pipeline was a product of the military’s defense assessment in early 1942. The possibility of losing control of the marine route to Alaska, coupled with a critical shortage of tankers, provoked the American administration into proceeding with the project. On 30 April 1942, the United States Army Chief of Engineers was directed to carry out the program. The following day the United States government signed a contract with Imperial Oil Limited, the owners of Norman Wells; and the Canadian government was notified informally of the American proposal. Negotiations for American construction rights were carried out via the classical diplomatic route, rather than through the PJBD.⁴⁸ As was usual, Canada, although concerned with sovereign implications and possible disadvantageous postwar precedents, agreed to the American requests.

The main project, or Canol I, as it came to be known, called for the drilling of nine additional wells at Norman Wells and the construction of a pipeline between the wellhead and Whitehorse, where a refinery was built.⁴⁹

⁴⁷ Dziuban, *Military Relations*, 228-35.

⁴⁸ The American secretary of the Board later said that the reason the United States Section never tabled the Canol proposals was that the American members did not wish to insult the Board with “such a fool idea.” See Stacey, *Arms, Men and Governments*, 348.

⁴⁹ To establish the Whitehorse refinery, the United States government purchased an existing refinery in Texas, dismantled it, shipped it by sea to Skagway and thence by rail to Whitehorse where it was reassembled. Lyman L. Woodman, “Canol: Pipeline of Brief Glory,” *The Northern Engineer* 9:2 (Summer 1977): 14-

Canol 2 was a pipeline leading from Skagway on the coast to the refinery at Whitehorse. This project permitted crude oil to be shipped by tanker along the relatively secure inside passage to the Alaskan panhandle and thence by pipeline to Whitehorse for refinement. Canol 2 refined oil was used on the Alaska Highway or Northwest Staging Route. Canol 3 and Canol 4 were gasoline pipelines laid to distribute the product of the Whitehorse refinery, the former leading south to Watson Lake, the latter north to the Alaska boundary.⁵⁰ In quest for more sources of oil, the United States sought and obtained Canadian authority to sponsor wildcat drilling throughout the Yukon and in the Northwest Territories.

Except for a few individuals in the higher levels of the American government, virtually every public and private agency in both Canada and the United States, including senior American military engineers, expressed grave doubts as to the utility of the Canol project. Their primary objection was that it lacked the capacity to produce enough oil quickly enough to have any significant effect on the course of the war.⁵¹ In retrospect, these critics were right, for the originators of the project simply had no idea whatsoever of the engineering and transportation problems attendant upon the isolation of the Canadian Northwest. The first requirement given to the Corps of Engineers was to have the pipeline laid and the refinery in production by October 1942.

When the 1942 freeze up occurred, at about the same date that the Canol I was originally supposed to be in full production, less than two thirds of the materials needed to build the pipeline had even arrived at Norman Wells. This was despite a truly massive American construction effort by 2,500 troops and an additional 2,000 civilian workers. Though the Americans built wharf facilities, feeder roads, air strips, and construction camps all over the Northwest in aid of the Canol project, it had not been enough. The

28. Woodman's article includes a detailed study of the engineering aspects of the Canol project.

⁵⁰ DHH 348.013 (D1), *U.S. Defence in Canada*, Canadian General Staff Memorandum, 11 July 1945.

⁵¹ Stefansson recommended the development of the Norman Wells oil fields to the United States War Department in 1940 and again in mid-1941 as a defence measure, but no action was taken in the absence of the imperative of war. Woodman, "Canol," 16. Stefansson was notorious for underestimating the difficulties of northern development and operations to men less dedicated than himself.

movement of equipment and material for the pipeline continued throughout the winter across roadways bulldozed across frozen waterways and through snow covered woodlands. When the 1943 shipping season opened, huge amounts of stores were still required to be moved north.

At the same time as the necessary equipment was being assembled in the Mackenzie Valley and in the Yukon, an extensive survey and reconnaissance was underway to determine the route that the pipeline should take. This survey was not completed until May 1943, although actual construction of the pipeline was able to begin in December 1942. Work continued throughout 1943; at its peak, the work force numbered over 10,000 civilian construction workers. The pipeline was not completed until February 1944 and the Whitehorse refinery did not come on line until April.

The Canadian government had little or no idea of the magnitude of the American enterprise. When rumours of the actual extent of operations eked out of the North, Canadian leaders uniformly reacted with shock and dismay. In far distant London, Vincent Massey of the Department of External Affairs learned from a senior officer of the Hudson's Bay Company that "large numbers of men have been discovered well established in certain parts of the North without Ottawa knowing anything about the matter at all or any permission having been asked or given."⁵² In the winter of 1944 Mackenzie King twice brought up the Canol project at War Committee meetings. His chief concern was with the actual control of the oil wells, holding that "we ought to get the Americans out of the further development there and keep complete control in our own hands."⁵³

If Canadian leaders were privately unhappy with the entire Canol project and distrustful of the ultimate intentions of the United States, the American Senate was also having serious second thoughts about the northern pipelines. The Truman Committee Investigating the National Defence Program criticized both the initial decision to launch the Canol project and later decisions, some made as late as October 1943, to continue with the project in the light of a vastly improved strategic situation in Alaska. The United States Petroleum Administrator for War viewed the project as being inordinately expensive in relation to the expected return. In addition, the Truman Committee concluded that the contracts negotiated with the Canadian

⁵² Vincent Massey, *What's Past is Prologue* (Toronto: MacMillan of Canada), 371.

⁵³ J.W. Pickersgill, *The Mackenzie King Record, vol. 1 1939-1944* (Toronto: University of Toronto Press, 1960), 644-45.

government were unfair and failed to safeguard postwar American interests and investments.

Despite constant criticism, the United States War Department forged ahead, determined to complete the project long after their critics had proved to be manifestly right, and even the remotest strategic threat had passed. When production finally started, the Whitehorse refinery could only process 3,000 barrels of crude oil a day. As such, the output of gasoline, fuel oil, and aviation fuel only partially fulfilled the needs of the military operations by then taking place routinely along the Alaska Highway and the Northwest Staging Route.

Canol was to be as ephemeral as it was costly. In June 1945 the Whitehorse refinery was closed and soon after was dismantled and shipped back to the South. Neither the Canadian government nor any private enterprise could make any economic justification for the facility in terms of northern requirements during peacetime. Very few of the elaborate facilities that were built to support the pipeline were of any use in the immediate postwar years. A few airstrips were subsequently developed to meet the needs of commercial and private aviation in the upper Mackenzie Valley. The main pipeline was abandoned. The wilderness encroached on most of the airstrips and the service road that ran alongside the pipeline. Empty construction camps crumbled into decay and wharfs were swept away. Canol, at a cost of 134 million dollars, briefly opened a remote area of the Canadian North. Since the end of the war, the North has reclaimed its own.

Crimson Route

A Trans-Arctic Airway between Europe and North America drew considerable fascination by air minded people on both sides of the Atlantic during the 1930s.⁵⁴ The theoretical potential of the route was clearly understood, but given the state of aviation, the problems presented by the route seemed insurmountable in terms of technology, cost, and reliability. It was undesirable for an open sea crossing to exceed more than 450 miles. The

⁵⁴ It should be noted that the Trans-Arctic Airway was only one of several means considered to link the two continents by air. A series of floating aerodromes located at intervals along the main North Atlantic shipping route remained no more than an idea. The possibilities of using rigid airstrips for commercial purposes seemed more promising; it was to take the Shenandoah and R101 disasters before this alternative was given up.

projected route led from London to Scotland and then northward to the Faroe Islands. From there the route envisioned aerodromes at Angmagsahik and Holstenborg on the east and west coasts of Greenland respectively, and on to Pangnirtung on Baffin Island, the first point of the route on Canadian territory. From Pangnirtung there existed two alternatives: a westerly route through Chesterfield Inlet and Churchill on Hudson Bay, and on to Winnipeg; or a more easterly route going through Wakeham Bay on Hudson Strait, Whale River, Rupert House, and Cochrane in northern Ontario.

While these routes met the requirements of the airway in terms of airfield interval, they also encompassed (from an aviator's point of view) particularly foul climatic conditions, including long hours of darkness during winter, blizzards, sleet, fog, and critical temperatures conducive to aircraft icing. In addition, winter ice and varied times of break-up and freeze-up along the route meant that flying boats could not be used; ski- and wheel-equipped aircraft operating between prepared aerodromes were the only possible solution at the time. The cost of building such facilities in Canada during the 1930s was perceived as excessive. In retrospect, a commercial Trans-Arctic airway would have to present a fast and reliable alternative to the well-established North Atlantic steamship route. As is often the case with pioneering ventures, reliability was the great question mark. In Depression-era Canada, the solution to the inherent problems of the route was not apparent.

Canada approached the Trans-Arctic Airway project with great caution. The British Watkins air expedition to Greenland explored the eastern portion of the proposed route and was watched with interest. Men of the RCMP stationed in the Eastern Arctic proved their multi-purpose utility and gathered meteorological data along the Canadian section of the proposed route. Charles Lindbergh carried out a partial aerial survey of the route in 1933 on behalf of Pan American Airways, but his report was noncommittal and PanAm took no further action.⁵⁵

The Canadian position is best summarized by an undated memorandum prepared by the Civil Aviation Branch, probably in 1936. It concluded that:

the route was only feasible for multi-engined aircraft using land bases.

The preparation of these, together with the equipment of the route, presents great difficulties. Many of the bases would be

⁵⁵ DHH 75/52, "Trans Arctic Airway" memorandum, 6 February 1932.

inaccessible for many months of the year, which is an obvious drawback. Their inaccessibility makes the investigation expensive and difficult. We felt that, while the route could probably be flown with fair regularity if properly equipped yet, the difficulties of its operation and the cost of its maintenance together with its inaccessibility, do not make it a practical proper proposition under present conditions.⁵⁶

Nobody seems to have considered, even in the late 1930s, that conditions might change abruptly and an air route that was not a “practical proposition” as a commercial venture might take on a vastly more important role in war.

During the summer of 1941, both Canada and the United States sponsored air expeditions along the Labrador coast to examine the possibility of establishing a major air base at North West River.⁵⁷ Both groups met at the site that later became Goose Bay and agreed that it met the requirements. While Goose Bay was the main base, the need to ferry strategic and tactical aircraft from North American factories to the European theatre of war led to the construction of extensive airway facilities throughout Canada and Newfoundland. It was anticipated that a movement bottleneck would be created at the Newfoundland bases of Gander and Torbay particularly when massive numbers of USAAF aircraft were deployed to Europe. The huge new facility constructed at Goose Bay in late 1941, was, in early 1942, still unpaved and unusable during the spring thaw. In addition to these problems, short-range fighter aircraft required bases that were more closely positioned than those that the Newfoundland route provided.

The American 1941 air expedition was commanded by Captain Elliot Roosevelt, the President’s son. In the latter part of July he proceeded further north and located potential air base sites at Fort Chimo in Arctic Quebec, at the head of Frobisher Bay on Baffin Island, and on Cumberland Sound on the east coast of Baffin.⁵⁸ On 9 August 1941, during the Atlantic Conference

⁵⁶ DHH 75/52, “Arctic Air Route between UK and Canada,” memorandum, n.d. (1936?).

⁵⁷ Dziuban, *Military Relations*, 193-4.

⁵⁸ A detailed account of this expedition is to be found in Alexander Forbes, *Quest for a Northern Air Route* (Cambridge Mass: Harvard University Press, 1943). Subsequent investigation revealed that Padloping Island was even more suitable than Cumberland Sound.

at Argentia, Newfoundland, the President discussed these sites with his son and General Henry H. "Hap" Arnold, his senior air adviser, with a view to developing a ferry route for short-range aircraft.

Nothing could be done about air base construction at these remote sites during 1941 as the open water season was too far advanced. The United States did, however, request permission from Canada to construct meteorological stations at these sites to provide weather forecasts relevant to North Atlantic flying. Canada acceded to this request and the United States quickly deployed the necessary resources. By year's end, the three bases, code named *Crystal*, were all in operation with Crystal I at Fort Chimo, Crystal II at Frobisher Bay, and Crystal III on Padloping Island.

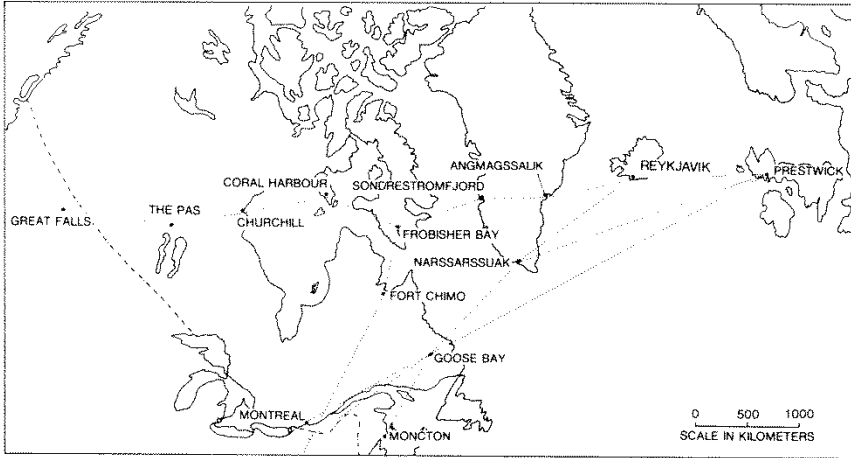
By the spring of 1942, the anticipated air bottleneck was clearly developing in Newfoundland and Labrador. In May the United States presented a plan for what eventually became known as the Crimson Project to the PJBD. Fiorello La Guardia, the Chairman of the United States Section of the Board, saw the project as one of the most important subjects that the Board discussed, saying: "The plan challenges the imagination. It is so gigantic and dramatic." He reported to the President that the magnitude of the proposal startled the Canadian members of Board. An unofficial Canadian opinion on the project, rendered by C.D. Howe, was that the Americans underestimated the climatic difficulties that would be encountered in the construction and operation of the Baffin Island bases.⁵⁹

On 9 June 1942, the PJBD examined in detail the American proposal for the Northeast Staging Route. In the view of the United States Army Air Force, there would be a requirement, by 1943, for a series of aerodromes every four or five hundred miles, the whole system being capable of handling up to one hundred combat aircraft and forty transports a day. To this end, the United States proposed three alternative routes: an eastern route via Fort Chimo, Baffin Island, the east coast of Greenland, Iceland and on to Great Britain; a western route originating in Regina, Saskatchewan and going northeast via The Pas, Churchill, Southampton Island, and thence connecting with the eastern route at Baffin Island; and a central route, following the east coast of Hudson Bay by way of Moose Factory and Richmond Gulf to Baffin Island.

In the view of the PJBD the project promised a decisive effect on the duration of the war and, in its 26th Recommendation, suggested starting the

⁵⁹ Stacey, *Arms, Men and Governments*, 375.

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project as soon as possible. Each country was to bear the costs of the airfields that it undertook to construct, defend, and operate, but the proviso was added that all facilities built in Canada became property of the Canadian government after the war.

If the magnitude of the project had staggered Canadian officials when it was first presented to them, it had similar effect on the United States Combined Chiefs of Staff Committee when they considered the logistical support and shipping requirements required during the construction phase. In the view of American military leaders, Crimson placed an unacceptable delay in the build-up of American forces in Europe and recommended that the project be dropped unless the shipping requirements were considerably reduced. A modified plan was eventually approved by the United States military on 2 July 1942. Its final form included three permanent airfields at The Pas, Churchill, and Southampton Island. In addition, three winter strips were to be built at Fort Chimo, Frobisher Bay and on the east coast of Greenland. The “central route” was abandoned completely. Canada, faced with the perennial problems of limited resources and with heavy on-going commitments to construction on the Northwest Staging Route and at Goose Bay, stated that it would only be able to build the field scheduled for The Pas. The Eastern Arctic became the responsibility of the United States.

Work on all five fields in Canada went ahead with surprising speed. By the end of the year, usable strips were built at every site and construction of housing and other support facilities progressed well. In addition to the main sites, the United States built a feeder base at Mingan, Quebec, and undertook

the construction of thirty meteorological stations throughout the Eastern Arctic and the northern portion of the central provinces to support the system.⁶⁰

By the spring of 1943, the steadily improving allied situation caused the United States War Department to reconsider the entire Crimson project. The ever-increasing range of successive technological generations of fighter aircraft negated the need for relatively closely-spaced bases, and it was also proving possible to deploy large numbers of disassembled aircraft to Europe using regular North Atlantic shipping. As a result, the United States felt that it would be reasonable to modify and reduce Crimson considerably. The exact nature of these modifications, however, was a matter of some indecision, and it was early summer before negotiations between the two governments were complete. In the interval, work continued at all sites. The result was that the eastern route bases at Chimo and Frobisher were designated as emergency strips to be used in the event that it became necessary at some later date to deploy large numbers of aircraft quickly to Europe.⁶¹ To this end, these far northern strips were paved. Work on the sites at Southampton Island, Churchill, and The Pas, which were more than fifty percent completed, were pushed through to completion and facilities were maintained at all sites to support flying operations. The meteorological net was modified by closing some stations while other new ones were opened.⁶²

The Crimson Route was never used for its designed purpose. At the most northerly bases, aircraft were few and far between. Fort Chimo recorded 85 landings in 1943 and seven in all of 1944: most of these were by ice patrol aircraft working in support of shipping related to the construction of the bases. A total of 323 aircraft landed at Frobisher Bay during 1943, almost all of them for the purposes of supporting construction activities. In the words of the official United States Army historian, “an insignificant number of ferry aircraft passed through these bases.”⁶³ Although the bases ultimately

⁶⁰ Dziuban, *Military Relations*, 193-4.

⁶¹ There is an oft expressed statement in the popular press that Crimson route was built to facilitate the air medical evacuation of the heavy casualties that were expected as a result of the invasion of Europe. No official documents on the subject could be located by the author that suggested even remotely that this was ever a real purpose of Crimson Route.

⁶² DHH, *Chiefs of Staff Committee Memoranda* (D22), vol. 21, 5 August 1943.

⁶³ Dziuban, *Military Relations*, 194.

played little role in the war effort, their future remained a perplexing problem to the governments of both countries.

The United States attempted to shift the control responsibility for The Pas, Churchill, and Southampton Island to Canada in early 1943 when the first major re-evaluation of the project was undertaken. The Canadian Chiefs of Staff Committee was still studying the proposal when the United States again changed its mind about future development. With respect to the original request, the Canadian view was that the most southerly base, The Pas, should be taken over by Canada; that the United States should maintain its commitment at Churchill; and that Southampton could be abandoned, providing that, as a precaution, the runway was made unserviceable.⁶⁴ In the fall of 1944, the United States once again considered the abandonment of the route,⁶⁵ while the Canadian government considered what to do with the facilities. In the summer of that year, several departments of the federal government conducted a joint exploratory flight over the Crimson Route “for the purpose of obtaining information regarding the usefulness of the bases, and any other information which will assist in assessing the future value of the Route.”⁶⁶

Several reports were submitted to the Cabinet War Committee on the subject. The Canadian Chiefs of Staff agreed that, from a defence point of view, the bases at The Pas, Churchill, and Southampton Island were not required, but that they should be maintained by the Americans on a caretaker basis until such time as the aircraft ferrying requirement for the Pacific war became clear. The issue was still dragging on when the war ended in Europe. On 19 May 1945, a Canadian staff study stated that “there is no military value to the aerodromes at Chimo and Frobisher Bay” and recommended that no attempt should be made by the Department of National Defence to maintain either of the stations or Southampton Island.⁶⁷ Finally, The Pas and Churchill were turned over to the Canadian Department of Transport in August 1945 while Southampton Island was transferred in September. The United States, however, kept small caretaker detachments at Frobisher and Chimo until the winter of 1949-50.⁶⁸

⁶⁴ DHH, *Chiefs of Staff Committee Memoranda* (D20), vol. 19, 14 June 1943.

⁶⁵ DHH *Chiefs of Staff Committee Memoranda* (D36), vol. 35, 5 October 1944.

⁶⁶ DHH 181.009 (D1062), Northwest Staging Route Exploratory Flights, 26 July 1944.

⁶⁷ DHH, *Chiefs of Staff Committee Memoranda*, (D43), vol. 42, 18 May 1945.

⁶⁸ Stacey, *Arms, Men and Government*, 377.

The Crimson Project in the Eastern Arctic was closely analogous to the three United States defence projects in the Northwest. All were conceived and approved in the early months of 1942. All were eventually used for purposes other than that which their designers had originally intended. All brought a relatively massive United States military presence to the sparsely settled Canadian North.

Impact and Aftermath

The main purpose of all the Second World War northern defence projects was to permit the United States to bring its military power to bear on distant lands. Faced with a common foe, Canada often “went along” with American projects for the sake of allied co-operation and to “protect” its sovereign rights. In permitting the United States to undertake major construction projects using American troops, American contractors, and American materials, Canada gave up some degree of its sovereign authority over its own territory but maintained an apparent ultimate control. These projects are all amenable to concrete measurement—the number of aircraft delivered to Russia, the number of barrels of oil pumped, etc. The sacrifice of sovereignty in the interests of a common cause is unquantifiable.

The attitudes of officials in both countries towards the matter of sovereignty differed considerably. As a broad generalization it could be said that American defence planners involved in northern projects, and American troops involved in their execution, were not concerned in the least about the sovereignty factor. After all, their sole interest was the efficient prosecution of the war. Canadians, on the other hand, were extremely suspicious of American motives. Canadian officials were continuously examining American proposals in the light of anticipated postwar political, economic, and commercial factors. These differing attitudes caused certain difficulties in Canadian-American wartime relations, and they were particularly acute in the North where the Canadian infrastructure and presence was at its weakest, and the American involvement was at its greatest.

Three of the four main military construction projects—the Alaska Highway, Canol, and Crimson—were exclusively American. Even the Northwest Staging Route, even though it was constructed by Canada and operated by the RCAF, was run for the benefit of the United States and, during 1943, relied heavily on American construction teams who were building the necessary improvements and enlargements. Nonetheless, the

Liberal government of Mackenzie King quickly seized opportunities to emphasize Canadian sovereignty and reasserted Canadian control over these American projects. At the official opening ceremony of the Alaska Highway, held at Soldier's Summit on 21 November 1942, both the message of congratulations sent by Mackenzie King and the speech by the cabinet minister who attended the ceremony emphasized the Canadian "contribution" to the project and reiterated the fact that the highway was built on Canadian territory. The Prime Minister's message read, in part, that Canada's "unprecedented action in granting the United States permission to build the road across Dominion territory was another symbol that we are brothers-in arms, waging a life-and-death struggle against a common enemy."⁶⁹

Ian Mackenzie, the cabinet minister, was somewhat less subtle. He said that "the soil is ours, the toil has been yours." He emphasized that the highway was just a part of the Alaskan route and that the Northwest Staging Route was the other half. In his words, "we have built the sky-way—you the highway." Somewhat ungraciously at the official opening of the highway, he went on to extol the anticipated postwar importance of the airway.⁷⁰

Mackenzie King saw American projects as an attempt to link Canada more closely to the United States at the expense of Canada's relationship to the British Commonwealth, just as he saw British attempts to involve Canada in South East Asia as efforts to tie Canada more closely to the Commonwealth at the expense of the American connection. Accordingly, he objected to an impolitic suggestion by the United States that a joint international committee be formed to study the territory opened up by the Alaska Highway. On 30 December 1942 he wrote in his diary that he was "strongly opposed to anything of the kind," seeing such a project as the first step of "the efforts that would be made by the Americans to control developments in our country after the war."⁷¹

Canadian concern over sovereignty in the North continued to grow as the war progressed and American involvement in the area increased. In early 1943, the British High Commissioner to Canada, Malcolm MacDonald, visited the Northwest, and was later invited to inform the Cabinet War Committee of his impressions of the situation there with respect to American activity. MacDonald painted a gloomy picture about Canadian

⁶⁹ *Vancouver Province*, 22 November 1942.

⁷⁰ *Vancouver Province*, 22 November 1942.

⁷¹ *Mackenzie King Record*, vol. II, 46.

sovereignty. He observed that the scale of the American projects could not be imagined without seeing what was going on, adding that the few Canadian officials in the area could not maintain control, never mind keep in touch with day-to-day developments. More ominously, he stated that he felt the American defence projects were planned and carried out with a view to the postwar situation.⁷²

In April 1943, the Deputy Minister of Mines and Resources, Dr. Charles Camsell, was directed to study and report on the situation in the Northwest. Basing their decisions on Camsell's report, the Cabinet War Committee resolved that in the future all subsequent programs in Canada involving the United States defence establishment would be the subject of specific agreement between the two countries; that Canada participate as fully as possible in the actual program of development; and that a special Canadian commissioner be appointed to oversee all military activity in the Northwest. On 5 May 1943, Brigadier W.W. Foster was named Special Commissioner for Defence Projects in the Northwest. Included in Foster's instructions was the sentence:

The Canadian Government desires to ensure that the natural resources of the area shall be utilized to provide the maximum benefit for the Canadian people and to ensure that no commitments are made and no situation allowed to develop as a result of which the full Canadian control of the area would be in any way prejudiced or endangered.⁷³

The United States regarded this appointment of a Special Commissioner as a measure taken by Canada to simplify liaison and to centralize Canadian authority in the area—and it certainly had that effect.⁷⁴ There can be no question that the real purpose of the Canadian government was to provide for better Canadian control over American activities and more effective protection of Canadian sovereignty. Nevertheless, despite these steps, Canadian apprehension continued. In March 1944, the Prime Minister wrote in his diary that he thought that:

we ought to get the Americans out of the further development [in the North] and to keep complete control in our own hands.... With the United States so powerful and her

⁷² Stacey, *Arms, Men and Governments*, 386.

⁷³ Stacey, *Arms, Men and Governments*, 386.

⁷⁴ Dziuban, *Military Relations*, 137-8.

investments becoming greater in Canada, we will have a great difficulty to hold our own against pressure from the United States.⁷⁵

By 1944, the great military construction projects that were undertaken with urgency two years before were nearly completed, or, at least, the military construction phase had ended. In most cases, however, the remaining work was turned over to civilian contractors, and there still remained a sizeable defence sponsored work force in the North. Changes in the strategic balance also served to lessen the importance of the area. The Japanese were expelled from the Aleutians and the security of Alaska was no longer threatened. The United States was prepared to abandon the Crimson Route in 1943, and only continued the project on the possibility that the route might have some role to play in the redeployment of forces after the end of the war in Europe.

At the level of the PJBD and in concerned government departments in both national capitals, officials considered the problem of postwar disposition of defence facilities in the Canadian North. In some cases, the original international agreement was specific as to the future of any facility. The Alaska Highway, for example, was to be turned over to Canada six months after war's end, although Canada was in no way committed to its subsequent upkeep and, in 1944, the postwar role of the highway was by no means clear.

The future of the various airways was much more important. Intercontinental air routes from the United States to both Europe and the Orient involved the use of the Canadian air space and aerodrome facilities. Officials in both countries anticipated that the wartime staging routes could play a key role in peacetime civil aviation, though both sides were suspicious of the other's intentions. Canadians feared that the United States would use its wartime position as the basis for a future claim to operating rights. This feeling was heightened in Canada by the fact that American commercial carriers were operating in the Northwest on charter to the United States War Department and Navy Department. On the other hand, Mackenzie King stated that Canada intended to use its geographic location to full advantage in developing postwar civil aviation.⁷⁶ The PJBD's 32nd Recommendation reconfirmed Canadian control over the Northwest Staging Route. Flight

⁷⁵ Stacey, *Arms, Men and Governments*, 386.

⁷⁶ Dziuban, *Military Relations*, 303-4.

strips associated with Canol and the Alaska Highway were seen as having only a local or emergency utility and remained under American control as did the Crimson Route, also seen as being unimportant to future civil operations because of the extreme northern location of the bases. In short, interest in the future use of the airways was in terms of civil aviation, and not for any future military role. In 1943-44, neither Canadian nor American political and military leaders were thinking of a possible rivalry with the Soviet Union.

The actual transfer of defence facilities from the United States to Canada was a gradual process that took several years, starting before the war's end and continuing well into the Cold War period. Canol flight strips on the Mackenzie River were turned over to the Department of Transport in November 1944. From October 1944 to April 1946, the United States gradually turned over the facilities it was using on the Northwest Staging Route. The aerodrome facilities at Churchill and The Pas were abandoned by the United States in August 1945, as was the Southampton Island base the following month. The more northerly bases of Fort Chimo and Frobisher Bay were retained by the United States until October 1949 and September 1950 respectively. Canada took over control of the Alaska Highway in April 1946. The Canol facilities were dismantled in bits and pieces and sold to various commercial firms between 1946 and late 1947.

The military activity associated with the North during the Second World War is best seen in terms of the "boom and bust" phenomenon which has historically been so common in the region. There are two aspects to the issue: the impact of the actual construction and wartime operation phases, and the importance of the permanent facilities that remained at war's end. Those construction projects that touched or passed by northern communities brought short-term economic prosperity in their wake for those who had skill or services to offer to the builders. No consideration was given at the time to environmental impact or Indigenous land rights and cultural identity. In the absence of detailed studies on these latter two issues, one can only generalize and say that the results of the defence projects were probably negative, but in what way and to what degree remains unknown.

The long-term results of the northern projects are somewhat easier to measure. The great expectations associated with the northern airways failed to materialize. War-inspired aviation technology developed so quickly, particularly with respect to the range of multi-engine aircraft, that there was ultimately no need for the closely spaced bases of either the Northwest

Staging Route or the Crimson Route. The various landing fields became important to local and regional air services but, with one or two minor exceptions, played no subsequent part in transcontinental aviation. The Alaska Highway turned out to be the most important of the wartime ventures to subsequent northern development but, even then, the great population rush and industrial development that many northern optimists' forecasts during the war did not develop. Growth occurred, much of it made possible by the existence of the highway, but this growth was slow; setbacks were as common as successes in the realm of commercial ventures in the area. Revenue from tourism in northern British Columbia and the Yukon became an important economic factor to Canadians who made their homes in the area, but by the standards of a Yellowstone Park, a Niagara Falls, or a Disneyland, northern tourism remained at a very modest level. Canol, given a comparison of costs and results, must be put down as a 134 million-dollar fiasco.

At the end of six years of war, Canadians knew a bit more about the North than they had previously. Americans, in comparison, knew much more. Permanent facilities, in the sense that they formed a transportation grid, contributed to future development. The size and isolation of the North underlined the fact that development of any sort represented a massive and costly engineering effort, and if Canada could not undertake such projects on its own there would be serious implications for national sovereignty in the area. The North itself had yet to prove that it had any great intrinsic value to the nation.

6

THE DEFENCE OF A STRATEGIC FRONTIER**The Aerial Defence of North America**

When Canadian and American planners were formulating their joint defence schemes in 1941 before the United States entered the Second World War, they thought exclusively in terms of “both coasts,” the Atlantic and Pacific. The fact that North America had an Arctic coast was ignored. A scant two years later, the United States was building a line of northward facing radar stations across northern Ontario. Canada was organising the Central Canada Aircraft Detection Corps with detachments at 700 points across the central provinces. At Sault Ste Marie, the United States was deploying unit after unit of anti-aircraft artillery, military police, engineers, and fighter squadrons while Canada contributed a heavy anti-aircraft battery under American command. This massive, and, in retrospect, excessive reaction on the part of the United States, with Canada meekly following along, had but one purpose: to defend the locks at the Sault against an Axis attack mounted from the Canadian North.¹

¹ In an average year the locks at Sault Ste. Marie between Lake Superior and Lake Huron handled a greater tonnage of shipping than did the Panama, Suez, and Kiel Canals combined. Ninety percent of American iron ore destined for eastern smelters as well as vast quantities of wheat passed through the system. The locks certainly formed a lucrative strategic target. Postwar investigation has revealed that no Axis power ever even considered a bombing attack or “suicide” raid by paratroops into the heartland of North America, let alone such a venture mounted through the desolate wasteland of the Canadian North. The Sault defence project is best viewed in terms of an understandable reaction to the precedent of Pearl Harbour. Having been bitterly surprised once, the United States did not intend to be caught again—military resources were readily available as the United States girded itself for total war. Both American and Canadian official historians discuss the defences at the Sault in considerable detail. See Dziuban, *Military Relations*, 194-8; and C.P. Stacey, *Six Years of War*:

In postwar North America, consciousness of the vulnerability of the continent to attack from the North became a major consideration in defence planning. Many factors combined to create this new frontier: knowledge of the use to which the North was put during the war, greater familiarity with the North itself arising out of those defence projects, and the changed international scene. Greatest of all, however, was the development of aviation technology. The advent of aircraft that could carry out intercontinental attacks by using the polar route focused the immediate postwar attention of military men, scientists and statesmen on the North. Once attention was focused, a host of problems and relationships were identified, with a rigorous analysis following closely on the heels of identification. To North Americans, the “northern approach” became a reality.

Interest in, or concern for, the North did not equate to understanding or knowledge. Defence planners had to come to grips with many notions before realistic programs could be undertaken, notions such as the use of polar projection maps for strategic planning; the deeply imbued North American popular image that “north” equated to “cold” or “winter”; and the differing strategic implications between the North as a battleground in itself and north as a direction of approach to the heartland of the continent. Inevitably, theoretical speculations tended to be coloured by experience.

During the interwar years, the apostles of strategic air forces, Douhet in Italy, Mitchell and Seversky in the United States, and Trenchard and Liddell Hart in Great Britain, developed theories of strategic bombing. In its extreme forms, these theories maintained that air power alone could destroy a state’s means and will to fight. The events of the Second World War, particularly the American and British bomber campaigns against Germany, and the American operations against Japan, proved the theorists, in a large measure, to be wrong. British and American air force leaders seriously underestimated almost every aspect of bomber force capability, including the amount of physical damage that could be inflicted by a given weight of bombs, navigational accuracy, the degree of destruction necessary to neutralize an area, the effectiveness of anti-bomber defences, and the resilience of the civil population. Bombers, it appeared, were not the ultimate answer to war. The attacks on Hiroshima and Nagasaki changed the entire picture. Thousand bomber raids in air campaigns that lasted months, if not years, would no

longer be necessary. Whereas during the Second World War a bomber loss rate of ten per cent was unacceptable, the same bomber fleet, armed with nuclear weapons, could suffer a fifty per cent loss and accomplish the mission. It was widely realized in both military and civilian circles that North America was vulnerable to an attack over the North Pole. As relations with the Soviet Union deteriorated in 1946, a wave of immediate concern swept the United States and to a lesser extent, Canada. Much of this concern now appears to have been ill-founded.

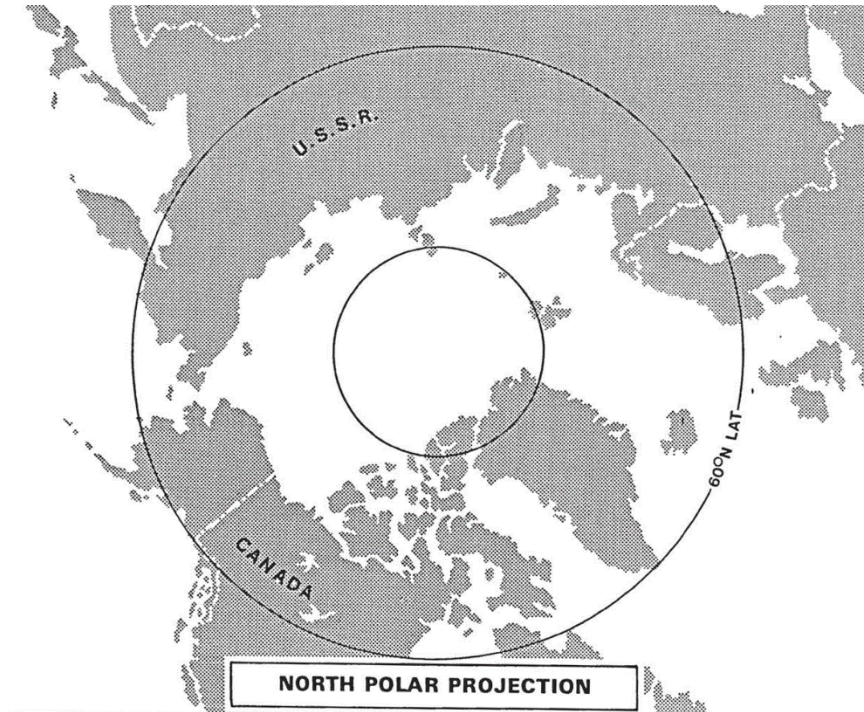
The basis of Soviet strategic bomber fleet was not established until early 1945 when an American B29 "Superfortress" force-landed in Soviet territory, and thus provided the Soviet Union with a gratuitous, if unintended, strategic bomber prototype. To suggest, prior to 1949, that the Soviet Union might attack the United States with a puny, by Second World War standards, fleet of bombers on a one-way mission with conventional bombs, was fantastic. Yet the suggestion was made and often repeated in the press. Starting in 1946, reports of plans for massive defence projects in the Canadian North flooded the newspapers of both Canada and the United States. Numerous radar and fighter bases, along with protective army garrisons, were projected.

An article appearing in the *Chicago Tribune* identified the issue in a rather alarmist and spectacular fashion, but the basic points of the story were accurate. It was reported that "members of a military mission for Alaska" said that:

the entire concept of arctic defence is based upon current or imminent developments in high speed bombers, in supersonic rockets and guided missiles, and radio controlled pilotless aircraft. Long range air operations are so routine today that trans-polar flights are considered to be within the capabilities of the air forces of any great power.

The arctic has been picked as the shortest aerial distance between the United States and any other nation in the northern hemisphere that might have technological know-how permitting it to engage in a war with this country. A 3,000 mile flight from an advanced arctic base on the continents of Europe or Asia could strike to the manufacturing heart of North America.

The article then went on to state that the United States intended to construct a radar picket line and interceptor rocket and fighter bases roughly along the



Arctic coast of Canada. It was also reported that these “steps are being taken in conjunction with authorities responsible for Canadian defenses.”²

In North America, several concepts coloured strategic thinking in the early years of the Cold War. During this period air power was seen as being the dominant component of military force. Sir John Sessor argued that Mackinder’s notion of the impregnable Russian heartland was no longer valid since “air power has turned the vast spaces that were her prime defence into a source of weakness.” A.P. de Seversky rejected the Mercator map and used the polar projection map in expressing his ideas. Many other military thinkers seized on this approach and emphasized the global proximity of the two superpowers across the polar basin. Another tremendously popular concept, and often referred to, was Stefansson’s notion of the Arctic basin as the “new Mediterranean.”³

Inevitably, the defence policies of Canada became increasingly involved with those of the United States. Sandwiched between two hostile superpowers, Canada was in the unenviable position of having to seek

² *Chicago Tribune*, 19 January 1947.

³ A useful summary of early Cold War strategic analysis is Stephen B. Jones, “Global Strategic Views,” *Geographical Review* 45:4 (October 1955): 500-05.

defence accommodation with the United States, no matter what the issue might have been. The disproportionate strengths of the two North American allies resulted in Canada, as often as not, playing a supporting or subordinate role in the defence of North America. The important notion here is embodied in the expression “defence of North America.” In terms of polar defences against the emerging Soviet bomber threat, it was impossible to differentiate between the interests and security of the two nations.

The Canadian government was less concerned with the Soviet threat than it was with the strong rumour that the United States was interested in establishing bases in the High Arctic, and that Canada was under considerable pressure to agree to the program. The public also speculated that northern defence works were required and if Canada refused to cooperate, the United States would act unilaterally to protect its own interests and establish the bases with a consequent loss of Canadian sovereignty over the area.⁴ In order to quell the resultant public clamour, the United States and Canada issued a joint statement in February 1947 wherein the principles of postwar defence cooperation were delineated. The document provided for general cooperation relative to developments of common interest, mutual availability of military facilities in each country, and a vague statement of intention to standardize equipment and methods. More important than the document itself were the accompanying statements made by leading members of the Canadian government. Mackenzie King was at some pains to quash rumours of American bases and American pressure on Canada:

The subject [of northern defence] has naturally engaged the attention of many people both here and abroad and some quite unfounded suggestions have been put forward. There is a persistent rumour, for example, that the United States Government has asked for bases in the Canadian North. This is a rumour which I should like to deny emphatically. There has

⁴ R. J. Sutherland, one of Canada’s few *bona fide* strategists, has observed that “the existence of (the great American air base at Thule, Greenland) has had a significant effect upon the military importance of the Canadian Arctic and upon Canadian-American relations. If Thule had not been available to the United States the question of a major U.S. base in the Canadian Arctic Archipelago would certainly have arisen.” See R. J. Sutherland, “The Strategic Significance of the Canadian Arctic,” in *Arctic Frontier*, 259.

been talk of Maginot Lines, of large-scale defence projects, all of which is unwarranted and much of it fantastic.⁵

The Secretary of State for External Affairs, Louis S. St. Laurent, the future prime minister, spoke to the same effect later in February in New York claiming that “it was quite absurd to suggest, as some imaginative people have done, that your government was applying some sort of pressure in order to take over responsibilities [for defence] in Canadian territory.”⁶

While the Canadian government denied that great works were planned for the North or that there would be extensive involvement of American troops in the area, Prime Minister King admitted that, in the future, “when we think of defence of Canada, we must, in addition to looking east and west, as in the past, take the north into consideration as well.” He went on to outline a plan in which he saw defence and northern development being ultimately linked. “Our defence forces,” he noted, “must, of course, have experience of conditions in these regions, but it is clear that most of the things that should be done are required apart from considerations of defence.”⁷ Mackenzie King considered improved mapping and weather reporting as well as more and better aviation facilities. He felt that communication in the North should be improved, and by learning about and developing the region, he believed that both the national interest and the narrower military interest would be served.⁸

In the 1948 May Day Parade, the Soviet Air Force displayed several long-range bombers. The following year the Soviet Union detonated its first atomic device. By 1950 Eastern Europe and mainland China came under what was, in the West’s view, a communist hegemony at the outset of the Korean War. To North American defence planners, the USSR now

⁵ Quoted in W. Eggleston, “Strategy and Wealth in Northern Canada,” *Queen’s Quarterly* 54:2 (1947): 241.

⁶ Quoted in Eggleston, “Strategy and Wealth in Northern Canada,” 241.

⁷ Quoted in Eggleston, “Strategy and Wealth in Northern Canada,” 244.

⁸ James Eayrs has observed that when the British government called for Imperial defence in the 1880s, Canada’s response was to offer to build the Canadian Pacific Railway. In the late 1940s when a potential strategic threat in the form of Soviet bombers was perceived, Canada offered to undertake a modest program of northern research and development. It is understandable that this Canadian national characteristic of being relatively unconcerned with the needs of national defence during time of peace, may, upon occasion, severely frustrate allies and friends. See James Eayrs, *In Defence of Canada*, vol. III.

unquestionably possessed the capability and, it was suspected, the intention to attack the United States and by association Canada. In the face of this crystallized threat, it became obvious that something more than Mackenzie King's northern research and development was required to assure the security of North America.

In summary, the emergence of the Soviet Union as a potential aggressor and the development of aviation technology and nuclear weapons forced North American defence planners to accept "the psychological failure of the Mercator projection map."⁹ In turning to the polar projection map, it was revealed that the shortest distance between Siberia and the United States was over the Canadian North. As one Canadian officer wrote: "It has taken the electric atmosphere of a world braced for the shock of mankind's most destructive war to drive home the realization that Canada has breadth as well as length, and that this second dimension may have some strategic significance."¹⁰ Robert Logan said as much in 1922.

The air defence of the United States and Canada became the object of major construction projects in the early 1950s. Two continent spanning radar arrays were built: the Pinetree Line running roughly along the international frontier, the 49th parallel of Latitude, and the Mid-Canada Line extending along the 55th parallel. The former was a joint Canadian-American venture while the latter was an exclusively Canadian undertaking. Although these systems provided a modicum of early warning and interceptor control, it became evident that yet another radar line would be required in order to extend warning time.

In the late 1940s and early 1950s, it was thought that the most likely targets of Soviet bombers would be the industrial centers of the United States, and, to a lesser degree, of Canada. By 1952, however, the American strategic consensus was that the rational target for the Soviets was the heavy bomber wings, by then mainly located in the heartland of America. If Soviet bombers destroyed the American strategic bombers on the ground in a surprise attack, the Soviet Union, according to the theory, would dictate terms to the United States under threat of nuclear bombardment, without fear of retaliation in kind.

⁹ Rear Admiral Lepotier, "The Strategic Importance of the Arctic Sector," *Revue de Defense Nationale* (January 1947).

¹⁰ Maj J. E. G. de Domenico, "The Strategic Importance of Canada's North," *Canadian Army Journal* 14:4 (Fall 1960).

In 1952, a scientific study group concluded that the air defence system could not prevent a mass attack from crippling the United States by striking at selected strategic targets. A warning system restricted to the border of the United States provided less than one-hour warning of an imminent attack. The group recommended the establishment of a distant early warning line in the Arctic to provide from four to six hours warning of attack. Bell Telephone Company was contracted to develop the necessary system and, by the end of 1953, technical answers were provided for the myriads of possible electronic, communications, and logistic problems that faced the builders.¹¹ In 1954 an experimental station opened in northern Alaska; its success proved the basic workability of the plan and, in December of the same year, a contract was awarded to the Western Electric Company to build the Distant Early Warning (DEW) Line between Cape Lisburne, Alaska and Cape Dyer on Baffin Island, running roughly along the 70th parallel of latitude.

Since it proposed to locate the majority of sites in Canadian territory, it was necessary to obtain the concurrence of the Canadian government. The matter was discussed at the still operative PJBD, and on 5 May 1955 both countries exchanged notes over the agreement. Canada indicated earlier that it wished to participate in the project in some manner; its eventual contributions were limited, during the construction phase, to “give assistance to the United States authorities in organizing and using Canadian resources, and to helping by making available the facilities of the armed forces and other agencies of the Canadian government when appropriate.”¹² It was agreed that the Canadian participation in the operation and maintenance phase was to be decided upon at a later date.

Responsibility for the DEW Line project was vested with the United States, but Canada proposed, and the United States accepted, numerous clauses relating to the conditions under which it should be built. From the detail and number of these clauses, it is evident that the Canadian government was concerned over the possible ill-effects that the project would have on sovereignty in this remote area and took steps to ensure that some modicum of Canadian control was maintained. It is likely, also, that Canada wished to avoid a repetition of the Second World War situation where for a

¹¹ Press handout, “Joint Press Tour Distant Early Warning (DEW) Line” 26 March, 3 April 1956.

¹² Canada, Treaty Series 1955, no. 8, Defence, *Establishment of a Distant Early Warning System* (henceforth *DEW Line Agreement*), 2.

time the government had only the vaguest idea of what the Americans were doing in the Northwest and in the Eastern Arctic.

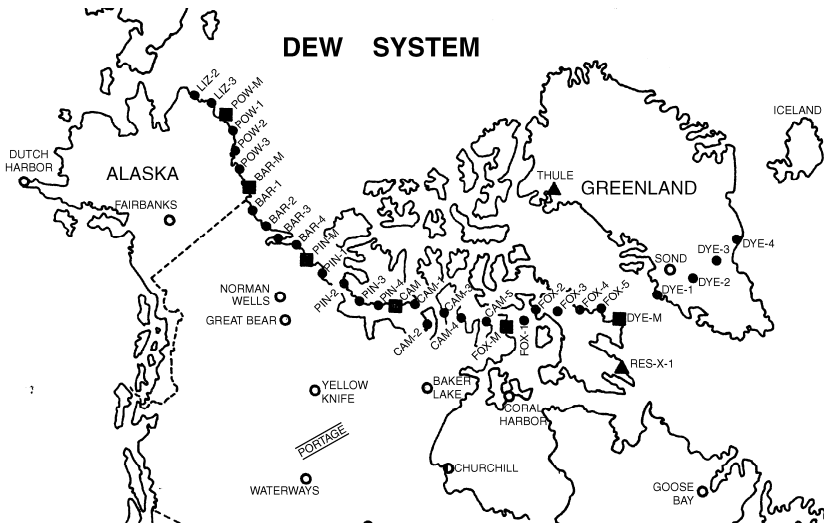
In terms of the engineering problems, numbers of men involved, levels of support required, and cost, the construction of the DEW Line was the greatest engineering project yet to take place in the Canadian North. Like other “crash” defence projects that the United States undertook in the North, the DEW Line contract called for speed; the system was to be in operation by the summer of 1957. Since the Alaskan portion of the system was operational since 1953, the work between 1955 and 1957 focused on the Canadian sector. The requirement was to build four main sites, eighteen auxiliary stations, twenty intermediate posts, and one communications relay facility.

The bare statistics of the construction phase give an idea of the magnitude of the effort. Sites required precise survey, construction camps had to be built, and workers and materials assembled on the sites. Lastly the complexes themselves had to be built. At the peak of construction, 25,000 men were employed on the project. Survey teams travelled more than a million miles in selecting sites and access routes. Almost a half million tons of goods had to be moved into the North by convoy during the summer shipping season and by air at other times. Fifty thousand aircraft flights were made in support of the construction phase, 75 million gallons of petroleum were used, and almost a billion tons of gravel. Over one million formal tests were made on the intricate equipment of the system before it was pronounced ready for operation in July 1957.¹³ Operation of the line was entrusted to the Federal Electric Company, the service division of the mammoth International Telephone and Telegraph Corporation.¹⁴ Using a commercial firm to run a major military installation was an innovative and on the whole successful idea.¹⁵ Federal Electric ran the system for the United States Air Force, and the USAF stationed officers at the main sites throughout the Arctic. The auxiliary and intermediate sites were manned exclusively by the civilian employees of Federal Electric. Many of these civilian technicians and support staff were Canadians and Canadian commercial aviation and shipping companies re-supplied the sites. Despite this Canadian content, from the very beginning of the project there were

¹³ “Welcome to the Distant Early Warning Line,” visitors’ handbook 1973.

¹⁴ H. La Fay, “DEW Line Sentry of the Far North,” *The National Geographic Magazine* 114:1 (July 1958): 128-46.

¹⁵ A labour dispute in 1964 was settled without a strike. *Montreal Star*, 24 September 1964.



major objections in Canada to the implications of the DEW Line, a USAF installation, to Canadian sovereignty.

The Canadian government was at some pains to safeguard sovereignty when the original agreement was drawn up. Canada retained title to all sites in the Canadian portion of the system and insisted upon the right of inspection of work and consultation on any changes of plans. RCMP Constables and Northern Service Officers were stationed on several construction sites to ensure adherence to the regulations relative to intercourse with Inuit and game laws were adhered to. The United States agreed to transmit to Canada geological, hydrographical and other scientific data obtained in the course of the construction and operation of the line. The agreement also included an important clause relative to landing facilities at beaches and airstrips—both were to be available for use to Canadian government ships and aircraft. The United States was prohibited from using the airstrips for any activity, other than DEW Line support, without Canadian agreement. Canadian civil air carriers could use the DEW Line airstrips when such use did not conflict with military requirements but, in this specific matter, the USAF was permitted to have the final say on any arrangement.¹⁶

Despite all these measures, many Canadians retained grave doubts as to the ultimate cost that the DEW Line would bring in terms of sovereignty. Ralph Allen, the editor of *Maclean's Magazine*, in a major article asked: "Will

¹⁶ *DEW Line Agreement*, 6.

DEW Line cost Canada its northland?” His conclusion, like that of many other commentators, was that loss of sovereignty was quite likely unless Canada was acutely attentive to the situation and took positive steps to assert control. Allen felt that Canada traded off its whole northern frontier, insisting that while “in law we still own this northern frontier, in fact we do not.”¹⁷ What bothered Allen was the size of the American enterprise. He looked at it as a “U.S. military base 2,500 miles long within Canada’s geographical limits.” Lying across the top of the continental land mass, the almost fifty sites formed a belt across the Canadian Arctic. In the past, access to these areas had proven difficult. The DEW project theoretically opened up the North by providing airstrips and beach landing facilities in a hitherto remote area. The problem was that a private citizen or commercial firm from Canada required the permission of the United States Air Force to use these facilities. In reality, the USAF has over the years proved to be remarkably cooperative in granting permission to land, when requested, but it also insisted that the appropriate clearances be obtained beforehand. This, in Allen’s view, constituted *de facto* control over the area.

Editorials in Canadian newspapers between 1955 and 1959 harped continually on this theme of loss of sovereignty. Public concern over this issue was probably one of the main factors that caused the Canadian government to exercise its option, under the terms of the DEW Line agreement, to participate more fully in the operation of the system. The Agreement provided that “Canada reserves the right, on reasonable notice to take over the operation and manning of any or all of the installations. Canada will ensure the effective operation, in association with the United States, of any installations it takes over.”¹⁸ In early 1959 it was announced that Canada would take over “operational” control of the line effective 1 February. In making the announcement the Minister of National Defence, George Pearkes, gave no reasons for this organizational change, but newspapers interpreted the move as being made for the purposes of sovereignty.¹⁹ A strong case was made and argued that the step also satisfied domestic political pressures. The *Windsor Star* noted that Prime Minister John G. Diefenbaker told the House of Commons that the “switch was a step

¹⁷ Ralph Allen, “Will Dew Line Cost Canada its Northland?,” *Maclean’s Magazine*, 26 May 1956.

¹⁸ *DEW Line Agreement*, 6.

¹⁹ *Kingston Whig Standard*, 20 January 1959.

to assure that there will be no misunderstanding as to whom the North belongs.”²⁰

The actual changes were relatively small in terms of the numbers of people involved. Less than two dozen RCAF members were divided among the four main sites in the Canadian sector of the line. Most of the USAF personnel were withdrawn, but a few remained at each main site to act as liaison officers between the USAF and the contracting company which ran the system. Canada, of course, paid the salaries of its own troops, but the DEW Line continued to be financed by the United States.²¹ The auxiliary and intermediate stations continued to be manned exclusively by civilian staff; even at the main sites the military section was only a small component of the total station strength. This organizational change satisfied those Canadians who were concerned with the sovereignty issue. Lester Pearson, the Leader of the Opposition, noted a few months later that “it has been suggested ... that the situation in the DEW Line in regard to protection of Canadian sovereignty is much better than it was a couple of years ago.”

In addition to Canada assuming operational control of the DEW Line, the establishment of a joint North American Air Defence Command (NORAD) in 1957 also helped rationalize the aerial defence of North America. Although the United States, with its massively greater resources, dominated the alliance, Canada was at least assured a say in the planning and conduct of operations that, by their very nature, could not be isolated on narrow national lines. The purpose and relevance of NORAD, which controlled the DEW Line, has been periodically questioned in the media, but—despite increasingly vocal opposition—the system continues to function in much the same manner it did in 1959, although technological improvements permitted the closing of the intermediate stations.

The non-military “by products” of the DEW Line construction project were important to several sectors of the Canadian economy and to northern development in general. One of the most important of these was the hydrographic survey of the Arctic carried out by the United States. While vessels of the Hudson’s Bay Company, the RCMP schooner *St. Roch*, and other ships sailed in coastal waters north of the mainland for years, the existing charts and aids to navigation were completely inadequate to meet the needs of the many large ships that the United States required to carry

²⁰ *Windsor Star*, 20 January 1959.

²¹ *Debates*, 4 July 1959, 5497.

building materials for the DEW Line. Over a three-year period, ships of the United States Navy and the United States Coast Guard, aided by HMCS *Labrador* from the Royal Canadian Navy, charted a thousand miles of the coastline of the Canadian Arctic from Labrador westward. In 1955 the survey ships operated ahead of the supply convoys, locating and exploring dangerous stretches. In addition to locating a usable deep-water channel, it also located and surveyed beach landing sites for each radar station. During the second and third seasons, detailed surveys were made of particularly critical areas. The total result of this project was the charting of a thousand mile-long deepwater Northwest Passage, including five hundred miles of detailed hydrographic survey and the establishment of twenty-eight radar reflector towers to aid navigation.²²

A Canadian government official who was involved with the construction of the line wrote in *The Geographical Magazine*, as the system neared completion, that the main impact of the construction of the line lay in the improved transportation facilities that were established in an area that was formerly almost inaccessible. He also felt that these new facilities, particularly the vastly improved water transport system, “may even mean that minerals, the one natural resource that seems capable of development, will be exploited.”²³ Despite this optimism, which was common to many Canadians at the time, no mineral exploitation or even significant shipping developed in the area. The ships that ply the southern Northwest Passage annually come primarily to resupply the DEW Line stations.

The construction of landing strips and aids to aerial navigation at virtually every one of the radar sites has had a much more important effect on the North. Contemporary northerners are essentially air-minded. Although there were some embarrassing and politically-sensitive incidents relating to access to the strips in the early years of operation of the DEW Line when security measures were relatively strict, the situation has eased considerably since the mid-1960s. The DEW Line strips, as anticipated, have permitted government officials, police, teachers, doctors, and private businessmen to move around the North much more freely than would otherwise have been possible.

²² T.K. Treadwell, “United States Hydrographic Surveys in Canadian Western Arctic, 1955-1957,” *Polar Record* 9:62 (May 1959): 450-2.

²³ C. J. Marshall, “North America’s Distant Early Warning Line,” *The Geographical Magazine* 29:12 (April 1957): 628.

The Indigenous people of the North were given a good deal of consideration in the DEW Line project, considering the prevalent social attitudes of the mid-1950s. At the time, Inuit had no formal political organization and the Canadian government's attitude toward them was paternalistic. While there were no consultations with the natives to determine their views on where sites should not be located, for example, the government took steps to protect their traditional way of life. The Canadian note agreeing to the DEW Line contained a section titled "Matters Affecting Canadian Eskimos" and noted that "it is important that these people be not subjected unduly to disruption of their hunting economy, exposure to diseases against which their immunity is often low, or other effects of the presence of white men which might be injurious to them."²⁴ The agents of the Department of Northern Affairs and Natural Resources (or the RCMP in their absence) were given the final say relative to employment of Inuit on the project, the relocation of settlements and burial grounds, in addition to the disposal of surplus supplies and materials. The government made a definite effort to isolate the building crews from Inuit, stipulating that "all contact with Eskimos, other than those whose employment on any aspect of the project is approved, is to be avoided except in cases of emergency."²⁵

The southern perception of Inuit was that they be absorbed into the mainstream of Canadian life and its value system, gradually and under a closely controlled environment. About two hundred Inuit found employment on the DEW Line construction phase at one time or another. Considering that at its peak the construction force numbered 7,500 men, this was not a particularly high figure. For many Inuit this represented the first time in their lives that they were employed for wages. While most started as unskilled labourers many in time became semi-skilled, or skilled at carpentry, mechanics, or heavy equipment operation. Following the construction boom, a few managed to find continuing employment at the various sites doing menial labour, outside work, or operating vehicles. Some southern foremen were pleasantly surprised at the competence of Inuit workers; though they reflected a different set of values and were constantly frustrated by Inuit periodically quitting their jobs in order to pursue their traditional occupations of hunting and fishing.²⁶ While some managers accepted the Inuit approach to wage employment philosophically, there is an

²⁴ *DEW Line Agreement*, 10.

²⁵ *DEW Line Agreement*, 10.

²⁶ *Windsor Star*, 11 April 1956; *Ottawa Citizen*, 16 September 1958.

underlying current in newspaper reports that suggested many of the natives struggled to become “white men.” No one acknowledged that perhaps Inuit did not want to become exact copies of their southern brethren.

The DEW Line project’s economic effects impacted many more Canadians than just northerners. The joint agreement stipulated that, as a general principle, electronic equipment used at installations on Canadian territory should as far as practicable be manufactured in Canada. The Canadian government also insisted that Canadian contractors and suppliers be allowed to compete on equal terms with their American equivalents. In the case of the actual site works, the government insisted that Canadian labour be given preference. The two main contractors for the Canadian sectors were Canadian firms and it appeared that Canada also received its fair share of subcontracts and purchase orders. Building the DEW Line cost the USAF approximately 400 million dollars and a good portion of this economic windfall landed in Canada.

In addition to using the North to provide depth to North American bomber defences, the United States, in a relatively unheralded project, prevailed upon Canada to permit the use of Canadian territory in a program designed to increase the operational effectiveness of the main arm of the American retaliatory force—the Strategic Air Command (SAC) of USAF. Between 1946 and 1953, SAC relied on overseas bases in the United Kingdom, North Africa, and Guam for operating and pre-strike locations. By 1953, however, these bases became both politically and strategically vulnerable and the United States sought means of reducing reliance upon them. At the same time, the new B47 all jet medium bomber came into service and the B52 heavy bomber prototype neared completion. Modern aircraft, coupled with the development of mid-air re-fuelling techniques and equipment, made it feasible for SAC to plan to attack Soviet targets directly from the continental United States.

The “strike from the homeland” concept, known in the USAF by the code name Fullhouse, was presented for consideration in the United States in early 1954. To be fully effective, the program required an extensive re-fuelling and logistic support system in the North. Various models were examined and tested throughout 1954. The inescapable conclusion was that if there were bases in the North from which aerial tankers could sally out to refuel bombers and to which bombers could deploy both on pre-strike and post-strike flights, strategic targets deep in the Soviet Union could be successfully engaged. The United States already had a base in Labrador and a

base in Newfoundland as a result of wartime agreements with the government of the United Kingdom (Newfoundland was a British colony at the time and did not join the Canadian Confederation until 1949). In addition, as a result of wartime arrangements with the Danish government, the United States controlled a massive air complex at Thule, Greenland. These three bases, however, no matter how far they were developed, could not meet the full SAC requirement and were vulnerable and lucrative targets for a Soviet first strike. The acquisition of more bases in the North forced the Soviet Union to disperse their attacking forces while it also permitted the United States to bring a greater number of bombers into the attack than would otherwise have been possible. The minimum number of new bases to support the concept (or so SAC claimed) was twelve: eleven in Canada and one at Sondestrom, Greenland.

The original plans for the bases were quite modest. The USAF envisioned using them for tankers and then only in war time. A small detachment at each site was sufficient to maintain the facilities. The tankers would fly in when the alert sounded. The American project was funded for fiscal year 1958, but before anything was done U.S. officials approached Canada because these bases were on its territories. Apparently informal talks were going on between the USAF and the RCAF since the beginning of Fullhouse, but the first formal proposal was not made by the USAF until February 1956.

Air Vice Marshal C. R. Dunlap, the Canadian Vice Chief of Air Staff, suggested in his reply to the American proposal that the USAF be very cautious in the way it promoted the program, for there was a real possibility that the Canadian government would object on political grounds. The government was already facing intense criticism for having "sold out" control of the North to the United States to build the DEW Line. Permitting that nation to build almost a dozen additional bases to be used in support of offensive nuclear operations would have been politically challenging at the very least. Canada asked for full details on the role of the bases in strategic operations. The United States replied that this question could only be answered following a survey of the proposed sites. Canada agreed to the survey. Nine sites were deemed suitable for the Americans' purposes. Preliminary planning and intermediate-level negotiation dragged on into early 1957 when the RCAF informed the USAF that the Canadian government was agreeable to development of SAC refuelling facilities. At this point the issue was transferred to the diplomatic level and a draft note

was presented to Canada by the American ambassador in August 1957. At the end of 1957, the United States was still waiting for a reply.

While the Canadian government pondered the political and sovereign implications of the American proposal, the USAF reconsidered its entire position. In the light of Soviet development of ballistic missiles, SAC concluded that emphasis should be placed on forces-in-being that were ready for immediate reaction. As part of its “new look” the American requirement for bases was reduced to four, only two of which were to be in the North: Frobisher and Churchill (the other two were to be sited in Northern Alberta). However, in view of the reduced warning time that could now be expected, the USAF felt that it could no longer await the outbreak of war before deploying their tankers northward. The bombers remained based in the central United States where they were most distant from Soviet strategic weapons, but the USAF also wanted the right to station six tankers at the forward bases in peacetime and the right to deploy an additional twenty in an emergency scenario short of war. The support facilities for these aircraft naturally had to be more elaborate than the original plans had envisioned.

The RCAF was somewhat cool to the idea and believed that SAC should have brought the Canadians into the picture earlier. The RCMP anticipated some difficulty in explaining the new proposal to the government but endeavoured to try. SAC agreed, but if agreement was not reached by the end of 1958 the USAF prepared to abandon the proposal. Regardless, Canadian agreement was quickly forthcoming. The air refuelling facilities program was incorporated as a concomitant of the NORAD agreement and signed on 20 June 1958.

Considering that five years of planning and negotiation were required before the project could proceed, the upshot of it all, for the North at least, was surprisingly insignificant. Between 1959 and 1961 Canadian contractors built huge paved runways at Churchill and Frobisher Bay, along with the necessary support facilities and accommodation for the permanent garrisons that maintained the bases. A few northerners found employment during the construction or later during the operational phase. Canadian sovereignty remained intact. Both Frobisher and Churchill were used extensively by the United States during the war and into the later 1950s. The addition of an airbase squadron and a handful of aerial tankers did nothing to materially change the balance.

American strategic postures had changed three times in less than a decade in response to political and technological developments. By the mid-1960s, the manned bomber was replaced by the intercontinental and the submarine-launched ballistic missile in the forefront of the American deterrent force. While the bomber wings remained operational, the latest “new” concept of operations did not require the advanced refuelling bases. The United States abandoned them in 1963, leaving in the North some massive buildings which could only be partially used by Canadian government activities, commercial firms, or private individuals. They left a few hundred thousand empty 45-gallon fuel drums, an insignificant number when compared to the millions that were already lying rusting all over the North. They also left two magnificent, long, paved runways that were capable of receiving the largest aircraft yet to fly. But even this legacy has had no real meaning to the North. The range of modern commercial jets is such that they can easily make intercontinental polar flights without the need to refuel in the North. Admittedly, the Churchill and Frobisher strips could play an important role were a large commercial aircraft ever to become distressed on a polar flight and have to land. Aside from that, the capacity of these two northern fields remains considerably beyond any requirement of the smaller aircraft that fly the internal northern routes.²⁷

²⁷ The Fullhouse project received little publicity when it was inaugurated. One of the few sources is United States Air Force, Strategic Air Command Historical Study no. 87, *History of the Canadian Refueling Base Programme*, 1961. Held in DHH 181.001 (D8).

7

NORTHERN APPROACHES

The Defence of Northern Lands

At the same time as air-minded strategists and military leaders grappled with the problems posed by the shattered northern barrier, soldiers also turned their attention to the North. If bombers could approach North America over the pole, it followed that so could transport aircraft carrying light infantry or paratroops. Similarly, once soldiers turned to the popular polar projection map, the proximity of the Soviet Union to Alaska and the Canadian Northwest was strikingly apparent.

As was the case with their air force counterparts, the army's perception of the North was coloured by historical experience. During the Second World War, Canada led its western allies in the development of specialized equipment and techniques for winter warfare. The genesis of Operation Plough in 1942 kindled allied interest in winter operations: Plough was conceived by then Vice Admiral Lord Louis Mountbatten, the British Chief of Combined Operations, as a diversionary operation. The plan envisioned specially trained and equipped troops for operation across snow to carry out sabotage raids on Norwegian hydroelectric facilities and thus divert German forces from the intended invasion area of Normandy. Great Britain was unable to produce a highly mobile over-snow vehicle in sufficient time, and the concept was offered to General S.L.A. Marshall who accepted it on behalf of the United States.

The American agencies assigned the responsibility of producing the vehicle, eventually christened the "Weasel," used the services of the National Research Council of Canada in the research and development stage. Canada also undertook to develop an armoured snowmobile of its own design. Eventually, the Plough project was dropped in the autumn of 1942 due to lack of transport aircraft to support the operation. The importance of Plough to the development of a winter warfare capability was that it engendered the development of two vehicles specifically designed for cross-snow operations.

Although neither vehicle ultimately proved to be totally acceptable in its designed role, they both were important first steps in solving the all-important winter mobility problem.

Western interest in winter operations waned after the demise of Plough, but Canada continued to press on with various experiments with its allies looking on with moderate interest. Virtually every aspect of combat operations in winter was examined in Canada between 1941 and 1944,¹ albeit on a modest scale. A winter warfare school was opened in Petawawa, Ontario during the winter of 1941-42. Experiments were carried out on the effect of snow and cold on smoke and gas. Power-driven toboggans were tested and adaptor kits to “arcticize” vehicles so that they could continue to operate at temperatures as low as -40 C were developed. At Shilo, Manitoba, experiments with vehicles and weapons were conducted in snow and extreme cold. Special clothing for both dry and wet cold were developed. The Royal Canadian Engineers carried out various trials associated with vehicle mobility across snow and ice. By the end of winter 1944, the Canadian Army developed a substantial body of technical knowledge and special equipment related to winter warfare.

By the following winter it was obvious in the West that no special winter warfare skills would be required in order to obtain victory in either Europe or the Pacific. Still Canada pressed on with its developmental work, and the Canadian General Staff proposed “collective and tactical winter warfare tests with skeletonized formations of all arms and services.”² Britain and the United States agreed and committed a handful of observers to the three exercises that Canada conducted during the winter of 1944-45. These exercises are of importance to this study for two reasons. First, the Canadian Army went into the North with the objective of conducting tactical manoeuvres for the first time. Second, and most important, the experience coloured Canadian military perception of the North for over a generation following the end of the war. Exercise Polar Bear delved into the problems of operations in a wet cold in a deployment that extended from Prince George

¹ DHH 112.352 (D7), *Exercise Eskimo*, “Briefing on Exercise Eskimo for Visiting Senior Officers from, U.K., U.S.A. and Canada” (henceforth Ex Eskimo Briefing), 21 January 1945, Appendix 17.

² Ex Eskimo Briefing, 21 January 1945, Appendix 17.



to Bella Coola in Northern British Columbia.³ Exercise Eskimo concerned itself with dry cold in the boreal forest between Prince Albert and Lac La Ronge, Saskatchewan. Exercise Lemming explored the potential problems encountered on the barrens between Churchill and Eskimo Point on the west coast of Hudson Bay.

Exercise Polar Bear was probably the most challenging of the three exercises because it encompassed a wider variety of terrain and temperature than the other two. These varying conditions imposed additional strain on the participating troops in that different terrain and different climates demanded different equipment, different clothing, and different techniques to cope with the environmental problems. Temperatures ranged from -3.1°F to -54°F ; snow conditions went from none on the coast to over six feet in the interior; terrain varied from rolling plateau with a limited road grid to mountains where passable routes were limited to austere trails. The brigade-sized Polar Bear Force was in the field from February to April 1945.

The lessons learned and the doctrinal points established by the exercise emphasized the heightened importance of logistic support, mobility, and

³ DHH 746.083 (D20), *Canadian Army Operational Research Group Report 28 "Polar Bear,"* 15 July 1945. All subsequent references to this exercise are from this source.

specialist training compared to conventional operations. The terrain and climate imposed no necessity to modify tactical doctrine. On the other hand, special measures were taken to ensure that troops remained in a position and in physical condition to fight at the appropriate time. It was evident that combat operations in isolated cold areas of the coast were dependent upon a single road at best and a mountain track at worst. One of the major conclusions of the exercise analysis was that the strain imposed on troops by deep snow, rough terrain, and cold necessitated an extensive reliance upon transport. Troops simply could not man, pack their own equipment and survival gear, and still be expected to fight. Where mechanical transport could not go, horses often could. As a result, horse transport, particularly in artillery units, was essential. Participants realized that reliance upon a single line of communication, particularly when that line was subjected to the extreme stress of break-up season, might spell disaster to a force in contact with the enemy. Reliance upon air re-supply proved to be both practical and essential. It was discovered that it was a comparatively simple task for troops to build advanced air strips on frozen lakes along the line of March. Army medical personnel learned the fundamental lesson that there is no such thing as a minor casualty in winter operations. An early evacuation system was essential if one hoped to minimize the seriousness of wounds and preserve the morale of the advancing troops. The full magnitude of the problems of winter warfare were understood by some of Canada's army leaders. Realization began to dawn that troops engaged in winter operations would inevitably spend most of their time and energy in moving and surviving, and that the effort to do so would require extensive support resources.

Exercise Eskimo was carried out by a skeleton brigade group with the aim of identifying and solving problems faced by an army force moving in the boreal forest beyond its railhead or staging base. Specifically, the exercise was designed to determine the limits of mobility in such a situation and "variations from the accepted tactical doctrine which will be caused by the winter conditions of snow and extreme cold."⁴

The conclusions reached on Exercise Eskimo are somewhat perplexing and are at variance with the tenor of the conclusions of the sister exercise to the west. Analysts concluded that the dry cold and terrain of northern Saskatchewan produced no particular problems that could not be coped with, "given adequate equipment and training." However, whatever precisely

⁴ DHH 746.009 (D17), Ex "Eskimo," undated (probably summer 1945). All subsequent references to this exercise are from this source.

constituted adequate equipment and training was not explained in the post-exercise report. It was found that there would be requirement for road-building plant and personnel as well as an increased lift capacity to help move all the survival paraphernalia of winter warfare. The exercise study group concluded that only vehicles operating in the forward areas needed an over-snow capability. They were content that the rear area vehicles could safely remain road bound without affecting the tempo or security of combat manoeuvre. Since in their analysis of tactical doctrine they concluded that each of the many frozen lakes in the sector were a potential landing ground for enemy airborne troops, one must question the validity of accepting a logistic tail that could only move on prepared and maintained roads. If the authors of the report had had the opportunity to interview a Russian survivor of the battle of Soumoussalmi which was fought on terrain almost identical to that of northern Saskatchewan, they might have drawn different conclusions.

Named after the diminutive Arctic mouse, Exercise Lemming lived up to its name in that it was by far the smallest and most northerly of the three exercises.⁵ A party of twelve men, equipped with two Canadian armoured snowmobiles, two American Weasels, and two American M7 half-tracks, penetrated into the barrens from Churchill to Eskimo Point, turned inland to the half limit of their fuel, and returned to Churchill. The aims of Lemming were more general than those of the other two exercises. The expedition endeavoured to provide “nontactical” information that would help round out the winter doctrine that was developed from the other schemes. The terrain encountered over sea ice and the barrens was radically different from that met by the other formations farther to the west. The Department of Mines and Resources expressed an interest in using oversnow vehicles to supply survey parties which they hoped to dispatch to Victoria and Banks Island during the winter of 1945-46; Lemming provided a means of evaluating the utility and reliability of these vehicles in the Arctic. A third objective was to examine the barren grounds with a view to holding a major exercise there the following winter.

Exercise Lemming was unique in its execution because, unlike the others, the moving force operated entirely self-contained and did not rely upon a line of communication for daily re-supply. Once the convoy departed from its staging base (the USAAF facility at Churchill) it moved as a compact

⁵ DHH 314.009 (D179), *Winter Trials: Tests 1944-45* “Exercise Lemming,” 1 March 1945.

group across sea ice and along the shore line to the RCMP post at Eskimo Point where it refuelled for the return journey. The actual expedition covered a total distance of 653 miles between 22 March and 6 April 1945. Because of the requirements of maintenance and troop rest, the force was only on the move for a total of ten days. Movement was found to be surprisingly easy. On the best day the participants covered 113 miles.

The post-exercise mobility analysis developed “the North African analogy.” It noted that military operations in the barrens were as feasible as they had proven to be in the Libyan desert. The study made the important point that operational conditions on the barrens were as different from operations in the boreal forest as was the variance between operations in the North African desert and sub-Saharan jungle. Given the virtual unfettered scope for manoeuvre on the winter barrens, the report concluded that “it would therefore seem desirable that for defence purposes Canada should develop further over-snow vehicle types and train personnel to operate in these regions.”⁶ It was further noted that the training and equipping of men to operate in the Arctic presented a different set of requirements from those encountered in winter operations within the treeline. Key personnel were trained in route-finding and navigation in the poorly-mapped and feature-less Arctic. Special clothing, training, and life support equipment had to be provided to permit troops to cope with the Arctic wind. The matter of vehicular mobility was given close attention in the exercise report. A 700-mile unsupported range was thought to be a reasonable capability for Arctic operations. Neither the Canadian armoured snowmobile nor the American Weasel was found to be completely acceptable, but a series of recommendations were made, aimed at improving their overall capability. The M7 half-track was deemed unsuitable for Arctic operations.

By the end of the winter of 1944-45 the Canadian Army had taken major steps forward in consolidating its knowledge and capability for operations in the winter. The wet and dry colds of the boreal forest were met and survived. Troops ventured into the formerly forbidding barren lands. It is important to note that all Canadian efforts to this point were devoted to the mastery of winter warfare and the notion of northern operations was only addressed peripherally.

⁶ DHH 746.083, *Cold Weather Trials: Exercises Ex Lemming CAORG Report no. 25*, 24 May 1945.

The 1944-45 northern exercise series was carried out quietly with little attendant publicity. In any case, world-shaping events were being played to their ultimate conclusions in Europe and Asia at the same time. The following winter, however, the world was at peace and Musk Ox, the climatic Canadian Army winter exercise, was carried out in the full glare of national and international press coverage. The scheme was designed to “study movement and maintenance in differing cold weather conditions.”⁷ While this was a modest enough aim, the proposed plan to move a mechanized force over 3,000 miles across northern Canada, relying chiefly on-air re-supply, caught the attention of Canadians and the international defence community.

Musk Ox was conceived as a “non-tactical exercise” and the government, when questioned in the House of Commons, was at pains to emphasize the non-military, scientific aspects of the expedition. Douglas Abbott, the Minister of National Defence, extolled that “the benefits derived from it may well be of greater civilian value than military value, although it is hoped that they will be both.”⁸ The specific subjects studied during the trip included techniques of army-air force cooperation under varying conditions of terrain and weather. The exercise members were also tasked to look into several aspects of northern movement including the use of LORAN (Long Range Aid to Navigation) and the astro-compass for ground navigation. In the realm of pure science, the troops were required to make magnetic and auroral observations while they also collected snow and ice data. They were also required to make notes on the flora and fauna encountered en route in order to complete their research list.

The exercise highlighted a great disparity in size between the group that made the voyage and the several groups that were required to support them. The Moving Force numbered only 40 souls (including British and American observers and Canadian civilian scientists) operating a dozen over-snow vehicles. A special Royal Canadian Air Force squadron operating nine aircraft was formed and trained for the unique task of providing aerial re-supply to the Moving Force. Over two hundred additional soldiers were required to man a base camp exclusively dedicated to providing support of a platoon-sized force operating in a non-tactical setting.

⁷ DHH 746.033 (D2), Ex “Musk-Ox” (henceforth Musk-Ox Report), 9.

⁸ *Debates*, 14 December 1945, 3552-53.

mile journey. Their route took them north to Eskimo Point and then west and north via Baker Lake and Perry River to Cambridge Bay. At Cambridge the force rested for ten days before continuing on the Coppermine and thence south through Port Radium, Fort Norman, and Fort Simpson to the Alaska Highway at Fort Nelson. From Nelson, it was intended to press south along roads to that final destination at Edmonton. Dust did what cold, snow, forest and river could not do—stop the snowmobiles. The vehicles were loaded onto rail flat cars and the convoy rolled into Alberta’s capital after 81 days on the trail.

Considerable publicity attended the completion of Musk Ox but the Canadian government made no attempt to capitalize on the national and international attention and, in fact, tended to play down the operation. The Minister of National Defence said in the House of Commons: “There is nothing secret about this expedition; it is a very small one.”⁹ In some respects, it is surprising that Canada did not further develop the sovereign implications of the expedition. Certainly, the government often expressed concern over the extent of wartime America military development in the North and American long-term commercial designs on the region. No evidence could be found that would indicate that either the Canadian military or government considered this option.

The public and military reaction to Musk Ox blew the solid research accomplishments of the exercise beyond reasonable proportions. Commentators in Canada and abroad persisted in ignoring the oft-repeated Canadian government claims that Musk Ox was a small, non-tactical exercise designed to work out several technical problems related to military operations in the winter and to support certain limited scientific experiments. One French military writer even went so far as to claim that “since World War II two events have held the interest of military circles—Bimini [referring to the American nuclear tests in the Pacific] and Operation Musk Ox in the Canadian Far North.”¹⁰ American newspapers gave extensive coverage to Musk Ox and headlines such as “U.S., Canada Plot Far North Defence,” “U.S., Canada to Prepare A-Bomb Defence in Arctic,” and “U.S. and Canada Join to Guard Polar Area” were common. While it was

⁹ *Debates*, 14 December 1945, 3552-3. Despite the “non-secretive” nature of the expedition, the exercise report was not classified as an open source until, at the author’s request, it was so graded on 25 November 1975.

¹⁰ French Army Scientific Bureau in *Revue des Troupes Coloniales*, 1946 (Trans and digest in “Polar Expeditions,” *Military Review* 27:1 (April 1947).

noted that the expedition had scientific as well as military objectives, the former were given scant attention in newspaper articles and editorials. The basic theme was that the development of long-range bombers left North America vulnerable to an attack over polar regions, and that the development of an army combat capability in the North would allow the North American allies to defend against such attack.¹¹

Exercise Musk Ox straddles the hazy temporal boundary that marks the beginning of the Cold War. Historically it must be seen as the final phase of the four winter exercises conducted by Canada during the war. Planning for the exercise was done during the final months of the conflict; that the war ended in both Europe and the Pacific before Musk Ox could be launched is only coincidental. As noted above, the development of a winter operational capability by the Canadian Army was not initially undertaken with any specific future enemy in mind. Rather it represented an abstract approach to defence capability. If Canada's soldiers were to have the responsibility of defending the country from aggression, it was axiomatic that there should be a capability to operate in any season. Inasmuch as winter demanded special skills and equipment, efforts were made to develop the necessary capability.

An important transition occurred with the coming of the Cold War. During the Second World War the Canadian Army was extensively engaged in the study of the techniques of winter warfare. That many of these studies took place in or on the fringes of the North was largely incidental. In the face of an emerging but as yet undefined Soviet threat, the winter experience and capability of the Canadian Army was suddenly transformed into northern experience in the eyes of the Canadian government and the Canadian military establishment. In retrospect, the equating of winter operations to northern operations was a fundamental analytic flaw that warped Canadian military thinking and programs for many years to come and, to a degree, extends into the present day.

While winter is the dominant season in the Canadian North, it by no means encompasses the totality of the region. Ignoring the other northern seasons led to the neglect of a large and important range of problems that were identified and solved before the Canadian Army claimed to have a fully operational capability in the North. A research paper written in mid-1946 was a classic example of this approach. In making the point that "Russia was

¹¹ DHH 314.009 (D15), Press Analysis Section C.I.S. – *Canadian Embassy, Washington, D.C. Exercise Musk Ox.*

more advanced in Arctic warfare than any other nation,”¹² the author cited Soviet combat experience in Finland and the winter campaigns of the Great Patriotic War as evidence in support of his contention. What he really meant was that the Soviet Army was highly experienced in winter warfare. An article in a Canadian newspaper in 1949 made the same fundamental error. A story headlined “Arctic Push Button War ‘out’; Winter Too Tough for Army,” dealt with a series of trials that were conducted at Churchill the previous winter. The author emphasized the “cold Arctic” claiming that “keeping alive [was the] biggest problem.” The article recounted problems raised by extreme wind chills, the necessity of training troops to load sleds and toboggans, to ski, to pitch a tent, and to shelter in snowbanks.¹³ In short, “Arctic” was equated directly to “winter.” In a study published in *Military Review*, the professional journal of the United States Army, an American officer fell into the same trap. Although his article was titled “The Arctic Can Be Our Ally,” he saw the Arctic as an area “where conditions of snow and extreme cold make necessary the use of special Arctic equipment and training.”¹⁴

The most significant military characteristic of the North, be it mountains, barrens, or boreal forest, is not the cold, but the isolation of these areas. Most areas have no road access at all; others may have a single dirt all-weather road connecting to the “outside.” Thus, the development of cross-country mobility is the most important technical problem to be faced by a military force attempting to operate in the North, for mobility is essential both for combat manoeuvre and logistic support. This particular aspect of northern operations was identified as early as 1944, but it was repeatedly submerged in the popular notion of “the frigid Arctic” and was restated on several occasions in professional journals over the years.

The initial troop and equipment trials carried out by both the United States and Canada between 1945 and 1950 were oriented towards solving the mobility problem in winter. The need for over-snow vehicles capable of operating throughout the North was repeatedly stated. The Royal Canadian Army Service Corps carried out extensive investigations on the feasibility of using tractor trains for re-supply purposes. Major studies investigated the measures necessary to render general purpose vehicles operative in extreme

¹² Kendrick Lee, “Arctic Defences,” *Editorial Research Reports* 2:5 (31 July 1946).

¹³ *Winnipeg Tribune*, 10 May 1949.

¹⁴ Lieutenant Colonel Joseph J. Peot, “The Arctic Can be Our Ally,” *Military Review* 31:11 (February 1952).

cold. Both countries also undertook development projects to provide the necessary individual clothing that would permit soldiers to live, work, and fight in a cold environment. Although some specific technical problems remained only partially solved, the United States Army in Alaska and the Canadian Army working out of Churchill had come to grips with the problems of mobility in the northern winter by the early 1950s. When lakes, streams, and muskegs were frozen, analysts noted, movement was relatively simple.

A realization also dawned that the oft-forgotten northern summer presented obstacles to mobility that were infinitely greater than those of winter. As one American officer wrote, “you can walk on water only if it’s frozen.”¹⁵ Surface water in the form of rivers, streams, lakes, and muskegs was a major feature of most northern areas. The United States Army’s Arctic Indoctrination School conducted annual courses beginning in 1950 to train troops and to develop equipment capable of cross-country movement in summer. Even in the days before environmental impact became a popular national concern, their efforts were only partially successful. Foot movement across muskegs proved to be exhausting in a remarkably short time. There was a stated need for an all-terrain vehicle capable of cross-country movement in all northern seasons, but development of such a vehicle proceeded slowly. Increasing attention was paid to airborne operations and the use of aerial re-supply. As helicopters became more common in the military inventory, increasing emphasis was placed on “heliborne” operations in an attempt to solve the problems posed by the summer terrain.¹⁶

As for the other two northern seasons (break-up and freeze-up), both the Canadian and the American armies agreed that military operations were not feasible during these periods. The individual soldier could not carry the range of clothing that was required to survive during these critical seasons. It was further realized that the logistic back-up required to support combat operations during these periods was out of all proportions to the size of combat force that could have been maintained. However, military operations do not take place in a vacuum—one requires an enemy to have a battle. The general conclusion was that any enemy would be confronted with the same

¹⁵ Major E. C. Gibson, “Summer Arctic Operations, *Military Review* 32:7 (October 1952): 50.

¹⁶ Lieutenant Colonel John S. Zimmerman, “Arctic Airborne Operations,” *Military Review* 28:8 (August 1949): 28.

insurmountable problems of mobility against North American forces. It was accepted that should war ever come to the North, there would be a pause in operations during spring and fall.

In addition to considerations of the technical details that determined how one fought in the North, substantial attention was given to the probable scale of conflict. Eventually a consensus developed, but not before a lot of nonsense was written. When the Cold War became an international reality, there were early voicings of a fear of a massive Soviet invasion of North America. An American officer, writing in 1949, commented that if an enemy force (obviously Russian) succeeded in overrunning Alaska, they would be in a “splendid position to invade the mainland of the United States.”¹⁷ A Canadian officer writing as late as 1960 argued that Northwest Europe simply did not provide manoeuvre room for a limited war, be it nuclear or non-nuclear. He posited a massive Soviet invasion of Alaska wherein, once the beachhead was established, “Russian forces could be pushed eastwards and southwards in an enormous pincer aimed at snuffing out the industrial heart of the continent.”¹⁸ This extreme position was never accepted by military or political leaders of Canada and the United States.

Most who considered the massive invasion scenario argued that it was a most unlikely occurrence. George Pearkes, a future Minister of National Defence, said in the House of Commons that “it is fantastic to think that large armies could be landed on the Arctic shores of Canada and advanced through the barren lands of the great north.”¹⁹ When one considers that the distances involved here are measured in thousands of miles, the point of Pearkes’ argument is heightened further still. Even in the west, where at least there was the Alaska Highway, one does not talk of invading the most powerful nation in the world by relying upon a single road for supply and advance. Whatever fears of a massive invasion there may have been in the early years after the war were laid to rest when military planners of Canada and the United States became familiar with the realities of northern terrain and climate and its effect upon military manoeuvre. A newspaper article written in 1949 was accurate when it said that “the military planners appear to have abandoned thought of a full-scale invasion of North America across

¹⁷ Lieutenant Colonel J. L. Collins Jr., “The Army Arctic Indoctrination School,” *Military Review* 28:8 (August 1949): 28.

¹⁸ De Domenico, “Strategic Importance of Canada’s North,” 9.

¹⁹ *Debates*, 16 June 1955, 4870.

the Polar region. Based on experience at Fort Churchill and elsewhere, they do not think it could be done.”²⁰

While the threat of a full-scale invasion was ruled out, the possibility of a Soviet lodgement in the North was not. The arguments over a projected foothold in the North were compelling given Cold War attitudes in North America. An Albertan Member of Parliament observed in 1951 that if a lodgement were made in the Canadian North, “the object in doing this would be to create confusion and alarm, in the hope that it would prevent us from sending troops and material abroad.”²¹ This same theme was developed in an earlier newspaper article where it was observed that:

an enemy could establish a token foothold on any of the thousands of islands in the Canadian Arctic, or anywhere in the sparsely populated area of northern Canada. Thus a diversion would be created that might keep large bodies of Canadian and United States forces pre-occupied, cutting down the forces available for action in more active theatres.²²

An American officer argued against “the lodgement for the sake of a lodgement” theory by asking the simple question: what would be the object of such an operation? In the North at the time there were no population centers, no industrial areas, no ports, no communications network, no great developed deposits of natural resources.²³ A Soviet lodgement “in the middle of nowhere” in the North may have challenged Canadian sovereignty, but in itself such a deployment would not have threatened the security of North America. The occupation of the Boothia Peninsula, or Prince of Wales Island, could have been left *in situ* indefinitely. Rather than diverting masses of Canadian and American troops from the main theatres of war, such a deployment could have had the exact opposite effect—that of diverting Soviet resources to support the lodgement. It is impossible for a military force to live off the land in the North and still hope to fulfill a military task. The logistic requirements of any lodgement would have been heavy, particularly in view of the transpolar distances involved. Thus the occupation of a piece of barren land was not a likely or reasonable objective.

²⁰ *Halifax Herald*, 9 May 1949.

²¹ *Debates*, 15 February 1951, 384.

²² *Halifax Herald*, 9 May 1949.

²³ Colonel Paul V. Kane, “If War Comes to the Arctic,” *Military Review* 27:10 (January 1948): 25.

The possibility that any enemy airborne force might seize an airbase in the North presented a realistic threat.²⁴ The defence programs of the Second World War led to the construction of airbases throughout the North. While most of these bases did not have the capacity to accept long-range bombers, a few of them did. Whitehorse, Churchill, Frobisher Bay, and Goose Bay in Labrador were attractive targets. It must be remembered that in the late 1940s and early 1950s aviation technology, despite the tremendous strides made during wartime, still had important limitations. There were no truly intercontinental bombers and mid-air refuelling techniques were still to be perfected. Intercontinental missiles were a technological generation in the future.

The popular war scenario as it related to the Canadian North was that Soviet bombers would strike over the pole at the heart of the United States. After these bombers, it was feared, would come airborne troops who would seize several bases in the Canadian North where the bombers could land, refuel and return to the main Soviet bases to re-arm. While the discussion of the likelihood of northern ground combat operations (and their scale) rumbled in political speeches, staff colleges, professional military journals, and letters to the editor columns of newspapers, the Canadian Army quietly went about the business of learning and practicing how to live and fight in the North. By 1949 the three regular infantry battalions of the peacetime Canadian Army were trained as parachutists and the three, along with supporting arms and services, were styled the Mobile Striking Force. While in theory the Mobile Striking Force was a brigade group ready to defend northern Canada, in reality the “brigade” possessed no designated headquarters and never trained together. Battalion groups exercised

²⁴ As early as 1946, Field Marshall Alexander as Governor General of Canada drew to the attention of the Prime Minister the obverse of the coin with respect to the construction of air bases throughout the Canadian North. Mackenzie King wrote in his diary on 22 November that “The Governor General says (they) may become bases from which the enemy himself may operate, but would not operate were they not there. It is a difficult problem.” *Mackenzie King Record*, vol. 3, 370. Lester Pearson held similar views. He accepted that eventually both military and commercial needs would dictate the construction of northern airfields which would necessitate the capability to defend them but wanted to delay such development as long as possible. Pearson coined the phrase “scorched ice” to describe his preferred solution to the dilemma of defence in the North. Cited in Sutherland, “Strategic Significance of the Canadian Arctic,” 24.

independently although a shortage of transport aircraft usually limited parachute training to company level operations.²⁵

In the winter of 1950 a joint U.S. Canadian tactical exercise, Sweetbriar, was organized and conducted along the northern part of the Alaska Highway. Over 5,000 army and air force personnel, the majority of them Americans, participated in this exercise designed to test clothing, equipment, vehicles, aircraft, and weapons, and to serve as a means of developing a common doctrine and standard operating procedure between the two nations.²⁶ The conclusions reached after this exercise were similar to those rising from the earlier Canadian exercises held in 1944-45. The relative immobility of ground forces in remote forest areas remained the chief constraint on operations. Wheeled forces remained road-bound; there was a call for the development of a doctrine of employing bulldozers to make roads. It was again realized that success in winter combat in the North would primarily be a function of mobility. More and better over-snow vehicles were obviously required. Within the treeline, however, any vehicle was limited by the paucity of open spaces. While over-snow vehicles could use frozen lakes and rivers as highways, there was no question of forcing vehicles in any significant number through the dense bush. While movement over frozen water-ways would obviously canalize manoeuvre, it was further realized that the potential enemy faced the exact same sort of problem. The idea of going over the terrain rather than across it was increasingly seen as the possible ultimate solution to the problem of tactical manoeuvre in the North. Speaking to the Empire Club in Toronto in March 1950, the Chairman of the Defence Research Board of Canada argued that the air force would play an increasingly important part in northern operations as techniques and technology developed.²⁷ His forecast proved accurate.

At about the same time as Sweetbriar, Canada conducted a smaller northern exercise in the area of Churchill. Dubbed Sun Dog I, a company

²⁵ See Floyd Low, "Canadian Airborne Forces, 1942-1979" (University of Victoria, unpublished Hons. B.A. thesis, 1979), 37-47. After 1954 the reality of the situation was recognized by the Department of National Defence when the three independent battalions were styled the Defence of Canada Force. Reflecting the lessened importance of the North, the Force was reduced to a single reinforced company per battalion after 1958.

²⁶ "Exercise Sweetbriar and Exercise Sun Dog I," *Arctic Circular* 3 (September 1950): 34.

²⁷ Quoted in *Ibid.*

group carried out a series of tactical movements and patrols along the edge of the treeline and out into the barrens. Sun Dog was part of the Canadian Army's continuing attempt to develop appropriate equipment and an operational doctrine for winter operations. Churchill represented an ideal training area: in addition to having year-round rail and air links with the outside and a substantial army garrison to provide base support services, the surrounding terrain featured both tundra and taiga conditions.²⁸

The outbreak of the Korean War and the need to build up NATO forces diverted the attention of the Canadian military from the North for about a year. There were no major exercises during the winter of 1950-51. During the winter of 1953, Canadian and American army engineers were at Kluane Lake in the Yukon. Over a six-month period, about 300 Americans and 135 Canadians trained in building emergency airstrips on frozen lakes in winter and on muskegs after the snow melted.²⁹ The importance of air mobility in northern operations had long been a point of theoretical discussion. With Eager Beaver, as the exercise was named, the two armies finally got down to the actual practicalities of training troops in the construction of field expedient facilities that were necessary adjuncts to air combat support.

Throughout the 1950s the Canadian Army exercised and trained in the northern winter. The Canadian Army fixed its eyes firmly on the lodgement as the main security threat to the North. Various exercise scenarios envisioned small groups of "enemy" landing in northern Canada to set up navigational beacons for bombers or to seize an airhead to support sustained operations against southern targets. Later scenarios reflected changing technologies and concerned enemy attempts to neutralize early warning radars and the retrieval of intelligence satellites that landed in the Canadian North by error. Nonetheless, it is a mistake to place too much emphasis on these exercise scenarios because scenarios are often painted into the exercise preliminaries to increase troop interest, add "realism," and to help train unit intelligence staffs. Ultimately, in the 1950s the Canadian Army and the RCAF accomplished a good joint operational capability in the North during winter. Parachute assaults, aerial re-supply, airfield building, army-air co-operation, and navigational techniques were all developed.

On the whole, the Army exercises were successful in terms of their training aims but the North showed its teeth on occasion. In December 1954, Exercise Bull Dog II posited an enemy lodgement at an isolated radar station

²⁸ Canada, DND (Army) Public Relations P.N. 116-49, press release.

²⁹ "Exercise Eager Beaver," *Arctic Circular* 5:2 (February 1953): 22.

on the northwest coast of Hudson Bay. A battalion of the Royal Canadian Regiment was assigned the task of recapturing the facility. Then the North struck. Temperatures below -40°C and winds gusting from 20 to 40 miles per hour prevented the possibility of a parachute assault scenario. The alternative of air landing the assault troops on ice-covered lakes was abandoned because the ice was still too thin to support the weights of the transport aircraft. The exercise petered out with the “enemy” still ensconced on the objective.

Summarizing the press reports on the exercise that appeared in British newspapers, *Polar Record* concluded that the failure of the infantry to reach their objective indicated that paratroops were not an effective striking force in Arctic regions.³⁰ This represented an extreme view. Given the vastness of the area involved and the lack of a communications grid, it is difficult to fathom what other method or system offered greater reliability. The implicit flaw in the *Polar Record* argument was that it anticipated a northern operational tempo that was the same as in temperate zones. The northern environment places a restraining hand on the speed of all human activity. Canadian military commanders, schooled on the battlefields of Northwest Europe or the training exercises of NATO, repeatedly failed to learn this fundamental lesson of the North and develop a special northern “time sense.”

A pattern developed in the continuing series of exercises. The major emphasis was placed on operations during winter. The Canadian Army approached summer operations cautiously with a modest program. In the summer of 1950, Exercise Shoo Fly I and Exercise Cross Country explored the problems likely to be faced by small infantry and engineer units on the snowless tundra.³¹ Shoo Fly II the following summer “was designed to re-assess the findings of previous summer exercises employing a larger force.”³² During 1952 and 1953, training in summer continued around Fort Churchill, but like the previous exercises these activities were limited in size. Whereas a battalion group was normally deployed on winter exercises, the summer equivalents were limited to companies, with the aim of identifying problems and developing technique. In winter operations, the Mobile Striking Force troops practised established methods. After 1954, the army

³⁰“Canadian Combined Forces ‘Exercise Bull Dog II’, 1954,” *Polar Record* 7:51 (September 1955): 492.

³¹ *DND Report*, 1951, 55.

³² *DND Report*, 1952, 49.

gave up northern summer exercises completely. No official statement was ever issued explaining the end of the summer program. It is likely that with the equipment then available, the problems associated with mobility were just too great.

Another striking aspect of the army's intense involvement with the North during the 1950s was the fact that all exercises were conducted on the mainland. The army did not venture into the Arctic Archipelago at all. The question as to why the army had never gone farther north never arose during this period. There are some obvious reasons for what seems today to be a strange void; most of them are associated with peacetime limitations. An advanced base was needed for administrative and safety reasons. There were simply more settlements with the appropriate facilities in the treeline. Churchill in particular was an ideal training site and in time came to be used almost exclusively for exercises. On the other hand, considering that the main requirement of a support base was a suitable airport, there were three sites in the islands that met this qualification: Cambridge Bay on Victoria, Frobisher Bay on Baffin, and Resolute on Cornwallis. The most likely explanation is that the army was simply interested in suitable training areas and could find these along the southern fringes of the North. The possible value of a large-scale army exercise as a method that preserved sovereignty in the High North had not occurred to Canada's leaders at the time nor was there a perceived requirement.

Army combat training in the North was carried out by southern-based units. Here, the army followed the air force system of troops deploying northward on an exercise, carrying out the training, and then withdrawing the troops until the next training cycle brought them into the North again. There was no consideration given to stationing combat troops in the North. A small garrison would have been lost in the utter vastness of the region. A more fundamental reason, no doubt, was the cost of such a program. To build a base capable of supporting an infantry battalion and its dependants, along with the necessary impedimenta of schools, hospital, shopping facilities, recreational facilities, etc., would have been prohibitively costly. Even the annual operating costs might well have been unacceptable.

While the regular army made only periodic forays into the North, there was one military organization that made its home in the North: the Canadian Rangers. During the Second World War, the Department of National Defence organized an auxiliary corps on the west coast known as the Pacific Coast Militia Rangers (PCMR). Basically, they were coast

watchers detailed to provide information and report suspicious activities. Unpaid volunteers, these men—loggers, fishermen, miners, and road maintenance men—carried out their military duties as they went about their regular civilian employment.³³ The PCMR organization was disbanded at the end of the war, but in 1947, the ever-widening rift with the Soviet Union led to the reactivation of the force, this time on a national level. The Canadian Rangers, as the force was now styled, formed a component of the reserve militia. Their purpose was to “provide a military force in sparsely settled northern, coastal and isolated areas of Canada which cannot conveniently or economically be covered by other elements of the Canadian Army.”³⁴ Rangers received no pay but were provided with a .303 Lee Enfield rifle and one hundred rounds of ammunition a year. Later a distinguishing arm band was added to their basic equipment.

There was a certain logic to the Ranger project. Scattered throughout the remote coastal areas of the Atlantic and Pacific, and throughout the North, were permanent residents who knew the terrain in which they and all their immediate neighbours worked. At a time when there was a general military concern over the possibility of saboteurs infiltrating the country or small clandestine military bases being established in isolated areas, the main role of the Canadian Rangers was to report any suspicious activities occurring in their locality. Since the nature of the Rangers’ civilian work took them out onto the land, it was thought that eventually they would detect and report any lodgement that might be made. The Mobile Striking Force could then be deployed to deal with the enemy.

In addition to their primary role, the Ranger organization, by its very nature, fulfilled a host of secondary roles. Experience proved that they made excellent guides for regular army troops exercising in their locality. In addition, they supplemented the RCAF’s Ground Observer Corps with reports of aircraft sightings, formed ground search parties for lost aircraft, or assisted the RCMP in apprehending “enemy agents or saboteurs.”³⁵ In his reply to a question in the House of Commons on the purpose of the organization, the Minister of National Defence said:

³³ Larry Dignum, “Shadow Army of the North,” *The Beaver* (autumn 1959): 22.

³⁴ Canada, DND, Directorate of Public Relations (Army), Memorandum, 27 January 1954.

³⁵ *Ibid.*

The intention is that the corps shall be organized in companies in areas where there are no reserve army units, particularly in the north and along the coasts of Canada. The purpose will be to act as guides, to make available local knowledge, to assist in search and rescue work, and to report any activities that should not be going on in consequence of action by an enemy or the like.³⁶

The Ranger organization did not spring to full strength overnight. Because potential recruits lived in isolated areas, officers from the various “commands” (or divisional areas into which the country was divided at the time) made their way around the scattered settlements explaining the Ranger idea, entering recruits on the rolls and issuing equipment. It appears that the normal system was to locate a likely company or platoon officer in a community, and leave it to him to recruit his friends into the force.³⁷ The *DND Report* for 1950 observed that “this process has, of necessity, been slow, owing to the large area covered by the organization and the nature of existing communications.”³⁸ As late as 1954, the recruiting process was still going on. Along the Pacific and Atlantic coasts, the recruiting proceeded relatively quickly as each community inevitably had year-round access to the sea. In the North, the process was much slower.

It was inevitable that, at best, a regular force Ranger officer got to see his charges once a year. Indigenous Rangers might have left one settlement and moved to another or lived on the land. White Ranger officers might leave the North or be transferred to a different locality. Some Rangers may have just lost interest in the program and stopped reporting. The northern Ranger companies, platoons, and sections, in the final analysis, ran themselves on an all but autonomous basis. What fragmentary records still exist of the early Ranger organization are full of correspondence from Ranger officers trying to determine just who was on their unit strength and where the weapons were. In some instances, command of the local Ranger detachment was vested in the occupant of a certain job in the community. For example, there exists a letter from a new manager of a Hudson’s Bay Company store in the Eastern Arctic to the Department of National Defence stating that he understood his job included commanding the settlement Rangers, that he

³⁶ *Debates*, 23 March 1948, 2504.

³⁷ Canada, *DND Report*, 1953, 46.

³⁸ Canada, *DND Report*, 1950, 46.

was willing to do so, but just what did it all involve?³⁹ The impressive organization of army companies, platoons, and sections that existed on paper was not really reflected in the reality of the North. While companies and platoons existed for administrative purposes, the Rangers' "military" job was carried out on an individual basis.

The personnel who made up the Rangers were a varied lot. In the High Arctic a serious effort was made to recruit Inuit. Within the treeline, the situation was somewhat different. The local detachment commanders established their own recruiting policies without much reference to Ottawa or Command Headquarters. Captain John Anderson-Thompson commanding the Yellowknife Company recruited only Whites;⁴⁰ at Norman Wells, the Rangers were all employees of Imperial Oil. In the Yukon, most of the permanent civilian staff at maintenance camps along the Alaska Highway were Rangers, but these men tended to be Whites. Kit Squirechuk, commanding the Whitehorse detachment, however, counted about a dozen First Nations in his 35-man group. At Dawson City, all fourteen Rangers were White (non-Indigenous).⁴¹ The officering of the Rangers reflected contemporary military and southern Canadian attitudes: all the officers were white. At the time this was probably a necessity since the administrative responsibilities and paperwork requirements of the job required an education beyond that which most northern natives had at the time. In the High Arctic, however, Inuit were made sergeant section commanders in some instances.

The Canadian Rangers in the North reached their peak during the early 1950s at a time when the Mobile Striking Force was conducting major winter exercises North of 60. In the "Bull Dog" series, White Rangers at Yellowknife and Norman Wells proved to be enthusiastic "participants" in the exercises, acting as guides and scouts for the regular paratroops. A few White Rangers from the more settled southerly reaches of the North were able to get time off from their regular jobs to take army-sponsored survival courses or military training at Camp Wainwright, Alberta. Distance precluded any

³⁹ Canada, DND, Northern Region Headquarters, Central Registry, "Rangers-dead file."

⁴⁰ Interview, John Anderson-Thompson, Yellowknife, 18 July 1975.

⁴¹ "Outpost Defenders 'Just a Bit Better Prepared,'" *Canada Month* (March 1964): 20.

attempt ever being made to conduct similar training for the Rangers scattered along the Arctic coast.⁴²

In theory, the Rangers served a useful purpose at the height of the Cold War. As far as is known no “saboteurs or enemy agents” were ever landed in the remote areas of the Canadian North during the late 1940s and 1950s. There were easier and safer ways to enter Canada. The issued service rifle and ammunition was undoubtedly an effective means of saving money in the North. Nobody attempted to calculate the number of caribou, moose, and seal that fell to the Ranger marksmen. The argument could be made that the Inuit Rangers in particular, by having a definite role to play in the defence of Canada, became more closely attuned to national aspirations and values. In the absence of any concrete evidence or detailed studies, such a notion is pure speculation. An equally strong case could be made to the effect that the Ranger organization was nothing more than a way to get a free rifle for Indigenous Northerners, and a diverting “social club” for the Whites. We just do not know.

What does seem clear, from the scanty evidence available, is that the Rangers provided the popular press with a field day throughout the 1950s. Much of what was written was grossly exaggerated, a flight of fancy, or just plain wrong. The *Montreal Gazette*, in a short article titled “Unsung Ranger Arctic Defenders in ‘Guerrilla Warfare’ for Army,” clothed the Rangers in mystery claiming that their numbers and locations were secret. “Should an enemy ever advance over the Arctic barrens,” it noted, “the Rangers’ role would be hit-and-run operations to stall the invading force until Canada’s mobile striking force could be transported or parachuted into the area.”⁴³ Two years later, *The Star Weekly Magazine* produced a feature article on the Rangers titled “Eyes and Ears of the North” claiming that, “unsung, almost unknown, the Rangers keep watch—the pick of the volunteers who form Canada’s first line of Arctic defence.” This article also suggested that “the Rangers would be invaluable if it were ever necessary to wage guerrilla warfare in the northern most parts of this country.”⁴⁴

These repeated references to guerrilla warfare were creations of the popular press; army press releases continued to emphasize the roles of the

⁴² DND, Directorate of Information, Morgue file, Rangers—PR release, 8 October 1958; “Outpost Defenders,” 20.

⁴³ *Montreal Gazette*, 13 February 1954.

⁴⁴ Robert Taylor, “Eyes and Ears of the North,” *The Star Weekly Magazine*, 22 December 1956.

Rangers in observing and in aiding civil authority in time of civil emergency or disaster. If guerrillas are “fish who swim in the sea of the people” they would find the Canadian North to be a very small pond in terms of population. It is difficult to conceive of how a successful guerrilla campaign could be mounted in the North and particularly in the Arctic. While those who knew the area intimately might be able to avoid capture by withdrawing to the empty spaces, living off the land has always been a full-time occupation. There would be little time or energy left over for the Ranger-guerrilla to fight. Still, the image of the Rangers as a “shadowy band of defenders”⁴⁵ was one that pleased Canadian readers, and articles to that effect continued to appear.

Army activity in the North peaked in the late 1950s and thereafter began a gradual decline until, by the mid-1960s, the military virtually abandoned the area as a potential operational theatre. Sub-units continued to train from time to time at Churchill but after 1964, when the military base was closed, this training became increasingly rare. The Canadian Rangers were seriously affected by the diminished army interest in the North. The Rangers were not disbanded, but they were left to wither on the vine. White Rangers left the North and replacements were not recruited. Rifles were lost or damaged and were not replaced. The annual re-supply of ammunition became unreliable. Regular Force Ranger Liaison Officers made fewer and fewer visits into the North. The *White Paper on Defence* of 1964 gave official utterance to what had become an informal reality. There is not a single reference to the North in the entire *White Paper*. In point of fact there is very little attention paid to the defence of Canada in the document. The section entitled “Defence of Canada” begins with the opening sentence: “It is, for the foreseeable future, impossible to conceive of any significant external threat to Canada which is not also a threat to North America as a whole.”⁴⁶ It was explained that “the minimum requirements for the defence of Canada are: the ability to maintain surveillance of Canadian territory, airspace and territorial waters; the ability to deal with military incidents on Canadian territory.”⁴⁷ While these may have been the minimum requirements, there is no indication in the subsequent structuring of the Canadian Armed Forces that any specific steps were taken to develop a surveillance or combat capability in the forces appropriate to the needs of the North in the 1960s.

⁴⁵ *Victoria Colonist*, 10 September 1958.

⁴⁶ Canada, *White Paper on Defence* (Ottawa: Queen’s Printer 1964).

⁴⁷ Canada, *White Paper on Defence*.

8

THE OTHER OCEAN**Naval Operations in the North**

For the first four decades of its existence, the Royal Canadian Navy studiously ignored the seas that surround Canada's North. Until after the end of the Second World War, no Canadian government or admiral ever found reason to dispatch any element of the fleet to far northern waters. In this respect, the navy was not unique as the entire Canadian military establishment had shown only minimal interest in the North. In 1945, however, the Royal Canadian Navy was swept up in the "polar passion" that gripped the Canadian and United States governments and militaries for about a decade.¹

Postwar Canada considered and studied its options and needs. The United States Navy and United States Coast Guard sailed into the Arctic seas. Starting in 1946 with an exercise dubbed Nanook, American maritime elements began a vigorous program of scientific study aimed at increasing military knowledge and operating capability in northern waters. This considerable American effort provoked the Canadian government into taking measures that created an immediate Canadian naval presence in the North. The government and naval officers were required to determine what a specialized anti-submarine warfare navy was to do in the North and how it could do it.

The RCN, on the whole, was reluctant to take on a northern commitment. While the United States was increasingly committed to the "Polar

¹ The Royal Canadian Navy emerged from the war as the world's fourth largest navy, this unusual state of affairs admittedly being due to the fact that many of the world's traditional naval powers—Germany, Italy and Japan—being temporarily *hors de combat*. Circumstance and war necessity, however, had made Canada's navy into what was primarily a highly specialized anti-submarine force. Particularly limited were its offensive capability and its ability to participate in combined operations.

Concept” in its strategic outlook, and fashionable strategists agreed that the Arctic Ocean would be the “Mediterranean of the future,” senior officers of the Royal Canadian Navy kept their eyes steadfastly on the North Atlantic. As late as 1947, they were arguing, with some justification, that an ASW force had no place in the Arctic. Historically, there was not enough shipping to tempt an enemy submarine into the area. The following year the professional naval opinion changed due to the decline of international relations with the Soviet Union and knowledge of high Soviet naval competence in their own northern waters.

The first public acknowledgement that the RCN had an interest in the North came in June 1948 when Brooke Claxton, the Minister of National Defence, announced in the House of Commons that elements of the navy undertook a northern cruise that summer. Canada’s only aircraft carrier, HMCS *Magnificent*, was “arcticized” to permit it to operate in high latitude.² This modification, however, related exclusively to preparing working and living quarters and equipment for low temperature operation. No work was done on the hull or power plant to give a capability for operating in ice. In this sense, the Minister exaggerated the capabilities of the ship when he said that it was “arcticized.” The cruise was made at a time when sea conditions were optimum. Hudson Strait and Hudson Bay were, in reality, much less challenging and difficult than the more northerly waters of the Northwest Passage. Nonetheless, it promised a more extensive northern involvement for the navy in the future. In making the announcement, Claxton referred to “the importance to us of the northern waters.”³ No attempt was made to explain why northern waters were suddenly important to Canada after almost a century of neglect.

Magnificent, with the destroyers *Nootka* and *Haida* in company, sailed from Halifax on 2 September 1948 with army and airforce observers, a representative of the Dominion Observatory, and the naval attachés of the United States and Great Britain on board. Five days later the ships were in Hudson Strait, operating off Wakeham Bay, the former headquarters of the 1927-28 Hudson Strait Expedition. The navy did what it could to help the missionary and the eighty Inuit that constituted the total population of the settlement. The ship’s doctor held a “sick parade” and naval communications technicians repaired the missionary’s radio. The following day, *Magnificent*

² *Debates*, 24 June 1958, 5785.

³ *Ibid.*

sailed for home, leaving the two destroyers to continue the cruise into Hudson Bay.

On 11 September 1948, *Nootka* and *Haida* tied up at Churchill—the first ships of the RCN ever to enter Hudson Bay. After a four-day visit at Churchill, the destroyers sailed north, calling at the village of Coral Harbour on Southampton Island and at Port Burwell. Harbour soundings and chartings were made at both locations. By 23 September, the two ships rendezvoused with a tanker for refuelling, cleared the Strait, and were en route for Halifax where they arrived five days later.⁴ The navy's first venture into northern waters was, within its limited objectives, a success. The 1948 northern cruise received considerable publicity in Canada and was commented upon favourably in several journals specializing in northern matters. It is important, however, to keep the voyage in perspective. Its sole importance is historical in that it marked a "first" for the RCN. Certainly, the challenge presented by Hudson Strait and Bay in late summer is insignificant in comparison to that of the North Atlantic in the winter. In any case, the ships simply followed an established shipping route that was in existence for three centuries and had been marked with modern aids to navigation for twenty years. Still, the navy and the Canadian public took considerable satisfaction in what was popularly thought to have been a significant accomplishment. In reality, concerned Canadians were simply underlining their woeful ignorance about the North.

The following year, the frigate HMCS *Swansea* continued the program of familiarizing naval personnel with operating conditions in the North by undertaking a cruise to the southern portion of Baffin Island. As in the previous year, the voyage was undertaken at the height of the shipping season. A thin-skinned frigate relied on avoiding ice, not challenging it, to reach its destination. *Swansea* arrived at Frobisher Bay on 30 August 1949, and continued up the east coast of Baffin Island, eventually reaching Clyde River, before turning south. A courtesy call was made at Godthaab, Greenland on the return voyage.⁵

The RCN's northern program evoked a small spark of interest in the House of Commons in 1949 when an opposition member requested assurance from the Minister of National Defence that "an adequate portion of the naval training is being carried out in Arctic waters." He made,

⁴ "The RCN Northern Training Cruise," *The Arctic Circular* 1:7 (November 1948): 75-6.

⁵ "Royal Canadian Naval Cruise 1949," *The Arctic Circular* 2:8 (December 1949).

however, no attempt to explain why he felt such training to be important. The member envisioned a possible new role for the navy in the North when he suggested that annual re-supply, community support, and scientific research tasks might well be done by the RCN. He observed that hitherto when work was required to be done in the North, the Department of Transport usually contracted a commercial firm to do the required job; he felt that the navy could be trained to do the required work.⁶ Presumably he suggested that responsibility for the Eastern Arctic Patrol be given to the navy. His suggestion evoked no reply and the issue was never raised again.

The idea was somewhat simplistic. For the navy to venture into the waters of the High Arctic would have meant the acquisition of new, ice-capable ships in addition to new training. It also begged the question of the purpose of such training and experience. A naval presence in the North might have been important for maintenance of sovereignty, but in the late 1940s the North was not considered to be a potential battleground either by naval leaders or thoughtful civilians. So in addition to the purely military aspects of the thesis, there was an important political aspect. It was a well-established principle in Canada that the military carried out national development tasks only when no commercial firm or civil department of government was capable of doing so at a reasonable cost. In the case of the Eastern Arctic Patrols, the Department of Transport, in conjunction with the Hudson's Bay Company, successfully operated the program for over two decades.

Despite the Minister's assurances that Arctic training would be carried out by the RCN, *Swansea* was the last Canadian warship to visit northern waters for several years. By the time the 1950 shipping season opened, Canada was involved in the Korean War. In Europe, the Soviet threat was perceived with growing western apprehension and the RCN was fully occupied with Canada's anti-submarine role of keeping the North Atlantic open in the event of another major war.

The next warship of the Royal Canadian Navy to operate in the North was HMCS *Labrador*, a purpose-built Arctic Patrol Vessel. The minister had spoken of the government's intention to acquire such a ship in 1948 when he announced plans for the RCN's first northern cruise.⁷ By 1949, detailed plans

⁶ *Debates*, 19 November 1949, 1974.

⁷ Canada, DND, Naval Historical Section, *History of HMCS Labrador*, (henceforth *Labrador History*), Ottawa: ms. unpublished 1960, 1. (Editor's note: recently published as *HMCS Labrador: An Operational History*, eds. P. Whitney

were well advanced and the keel for the new ship was laid in the yards of Marine Industries Limited at Sorel, Quebec in November of that year. The design was based on that of the *Wind* class icebreakers of the United States Navy and United States Coast Guard.⁸ Work progressed very slowly on the ship due to design changes during construction and delays in delivery of building materials. The ship was not launched until December 1951 and was only handed over to the RCN in July 1954.⁹

Labrador was a modern ship in all respects. Displacing 6,790 tons and 269 feet overall length, she was the RCN's second largest ship. The ship's company numbered 24 officers and 204 ratings, although in practice it usually carried additional civilian scientists and observers. As befitted its role, it was built for power rather than speed. Its top speed was a mere sixteen knots, but with all six of its diesel engines on line, she could develop an impressive 10,000 horsepower. A flight deck aft accommodated two light helicopters for general reconnaissance work and, in particular, assisted route finding in heavy ice. The ship's boats were specially designed for use in hydrographic surveys.¹⁰

If it took the RCN a long time to actually get its icebreaker, the navy was quick to put it to use. Barely two weeks after it was commissioned, *Labrador* steamed to its home port of Halifax, was provisioned, and on its way to the Arctic. By the end of the month it entered Lancaster Sound, the eastern entrance to the Northwest Passage—a new “first” for the Royal Canadian Navy.

Labrador had five “official” functions. The main role was to carry out patrols in northern waters with a view to provide the RCN with the knowledge and experience required for the planning and operation of future naval operations. It also conducted hydrographic and scientific surveys as needed by the navy and, naturally, carried out ice-breaking as required

Lackenbauer, Adam Lajeunesse, and Jason Delaney (Antigonish: Mulroney Institute on Government, Arctic Operational History Series no.1, 2017).

⁸ “The Northwest Passage Navigated, HMCS Labrador, 1954,” (henceforth “Labrador 1954”) Staff Monograph held in HMCS *Labrador* file, Canada, DND, D Info Morgue.

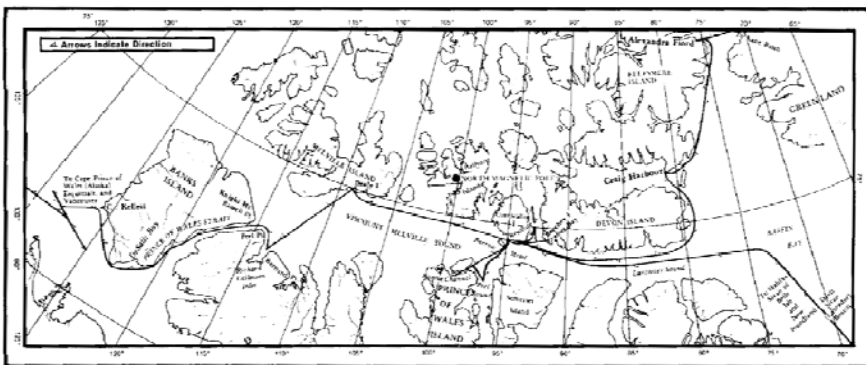
⁹ *Labrador History*, 3, 6. It is interesting to note that when, a few years later, the United States built its first nuclear powered submarine, *USS Nautilus*, it took only one year from keel laying to launching.

¹⁰ “HMCS Labrador: Arctic Patrol Vessel” (Ship’s brochure 1955, held in D Info Morgue, HMCS *Labrador* file).

during Arctic operations. In addition, the ship provided logistic support for Canadian Arctic bases and, within its capabilities, performed rescue and salvage duties in Arctic areas.¹¹ On its first cruise she was to perform all of these duties—and more.

During its first season of operation, *Labrador* ranged through Lancaster Sound. She operated along the east coast of Ellesmere Island as far north as Kane Basin. Later in the season it moved westward in the Passage, eventually breaking into the Beaufort Sea. At season's end it rounded Alaska, thus becoming the first warship ever to transit the Northwest Passage.

Its accomplishments, however, are best measured in terms of what it did, rather than where it went. Hydrographic studies and equipment and clothing trials were conducted in early August in and around Lancaster Sound and Baffin Bay. The ship then headed south back to the Passage where it based itself at Resolute Bay on Cornwallis Island. Various soundings, surveys, and scientific projects were continued until 19 August, when a distress call took *Labrador* to Baring Channel north of Prince of Wales Island. The motor vessel *Monte Carlo* became trapped in the ice between Prince of Wales and Russell Islands. *Monte Carlo* was a small fishing boat crewed by a party of students from an American college. *Labrador* cautiously proceeded through dense fog for two days until visibility improved on the afternoon of the 21st. One of the ship's helicopters located the stranded vessel and *Labrador* broke through twenty miles of ice to free it and towed it out to the main channel. The small craft was re-provisioned and its crew advised to stay out of dangerous waters in future.



Northwest Passage Transit, HMCS *Labrador*: 23 July-20 September 1954

¹¹ *Labrador History*, 6-7.

For the remainder of August, *Labrador* slowly sailed its way westward through Barrow Strait into Viscount Melville Sound, carrying out oceanographic and hydrographic studies as it went. South of Melville Island, *Labrador* fell into company with the American naval icebreaker *USS Burton Island* which was working with the joint United States-Canadian Beaufort Sea Expedition. A program of co-operation and mutual support was laid out in which the two ships jointly sounded the eastern end of M'Clure Strait. Having transpired Prince of Wales Strait, the two ships joined *USCGS Northwind* at Richard Collinson Inlet on Banks Island. A survey team from the Dominion Hydrographic Office was rescued from the east coast of Banks Island when they reported that all their Weasel vehicles had broken down.¹² The research program in and around the Beaufort Sea continued until 21 September. On that date one of the crew members fell gravely ill and *Labrador* immediately sailed for the Pacific coast naval base at Esquimalt, arriving there on 27 September, 67 days out of Halifax.¹³

Considerable publicity and public interest attended *Labrador's* arrival at Esquimalt. The fact that it sailed through the Northwest Passage was seen by the press as the most important accomplishment of the voyage, although the research activities were also noted. To the ship's company, and to the navy, however, the most significant result of the first cruise was the training and experience gained in operating in the polar sea. The ship's unofficial history also noted a subtler result of the voyage, which:

marked the first incursion of a Canadian naval vessel into waters which the U.S. Navy and Coast Guard might well be excused for considering *mare nostrum*. For a good many years, particularly since the establishment of the Joint US-Canadian weather stations in 1947, the only ships seen in the waters of the Canadian Archipelago, apart from a few government supply ships, were those flying the Stars and Stripes. In 1954 for the first time Canada had a ship patrolling her northern waters.¹⁴

Labrador's Arctic program for 1955 was every bit as demanding as was its first cruise, although the focus of employment changed considerably. The

¹² In the Report on Exercise Musk Ox it was noted that Weasels were not sufficiently robust for independent operation in the Canadian Arctic.

¹³ "Labrador 1954."

¹⁴ *Labrador History*, 219.

1955 shipping season marked the beginning of major construction on the DEW Line, and *Labrador* played an important role in support of the supply convoys operating in the North. On 15 June, *Labrador* sailed into Hudson Strait and commenced preparatory work for the massive sea lift of supplies and equipment that came later in the summer. This work included more hydrographic surveys; installation of navigational control stations; and the selection, survey and preparation of actual beach landing sites. The most important task of all, however, was ice-breaking support for the forty-ship convoy expected in Hudson Strait in early August. By September the task was finished and the American ships departed for the South, none having received more than superficial damage. *Labrador* remained in the North for another month to continue hydrographic and oceanographic studies that started the previous year; then, it too turned south and abandoned the Arctic to winter.

The navy was flooded with requests for the *Labrador's* services for the 1956 season. The United States Military Sea Transport Service wanted it to support DEW Line construction and supply. The Defence Research Board, the Department of Mines and Technical Surveys, and the Fisheries Research Board all made bids to use its facilities for Arctic research projects. One of the few agencies that could not see much use for the ship was the Royal Canadian Navy. In August, 1956, the navy seriously considered the possibility of turning *Labrador* over to the Department of Transport. The Director of Naval Plans and Operations, Captain W. M. Landymore, produced a major study that examined the military implications of a continued naval presence in the North. He noted that if the ever-popular enemy lodgement were made, the other fighting services were much better equipped and trained to respond than was the navy. He further noted that, no matter what the operational requirement, ship movements were governed by seasonal navigational limits. In any case, even if *Labrador* operated in ice-strewn waters, other ASW ships of the navy had no combat capability whatsoever in such conditions.¹⁵ Landymore apparently never considered the sovereign implications of operating a naval ship as opposed to a Department of Transport ship in the Arctic patrol role.

The naval staff accepted the logic of Landymore's arguments and in October recommended a departmental transfer of the vessel. They were reacting in part to a governmental directive which stated that the navy's

¹⁵ Quoted in *Labrador History*, 219.



highest priority was having a maximum number of effective fighting ships. Under such ground rules, *Labrador* had no place in the RCN, whose main focus of interest remained on NATO and the North Atlantic. The Naval Board, on the other hand, adopted a more cautious attitude and declined to take any action on the proposal for the time being. During the summer, *Labrador's* activities were a virtual repeat of its 1955 cruise, with its main mission in support of the DEW Line sealift. In September, following the end of its sealift responsibilities, it established another record by executing the first east to west passage of the difficult and often ice-clogged Fury and Hecla Strait between Baffin Island and the Melville Peninsula.

During the 1957 season, the pattern of employment developed over the previous two years continued. Hydrographic and charting activities, Defence Research Board activities, and support of other government agencies' research projects alternated with DEW Line re-supply duties. By the summer

of 1957, however, it was clear that the days of *Labrador* as a ship of the Royal Canadian Navy were numbered. At the end of July, the Department of Transport requested the services of *Labrador* for icebreaking duties in the Gulf of St. Lawrence and offered to take over formal operation of the ship. This time the Chief of Naval Staff, Vice Admiral H. G. De Wolf, agreed. In a letter to the Minister, De Wolf carefully examined the implications of the navy giving up *Labrador*. He noted the valuable Arctic experience gained by the ship's company (but did not say in what manner this experience was useful to the RCN). He also noted the satisfaction of having performed "useful service to the country and assistance to other government departments with resultant goodwill." De Wolf showed his awareness of the important sovereign implications of HMCS *Labrador's* northern cruise when he wrote that "there is, I believe, a very real value in showing the white ensign in the Canadian North where the stars and stripes are so much in evidence."¹⁶ On the negative side, however, the letter noted that *Labrador's* employment was essentially non-military; that the ship lacked an operational role in war. In fact, existing plans were such that if war were to break out, *Labrador* would have been paid off in order to permit the manning of "additional escorts." De Wolf took the position that, in view of the government's instructions to reduce expenditures for fiscal year 1958-59, this could best be done by transferring *Labrador* to the Department of Transport. The one proviso to the transfer was that should a war or a national emergency arise that called for the military operation of an icebreaker, the ship was to be made available to the RCN.¹⁷

In the autumn of 1957 *Labrador* sailed to the port of Saint John, New Brunswick where it went into a major refit prior to departmental transfer. Most of the crew was paid off at that time with the exception of a small refit detachment which remained with it until the end of March 1958, when she officially ceased to be a ship of the Royal Canadian Navy.

Opposition members of parliament were skeptical when details of the proposed transfer of authority over the ship was announced. When one asked if "the traditional role of exploration and charting in Arctic waters" was being cancelled in the interests of economy, the Minister of Transport, George Hees, explained that the summer exploration charting program would continue under DoT auspices, but more economical use would be

¹⁶ Quoted in *Labrador History*, 130.

¹⁷ *Ibid.*, 131.

made of the ship by employing it as an icebreaker in the Saint Lawrence during the winter.¹⁸ Another member questioned the advisability of the transfer on the grounds that *Labrador* was “Canada’s medium for exhibiting sovereignty over the Canadian Arctic.” He wondered if DND was really in favour of the transfer or if the project was simply a case of Transport “calling the tune.”¹⁹ In this respect, the suspicion of bureaucratic power politics was misplaced for it is clear that the RCN was as eager to get *Labrador* off its hands as DoT was to take it over. George Pearkes, the Conservative Minister, replied that the transfer of *Labrador* was the result of government review “of those responsibilities of the defence department which might, with economy, be assumed by civilian departments of the government.”²⁰ What remains unclear is the degree to which monies were actually saved by the transfer. The work performed by *Labrador* represented a fixed annual commitment. Any absolute reduction in defence expenditures would have, presumably, been off-set by an approximate similar increase in the DoT budget.

Despite the explanations of both ministers concerned, the opposition remained unhappy. In January 1958 a question was asked as to “why this ship ... a naval vessel of a particular type for an area which was required to be patrolled by the navy, should have been transferred to what is a peacetime department? (i.e. The Canadian Coast Guard).”²¹ Pearkes replied, accurately, that there were other means of patrolling northern waters. In this sense there could be little argument, for *Labrador* flying the colours of the Canadian Coast Guard could carry out patrol duties and show a federal presence in the North just as well as she could flying the white ensign. The opposition members failed to grasp the essence of the problem. They peppered the Minister with questions about how the RCN proposed to train its personnel in future for the specialized conditions found in Arctic waters. The Minister’s reply that other ships would be used (namely frigates and destroyers from the Atlantic coast²²) ignored the real import of the questions. Surely Opposition members were concerned with the ability of the navy to operate in ice, which destroyers could not do. In any case, the question that remained unasked was why should the navy have an operational capability in the North in the first place. No professional sailor in Canada

¹⁸ *Debates*, 11 November 1957, 944.

¹⁹ *Ibid.*, 1151, 1157.

²⁰ *Ibid.*, 1103.

²¹ *Ibid.*, 3 January 1958, 2823.

²² *Ibid.*

was able to answer that hypothetical question and, as a result, *Labrador* was given up. The sterile public discussion of the navy in the North, however, continued into the early 1960s.

Commenting on the RCN's year end review of activities for 1960, Charles Lynch, one of Canada's leading political commentators, noted that:

There were no cruises, however, along Canada's longest sea coast—the northern one. Since the government took away the icebreaker *Labrador* and gave it to the Department of Transport, the Navy has lacked a vessel capable of operating in the northern seas, even for flag showing purposes.²³

In point of fact, soon after Lynch's article appeared, the RCN considered anew the desirable characteristics of an Arctic Patrol Vessel. The staff paper in question was written with a view to the return of *Labrador* to the navy where its mission would be "to assist in the maintenance of sovereignty over Canadian territorial waters in the Arctic and icebound environments and, by supporting research, to improve the Canadian defence capability in those areas."²⁴

To date, no Canadian government has felt it necessary to have the navy again operate a polar icebreaker. The needs of sovereignty have been maintained by Canadian icebreakers in the colours of the Canadian Coast Guard. Inter-departmental co-operation has apparently satisfied specific research and support requirements. In this respect, Canada is not unique. Most nations that operate icebreakers do so under the aegis of a coast guard or some similar organization. The subtle difference between an icebreaker manned by a naval crew and the same vessel manned by what is essentially a non-service department has not been seen as an important aspect of Canadian northern policy.

By 1960, it was unrealistic to postulate any military role for a northern patrol vessel other than "flag showing" which is a legitimate and traditional military function. If war were to come to the polar sea, it is clear that the engagements in 1960 would have been fought under the ice, not in it.²⁵ The

²³ *Ottawa Citizen*, 28 December 1960.

²⁴ DHH 73/243, "Draft Ship characteristics Arctic Patrol Vessel," 1 February 1961.

²⁵ The idea of using a submarine for under ice polar exploration may have originated in the seventeenth century with John Wilkins, the Bishop of Chester, who wrote of the "many advantages and conveniences of a submarine as 'tis safe

entry into service of *USS Nautilus* in January 1955 represented a new potential for polar operations. Being nuclear-powered, the boat was practically unlimited in submerged range. Surfacing in leads would be done only if the captain wished to do so, and not through necessity. The early nuclear boats were capable of speeds in excess of 20 knots and could submerge to a great depth and remain highly manoeuvrable. With these characteristics it was thought that a nuclear boat was capable of safely passing beneath the deepest ice ridge. There were a few naval and political enthusiasts in the mid-1950s who were strong advocates of attempting a

from Ice and great Frosts which do so much to endanger the Passage toward the Poles'." See Vilhjalmur Stefansson, "The History of the Idea," in Sir Hubert Wilkins, *Under the North Pole* (London: Brewer, Warren Putnam, 1931). Two German explorers working independently, Anchutz-Kamfe in 1901 and Maybaum in 1903, actually undertook construction of submarines with the intention of attempting to reach the pole under the ice, surfacing for air and battery recharging in leads or polynas. Neither attempted the voyage. See "A New Plan for Reaching the North Pole," *Geographical Journal* 17:4 (1901): 435-6, and A.W. Maybaum, *I'm Unteseboot zum Nordpol (In a Submarine to the North Pole)* (Berlin, 1903). Stefansson claimed that by the early 1920s he had thought out solutions to most of the practical problems associated with submarine operations in the Arctic. He claimed that his publishers forced him to excise sections dealing with a polar submarine voyage from drafts of "The Arctic as an Air Route of the Future" in the *National Geographic* (August 1922) and *The Northern Course of Empire* (1922). See Wilkins, v, 14-17. In 1931, British Arctic explorer Sir Hubert Wilkins actually attempted an undersea voyage to the pole, but damage to the submarine in transit to the edge of the pack prevented the vessel from submerging. See "Sir Hubert Wilkins' Submarine Expedition 1931," *Polar Record* 1:8 (January 1932): 5. The first actual under-ice submarine voyages were carried out by the Imperial Russian Navy in Vladivostok Harbour in 1905 and 1908. See V. G. Redanskiy, "Pervyye podlednyye plevoniya podvodnykh lodok na Dol'nem Wostoke," *Izvestiyo Vgesozuynogo Geografic Leskogo, Obshchestva* 100:4 (1966), 368-70. During the Russo-Finnish War, a Soviet submarine made a thirty mile transit under the ice of the Baltic. See V. V. Tikhomirou, *Nebo zakryto J'dami (The Sky is Covered With Ice)* (Moscow, 1965). German U-Boats operating against Allied Arctic convoys to Russia made use of the edge of the polar pack as a shelter from destroyer attacks. Following the end of the Second World War, the U.S. Navy carried out a few experiments with conventional submarines operating on the edge of the Arctic pack. No major polar transits were attempted, or it seems, even contemplated.

submerged polar transit, but the United States Navy approached the idea with care. The dominant viewpoint cautioned against risking the only nuclear-powered vessel in the fleet in a completely unknown area.

By 1957, however, the polar advocates gained growing numbers of supporters, and that summer *Nautilus* made its first polar attempt and managed to beat within 180 miles of the pole before it was forced to turn back by subsurface ice pressure ridges. Undaunted, it tried again the following year and on 3 August, sent its now famous message, “*Nautilus 90 North*.” In subsequent years, the United States Navy established other important milestones in under-ice operations. In March 1959 the *USS Skate* surfaced at the pole. In 1960 and in 1962, *USS Seadragon* and *USS Skate* respectively, made submerged transits of the Northwest Passage.²⁶

In addition to the United States, other nations who developed nuclear submarines also undertook polar cruises. In 1962 the USSR submarine *Lenisky Kamsomol*²⁷ succeeded in reaching the pole, and in 1971 *HMS Dreadnought* did likewise.²⁸ What is important to this study is the impact on Canada and the Canadian North of the opening of the polar seas to year-round naval operations, and the potential commercial and scientific advances that followed developing technology.

The military quickly grasped the strategic significance of the successes of the nuclear submarines. Even before *Nautilus* reached the pole, an American officer, experienced in both submarines and polar work, noted that, “in spite of the natural defences posed by the elements, the Soviet Union is extremely vulnerable from the North.” He argued that nuclear attack submarines could wreak havoc with Soviet shipping along the northern route whilst remaining virtually invulnerable to attack themselves.²⁹ Commander William Anderson, the captain of *Nautilus*, foresaw an even more significant strategic role for nuclear submarines operating in the Arctic Ocean. He wrote that,

²⁶ See Commander William R. Anderson, *Nautilus 90 North* (London: Hodder and Stoughton, 1959); Commander James Calvert, *Surface at the Pole* (London: Hutchinson and Co., 1961); G.P. Steele, *Seadragon: Northwest Under the Ice* (New York: E.P. Dutton, 1962).

²⁷ M. S. Korenevskiy, *Kurs-nord, idem podo l'dami* (Course-north we are going under the ice) (Moscow: Izdatel'stvo “Sovetskaya Rossiya,” 1967).

²⁸ P. Wadhams, “British Submarine work in the Arctic, 1971,” *Polar Record* 15:99 (September 1971): 923.

²⁹ Commander G. W. Kitteredge, “Under the Polar Cap: A Voyage That Must be Made,” *USNI Proceedings* 84:2 (February 1958).

“when the nuclear-powered, missile-firing submarine became a reality, the Arctic, dominating over three thousand miles of Soviet coastline, would be an ideal launching spot.”³⁰

The polar cruise of the *USS Skate* in 1959 was reported to be, in the main, a scientific expedition, during which experiments checked the feasibility of submarines breaking through the ice of the polar pack.³¹ The military significance of such a capability (although unstated in the article cited above) was that if gaps in the polar pack were found, then a submarine could launch strategic missiles from a polar war station. The American strategic thinking of the late 1950s and early 1960s was closely tied to existing technology. Thus, in 1958, a U.S. Navy officer who served in submarines during the Second World War and in Arctic icebreakers in the postwar period wrote: “With our lesser interest in the far north and the greater distances of centers of population and industry from the Arctic, any threat to the free world from Soviet under-ice submarines is negligible.”³² The author was writing before the operational deployment of submarine-launched ballistic missiles (SLBM). The cruise missiles of the day were limited in range and a launch from anywhere under the polar pack could not have reached the continental United States.

Other Americans were less certain of their invulnerability. In 1962, following the development of nuclear submarines armed with ballistic missiles (SSBN), one anti-submarine warfare analyst wrote to the effect that, while the Soviet Union remained much more vulnerable to an attack from submarines in Arctic waters, a Soviet SSBN could, in theory, transit the Arctic Ocean, make its way through the Canadian Archipelago, enter Hudson Bay, and from there effectively engage targets as far south as Norfolk, Virginia, or St. Louis, Missouri.³³ Here too the author was writing in terms of the range of the first generation of SLBM. Subsequent developments have since negated the necessity to approach the “enemy” so closely. The article recommended that the NATO countries with northern frontiers should combine to develop a capability for anti-submarine warfare in the Arctic. In that area, conventional ASW surface ships and aircraft,

³⁰ Anderson, *Nautilus 90 North*, 43.

³¹ Lcdr. W. H. Layman, “Skate breakthrough at the North Pole,” *USNI Proceedings* 85:9 (September 1959).

³² Cdr. R. D. McWethy, “Significance of the *Nautilus* Polar Cruise,” *USNI Proceedings* 84:5 (May 1958): 35.

³³ G. V. Brown, “Arctic ASW,” *USNI Proceedings* 88:3 (March 1962): 55.

operating alone or in conjunction with each other, were completely ineffective. The writer envisioned aircraft as the main means of anti-submarine defence in the North, but he also felt that anti-submarine nets might be necessary for Hudson Bay.³⁴

The year 1960 marked the “end of the era of experimental submarine operational procedures in the Arctic.”³⁵ By this date the USN developed the necessary equipment and experience to operate nuclear boats under ice in summer and winter. In addition, they worked in both deep and shallow waters as well as among icebergs and through island passages. In mid-November of the same year, the *USS George Washington*, an American Fleet Ballistic Missile submarine, departed on the first deterrent patrol, armed with 1,200 mile-range Polaris A1 nuclear missiles. Given the limited range of the first generation SLBM, it is not unreasonable to speculate that its war patrol area may have been in the Arctic seas. The United States has naturally never revealed the location of patrol stations nor the targeting program of the sea-based deterrent, but the Soviet Union assumed that the American boats might well be in the Arctic Ocean from whence they could strike at Soviet strategic forces located deep in Siberia. It would seem that the Soviet Navy quickly developed the procedures to react to this possible threat from the North. When the Soviet Union announced in 1963 that the *Leninsky Komsomol* reached the North Pole the previous summer, the purpose of the cruise was stated as “to go under the Arctic ice to the North Pole and there to take a battle station having the mission of preventing the underwater rocket-carrying ships of the ‘enemy’ from using the ice of the North Pole for launching a rocket strike.”³⁶

Before one can fight in an area one must have the ability to operate there. In all probability the Soviet Navy was going through the learning process that the USN endured from 1957-60. The Soviet Union quickly mastered the art, as Soviet literature is full of reports of various under-ice cruises in the mid-1960s. It is also reasonable to assume that hunter-killer submarine attack procedures in the Arctic Ocean were worked out. This was implied in a 1963 Soviet article wherein a journalist embarked on an Arctic patrol wrote: “Other submarines, we know, are creeping up to the North Pole from the other hemisphere. They are looking about for places from which Polaris

³⁴ *Ibid.*

³⁵ Richard Boyle, “1960: A Vintage Year for Submarines,” *USNI Proceedings* 96:10 (October 1970): 38.

³⁶ Quoted in Boyle, “A Vintage Year,” 39.

missiles could be launched. They should realize that this is playing with fire.”³⁷ Since the Soviet Union expected to deploy their own SSBNs by the mid-1960s, and since they too gained vital polar experience with their attack boats in the interval, it appears that the United States Navy carried out hunter-killer experiments in the Arctic in 1962. In that year, “significant tactical exercises were conducted with both submarines (*USS Skate* and *USS Seadragon*) proceeding in company over a track of about 1800 miles in the Central Arctic....Weapons and sonar tests were conducted in the Beaufort Sea.”³⁸

Military operations by Soviet and American submarines in Arctic waters have been cloaked in secrecy since the early 1960s. The following analysis, therefore, is purely speculative. It would seem likely that during the period when SLBM ranges were in the order of 1,200 to 1,500 miles, both nations probably deployed SSBNs into the Arctic and, at the same time, continued to develop their ability to detect and destroy opposing SSBNs with hunter-killer submarines. Despite all the progress that was made in polar operations, however, the perpetual ice cover of the Arctic Ocean renders that area a much more hostile environment for submarines than more temperate seas. Security for an SSBN, and hence the entire seaborne deterrent of both the United States and the Soviet Union, lies in the ability of the submarines to reach and maintain station in a patrol area undetected. Each succeeding generation of SLBM opened up vast ocean areas as suitable patrol stations. A missile range increase in the magnitude of 1,000 miles roughly equates to another million square miles of ocean becoming a suitable launch area. Given these considerations, it is likely that neither American nor Soviet missile submarines required use of the Arctic Ocean at this point. When an Ultra Long Range Missile System (ULMS) becomes operational, the sea-based deterrent forces should be in the enviable position of being able to engage their targets as soon as they leave their home ports.

Despite the tremendous developments that have been made in ASW since the end of the Second World War, it is still conceded that the submarine has the advantage in war operations. This is particularly true with respect to SSBNs who have no interest in shipping lanes or tactical targets. All these ships need is a place to lurk, and the ice-free oceans of the world represent a fantastic hiding ground. Contemporary ASW resources consist

³⁷ I. Nekhamkin, “On Board a Nuclear Submarine” *Soviet Union* 159 (1963): 41.

³⁸ Boyle, “A Vintage Year,” 39.

of fixed underwater sonar arrays, surface ships, aircraft, and submarines. Of these, only ASW submarines are effective in the High North, although experiments with fixed array sonar in ice-filled waters continue. At present, ASW forces are at a disadvantage in the polar seas since only a few of the standard resources function there. Therefore, a major technological breakthrough in conventional ASW might force SSBNs to seek refuge under the polar pack. In the same vein, the Arctic Ocean could be important to nuclear submarines of both sides' deterrent forces as a transit zone for the redeployment of forces, or as a secure means of permitting an SSBN to take up its war station. Any attempt by either the United States or the Soviet Union to interfere with the transit routes of the other would have serious effects on deterrent stability and would represent a major shift in strategic perceptions and, perhaps, intentions. Such a move could not rationally be made lightly, nor is it likely that it could be made quickly because of technical limitations imposed by the Arctic environment.

While the nuclear submarines of the United States and the Soviet Union conquered the Arctic Ocean, the Royal Canadian Navy sat on the sidelines as a seemingly disinterested spectator. After the transfer of *Labrador* to the Coast Guard, the only Canadian warships to appear in the North were on summer training cruises into Hudson Bay, which ended after 1962. Deeply committed to anti-submarine warfare, the RCN concentrated on developing variable depth sonar, helicopter-carrying destroyers, and a high seas hydrofoil. None of these could be used in ice-filled waters, so with a few exceptions the navy neglected the North and concentrated on the North Atlantic.

The United States Navy established a policy of co-operation with Canada that reflected the fact that their boats were operating in Canada's backyard, if not in its territorial waters. (At the same time, Canada's declared territorial limit was three miles, and since no commercial or military use had ever been found for the Northwest Passage, the Parry Channel route via M'Clure Strait could have been classified as high seas). When the *USS Sargo* reached the North Pole in the dead of winter 1960, Commodore O. S. C. Robertson, *Labrador's* original commanding officer, was aboard. This officer was also in *USS Seadragon* in the capacity of observer and adviser when that ship made its historic transit of the Passage through the Canadian Archipelago in the summer of the same year.



Canada took note of the early pioneering nuclear submarine voyages and applauded their successes. Similarly, a few Canadians expressed concern over the threat of Soviet SSBNs prowling about the Arctic coast of North America. The massive Soviet submarine fleet had often been seen as a serious threat to North America. When Nikita Khrushchev, in one of his more bellicose statements, said that rocket-firing submarines located in Hudson Bay could demolish targets anywhere in North America, Canadians were forced to admit that they did, after all, have a third ocean front. A joint Canadian-American defence research station located at Churchill was reported to be working on technical aspects of under-ice submarine detection, but the problems far outnumbered the feasible solutions.³⁹

A few voices cried in the wilderness that Canada should obtain a small fleet of nuclear submarines for the purpose of Arctic patrol and conventional operations. Chief among these was Michael Forrestal, the long-time Progressive Conservative Member of Parliament for Halifax, Canada's principal naval base. Throughout the 1960s, he repeatedly called for the development of a Canadian nuclear fleet—if not home-built, then purchased directly from the United States. Canada had neither the technology nor the industry to build nuclear submarines at anything like an acceptable cost.

³⁹ *Vancouver Sun*, 9 November 1959.

Attack submarines might have been purchased from the United States at any time after the mid-1960s, but again, the cost was highly prohibitive. In any case, it is most unlikely that Canada would have obtained such a costly weapon system mainly for northern patrol work at a time when the governments of the day showed little interest in the North. The advisability of acquiring nuclear submarines was debated in the House of Commons at some length in 1959, but there was no mention of the Arctic Ocean in the debate. The government's position was that the concept of using a nuclear submarine in the anti-submarine role had yet to be proven, and in the interval Canada closely watched developments in the United States and Great Britain.⁴⁰ In the main, it appeared that Canada was prepared to leave to the superpowers the heady world of nuclear war in the polar seas.

The non-military potential of nuclear submarines in the North is as interesting as possible war scenarios. Once the major navies proved that polar operations were feasible, a whole world of peaceful applications of this knowledge emerged. The most important of these envisioned new intercontinental shipping routes, the use of submarines for resource exploitation, and pure scientific research in the Arctic Ocean. Of the three, only the last has been developed to date. Like the nuclear freighter and the nuclear resource transporter, the nuclear submarine laboratory remains a theoretical possibility confounded by the realities of economics and technology. In many ways, the "boom" of interest in the peaceful use of nuclear submarines in the Arctic that characterized the late 1950s and the 1960s has turned out to be the "bust" of the 1970s. To the North, that is an old story.

⁴⁰ *Debates*, 2-3 July 1959, 5371, 5384, 5430.

9

NATION BUILDING II

The Postwar Years: 1945-1964

The generation after the Second World War marked the high point of military presence and activity in the Canadian North. Little of this activity directly related to a specific military threat. During the bomber era, infantry troops trained to snuff out “lodgements” and the radar stations of the Distant Early Warning Line kept their long polar watch. These two organizations, however, accounted for but a small portion of the military activity in the region. A host of other programs brought the soldiers, sailors and airmen of Canada and the United States to the North.

At the outset of the Cold War, all branches of the armed services generally recognized that existing knowledge of the North was imperfect, and that special techniques and equipment were required to operate there. In the absence of specific operational roles, many military elements set about learning how to live and work in the isolated northern environment against the day when a wider military threat might develop. As a corollary to these programs, steps were taken to establish necessary support facilities, to permit these activities to be carried out with greater efficiency and safety.

An important by-product of this activity was a major contribution by the military to general knowledge about the North and the establishment of many important components of social infrastructure. It would be a serious error to assume that all these military contributions to northern development were coincidental. There are three categories into which all military activity during the 1945-1964 period can be grouped. The first is that small class of activities undertaken for purely military purposes and the development spin-off was truly accidental. By far, the largest category is the second class wherein military projects were executed in a manner designed to optimize developmental aspects. The third group are government-designated activities undertaken purely to meet the needs of national development, and which promised no value to the military.

The Northwest Territories & Yukon Radio System

The outbreak of the Second World War disrupted the NWT & YRS, as it did most other Canadian institutions. In the autumn and winter of 1939, calls were made upon the system to support mobilization by providing men and materials. In the final analysis the system was a training facility for the Royal Canadian Corps of Signals (RCCS) and in the crisis of war, the army did not hesitate to draw upon the distant posts to fill its needs. On the other hand, the RCCS had acquired a responsibility to the residents of the Northwest. People had come to depend upon the radio facilities over a period of sixteen years and the entire network could not be abandoned overnight. Those stations whose closure would not cause a breakdown in the whole system or whose services could be provided by alternate means were closed and their equipment and personnel were withdrawn to the South. At the remaining stations personnel cuts reduced the level of services that could be provided, meteorological services suffering particularly in this respect.¹

The entry of the United States into the war and the defence projects undertaken by that nation in the Northwest provided an impetus that took the system out of its initial war time slump. To support the Canol project, the United States Corps of Signals established a communications network, but it soon became evident that the American equipment did not have the power or the reliability to handle the traffic on the net. The temporary expedient of patching into the nearest NWT & YRS station for onward transmission of messages was adopted, but in 1943 the two governments agreed that because the RCCS was already established at key locations in the Mackenzie Valley and had long experience in northern operations, the Canadian system would provide the main communication grid for Canol. Accordingly, the Corps installed a powerful station at Norman Wells capable of transmitting direct to Edmonton and later took over an American station that was established at Fort Providence. By the end of the year the NWT & YRS was operating fourteen stations and the System was again in the process of expansion.²

The System's role in supporting flying operations was greatly expanded the following year. Flying activities relating to the Alaska Highway, Canol, and the Northwest Staging Route continued unabated and civil aviation in the Mackenzie underwent resurgence. The increased level of air activity

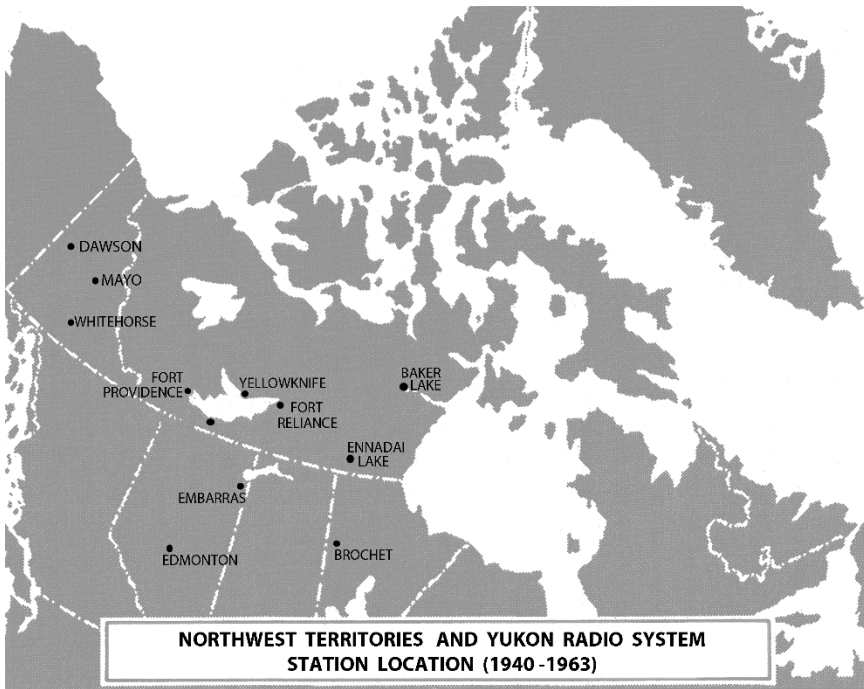
¹ Moir, *History of the Royal Canadian Corps of Signals*, 282.

² *Radio System Short History*, 19-20.

produced a demand for more and better weather forecasts and the RCCS was requested by the Meteorological Department to open stations at Fort Good Hope and Port Radium, and to increase the frequency of weather reports from all other existing stations. Manpower requirements in 1944 were not as critical as in 1939 in the sense that the requirements for a few dozen men to operate the NWT & YRS were insignificant to an army of over a half million men. The RCCS also took over small stations that were established by the Americans at Wrigley, Hay River, and Embarras. These developments brought the system back to its pre-war level of nineteen stations. The following year, the main stations at Edmonton, Fort Smith, Fort Simpson, and Norman Wells received powerful new 10 KW low frequency transmitters, thus further increasing the System's capacity to support the anticipated northern boom that it was thought would follow the end of the war.

During the war years, the system continued, in the main, to follow its traditional pattern of supporting contemporary activity in the Canadian Northwest. The Canol project replaced the mining activities of pre-war years as the main user of facilities. The system also continued to provide its traditional weather forecasts and commercial facilities for the permanent residents of the North. Wartime programs provided Canada with a surfeit of trained signallers. During the war there was no suggestion made by the RCCS that the system's continued value lay in the training it provided to military communicators. The system had become a thing unto itself—a service to the NWT & YRS which, by tradition, was provided by the Royal Canadian Corps of Signals.

With the coming of peace, the NWT & YRS continued in its now well-established pattern of serving the North. Any military, commercial or governmental group that required quick and efficient communications turned to the Royal Canadian Corps of Signals. One could graph the level of development activity in the Northwest simply by studying the various expansions and contractions that the northern signals system underwent over the years. While the postwar experiences of the System differed somewhat from pre-war and wartime activity in the specific nature of services provided, on the whole, meteorological forecasting, air support, communications for other departments of government, and commercial traffic occupied the bulk of the signallers' time.



During 1946, all the wartime stations continued in operation and new sites were opened at Snare River, north of Yellowknife, and at Baker Lake.³ The Snare River station was short lived, but its establishment illustrated again the flexibility of the army to respond to reasonable requests. A major hydro-electric power project was to be carried out on the Snare River to provide the energy-starved mining interests in the Yellowknife area with a source of cheap and reliable power. To facilitate the construction phase, a radio station was required and on 8 July 1946 the RCCS was on the air from the new site. The project was completed in late 1948, but the signallers stayed on until mid-1949 at which time a conventional land line between the power plant and Yellowknife was completed.

During 1948 and 1949, the System was drawn further into the web of the Meteorological Service. The first-year weather stations were stalled at Brochet in northern Manitoba and at Fort Reliance at the eastern tip of Great Slave Lake. Both of these stations were transmitting weather data by freeze up, but their establishment was costly in both men and support equipment. The RCAF had to be called on to fly in construction crews, operators, and equipment, although a barge brought in most of the heavy plant to Fort

³ *Radio System Short History*. Unless otherwise noted all data in this section is taken from this source, 24-58.

Reliance. Both of these locations were noteworthy because of their isolation. At Brochet the population consisted of two traders, four missionaries, a game warden, and a fluctuating group of up to fifty Cree and Chipewyan people who came and went with the hunting and fishing seasons. At Fort Reliance, the entire population consisted of two members of the RCMP who used the post as the base of patrol operations at the east end of Great Slave. The following year, the NWT & YRS reached its nadir of isolation when it responded to a Meteorological Service request to establish a post at Ennadai Lake. At Ennadai, there was nobody except the four-man signals detachment. This forlorn post was on the air with regular weather broadcasts by October 1949, but perhaps its most important function during the years the RCCS operated the station was the humanitarian role it played in support of the local natives.

The Kazen River Band of Caribou Inuit had traditionally hunted in the general region at Ennadai Lake, but during the winter of 1949-50, disaster struck when the route of the annual caribou migration changed, and the herds by-passed the area. The 45 members of the band were facing starvation by April 1950 when their plight became known to the soldiers of Ennadai. The signallers radioed Churchill for assistance and later arranged for the air evacuation of the band to Neutlin Lake, a hundred miles to the southeast, where game and fish were plentiful. Before the natives could be moved, however, they had to be collected and concentrated at a central pick-up point. The soldiers ranged the area bringing in their starving charges who subsisted on army emergency rations until the aircraft arrived. Had the Ennadai Lake station not been established it is most likely that the whole band would have died of starvation.

By 1951 this group of Inuit had drifted back to their traditional hunting ground. In the interval, the government took steps to provide them with rifles, ammunition, and traps. Rather than relying upon the caribou for their entire subsistence, the people were now able to bring furs into Ennadai where the signallers baled them up and shipped them to the RCMP at Churchill. There the police sold the furs, bought food, ammunition, and supplies with the proceeds and shipped these to Ennadai where they were distributed. This change in the economic base of the Inuit livelihood, from complete dependence upon the caribou to a barter economy based on fur trapping, was probably an undesirable side effect of the changed caribou migration patterns. The alternative: cultural purity—and starvation—was even less acceptable in the middle of the 20th century. Although many of the

so called “benefits” of white society have ultimately proved to be culturally devastating to northern Indigenous peoples, there can be no question that the Ennadai station personnel were on more than one occasion instrumental to the survival of the Kazen Band. Medical services were provided to the best of the detachment’s ability and, in the spring of 1954, the detachment commander nursed the band through a devastating influenza epidemic. Weather conditions precluded a doctor’s landing at the post. Instructions for treatment were radioed to the soldiers who brought their charges through the crisis without a single loss.

The outbreak of the Korean War in 1950, like the war in 1939, put severe demands upon the personnel of the NWT & YRS. By this date the original purpose of the System to provide otherwise unavailable training to army signallers had long since become meaningless. In reality the System was a drain on RCCS resources. Since the beginning of the Second World War, the Corps operated the necessary trades schools to support all their work. Before a man could be usefully employed in the North he had to be highly trained to operate an ever increasing array of complex equipment. It was also necessary to provide additional instruction in meteorological reporting, and in the operation of the diesel generating plants that provided the electricity at many of the more remote locations. Still, the RCCS clung onto the System. They had a job to do and were doing it well, but sometimes it was only possible to keep operating by curtailing services or by placing heavy long term demands on the operators.

The requirements for troops for Korea reduced the System to the point where it was operating with only 75 per cent of its authorized establishment. As the demands of an expanding regular army would take up the recruit signaller output for the foreseeable future, authority was obtained to employ civilians to fill some of the vacancies. Qualified civilians who were willing to live in the North were hard to find. The NWT & YRS position was made even more difficult by the Department of Transport which was expanding its northern radio services and was authorized to pay much higher salaries. Faced with these manpower problems and a steadily increasing volume of radio traffic, the Department of National Defence decided to cut back on some of its stations. Agreement was reached with DoT whereby that Department took over operation of some of the more isolated stations whose sole function was weather reporting. Embarras Lake was turned over in mid-1952 and the others were slated for handover as soon as DoT could hire men to run them. Ennadai Lake went in 1954 and along with it the inevitable

responsibility for the Kazen River Inuit. Wrigley went the following year and Brochet followed in 1956.

In February 1955 construction began on the Distant Early Warning Line. A tremendous airlift was required to support the construction of the western portion of the project in Canada, from Cambridge Bay to the Alaska border. As a result, weather messages, air movement messages, and construction related messages increased dramatically. Three hundred thousand more signals were handled in 1955 than during the previous year, the vast majority of these attributable to the radar construction project. The communications tempo grew with construction activity the following year when a hundred per cent increase in all classes of message traffic was recorded, even though the western part of the construction phase was completed by the end of July. At the beginning of 1957, the DEW Line's own internal radio system came into operation and this relieved much of the remaining pressure from the NWT & YRS. Much to the disgust of many veterans of the RCCS, the civilian firm holding the DEW Line contract offered fabulous salaries by the standards of the times, and hired numerous civilian and military operators away from the NWT & YRS.

That another program would emerge to replace the DEW Line traffic was perhaps inevitable. In 1957, the project was the construction of a new town site for the village of Aklavik. Aklavik, sited in low lying ground in the Mackenzie Delta, was subject to regular floodings and was an unsuitable site for further urban growth which the Department of Northern Affairs and National Resources wished to foster in the area. Accordingly, it was decided to relocate the community to higher ground 35 miles to the east. The new town was named Inuvik in 1958, but during 1957 it went by the more prosaic title of Aklavik East Three. The radio traffic associated with this major construction project was largely responsible for the System recording its all time high of messages passed in one year—3,172,628.

The cost of operating a system that could handle this volume of traffic, however, was proving to be increasingly unacceptable to the Canadian Army. By 1957 this amounted to 1.5 million dollars annually. In 1957 commercial traffic had brought in revenue of 200,000 dollars and had government messages been computed at the commercial rate, another five million dollars would have been realized. Unfortunately, from DND's point of view, all revenues went to the Receiver General of Canada and not to DND. A detailed traffic analysis carried out in 1956 revealed that DoT was the major user of the System, with over ninety per cent of all messages being

concerned with that department's affairs. DND on the other hand, accounted for only four per cent of the total message traffic and most of these related to the internal administration of the System. In an attempt to redress this financial anomaly, DND requested that it either be relieved of responsibility for running the network, or else that costs be shared by DoT. A cabinet decision taken in September 1957 directed that the Army hand over the System to DoT.⁴

Those signallers who were involved with the NWT & YRS for many years regretted the government's decision when it dawned upon them that they were to leave the North and give up control of the System that was so important to northern life for over three decades. The actual handover was done on a station-for-station basis and took over two years to accomplish. In September 1958 the detailed inventories and procedures for handover were complete and Fort McMurray, Alberta joined the DoT net. Before the year ended, Fort Chipewyan, Fort Smith, and Hay River were transferred. By the end of 1959, Dawson and Mayo, the two original stations, and Port Radium and Fort Resolution remained. On 25 March, the last station, Resolution, changed hands and the Northwest Territories & Yukon Radio System quietly vanished from the northern scene.

By all accounts, most northerners were sorry to see them go. At a ceremony held at Yellowknife in November 1959, northerners of all persuasions and backgrounds said their formal good-byes. Letters poured into System Headquarters from airlines, transport companies, mining firms, other departments of government and private individuals, all thanking the RCCS for the work of years and expressing regret that the soldiers were leaving. Their contribution to northern development, northern life, and northern society over the years was not insignificant.

On the whole, the signallers of the NWT & YRS entered fully into the spirit of northern life. They gave much more than basic communications services, which were extremely important in themselves. Signallers acted as postmasters and magistrates. They ran airfields and weather stations. Between 1949 and 1958, when the Canadian Broadcasting Corporation took over the job, signallers voluntarily ran a rebroadcast service of commercial radio programs in the larger communities. Signallers supported search and

⁴ Moir, *History of the Royal Canadian Corps of Signals*, 284. Like most postwar documents, official correspondence relating to the decision to transfer the System to DoT, the arguments used and the army reaction to the decision are not open sources.

rescue operations and vice-regal visits to the North with mobile and efficient communications to the “outside.” Upon occasions they acted as special police constables and, more mundanely, as doctors, nurses and midwives. The Royal Canadian Corps of Signals gave much to the North. The full story of their accomplishments is yet to be chronicled.⁵

The Alaska Highway

When peace came in the summer of 1945, the future of the great wartime highway to Alaska was by no means clear. By the terms of the original international agreement, the United States was committed to maintaining the road for six months after the war’s end at which time it was to be transferred to Canadian control. Canada had the option of incorporating the highway into the national road grid but was not legally committed to do so. The Dominion had the choice of simply abandoning it on the grounds that it was a wartime measure that the return to peace had rendered superfluous. If Canada opted to keep the road in operation it was agreed that there would be no “discriminating conditions in relation to the use of the road as between Canadian and U.S. civilian traffic.”⁶

The singling out of civilian traffic is important. In the original negotiations, the PJBD had recommended certain postwar rights for U.S. military traffic to and from Alaska. The Canadian government had declined to commit itself to the postwar military situation but stated that it was prepared to give due consideration to any future PJBD recommendation on the subject. The matter was dropped from the original agreement. The United States government raised the issue again in March 1943, expressing “a desire to extend the interpretation of the original agreement in regard to postwar military use.”⁷ Canada again declined to do so. Towards the end of 1944, the American government began pressing Canada to agree to take over

⁵ The Royal Canadian Corps of Signals Museum at Vimy Barracks, Kingston, Ontario, holds most of the original documentation produced by the NWT & YRS, including the monthly diaries kept by all station commanders which contain the raw material of a major social history of the Canadian Northwest.

⁶ DHH 348.013 (D1), *U.S. Defence in Canada*, “United States Defence Projects in Northwest Canada,” General Staff Memorandum, 11 July 1945 (henceforth “U.S. Defence Projects”).

⁷ Dziuban, *Military Relations*, 221.

and maintain the highway, but Canada was still considering the proposition in July 1945.⁸

In the interval the Canadian Army in the form of the Royal Canadian Engineers (RCE) entered the debate. The military case was that, if and when the highway was taken over by Canada, it should become an army responsibility. The RCE argued that they could run the system efficiently and at the same time use it as a means of peacetime training for gaining experience “in connection with large scale engineering works.”⁹ Despite all the prophecies of postwar development that had accompanied the construction of the highway during 1942-43, it was still not clear in Canada that the advantages in keeping up the road would have merited the cost. The government’s focus of interest remained the Northwest Staging Route which, it was thought at the time, would develop into a major route of international air traffic in the postwar world. The importance of the highway in supporting airway operations was clearly demonstrated during the war, thus providing an incentive to the government to keep it in operation.

The other side of the coin was American concern over the future security of Alaska. It was evident that the United States did not want to have to embark on another crash construction project if the changing international situation were to produce a new threat to the northern territory. A bill introduced in the United States House of Representatives in the summer of 1945 was interpreted in Ottawa as reflecting the official American position when it called for the creation of a board to be known as the Alaska International Highway Commission. Another American official spoke to the effect that:

A properly controlled air route to Alaska is considered indispensable to the permanent defence of the continent.... The only feasible way to properly provide these necessary items to a controlled airway (i.e, fuel supplies, auxiliary strips, weather stations, etc.) is a highway generally along the same route.¹⁰

⁸ “U.S. Defence Projects.”

⁹ “U.S. Defence Projects.”

¹⁰ Cited in “U.S. Defence Projects.”

It is evident that the United States was prepared to bring considerable pressure to bear on Canada to keep the route open, for the highway was seen in the United States as an important feature in the defence of Alaska. Inasmuch as it was possible to differentiate between national defence and continental defence, the road was not significant to Canada. However, the magnitude of American interest when compared to that of its northern neighbour was such that Canada, in all probability, had little choice but to go along with American wishes. From that point of logic, it was but a short step to give responsibility for the highway to the Canadian Army. There was also a strong precedent for military involvement in the operation of basic northern services in the form of the NWT & YRS.

In October 1945, "the Canadian Army was authorized to take over the maintenance responsibility of the Highway until such time as this responsibility might be assumed by a civilian department."¹¹ The official handover date was fixed for 1 April 1946. In the interval the Canadian Army began to come to terms with the burden it had so willingly taken on. In January and February, advance parties were dispatched to the North to familiarize themselves with the road and to study the American system of maintenance. In Ottawa, staff officers were deciding upon the size of the force that was required and the myriad of other technical problems that had to be shelved prior to the actual change of control. By mid-February, the outline plan for the take-over was complete.

The Alaska Highway became known to the Canadian Army as the Northwest Highway System (NWHS). Arrangements were made to take over American equipment, accommodation facilities, and stores. Contracts were made with civilian agencies to provide needed services. Land leases were renegotiated. It was estimated that the capital cost of just the take-over would be in excess of 5.7 million dollars.¹² The American experience had indicated that it would be wise to permit the troops to bring their families with them to the North, and plans were made to build married quarters in a new suburb on the plateau above the town site of Whitehorse.¹³

¹¹ *DND Report*, 1946, 25.

¹² DHH 112.352 009 (D88), "Financial Policies NW Highway System," Report to CGS by QMG, 13 February 1946; "Minute to Cabinet," 12 January 1946.

¹³ Lieutenant Colonel J. R. B. Jones, "The Alaska Highway," unpublished manuscript, February 1948.

Meanwhile, in the North, the engineer advance party was surveying with some dismay the job that they faced. The senior officer of the group, Lieutenant Colonel J.R.B. Jones, wrote of his first impressions:

We took over a strange unknown ribbon of road covered with snow. We knew the vehicles and equipment left to use were old and worn and needed immediate replacement (they aren't replaced yet). We had no married quarters and I, like most of the army up there, had been home only a few months after 5 or 6 years separation. It looked grim. We read the records of how the rivers rose suddenly in the spring and took out dozens of bridges, we were told of flash floods that spring from mountain slopes to wash out miles of highway. It looked grimmer. We took another look at the old and decrepit road machinery, the tremendous task of sorting out warehouses full of unlisted tools and spare parts, and the way our proposed establishment had been pared down. It looked hopeless.¹⁴

At the time of takeover, the Alaska Highway was still a military road. Civilians wishing to use the route had to show evidence that their trip was necessary and also had to meet certain rigid standards of vehicle serviceability prior to being given a travel permit. In early 1946, the only hotel north of Fort Nelson was at Whitehorse, six hundred miles distant. There was a similar lack of garages and filling stations. The engineers' task was much more complex than just maintaining the 1221.4 miles of highway that lay in Canada. Over 200 miles of access roads leading to the seven emergency landing strips spaced along the highway also had to be kept open, as did the airfields themselves. There was also a requirement to keep open during summer the 120 miles of secondary road from Haines, Alaska to the point where it joined the Alaska Highway at mile 1016. The NWHS troops were also responsible for providing support to RCAF units operating the Northwest Staging Route. This included supplying rations, hauling ground freight, and maintaining vehicles. At Whitehorse, the army provided a wide range of services and utilities, for the use of RCAF and other departments of federal government.¹⁵

¹⁴ Brigadier J. R. B. Jones, "The Contribution of the Armed Forces to the Economy of the Yukon" (Speech to Whitehorse Board of Trade), 12 January 1960.

¹⁵ Jones, "The Alaska Highway."

To do the job, the army was allocated about 670 personnel vacancies, of which 450 were to be filled on a permanent basis by civilian employees.¹⁶ The NWHS Headquarters located at Whitehorse included an operational wing which dealt with bridge and road design and an administrative wing which concerned itself with personnel and logistic services for the system as a whole. Under this headquarters came several units, the most important of which was the Highway Maintenance Establishment (HME). With its headquarters also in Whitehorse, the HME was (as the name indicates) primarily concerned with the actual maintenance of the road. The highway was divided into three sectors, and in each sector, there were static maintenance camps every sixty or seventy miles. The men working in these camps carried out road patrol, grading, and minor repairs. The sector superintendents and the staff of the maintenance camps were all civilian.

Major repairs and construction were initially the responsibility of the Road Maintenance Company, RCE. This military unit had a reconnaissance and survey section as well as a bridging platoon and a road construction platoon. All new construction as well as emergency work beyond the capability of HME fell to this unit. In addition to the operational units, NWHS included a full range of support service units such as ordinance, service corps, electrical and mechanical engineers, medical and dental units, and engineer works. The organization closely resembled that of an independent brigade, with the combat arms being replaced by the units and detachments of the Highway Maintenance Establishment.

During the years that the army operated the NWHS there was an ongoing program of improvement of the road and a similar upgrading of support facilities and accommodation. There was a lot of work to do. The original survey in 1942 was pushed through under the urgency of the moment. In many cases the road simply followed local trails which were admittedly not in the best location. The actual road turned over to Canada was, in fact, only an improved pioneer road, and was a far cry from the high-quality road that the American civil authority had originally planned. Many sections were built over unstable ground and would eventually have to be relocated to avoid sagging, frost boils, slides, and icing areas. Most bridges were of temporary native timber and culverts were built of native unpeeled poles. All

¹⁶ DHH 112.352.000 (D88), "Letter, D.S.D. to D. Org," 17 January 1946.

the buildings were classified as “temporary construction” and were not suitable for long-term use.¹⁷

It is important to note that the system improvement was a gradual process. There was never any question of deploying masses of workers or spending tens of millions of dollars in a crash program to revamp the system. One year some of the wooden trestle bridges might be replaced with concrete pilings: another year might see a ten mile stretch of road relocated to a more suitable location. Gradually, corrugated steel culverts were installed all along the highway. While the existence of the highway fostered a modest amount of economic development and resource exploitation in northern British Columbia and the Yukon, there was no great boom of development as some optimists had forecast when the road was built. The two great northern barriers to development—climate and isolation—again combined to limit the profitability of most enterprises.

Ultimately, the most important result of the military’s running the NWHs was social. In southern Canada, military communities are traditionally self-contained. It was realized that the situation in the Yukon was considerably different from that in the South, and the military shared its resources with the civilian community to a high degree. Military camps in southern Canada usually have their own schools for dependent children but, because the school situation in the town of Whitehorse was so poor, DND funds were diverted to help build a public elementary and high school and a separate (Roman Catholic) school.

Children from the army and RCAF town sites were bussed daily into Whitehorse to the common schools. In addition, the Department of National Defence paid 250 dollars a year for each “military” school child. In the same vein, rather than constructing a military hospital on the base, the available monies were used to help construct a new hospital in Whitehorse. DND shared in the operating costs of the hospital as well as providing key personnel in the operating rooms, laboratories, and X-ray departments. In the area of recreation, military personnel and their dependants were encouraged to participate in and support such varied activities as sports teams, drama clubs, and Scouts.¹⁸

At the small maintenance camps scattered along the highway, the social impact of the “military way of doing things” was even more significant. Each

¹⁷ Major A. B. Yates, “Maintaining the Alaska Highway,” *The Royal Engineers Journal* 58:1 (March 1954).

¹⁸ Jones, “Contribution of the Armed Forces to the Economy of the Yukon.”

camp included a foreman, a mechanic, and from three to five heavy equipment operators. These people—all civilians, usually with their families—lived in modern quarters provided by the army. Each maintenance camp eventually provided the core of a small, balanced community. Private enterprises in the form of gas stations, motels, and restaurants sprang up at maintenance camp sites. These sites were attractive locations for an entrepreneur to locate himself and his family. The army had sited a recovery vehicle and ambulance at each camp, and these were available to the general public in time of emergency. DND built a small school at each camp site if one did not already exist. The territorial government provided the teacher and the facility was used by all the children in the community. Each maintenance camp was provided with a curling rink, a recreation hall, and a schedule of weekly movies. These facilities, so important to combatting the monotony of northern isolation, were open to anybody living in the community.¹⁹

The most important issue relating to the highway during the years that the military operated in the North was the question of paving. The matter arose as early as 1948 when a Department of Transport official observed that on a national scale the highway was only of “limited commercial usefulness.” This factor, coupled with the very high cost of paving such a long road in isolated country, indicated that paving was not practical at the time. The DoT spokesman further stated that it was “very improbable that the task would ever be undertaken except as a defence measure.” DND maintained that paving was not necessary for defence purposes.²⁰ Canada, at the time, anticipated little security threat in the area and the combat capability of the troops of the NWHS was minimal. The army was simply running what was rapidly becoming a commercial highway for the training value it provided to the engineer troops involved. Actually, the unpaved state of the Alaska Highway was not a major factor in limiting its commercial usefulness. The problem lay in the poor quality of the “feeder roads” of Northern Alberta and British Columbia that restricted access to the main highway. It was argued that if the provincial roads could be improved, the commercial use of the Alaska Highway would increase whether it was paved.²¹

Periodically, the United States offered to share in the costs of paving. In July 1958, President Eisenhower and Prime Minister Diefenbaker discussed

¹⁹ Jones, “Contribution of the Armed Forces to the Economy of the Yukon.”

²⁰ *Edmonton Bulletin*, 23 August 1948.

²¹ *Edmonton Bulletin*, 23 August 1948.

the possibility of some sort of joint arrangement but no decision was reached. A bill was introduced in the United States Senate the following year which called for the United States to share costs of paving with Canada and to open negotiations to make the necessary arrangement.²² The extent of American economic involvement in Canadian development had already been criticized by numerous responsible Canadians and any decision to permit the United States to pay for the Alaska Highway remains most impolitic. In any case, the matter never came to the point of formal negotiation. In August 1959, the Minister of National Defence stated in an interview that "Canada has received no firm proposal from the United States on sharing the costs of paving the Canadian section."²³

Over the years the NWHS came to take on a distinct *raison d'être* of its own. Less and less attention was paid to the original reason for army involvement with the highway. The Royal Canadian Engineers increasingly saw the job of maintaining the highway in simple terms of a job that they were given to do and which they took pride in doing well. The HME claimed that the Alaska Highway was the finest road of its type in the world. The frequent articles that appeared in the *Canadian Army Journal* by engineer officers on the subject of the NWHS reflected the job satisfaction that came with involvement with the route. In addition, Whitehorse, where the vast majority of military personnel of the NWHS were stationed, was an extremely popular posting for married soldiers and their families. With year-round road, rail, and air communications, Whitehorse did not suffer from the isolation and monotony that characterize most other northern communities. The organized recreational opportunities, schools, hospitals, and shopping facilities of the community were good by national standards, and the higher cost of living was offset by a special northern allowance. For those families that enjoyed hunting, fishing, camping, and hiking, the Yukon truly was the "sportsman's paradise" of the tourist brochures.

The Department of National Defence, on the other hand, was somewhat less enthused about the NWHS. The main reason for this attitude was the increasingly high cost of maintaining the road and all its elaborate supporting facilities. In 1946 it was thought that the military presence would only be required for a few years, but the soldiers stayed year after year. In 1954, Brooke Claxton announced in the House of Commons that DND and

²² *Windsor Star*, 24 February 1959.

²³ *Montreal Gazette*, 19 August 1959.

the Department of Public Works (DPW) were discussing the advisability of the latter taking over the road. The defence minister observed that the road was “more and more becoming essentially a civilian operation,” and he admitted that it would be “more economical and practical for it to be taken over by the Department of Public Works.”²⁴ In January the following year, when an opposition member inquired if any progress was made on the transfer of the NWHS to some other department, Prime Minister Louis St. Laurent replied that “no such decision has been taken.”²⁵

If the Liberals were lukewarm to the continued involvement of the military with the Alaska Highway, the Progressive Conservatives were bitterly cold to the prospect. When the Diefenbaker government came to power in 1957, George Pearkes, the new Minister of National Defence, began to search for a means of shifting responsibility. He was not particularly successful. In 1959, he stated publicly that any other department could have it for the asking because DND was “anxious to be rid of the responsibility of maintaining the 200-mile Canadian section of the Alaska Highway.” Pearkes reiterated the argument that the road, built as a defence measure during the Second World War, was not now significant from a defence standpoint. He went on to add that increased civilian use of the road had forced DND into spending large sums to maintain it.²⁶

Getting the Department of Public Works to take over the road, however, proved to be a major obstacle. Pearkes changed his views when the Commander of the NWHS reported the following year that the “Minister was kind enough to say that we would probably continue in the job as no other department could do it as well.”²⁷ It was evident, however, that the Army’s responsibility for the Alaska Highway would end sooner or later. To defence planners, the continued maintenance of the Alaska Highway in the interests of national development was seen as being a costly anomaly in DND programs. In October 1963, the Liberal government of Lester B. Pearson decided to withdraw the military from the Alaska Highway.

²⁴ *Debates*, 21 June 1954, 6421.

²⁵ *Debates*, 14 January 1955, 330.

²⁶ *Montreal Gazette*, 19 August 1959.

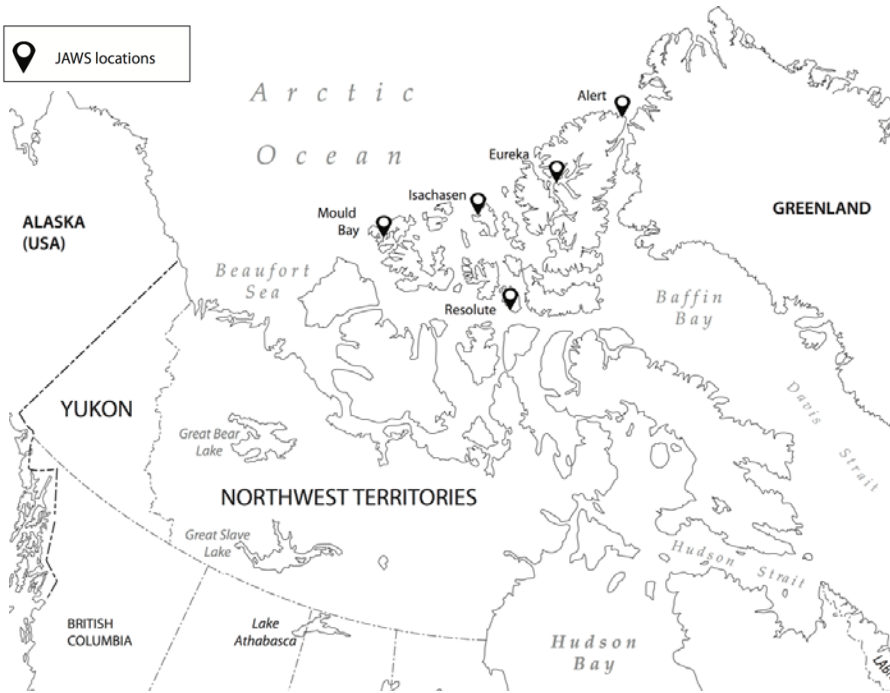
²⁷ Jones, “Contribution of the Armed Forces to the Economy of the Yukon.”

The Joint Canadian-United States Arctic Weather Station (JAWS) Program

Immediately following the end of the Second World War, the United States began to consider the possibility of establishing a chain of weather stations in the High Arctic. Congressional approval for such a project was obtained in February 1946 and the United States government immediately approached Denmark and Canada to obtain their concurrence. The Danes quickly agreed to the establishment of a meteorological site at Thule, Greenland. Canada had a long hard look at the program prior to agreeing to support it in early 1947. In the interval, the United States had set about establishing the Thule base and the USAAF, with Canadian approval, had undertaken aerial reconnaissance in the high reaches of the Canadian Arctic in search of likely sites, with RCAF aircraft participating in the search.²⁸

Over the next three years, ships of the United States Navy and Coast Guard, as well as aircraft of the United States Air Force, established weather stations manned by Canadian and American civilian meteorologists at Resolute Bay on Cornwallis Island, Mould Bay on Prince Patrick, Isachsen on Ellef Ringnes, and Eureka on Ellesmere. The RCAF began to participate in the program in 1950 when the last and most northerly station was established at Alert on the northern tip of Ellesmere Island. Operating out of the American base at Thule, USAAF and RCAF aircraft flew in all the necessary materials to put the Alert station in operation by early summer. In the early years of the JAWS stations' operation, the military establishments of both countries shared the re-supply duties, with the United States bearing the lion's share of the burden. Summer sea supply (for those stations that could be reached by ship) was the responsibility of a United States Navy task group, supported by RCAF ice reconnaissance aircraft. Aerial annual re-supply was shared by both air forces, as were regular flights for mail delivery,

²⁸ DHH 75/50, Royal Canadian Air Force Operations in the Arctic Islands, undated monograph, c.1948.



emergency medical evacuation, and delivery of perishable items.²⁹ The RCAF established a small unit at Resolute Bay in 1949 to control air operations in the High Arctic, the airstrip there having been built in 1947 by personnel of the JAWS station and later improved upon by United States Army Engineers.³⁰

The JAWS sites were not built exclusively for meteorological studies. They were also designed and sited to provide a base for magnetic and geophysical studies and other scientific research projects. The station airstrips and the associated equipment also provided more air navigational aids and emergency landing fields in support of flying in the Far North. During the first five years of the JAWS operation, the RCAF frequently provided transportation for visiting scientists using the JAWS sites as base camps. From 1949-51 the National Museum of Canada worked out of

²⁹ Meteorological Division—Department of Transport—Canada; U.S. Weather Bureau—Department of Commerce—United States, *Joint Canadian-United States Arctic Weather Station Programme: A Review of the Establishment and Operation of the Joint Arctic Weather Stations: 1946-1951* (n.d. 1951?).

³⁰ R. W. Rae, "Arctic Experiences or Life Begins at Forty Below," *Journal of the Royal Meteorological Society, Canadian Branch* 1:2 (February 1950): 1.

Resolute, Mould Bay, and Alert doing archaeological studies and zoological collection. The RCAF ferried the researchers to and from the sites for the entire program. Similar support was provided to the Department of Agriculture for its “Northern Insect Survey” of 1949 and 1951, a task shared with the USAF. The USAF alone provided transportation for a geographical study at Eureka in 1951.

This general pattern of the RCAF providing transportation to remote northern centers for researchers from other government departments and even universities continued throughout the ensuing decade. By the 1960s, however, commercial aviation companies operating on a scheduled and charter basis had established themselves in the High North. It has always been politically unacceptable in Canada to permit the Department of National Defence to engage in national development work when civil departments or private enterprises were in a position to fill the need. The RCAF withdrew from the private transportation business in the Arctic. By the 1970s, ice reconnaissance flights, mapping operations, regular service to the DEW Line sites, and what had become “Canadianized” High Arctic Weather Stations were all in the hands of commercial aviation companies.

Mapping the North

In 1919, a Canadian government committee reported that to map the whole country would cost 180 thousand million dollars and take 3,600 years. The actual job was completed in the year of Canada’s centennial at considerably less cost.³¹ Aviation applied to mapping made the difference. A program to provide aeronautical charts on a scale of eight miles to the inch, and sixteen miles to the inch (1: 1,000,000) was initiated in 1944 and continued into the 1950s. This project was further modified in 1947 when the Cabinet Defence Committee assigned the Department of National Defence and the Department of Mines and Resources the project of mapping all of Canada on a four mile to the inch (1:250,000) scale. Again war-inspired technology was to play an important part in the peacetime development of the Canadian North. In addition to long-range aircraft, wartime needs had nurtured the development of wide-angle aerial photography, stereo modelling, and Shoran (short-range navigation)—a navigational aid for bombing that turned out to be an ideal means of fixing control points for mapping. The mapping of all of Canada, and particularly the North, became

³¹ R. C. McNeill, “Putting Canada on the Map,” *Sentinel* 6:3 (March 1970): 16.

a major peacetime project for the Army and Air Force. The RCAF took about 75 per cent of all the aerial photographs required and provided air support to the Army Survey Establishment, which surveyed the entire Western Arctic in the process of turning out one-third of the required maps.³²

The two traditional northern constraints, distance and climate, played their usual part in creating difficulties for the map makers. Only Whitehorse, Norman Wells, Yellowknife, Churchill, and Frobisher Bay had landing strips that could accommodate the four-engined Lancaster aircraft of 408 (P) Squadron. Fuel for aircraft operating at the rate the squadron did during operations could only be pre-positioned economically if it were brought in by surface delivery. This necessitated planning months or years in advance. An emergency such as the search for a lost commercial pilot out of Whitehorse in 1951 used up 75,000 gallons of gasoline and disrupted the year's program.

Photo mapping operations could only be started when the snow cover had receded enough to permit the aircrews to identify geographical features. It was discovered that late May and June—the period between the departure of the snow and the departure of the ice—were the best times for operation. With open water came clouds: cumulus over the mainland and stratus amongst the islands of the archipelago. The northern weather stations proved to be an invaluable aid in locating areas that were free of cloud, but it was not uncommon for an aircraft to range as far as seven hundred miles from its base to find an area suitable for photographic work. Once the aircraft arrived in the area, however, it faced the usual problem of locating itself exactly, a task made doubly difficult by the myriads of lakes and rivers in the North, the lack of distinct land marks, and inaccuracies in the preliminary survey charts. In addition to air photographs, it was necessary to install, maintain, and extract work parties at each of the many Shoran sites that were required for control purposes. The usual procedure was for an amphibious aircraft to fly the party into the nearest suitable body of water from whence they would man pack their equipment onto the selected height of land where “they remained like bearded eagles for the summer.”³³

By the end of 1967 the task was completed. The entire project included a total of 925 map sheets. About one-third of the country was also covered in the 1:50,000 scale, the standard scale of military tactical maps. At this point

³² B. W. Waugh, “Arctic Mapping,” *Sentinel* 6:3 (March 1970): 44.

³³ McNeill, “Putting Canada on the Map,” 19.

the responsibility to meet national map requirements was removed from DND and given exclusively to the Department of Energy, Mines and Resources. Civilian aviation companies on contract now provide aerial photography for mapping purposes. The Canadian Armed Forces retained a Mapping and Charting Establishment, but their responsibilities were limited to providing maps for specific military requirements.

The mapping of the North carried out by the Royal Canadian Air Force and the Royal Canadian Engineers between 1947 and 1967 provides a classic example of the military establishment in peacetime undertaking projects of national development that required skills relative to military operations. When the state of the art developed to the point where a civil branch of government could take over, and when future operations could be carried on as profitable but still reasonably economical ventures, the military gave up the role and moved on to other fields. It is almost axiomatic that if a nation wishes to claim a land, protect it, develop it, and conserve it, just where those lands are and what they consist of must be known. One of the first steps in such a process is accurate mapping. The Canadian military establishment left their southern bases annually, came into the North, did the job and departed. That it took the better part of a century to even get around to the task and twenty years to finish it emphasizes only further the vastness and remoteness of the Canadian North. There are undoubtedly still thousands of lakes, hills, and streams that show on the maps of the North that have never been physically visited by a human being. We only know that they are there because a few years ago, an RCAF aircraft flew over them and took a photograph which later became the basis of a map.

Military Aviation in the North

For the air force, the postwar North did not represent a potential aerial battleground. The Canadian decision not to develop nuclear weapons immediately eliminated the RCAF from the arena of strategic bombing. Those aviation writers who, in the mid-1940s, envisioned chains of interceptor bases strung across the high latitudes proved to be widely off the mark as to what was necessary or what was even feasible. At the height of the Cold War and the threat of the manned bomber, the North provided useful tactical depth for the purposes of early warning and delineation of lines of attack. Since there were no strategic targets in the North that required point or area defence as provided by fighter aircraft, Canada was content to deploy its air defence forces south of the 55th parallel of latitude. (The United States,

on the other hand, stationed substantial interceptor units in Alaska and at Thule, Greenland.)

The Royal Canadian Air Force's "polar passion" manifested itself in a wide range of air support operations. In doing so, the RCAF, and later the various air elements of the unified Canadian Forces, played an important role in northern development. Flying activities were undertaken in support of other elements of the armed forces, for defence research projects, and for other branches of government. On occasion, non-governmental activities were supported with military air resources when it was not possible to obtain commercial services. Of the three services, the air force during the postwar period developed the closest ties with its counterpart American service. Numerous missions were undertaken in support of USAF projects or were attempted on a joint basis. In recent years, for nationalistic reasons, Canada has been more inclined to avoid these co-operative ventures than in the immediate postwar years. The main pattern that characterizes the extensive air force involvement in the North is that aircraft operate in northern regions for periods up to several months, but these detachments have all been temporary. Support personnel and equipment, on the other hand, were stationed permanently in the North to facilitate ongoing operations.

In 1946, the specific future requirements for RCAF activity in the Arctic were unclear. As a result, the air force undertook a program to learn as much about the area as possible. Canada was not the only nation showing an intense interest in polar regions and the potential of transpolar aviation. In addition to using RCAF aircraft, Canadian air force officers flew as crew members and observers on several British and American exploratory flights. The general theme of most of the military aviation in the Arctic during this year was the establishment of the basis for future operations, whatever that might encompass.

The USAF was particularly concerned with the problems associated with aerial navigation in high latitudes and, with Canadian co-operation, conducted a series of long-range flights throughout the Arctic in late winter and spring. Three B-29 bombers were modified for long-range operations: all armaments were removed, and auxiliary fuel tanks were fitted into the bomb bays. Most of the flights were connected with experimental work relating to LORAN which was installed in Canada to support Exercise Musk Ox. Flying out of Edmonton and Fairbanks, the aircraft (some with RCAF crew members) made dozens of sorties over the Arctic Archipelago and ventured as far north as the pole itself. In addition to the data gathered in

support of the LORAN program, “the navigators of the detachment began accumulating data that would assist future flying operations.”³⁴

It appears *An Aerial Reconnaissance of Arctic North America*, the aviators’ handbook which was eventually produced from the detachment’s efforts, was a self-generated project. The aircrews had quickly realized that the problems of polar flying were much greater than had originally been anticipated. Inaccurate mapping, unreliable magnetic compasses, and fragmentary weather forecasts all combined to produce a navigator’s nightmare in a hostile land. The *Arctic Pilot* produced by the Admiralty was drawn up to aid surface navigators in the North; Keith Greenaway and Sidney Colthorpe set out to produce the aviator’s equivalent. These American and British air expeditions are interesting because they showed the feasibility of long-range aviation around the pole.³⁵ It must be remembered that both types of aircraft were extensively modified, having ranges in excess of 5,000 miles and the ability to stay aloft more than twenty hours.

Trans-polar operations were one thing; flights within the Arctic Archipelago were another. In 1946, the RCAF undertook an adventurous flight program within the Western Arctic. Operation Investigator sent a Canso Amphibian and two single-engined Norsemen on floats, with a total crew of eleven men, into the Arctic to locate, examine, and report on suitable air bases for float- and ski-based aircraft. Investigator marks the first occasion that the RCAF made a conscious effort to obtain some flying experience and an understanding of flying conditions in the areas of Banks and Victoria Islands and the Boothia Peninsula. During the summer months of July and August, the three aircraft ranged far and wide over the western Arctic. They saw herds of caribou that they estimated to number in the millions, overflew and marvelled at pingos in the Mackenzie Delta, met Inuit who had travelled with Stefansson, and located mysterious and abandoned settlements and boats.³⁶ Reading their report, one gets the impression that they had a marvellous time.

In 1947, the RCAF began a program in co-operation with the Department of Mines and Resources to carry out a magnetic survey of the

³⁴ K. R. Greenaway and S. E. Colthorpe, *An Aerial Reconnaissance of Arctic North America* (Ottawa: King’s Printer, 1948), xi.

³⁵ R. H. Winfield, “The Royal Air Force North Polar Research Flights, 1945,” *Polar Record* 5:33/34 (1947): 12.

³⁶ DHH 75/35, A. H. Warren, “Operation Investigator.”

North to locate precisely the magnetic pole.³⁷ The operation was a definite success. Both the pilot and the navigator of the Canso flying boat were decorated for the skills that they displayed in flying about the pole. The program continued with RCAF support in subsequent years.

Aerial navigation in the Arctic was a precarious activity at the best of times. The hostile environment, coupled with direction-keeping problems associated with the proximity of the magnetic pole and the paucity of support facilities, made northern flying a demanding profession. The scarcity of navigational aids was another negative factor. Thus, Operation Beetle, a joint Canadian-American plan to install a LORAN low frequency beacon system in the Arctic, was received with enthusiasm by the RCAF when it appeared in 1946.

Operation Beetle³⁸ is of interest to this study for several reasons. First, it was typical of the joint Canadian-American projects being undertaken by the military in the North at the time in many ways. Second, it underlined the complexity of northern operations. Despite the experience of the Northwest and Northeast staging routes, the problems encountered, particularly in the construction phase, underlined that lessons of the past were not widely known and that the full magnitude of the northern problem was not well understood. Third, there were many delays in the construction phase attributable not only to lack of basic data about the area of operations, but also to the absence of detailed planning and co-ordination between all agencies involved. Fourth, RCAF documents do not reveal any consideration being made of the utility of the system for the purpose of domestic civilian flying. On the other hand, the potential to civilian aviation having the proper equipment to utilize the facility is obvious. In a wider sense, the stations came to play a significant role in the northern infrastructure.

³⁷ RCAF, Directorate of Public Relations, Release no. 7218 (held in DInfo Morgue).

³⁸ Documents on Operation Beetle are fragmentary. In the main they consist of a jigsaw puzzle-like collection of messages, operation orders, administrative instructions and memoranda, collected in two file folders held in DHH *North West Air Command-Operation "Beetle,"* 181-009 (D6561 and D6556). A minor supplementary source exists in the form of the *Operations Record Book* of the three stations: 214 RCAF (LF) Loran (Monitoring) Unit Sawmill Bay, NWT; 5 RCAF (LF) Loran (Slave) Unit, Cambridge Bay, NWT; and 4 RCAF (LF) Loran (Master) Unit, Kittigazuit, NWT. All subsequent references to Operation Beetle are from one or more of the above-mentioned sources.

The project required a total of four stations—one on the Alaskan coast and three in Canada. In selecting sites to install the stations, technical requirements of the LORAN equipment had to be weighed against terrain and accessibility. The reconnaissance flight took over two weeks, held up by the seemingly inevitable weather delays and aircraft unserviceability. Eventually, Cambridge Bay on the south coast of Victoria Island was selected as the site of the master unit. A secondary, or slave unit, was to be built at Kittigazuit in the Mackenzie Delta. No suitable site on the Arctic coast could be found for the monitoring station which would keep the signals from the other stations in phase, so the reconnaissance party selected Sawmill Bay on the southeast corner of Great Bear Lake for the third site.

The construction of the stations in the Mackenzie presented no problem since the sites were on relatively well-established northern inland water routes. Cambridge Bay, however, was well beyond the northern frontier and the tremendous problems that were encountered in its construction (despite the military's surprise at the difficulty) were typical. The first step was to transport the 1,500 tons of equipment to the site. All the stores had to be moved by air because no commercial carrier was willing or able to undertake a sea transport contract during the brief summer shipping season.

Cambridge Bay, however, had no airfield. Before movement of construction material could begin, a light ski-equipped aircraft had to fly in and a ground party had to mark out a suitable ice landing strip for a C47 Dakota to land. The Dakota flew in a small bulldozer to improve the ice strip to make it capable of accepting the heavy C54 aircraft of the USAAF assigned to move the equipment. Storms and a breakdown of the bulldozer lengthened this relatively minor task, which took most of April to complete.

The assembly of material had to be completed before break-up in mid-June rendered the airstrip unusable. The isolation of the site and the inexperience of the construction crew in working in the Arctic environment combined to stretch out the construction phase to almost the last minute. Several cases of snow blindness occurred. The troops did not know how to live comfortably in tents, so the main flow of aircraft had to be halted while pre-fabricated barracks were flown in. When the RCAF flew in two heavier bulldozers to assist in airfield maintenance, the equipment remained idle until a specialist able to assemble it was located in southern Canada and flown into the Arctic to do the job. It was not until October 1946 that the Beetle LORAN system became operational.

The command and control arrangements in this international military venture are of interest. The functional and administrative commander of the system was the Canadian Air Officer Commanding, North West Air Command with headquarters at Edmonton, Alberta. On the sites, the situation was somewhat more complex. Command of the station was vested in an RCAF officer, but the technical control was held by the Senior United States Technical Officer. United States military and civilian personnel at the units were required to “conform to rules, regulations and instructions as issued by the commanding officer, but came under their appropriate service or civilian authority for purposes of discipline.”

Such a dual system could not have worked without a real spirit of cooperation between Canadian and American forces. Difficulties tended to be minor and easily smoothed over. Canadian commanders complained that the USAF specialist tradesmen were initially extremely reluctant to undertake routine housekeeping chores about the station. In the absence of general duties personnel to fuel stoves, chop ice, and carry out garbage, it was inevitable that all personnel would have to participate. It was reported that the USAF tradesmen quickly saw the logic of the housekeeping needs.

The on-site situation catered to Canadian sensibilities on the issue of sovereignty. In this joint undertaking, bases located in Canada were to be commanded by Canadians. The Canadian command element was more symbolic than a military necessity. During the two years that the system was jointly operated Canadian station commanders often complained of a tendency on the part of visiting American senior officers to ignore the Canadian station commander and to go directly to the American technical chief. This phenomenon may be partially attributable to the fact that visiting officers were usually on a technical inspection and hence their interest would primarily lie with the LORAN operation itself. On the other hand, the blithe assumption by individual American servicemen in the late 1940s and 1950s that the Canadian Arctic was really the American Arctic was a common occurrence in the North.

The Beetle system was not destined to have a long life. Canada, as planned, took over full operation of the system in October 1948. Two months later the usefulness of the entire network was seriously questioned. An extensive test program that continued until the spring of 1949 revealed that due to errors in the siting of stations and the low power of the equipment, “the operational usefulness of Beetle was deemed as nil.” Most of the staff and technical equipment was removed immediately. A few people

were left at each station as “housekeepers” awaiting a final decision on the future of the stations. On February 1950, the decision was made to close out all the stations completely. Kittigazuit and Sawmill Bay were abandoned outright, the local RCMP agreeing to drop in occasionally to check on the security of the remaining buildings and stores. The Cambridge Bay facility was turned over to the Department of Transport for use as a weather station.

The role played by these stations during their brief three years of operation remains to be examined. Although nothing was made of it at the time, unit historical reports and war diaries reveal that the station did much more than simply send out or monitor a LORAN signal. The facilities available at the station were used by other elements of the armed forces for staging purposes, by other departments of the federal government, by private companies and individuals, and to a certain degree by local natives. The existence of a support facility often made other unrelated development-oriented activities possible. The Cambridge Bay site was co-located with an RCMP detachment and a Hudson’s Bay Company store that served the needs of the semi-nomadic Inuit of Queen Maud Gulf. While Kittigazuit was isolated, it was only a relatively short distance from the Beaufort Sea Inuit community of Tuktoyaktuk. Sawmill Bay existed in solitary splendor.

Native Training Programs

The subject of northern education is vast, complex, and contentious. By the late 1950s, the government had replaced the church as the agency with prime responsibility for northern education, and the Education Division of the Department of Indian Affairs and Northern Development (DIAND) developed a comprehensive program of elementary, secondary, and vocational training. In some instances, there was a requirement for special training that was not available through the regular school system. In many such cases, DIAND turned to the Department of National Defence for assistance.

When a government program of building community airstrips and roads began in the Eastern Arctic, the Royal Canadian School of Military Engineering was contracted to run a special heavy equipment operators course for thirty Inuit who later returned to their own communities for wage employment. When diesel-electric generators began to be installed in northern communities, DIAND reasoned that the operation, servicing, and maintenance of these plants could well be turned over to local residents, rather than having to import a technician from the South. Accordingly, the

Royal Canadian Electrical and Mechanical Engineering School undertook to provide the necessary training. Over a period of three years, ninety Inuit attended the special four-month long courses the Army ran. The growing bureaucracy of the North created a demand for qualified clerical workers. The Army again responded and ran a three-month course at the Royal Canadian Army Service Corps School for ten Inuit men. All candidates, it was reported, found employment in offices when they returned to the North.

The Army was not the only service involved with training native northerners in modern skills. The Royal Canadian Navy ran a series of special courses on both coasts in response to DIAND requests. A half dozen Inuit were trained as marine engineers at HMC Dockyard at Halifax in preparation for employment on ships of the Canadian Coast Guard. On the west coast, fourteen Inuit in the process of purchasing modern fishing boats were given training in the maintenance and repair of their vessels. A further two dozen received a course in boat building and repair from the RCN prior to establishing their own boat-building business in Inuvik.³⁹

There are indications that running these courses were not particularly simple tasks for the military. The standard military course had to be modified to meet the specific needs and background of Inuit candidates. Demonstrations of techniques had to be letter perfect or else, it was discovered, the students tended to copy errors of procedure. Instructors at the Electrical and Mechanical Engineering School teaching generator maintenance were somewhat dismayed when they discovered the Inuit cultural characteristic of youth yielding to the authority of age. On the first course that the school ran, it was discovered that only a few of the candidates had what the military would term the acceptable minimum technical background for the course. Two of the students were illiterate and most of the others had only previously worked as manual labourers.⁴⁰ Still, the military and their students persisted and the DND training program was a success. DIAND only used the military facilities for a relatively short period. By the late 1960s trades training schools were fully developed in and for the North and there was no longer any need to call on the military. In short, in the early days the military did the work. When adequate civil facilities were developed at a later date, DND withdrew from the project.

³⁹ Eleanor A. Ellis, "Education of the Eskimo for Wage Employment," *Canadian Geographical Journal* 73:5 (November 1966): 152-3.

⁴⁰ R. H. Lee, "Army Trains Eskimos," *Canadian Army Journal* 14:4 (Fall 1960): 218-32.

Northern “Garrison Towns”

The general withdrawal of the military from the North in the early 1960s had an inevitable impact upon those communities where sizable military bases were established to support various northern programs. The two main “garrison towns” of the North—Whitehorse and Churchill—were the hardest hit in the withdrawal process, although a host of smaller RCAF stations ceased operation in the same time frame. Frobisher Bay was operated by the RCAF between 1950 and 1956 when it was turned over to the Department of Transport. During the 1959-1963 period of Strategic Air Command operations there was a small RCAF detachment at the settlement, but this closed when the Americans left. Resolute Bay was manned by an RCAF detachment starting in 1951 that provided flying support for RCAF for northern operations. It too was turned over to DoT in 1964.

Churchill was probably the hardest hit by the military re-posturing of the 1960s. In 1946, DND established a Combined Experimental and Training Station near the site of the Crimson airbase built during the Second World War. All three Canadian services, the Defence Research Board (DRB), and the United States Army eventually established detachments at Churchill to support Arctic training, equipment trials, and research. The military population in the area further increased during the 1961-63 period when the Strategic Air Command (SAC) tankers operated from the base. Fort Churchill, as the military base was designated to distinguish it from the town site some four miles distant, was selected as Canada’s main northern base in 1946 for various reasons. The most important of these recognized the vital necessity of accessibility in the North. Churchill offered year-round rail access, an airstrip, and a deep-water port during the summer shipping season. In addition, from a military training point of view, it offered both bush land and barren ground terrain in which to train.

The Canadian Army ran the Churchill base and provided support for the other military branches located there. Operationally, the site was the northern center of army-sponsored environmental studies, operational research development, and combat and survival training. The RCAF ran the airfield facility except for the meteorological facilities and the radio range which were handled by DoT. Air force northern experimental projects and operational training were carried out from the base which also had an air search and rescue role. The Royal Canadian Navy’s activities were limited to

a radio facility which did communications research.⁴¹ The DRB ran a Northern Laboratory within the base complex and undertook numerous small projects, all contributing to the major role of the laboratory “to solve ... problems which are encountered by the forces whilst fighting and surviving in the north.” The research board was concerned with the effects of the Arctic environment on the performance of personnel and materials in the field.⁴² The small United States Army detachment carried out engineering tests of all types of material and equipment under Arctic conditions. The section functioned as a lodger unit at Fort Churchill and drew support services from the Canadian Army on a cost recoverable basis.

This wide range of activities led to the build up of a garrison at Fort Churchill of over 600 military personnel, many of whom were married and had their families with them. Over one hundred Americans with the SAC squadron added their numbers to the group during 1959-1963. The total population of the military base was approximately 3,000, including dependants and 450 civilian employees. It was reported that the base was a close-knit community and was virtually self-contained, having its own churches, schools, social groups, athletic facilities, banks, and all the commercial shops that one might expect to find in a community of that size.⁴³ No studies have been undertaken to determine the economic, cultural, and social impact of the Fort Churchill facility upon the civilian community. To a large extent, contacts between the two communities were limited, although there undoubtedly would have been a certain economic multiplier effect falling to the town site from the military’s presence.

In 1964, the Canadian Army and the Royal Canadian Air Force ceased to operate the Fort Churchill facility. Housekeeping responsibilities for the base itself were transferred to the Department of Public Works, while the Department of Transport took over the entire airfield works. This change of responsibilities did not go unnoticed in the House of Commons. In October of the previous year when rumours began to circulate that the base might be closed, Robert Simpson, the MP for Churchill, had asked the Minister of National Defence Paul Hellyer for information, his primary concern being

⁴¹ DND (Army) Department of Public Relations, “Fort Churchill Round Up,” February 1956 (held in DInfo morgue).

⁴² A. M. Pennie, “Defence Research Northern Laboratory,” *Canadian Army Journal* 10:1 (January 1956): 478.

⁴³ *Regina Leader Post*, 11 February 1957.

for the jobs of the civilian employees.⁴⁴ In December, the Minister officially announced the closing, a decision that drew sharp criticism from the Conservative opposition. Simpson continued to focus on the importance of the garrison to the total life of the community, stating that Manitoba was shocked by the decision and asked for reconsideration on the grounds that sufficient allowance had not been made for the economic, cultural, social, and medical impact of the closing on the local community. Douglas Harkness, a former defence minister, dealt more with the purely military aspects of the change, claiming that the move might well herald the end of cold weather training and research. Lucien Cardin, the Associate Minister, countered by saying that only the administrative garrison was being withdrawn and that both the army and the air force would continue to use Churchill as an advanced staging base for operations and exercises in defence of the Eastern Arctic, drawing the necessary support from the departments that were taking over the base.⁴⁵

At almost the same time as it was announced that the Churchill base would be closed, the decision was finally made to transfer responsibility for the Alaska Highway to the Department of Public Works. Eric Nielson, the MP for Yukon, reacted in much the same manner as his Churchill colleague. He expressed concern over the effect of the withdrawal on the civilian employees. Overall, however, there was little Conservative opposition to the move; indeed, they had considered it themselves when they were in office. Harkness heralded the army's withdrawal as being "long overdue." Nielson, while not arguing against the logic of the transfer of responsibilities, expressed regret at the impending loss of the military community because of its traditional social, economic, and personal contribution to the Yukon.⁴⁶ Not everybody was sorry to see the army go. To many northwestern businessmen, the paving of the highway was a long-standing development objective. It was generally accepted that if the Department of National Defence continued to run the system, that this would not be done. The mayor of Dawson Creek claimed that the transfer was "an important step towards paving the route."⁴⁷

⁴⁴ *Debates*, 14 October 1963, 3526.

⁴⁵ *Debates*, 14 October 1963, 5456, 5483, 5526, 5577, 5578.

⁴⁶ *Debates*, 14 October 1963, 5-6 December 1963, 5483, 5551.

⁴⁷ *Edmonton Journal*, 26 October 1963. The transfer of responsibility for the road, in the final analysis, had little impact on the basic economic factors relating to highway paving. In 1980, the route is still unpaved.

The withdrawal of several hundred troops and their families from Whitehorse did not have the same effect on the community as did the departure of a similar sized group from Churchill. The maintenance of the Alaska Highway was an ongoing commitment of the Canadian government, no matter which department administered the facility. The civilian maintenance workers' jobs remained secure, and many new administrative appointments, formerly held by soldiers, were thrown open to civilians. In addition to the phased withdrawal of the garrison, the economic boom of mineral development that the Yukon was enjoying in the mid-1960s did much to soften the economic blow to Whitehorse.

After 1964, except for the small detachments at each of the four DEW Line main sites, the only continuing military presence in the North was in the form of five supplementary radio stations at Churchill, Whitehorse, Frobisher, Inuvik, and Alert. These stations were established in the 1950s for the stated purpose of carrying out communications research in the North.⁴⁸ During 1967-68 it was decided to close out the first three of these stations. Unlike the transfer of responsibility for the NWHS or the NWT & YRS to another branch of government, the closing of these stations marked the end of a program and the absolute loss of population to the communities affected.

The closing out of the Churchill radio station saw a hundred servicemen and their families, a total of 250 people, leave for the South. In the process Churchill lost its only dentist in the person of the base dental officer.⁴⁹ In 1967-68, the RCAF followed the army in its exodus from Whitehorse. The Whitehorse airfield was run by the Department of Transport since 1964; those RCAF members who had remained in Whitehorse were employed at a communications research facility similar to the RCN's establishment at Churchill. There were 225 service personnel who, with their families, numbered about 800. In addition, the station had permanently employed approximately seventy civilians, most of whom were married. To the community of Whitehorse, the closing of the station was a serious blow. The Yukon Research and Development Institute commented that "the air force

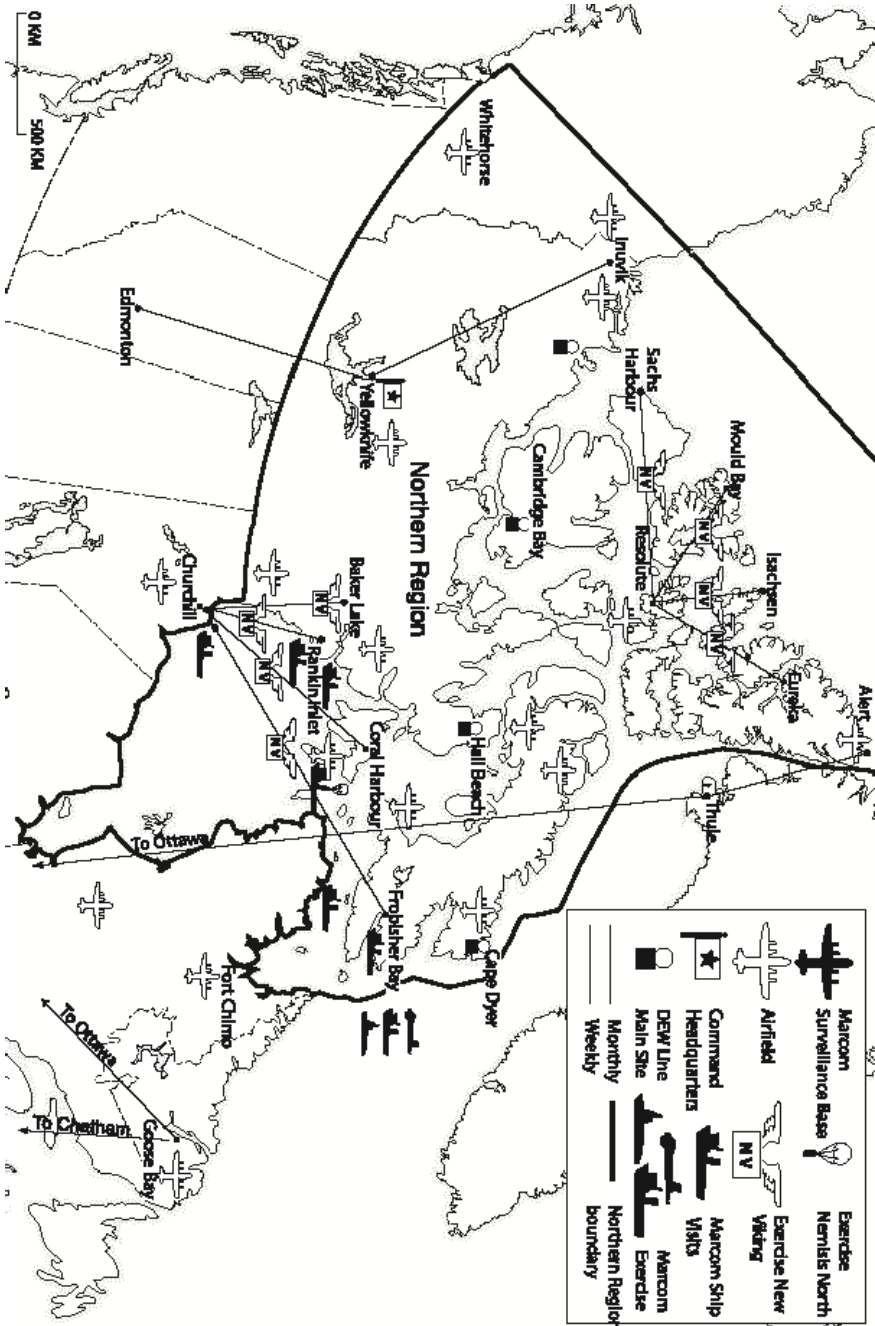
⁴⁸ The Department of National Defence has never released any details on the exact nature of the work by the Supplementary Radio System beyond stating that some of the equipment used is "classified." I have arbitrarily excluded the Supplementary Radio System in the North from this study.

⁴⁹ *Winnipeg Free Press*, 13 September 1966.

departure will be felt in sports activities, social events, and will limit the number of woman workers and part time help available here.”⁵⁰

This statement underlines the impact of the loss of a major industry in any small town. The pure financial loss of jobs and local purchases represents only the tip of the iceberg. The economic multiplier effect of a reduced population, the loss of military dependants from the work force, and the weakening of local cultural, social, and recreational organizations all combined to create a severe stress on the community. In the isolation of the North, this effect may be even more acute than it is in the more developed regions of the country. Certainly, the subject merits further study.

⁵⁰ *Whitehorse Star*, 29 August 1966.



10

RESURGENCE

The Military in the Contemporary North

The surge of enthusiasm and interest that characterized military involvement in the Canadian North after the end of the Second World War did not last. Starting in the late 1950s and extending well into the mid-1960s, developing technology and changing national priorities combined to reduce military activity in the region. The process of withdrawal began under the Conservative administration of John Diefenbaker, the leader with the “Northern Vision”:

A Canada of the North. This is the Vision. Canadians realize your Opportunities! This is the message I give you, my fellow Canadians. Not one of defeatism. Jobs. Jobs for hundreds of thousands of Canadians. A new Vision! A new hope! A new soul for Canada!¹

Diefenbaker’s vision remained just that. The few “roads to resources” that were started were either never finished or took decades to complete. The North did not come alive with domed cities, nuclear power generators, and hundreds of thousands of Canadians working in resource industries. In his vision of a developed North, Diefenbaker saw no place for the military either as a protector or as a builder. Defence policy during the 1956-1963 timeframe that has come to be known in Canada as the Diefenbaker Years was dominated by the three “Ns” of NORAD, NATO, and nuclear weapons.

Lester Pearson’s Liberal administration during the following five years completed the process of withdrawal. The 1964 *White Paper on Defence* that charted Canadian defence policy for the Pearson years emphasized internal change within the military establishment. This led first to integration and

¹ Quoted in Gerald Clark, *Canada: The Uneasy Neighbour* (Toronto: University of Toronto Press, 1965), 337.

later to unification of the armed forces, absorbing much of the time and energy of Canada's military leaders.

By 1965, military activity and presence in the North had sunk to a postwar low. No naval ships plied the northern waters. The air force had given up its periodic reconnaissance and surveillance flights over the Arctic Archipelago and Basin the previous year. No northern exercises were undertaken by land combat units. No long- or even short-term national development projects occupied military signallers or engineers. The aerial tanker squadrons of the United States Strategic Air Command were gone. The only military personnel to be found in the North were the handful of airmen at the four DEW Line main sites keeping the long polar watch, and the communications research specialists manning the supplementary radio station at Inuvik and Alert. The occasional RCAF cargo aircraft made a resupply trip to the Arctic Weather Stations or the radio sites. Beyond that, the military was gone, and so it remained for four years.

The withdrawal of the military from the North generated little remark from the Canadian public. What comment there was tended to focus on the national development role formerly filled by troops. In the House of Commons in 1964, Opposition member Haber Smith argued against the government's decision to withdraw military forces from Whitehorse and Churchill. Since the services provided by the military would have to be taken over by some civil department of government, Smith felt that any saving in the defence budget would be chimerical.² Another Opposition member, James Ormiston, claimed that there was a lot to be gained in terms of defence capability by having DND run certain public facilities in the North.³ In point of fact, total national interest in the North waned during this period. It was one thing to make brave statements about "last frontiers" and "Canada's northern destiny"; it was another actually to confront the associated hard economic realities. There was no major economic development to speak of; and shipping remained local and limited.

The 1968 federal election returned the Liberals, now led by Pierre Elliott Trudeau, to power with a substantial majority. The Canada which Trudeau was to lead was a nation with a buoyant economy and an enthusiastic sense of nationalism flowing from the centennial celebrations of the previous year. Trudeau himself had a strong sense of national priorities and led a generally

² *Debates*, 12 May 1965, 3171.

³ *Debates*, 7 April 1967, 14677.

supportive country into new areas of concern and in new directions. Nowhere was this truer than in the Canadian North.

Unlike his predecessor Lester Pearson, Trudeau was keenly interested in northern development. *Canada's North: 1970-1980*, produced by the Department of Indian Affairs and Northern Development (DIAND), was issued as the cornerstone of the government's integrated northern policy. The document posited four northern goals: the provision of a higher standard of living for northern residents, the maintenance and enhancement of the northern environment, the encouragement of economic development, and the maintenance of Canadian sovereignty and security in the North.⁴ By themselves, no thoughtful Canadian was likely to argue with these goals. They were generally well received, but Canadians as a whole reserved final judgement until the government revealed specific programs to meet these goals.

For the Department of National Defence, the last goal—maintenance of sovereignty and security—had strong overtones of possible military involvement. Even the first three goals could have been extended to encompass military effort were the government to decide to revive the dormant nation-building role of the Canadian Forces. At the same time as the government was developing its northern policy, a major review of defence policy was initiated. Although a *White Paper* on the subject was not issued until the summer of 1971, the Prime Minister had indicated as early as April 1969 that he intended major revisions in defence policy.⁵ The Prime Minister ranked Canadian defence priorities as the protection of sovereignty, the defence of North America, fulfilment of NATO-commitments, and international peacekeeping roles. In a sense, this did not represent a major departure from the 1964 *White Paper* which had ordered defence priorities as the direct protection of Canada, NATO commitments, and peacekeeping. However, it was clear that it was Trudeau's intention to change the emphasis. During the Pearson years, NATO and UN peacekeeping had received the lion's share of Canadian defence attention and resource allocation despite their second and third places in the ranking of priorities. The direct protection of Canada consisted of forces assigned to NORAD. The threat of invasion, however small, distant, or short-lived, was assessed as being so low as to warrant being ignored.

⁴ Canada, DIAND, *Canada's North: 1970-1980* (Ottawa: Queen's Printer, 1972), 10.

⁵ P. E. Trudeau, "A Defence Policy for Canada," *External Affairs* (May 1969).

The notion of protection of sovereignty as a military role is the key to the Trudeau thesis. The Prime Minister indicated that it was his intention to reduce substantially the Canadian contribution to western European defence in NATO. What was not immediately apparent was whether there was a direct link between the need to protect sovereignty and the NATO force reduction. Equally unclear was the specific nature of the role to be played by the Canadian Forces in protecting sovereignty, and the extent to which the government was prepared to commit men and money to meet sovereign challenges. The underlying question, frequently raised in the House of Commons and in public discussion during 1968 and 1969, was just what specifically was Canada sovereign of in the North, who was challenging this sovereignty, and in what ways?

In May 1969, Prime Minister Trudeau made a statement in the House of Commons on Canadian northern sovereignty. In the view of his administration, there was no question over Canada's territorial claims. "Canada's sovereignty over its Arctic regions, including the islands of the Arctic Archipelago, is well established and ... there is no dispute concerning this matter," he said. The nation was equally secure with respect to the resources of the northern continental shelf since "the Geneva Convention on the Continental Shelf provides that the coastal state exercises over the continental shelf sovereign rights for the purposes of exploring it and exploiting its natural resources.... No country has asserted a competing claim to the resources in question." When Trudeau came to deal with the waters of the Arctic Archipelago, however, he was forced to admit that the Canadian claim to sovereign jurisdiction was not quite so well established. He cited the Conservative Minister of Northern Affairs who had said in 1963 that: "The area to the north of Canada, including the islands and the waters between the islands and areas beyond are looked upon as our own." Trudeau noted, however, that "not all countries would accept the view that the waters between the islands of the archipelago are internal waters over which Canada has full sovereignty. The contrary view is indeed that Canada's sovereignty extends only to the territorial sea around each island."⁶

By 1970, Canadian northern perspectives were terribly confused. The government's position was that there was no challenge to Canadian sovereignty over northern lands—either continental or archipelagic. Similarly, territorial waters and the Arctic seabed were seen as being firmly

⁶ *Debates*, 15 May 1969, 8720.

within Canada's sovereignty. Certainly, no nation had challenged that position in at least two generations. The only possible area where Canada could be challenged was in the matter of the commercial and peaceful use of the Northwest Passage. At the same time, Canada's Armed Forces were given the primary mission of protecting sovereignty with particular emphasis on the North. Yet, by the government's own admission, the only possible challenge to Canadian claims—and that in a very specific and restricted area—was mounted not by an international rival or threat, but by the United States, Canada's closest ally and major trading partner. Given this perplexing set of circumstances, it is little wonder that the Canadian public at large and the Canadian Forces in particular had some considerable difficulty in coming to grips with the role of the military in the "new north."

Public confusion attended the new military priority and the government's sudden concern for northern sovereignty.⁷ As early as March 1969, John Diefenbaker had confused the debate by demanding that Prime Minister

⁷ Much of the public concern, which bordered on near-hysteria in some cases, over northern sovereignty between 1969 and 1971 focused on the two voyages of the American supertanker *Manhattan* into the Arctic to study the feasibility of transporting crude oil from the Alaskan North Slope in icebreaking tankers operating year-round through the Northwest Passage. Canada supported both voyages by providing Coast Guard icebreakers as escorts for the *Manhattan* but was clearly unhappy over the prospect of actual oil transporting activities being developed without a Canadian input of pollution controls and safety standards. The issue centered around the status of the Northwest Passage. Canada claimed the passage to be internal waters. The American view was that the passage was an international strait. Agreement between the North American allies was never reached and remains in limbo. The imperative for resolution diminished considerably when Humble Oil abandoned the tanker project and decided, for various reasons, to build a trans-Alaskan pipeline to move the oil to market. Maxwell Cohen, in the best short analysis on the impact of the "*Manhattan* incident" on Canadian opinion, wrote: "*Manhattan*'s two voyages made Canadians feel that they were on the edge of another American 'steal' of Canadian resources and 'rights' which had to be dealt with at once by firm governmental action. In a sense ... the kind of 'panic' atmosphere in Canada in 1969 and 1970 on the Arctic question was unfortunate. To a larger extent it was part of the near paranoia that was infecting American relations." See Cohen, "The Arctic and the National Interest," *International Journal* 26:1 (Winter 1970-71): 72.

Pearson issue a statement on the government's position on sovereignty in the Arctic. The reason for the former prime minister's concern was that he had received reports that some American maps showed the ownership of the Arctic islands as being in question.⁸ No American administration of this century has ever questioned Canadian ownership of the islands lying north of the continental land mass, yet here was a question hauntingly similar to the 1919-22 debate, raising the spectre of American designs on the lands of the Canadian North. Stanley Knowles of the New Democratic Party made reference in the House to reports that the Governor General was "to make a tour of the northern part of Canada to assert our sovereignty there."⁹ Prime Minister Trudeau denied the assertion of sovereignty as one of the purposes of the trip, claiming that "our sovereignty in the northern part of Canada is very well established." Still, the damage was caused.

The popular press largely ignored or rejected the government's statement on northern sovereignty and continued to harp on territorial sovereignty. A January 1970 article in the *Ottawa Citizen* read in part that "a defence team toured the Arctic and recommended that this year's training exercises be held in the high Arctic, for the first time on *some of those Arctic islands involved in the sovereignty debate* (emphasis added)."¹⁰ In 1972 the issue was still being bandied about.

Another article appearing in the *Ottawa Citizen* maintained that "if you are not able to occupy a vacant piece of land, it is difficult to claim it as your own." The piece went on to develop the thesis that Canada did not have much of a claim to the Arctic because it had not been fully occupied, but that the issue remained academic until the late 1960s when the "Arctic suddenly bloomed as the 'fount of riches.'" The writer interpreted the revision of defence priorities as a Canadian response to "doubts being expressed abroad concerning the extent of Canadian territory in the North."¹¹

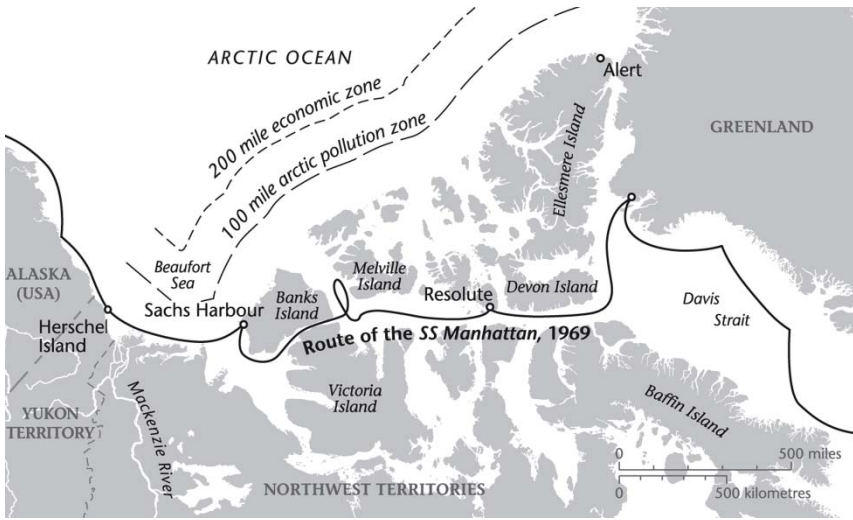
Again, public concern about a threat to Canadian territorial claims in the North was purely in the minds of these Canadians. No state with even the vaguest interest in northern affairs had raised the slightest question over Canadian territorial sovereignty—least of all the United States which was often painted as the chief villain in the scene. The government at no time

⁸ *Debates*, 7 March 1969, 6337.

⁹ *Debates*, 27 March 1969, 7190.

¹⁰ John R. Walder, "Defence Department lacks guidance on Arctic policy," *Ottawa Citizen*, 12 January 1970.

¹¹ *Ottawa Citizen*, 27 June 1972.



claimed that it was the role of the military to establish sovereignty; rather the Forces' role was to protect sovereignty that was long established. Government efforts to clarify the situation were either ineffectual or fell on deaf ears.

In many cases, the Canadian government contributed to the confusion. At a press conference held in the North in 1971, Minister of National Defence Donald Macdonald stated that "the defence of (northern) Canada had not been adequately dealt with in the past. The *Manhattan* incident pointed out to us the challenge involved in a foreign presence in our Arctic territories." He continued: "We have to be here and we have to be seen to be here. And we may have to be more concerned with our allies in this regard than with Russia for instance."¹² Fortunately for the Canadian government, this statement (which can only be described as incredible) elicited no significant comment in either the United States or Canada. The implication, however subtle, is clear. The Minister of National Defence was threatening the use of military force against the commercial ventures of the United States. A cynic might well observe that Canada proposed the use of military forces to defend against its enemies and the same military forces to protect sovereignty from its friends.

The 1971 White Paper on Defence, *Defence in the 70s*, stated that "defence policy must ... take into account the possibility that other challenges to Canada's sovereignty and independence, *mainly non-military*

¹² Cited in *Edmonton Journal*, 17 May 1971.

in character [emphasis added], may be more likely to arise during the 1970s.”¹³ The crux of the matter lies in the appropriateness of a military response to a non-military challenge. Implicit in the logic of *Defence in the 70s* is the signalling of the intention to use military forces in an operational role below the threshold of violence while still retaining the option to use force in extreme situations.

Although the *White Paper* provided few details, it stated that the main task for the Forces in the protection of sovereignty would be surveillance. It was admitted, however, that such surveillance would of necessity be extremely limited. Operations by existing Argus long-range patrol aircraft, configured as they were for anti-submarine warfare, were limited by light and weather (and the absence of suitable northern bases). Surveillance by the ships of Maritime Command was limited to the few ice-free months of the year (and then only in certain waters). Ground surveillance by soldiers was seen as simply impracticable because of the huge size of the area involved.

The implication here was of great significance to the Canadian Forces. While Canadian force levels in Europe were being halved, the withdrawn troops were not to be committed to the protection of sovereignty—the Forces were to be reduced. Similarly, the new role, it was implied, would have to be fulfilled with equipment and facilities then in the Forces’ inventory.¹⁴ No new northern sovereignty equipment was to be obtained—no special reconnaissance aircraft or surveillance equipment for existing aircraft for the air force; no ice-capable or under-ice ships for the navy; no all terrain vehicles for the army.

¹³ Department of National Defence, *Defence in the 70s: White Paper on Defence* (Ottawa: Queen’s Printer, 1971).

¹⁴ *Defence in the 70s* stated that studies would be made on “the desirability of reconstituting the Canadian Rangers; ... establishing a special training school for all personnel assigned to the North; ... and the adequacy of existing equipment...with particular emphasis on over snow vehicles,” 24. In all cases, the final decision was that nothing was required in any of these areas. By 1971, Northern Region Headquarters had developed a full plan for activation of an “Arctic Ranger” unit, but the plan never received approval, undoubtedly due to the costs associated with the requirement for a Regular Force cadre of command and support troops until such time as native northerners could take over these roles. No High Arctic Base was established, again, probably due to cost factors. No new vehicles were obtained, and the Army’s medium marginal terrain vehicle development project was cancelled in 1975.

In a summary of the sovereign threats to Canada's North, the Prime Minister said that "there is not now, nor is it conceivable that there ever will be from any source, challenges to Canadian Sovereignty on the mainland, in the islands, in the minerals lying in the continental shelf below the Arctic waters, or in our territorial seas."¹⁵ In the government's view, while protection of sovereignty was the first military priority, the threat to that sovereignty was minimal and, under existing conditions, did not warrant a major commitment of men, resources, and money. To protect sovereignty in the North, the government adopted a policy that is strikingly analogous to the situation that existed in Canada at the time of the 1922 Eastern Arctic Expedition. In the 1920s, Canada established sovereignty in the Arctic with a symbolic presence of the Royal Canadian Mounted Police. In the 1970s, Canada prepared to protect that same sovereignty with a symbolic presence of the Canadian Armed Forces.

In a simplistic manner, presence was equated to protection of sovereignty. To this end, various programs and projects were initiated, some of them quite innovative in their approach. Land, air, and sea components of the Armed Forces were all involved in this return to the North. With a few notable exceptions, however, the number of Canadian troops stationed permanently in the North was not increased. The Department of National Defence argued with effect that "it is felt that our operational units can most economically and effectively be stationed at southern bases and moved to the North when required for a particular operation."¹⁶ The exceptions, discussed below, were small installations designed to control and co-ordinate northern training and operations.

In 1970, Maritime Command, the integrated forces equivalent of the navy, sent its ships into northern waters for the first time since 1962. The navy clung tenuously to its anti-submarine orientation, for the main purpose of the deployment was "to allow (Maritime) Command sailors and airmen to gain experience in northern operations, mainly in the anti-submarine field." The secondary objective was "to provide a tangible presence in the Canadian North."¹⁷ It could be argued that the degree of meaningful northern oper-

¹⁵ *Debates*, (Mitchell Sharp quoting a speech of the Prime Minister given on 24 October 1969), 20 January 1970, 2713.

¹⁶ Canada, Department of Indian Affairs and Northern Development (DIAND), *Government Activities in the North, 1970*, 94.

¹⁷ J.L. Wilson, "Our Ships Head into the Arctic Seas Again," *Sentinel* (November-December 1970): 6.

ational experience to be gained by sailing into the relatively well-travelled waters of Hudson Bay and Strait at the height of the summer shipping season was probably quite limited. The true focus of sovereign contention was the Northwest Passage well to north of the ships' operating area. Still, it was a start. The operational support ship, HMCS *Protecteur*, three destroyer escorts, and a submarine cruised and exercised in the Bay and Strait, visited Churchill, and, at the request of the Department of Northern Affairs, undertook resupply tasks at Coral Harbour on Southampton Island, at Rankin Inlet on the west coast of Hudson Bay, and at Frobisher Bay on Baffin. In addition to NORPLOYs—as the naval northern deployments have come to be called—Maritime Command also began to take its first tentative steps in regaining expertise in ice-filled waters. Not having an icebreaker of its own, the Navy made arrangements to have several officers, cadets, and ratings attached to icebreakers of the Canadian Coast Guard for “Arctic indoctrination.”¹⁸

Maritime Command's patrol aircraft were even more involved in northern operations for theirs was a year-round task. On the average, four long-range surveillance patrols were undertaken each month by Argus aircraft flying out of bases in Nova Scotia, Prince Edward Island, and British Columbia. A total of 1900 flying hours were expended on these operations during the year, while the smaller Tracker aircraft accounted for an additional 300 hours along the coasts of northern Quebec and Baffin Island. To support these greatly increased flying activities, Maritime Command established a small detachment at Frobisher Bay to provide operational support, hangarage, accommodation, and communications for the patrols that inevitably staged through Frobisher at one point or another on a northern flight.

Mobile Command (the “army” of the Canadian Forces) initiated a continuing series of Arctic indoctrination patrols in April of the same year. Named Exercise New Viking, the project took Canadian combat soldiers to places in the North where troops had never exercised before.¹⁹ The headquarters for the project was permanently established at Churchill in facilities loaned to DND by the Department of Public Works. A small staff of less than thirty instructors handled a new group of candidates every two weeks on a year-round basis. Each succeeding exercise followed a more or

¹⁸ DIAND, *Government Activities in the North, 1970*, 94.

¹⁹ DIAND, *Government Activities in the North, 1971*, 84.

less fixed format. Air Transport Command aircraft would fly the troops into Churchill during the winter and to an advanced base at Resolute in the summer. The first week of the patrol was devoted to verifying an acceptable standard of proficiency and in dealing with operational problems that were unique to the Arctic. These latter included learning how to deal with the high wind chills of the barrens during winter, navigating using the astro compass in areas of high magnetic fluctuation, and precautions necessary to protect the northern ecosystem. Following the work-up week the aircraft would then re-appear and fly the troops to an advanced patrol base. These might be any of the communities with suitable air strips in the Arctic: Baker Lake, Rankin Inlet, Frobisher, Coral Harbour, Sachs Harbour, or the Arctic Weather Stations at Mould Bay, Isachsen, or Eureka. At the end of the runway the troops would shoulder their rucksacks and strike out on their own. A typical patrol would cover about fifty kilometers during the week, the distance the troops could cover being limited by the fact that they were on foot.

In addition to the New Viking program, Mobile Command repeatedly exercised the newly-formed Canadian Airborne Regiment in parachute assault exercises in the North. In quick succession the Regiment dropped at Coral Harbour, Inuvik, Watson Lake, and in Alaska in a joint Canadian-American exercise. While the New Viking program emphasized Arctic indoctrination, the Airborne Regiment clearly was developing and practising combat techniques in the North. Should the “unthinkable” ever happen and Canadian troops be obliged to fight to regain northern territory, the isolation of the area made it inevitable that any operation would have to begin with the establishment of an airhead: hence the origins and training of the Airborne Regiment.

During 1971 and the early winter of 1972 the extent of military presence continued to grow, the programs of 1970 being continued and expanded. Argus aircraft flew 43 missions during the year for a total of over 2,000 flying hours. In August three ships from Maritime Command cruised and showed the flag in Davis and Hudson Straits. New Viking serials continued; at year’s end, over 2,200 troops had received Arctic indoctrination. Mobile Command exercises saw the entire Airborne Regiment dropping at Resolute Bay in December. A few months later, a major exercise (by Canadian standards) was attempted at Frobisher Bay. Christened Exercise Patrouille Nocturne, it began when an airborne commando group captured the airstrip in the face of light “Fantasian” opposition. A massive airlift brought infantry, armoured,

and artillery units into the air head. A flight of CF5 tactical fighters successfully staged into the Arctic to provide ground support for the combat troops. In all, over 1,500 troops were deployed into the Eastern Arctic. In subsequent years, the same pattern continued. The air force flew its periodic surveillance missions with the ancient Argus aircraft, an operational support ship (AOR) of the navy cruised in northern waters during ice-free months, and the army continued to exercise sub-units and the Canadian Airborne Regiment in both summer and winter throughout the North.

It is evident that the vast majority of those military forces that were providing a presence in the North were transients. The operational units of the sea, land, and air element that periodically exercised in the North were not exclusively concerned with the area. In point of fact, all these southern-based units were multi-tasked, and the northern commitment formed only a relatively small part of their operational role. In this respect, Canada maintained its traditional posture of using multipurpose units based in southern Canada to perform specific northern-related tasks of relatively short duration. It is not clear whether the Canadian Forces ever even considered the option of stationing combat forces of any or all of the three elements in the North on a permanent basis. Certainly, the cost would have been high, especially if troops were to be permitted to bring their families with them with the attendant need for housing, educational, shopping, and recreational facilities. Those few military elements stationed permanently in the North were “in the North,” not “of the North.” The Supplementary Radio System stations at Inuvik and Alert were primarily concerned with communications research. The DEW Line main sites were primarily concerned with continental air defence.

While the Department of National Defence continued in its time-honoured pattern with respect to the employment of operational forces in the North, a significant departure from tradition was signalled by the formation of a headquarters specifically devoted to the coordination of military activities in the North. The decision to create such a facility was announced in September 1969 by Leo Cadieux, the Minister of National Defence; the location of the headquarters, its composition, and specific functions remained to be determined. Studies were undertaken within DND in consultation with DIAND and the two territorial governments. In February 1970, four-man liaison detachments were established in the territorial capitals of Whitehorse and Yellowknife.

The Manitoban press argued that the new base should be established at Churchill. Certainly, in pure military terms—communications, accessibility, location, and terrain—the moribund community had much to recommend it. The editorial in question, however, anticipated that a battalion-size force of operational troops and some air support resources were to be permanently stationed in the North. This was definitely not the intention of DND. Although the argument for the location of the base at Churchill was couched in military parameters, the real reason the *Tribune's* editor wanted to see it there was to help boost the sagging economy of the community. He wrote that the “establishment of a major three-services base at Churchill will not be the economic cure-all for Churchill, but it would go a long way toward hauling the community back from the brink of ruinous stagnation.”²⁰

While Churchill offered many advantages as a base site, it lacked the key ingredient. The Department of National Defence at the time wished to establish a facility that could co-ordinate military activity in the North, and at the same time effect the necessary liaison with other branches of the federal government operating in the North and the territorial governments. The obvious choice, in these terms, lay between the two territorial capitals. The Yukon, with its continental location, relatively well-developed road and air net, and advanced political institutions, figured only peripherally in the sovereignty equation. The sovereignty concern centered on the High Arctic of the Northwest Territories. The headquarters of Northern Region, by this logic, had to be in Yellowknife, and the decision to locate it there was announced on 17 April 1970. A small liaison detachment of Northern Region was also to be maintained in Whitehorse.

By the autumn of 1971, Northern Region Headquarters (NRHQ), commanded by Brigadier General Ramsey Withers, was in full operation, approaching its job with a high degree of dynamism and enthusiasm for the North. NRHQ was not established as an operational headquarters but as a liaison and co-ordination center. Elements of other Commands stationed in the North or operating in the region remained under the command and control of their parent headquarters. NRHQ did have the capability, however, to exercise command over units placed under its control for a specific mission. Many of the roles assigned to the headquarters were typical of those undertaken by any regional military headquarters in southern Canada—the preparation and execution of plans for aid of the civil

²⁰ *Winnipeg Tribune*, 16 April 1970.

authority, support of search and rescue operations, and the administration of cadets. In some important respects, however, the new headquarters was different. NRHQ was given the responsibility of maintaining liaison between DND, the territorial governments, and other federal departments operating throughout the North. In addition, the headquarters was required to establish and maintain a northern information data bank to support operations and training of all elements of Canadian Forces deployed into the North. A perhaps inevitable role that fell to NRHQ was to be interpreter of the North for the rest of the Canadian Forces. The new interest in the North resulted in a steady procession of military visitors passing through Yellowknife. Members of the National Defence College, students of the Canadian Forces College and the Land Forces Command and Staff College became regular annual pilgrims to what was to become the fount of military knowledge in the North. NRHQ provided a wide range of briefings on general and specific aspects of military activity in the North, as well as general orientation talks and discussions of contemporary northern problems. When appropriate, the headquarters arranged for guest speakers from the territorial government, DIAND, RCMP, and industry to meet with and talk to the visiting groups. Senior officers of Canadian Forces Northern Region also travelled frequently to southern bases to “preach the gospel” of the military in the North.

In its early years, NRHQ smoothly settled into operation and within its limited resources attempted to fulfil its many roles in a mandate that included 40 per cent of Canadian territory. The most significant accomplishment of the headquarters, however, did not relate to the day-to-day liaison and support of military operations in the North, but rather its attempt to analyse the complex political notion of protection of sovereignty as a role for the Armed Forces. The analytic model developed by the commander and staff of NRHQ deserves some attention as it represents the only serious attempt by Canada to define protection of sovereignty beyond some vague notion of “presence.”

The analytic model posited three classes of northern anomaly that might threaten Canadian control over the North. The first was called a tactical anomaly and related to acts by foreign military forces which, while stopping short of an outright attack on Canada, did, in some way, threaten sovereignty. Included in this class were such operations as overflights of Canadian territory by military aircraft, transits of Canadian internal waters by foreign warships or submarines, and a military lodgement—the

establishment of a garrison at some remote location in the Canadian North for whatever purpose. The second class, named a commonweal anomaly, dealt with natural or human-made disasters that threatened the ecological stability or social well-being of the North and its people. Included under this grouping were such phenomena as flood, fire, storm, pollution, and air crash. The third class was called a sovereign anomaly and it related to actions by foreign companies or individuals who, without direct governmental sponsorship, acted contrary to Canadian law. This last was by far the most subtle of the three classes of anomaly but, at the same time, it was thought to be the most likely to occur. It included such activities as game poaching, unlicensed mineral exploration, or failure to meet government standards in any industrial process. Because of the size of the North and the paucity of government control agencies, NRHQ felt that illegal activities of this type might well be risked on the probability that their detection by agents of the Canadian government was slight.

In a further development of their model, NRHQ posited that the Canadian Forces should develop the capability to respond to each class of anomaly. Response included a surveillance component in order to detect the anomaly in the first place, a reconnaissance component in order to investigate and define the exact nature of the anomaly, and an enforcement component wherein military forces were, if so ordered, to neutralize or eliminate the anomaly. It was realized fully that the Forces did not have exclusive responsibility for the protection of sovereignty in the North, and that many other federal agencies shared in the function. In particular, the Royal Canadian Mounted Police, the Department of Transport, the Department of the Environment, the Department of Industry, Mines and Resources, and, of course, DIAND and the territorial governments also participated. The ultimate responsibility, however, remained with the military.

When one analyses the configuration and equipment of the Canadian Forces at the beginning of the 1970s, it is evident that, in terms of the NRHQ anomaly model, the capacity to protect sovereignty was extremely limited. Submarine penetration of Canadian northern waters called for fixed array sonar to detect the incursion and nuclear submarines to respond. Canada had neither. It is difficult to envisage any sort of naval surface engagement in ice-choked waters. In this respect Canada was fortunate for Maritime Command had no ice-capable ships, let alone naval icebreakers. Only in response to a small lodgment by ground troops, the most unlikely event of

all, did Canada have a significant capability in the form of the Canadian Airborne Regiment and two air-portable brigade groups. Even there, however, detection of a concealed base lost in the vastness of the North would have been extremely difficult, and the standard Canadian tactical ground support aircraft, the Northrop CF-5, was extremely limited, because of range and landing field requirements in the northern areas in which it could operate. Tactical air anomalies occurring in the High North, while they might have been detected by DEW Line radars, were well beyond the range of the southern-based CF-101 interceptors, and no facilities existed to permit these aircraft to operate in the North. The difference between protection of sovereignty from tactical anomalies and defence of Canada is extremely blurred, however, and should a military response to such a phenomenon ever be required, Canada could count on substantial material support from the United States.

Commonwealth anomalies presented no problem to the forces except in the matter of surveillance. The chance that an Argus patrol aircraft might just happen to be the first at the scene of a disaster was extremely remote. The extensive net of RCMP and Department of Transport ports in the North would no doubt be the first to detect and report a serious problem. Military reconnaissance aircraft could then be ordered to the disaster site to define its dimensions. Helicopters and parachute-trained personnel could also be deployed quickly into remote areas if a ground investigation were required. In respect of labour intensive situations such as a flood or a fire, the same capability that allowed the military to respond to a lodgment could have been employed in the reaction phase.

Response to sovereign anomalies presented an entire new range of problems to the Forces. Detecting a single event in 1.5 million square miles in the absence of an intelligence input was most unlikely. A more subtle problem was that, even if a patrol aircraft did detect some hitherto unrecorded human activity, there was no guarantee that that activity would be recognized as a sovereign anomaly. The very nature of sovereign anomalies made it unlikely that the military could play a significant role in the investigation and definition phase. Military involvement might well have to be limited to providing air transport to the site for RCMP or other government agents. Even this service might not have proven necessary since most government agencies either operate their own aircraft or have charter arrangements with commercial firms. The enforcement component of

response to a sovereign anomaly again raises the question of the appropriateness of a military response to a non-military challenge.²¹

This was the problem faced by the Canadian Forces when they returned to the North in strength. They were singularly ill-equipped to meet military challenges in the region. Their precise role and utility in responding to non-military challenges was not clearly perceived by the general public or, for that matter, by the military itself. However, when the government had suggested that the primary role of the Forces should be the protection of sovereignty, the media assumed (despite repeated political and military denials) that challenges to that sovereignty in the form of tactical and sovereign anomalies were either occurring or were imminent. With this thought in mind there developed a growing public clamour that the surveillance capabilities of the Forces be improved. There seemed to be a notion that if only the Forces could look harder, more often, and with better equipment, that somewhere they would find a challenge to sovereignty.

NRHQ's anomaly model remained a very much "in house" document and received only minor distribution and examination within DND and hardly any at all in public debate and discussion of the North or defence policy. Public attention in the House of Commons and in the popular press focussed on the need for presence. By 1972 government policy with respect to the level of force commitment to the protection of sovereignty in the North had become clear. The scale of this operational presence was often seen as insignificant when placed upon the vastness of the North.

The main focus of public criticism of northern defence policy was not that northern sovereignty was unimportant, or even not that it was the most important priority, but rather that the government should have been doing more. Criticism of this nature predominated between 1970 and 1975. For example, the *Ottawa Citizen* reprinted an editorial that had appeared in the *Edmonton Journal* which openly sneered at the extent to which a military presence was being established in the North:

²¹ *The Montreal Star* in an editorial whimsically observed that while the Canadian Forces could attack and sink a foreign oil tanker attempting to operate in northern waters without proper safeguards in defiance of Canadian law, such "an inspiring demonstration of sovereignty ... would not do much for the environment." *Montreal Star*, 27 February 1970. The editor might have added that such an act would not have done much for United States-Canadian relations either—the former being the only nation considering using tankers in the North.

Any nation casting greedy eyes on our Canadian Arctic had better watch out. We may seem defenceless but ... an invader will be met with the massed might of the Canadian Forces Northern Region with headquarters, at Yellowknife. On hand to defend our million and a half square miles of forest and tundra will be 40 members of the Canadian armed forces, stationed in a new office building now being constructed in Yellowknife. What more, we're stepping up the number of sovereignty flights so that an Argus patrol aircraft now wings its way across the Arctic once a week instead of once every 10 days. This is the result, so far, of making the defence of Canada's own territory, especially the Arctic, the "first priority" of the nation's defence policy.²²

The *Journal* editorial missed the point of northern defence programs on almost every count. NRHQ existed to co-ordinate the activities of those southern-based operational forces that were deployed into the North to establish a presence. In any case, no argument was developed by the *Journal* as to why combat troops should be based in the North permanently, nor where they should be located, or, most importantly, what they should do.

John Gellner, the editor of the *Canadian Defence Quarterly* and one of Canada's most astute if somewhat "hawkish" defence critics, examined the country's new defence priorities in the light of equipment and personnel costs. In his view, surveillance of just the Northwest Passage and the development of facilities to just *monitor* sub-surface activity would be extremely costly. He noted no inclination on the government's part to spend such monies. In 1970, the defence budget was frozen until fiscal 1972/73, and Gellner dismissed the "new model" of Canadian defence as a paper declaration rather than real change until such time as funds were made available to purchase north-oriented equipment.²³

Vice Admiral J.C. O'Brien, then a serving officer commanding Maritime Command, went even further in a speech in March 1970. He claimed that "If Canada is serious about asserting its sovereignty in the Arctic, it must be prepared to pay a fantastically high price." The admiral estimated that it would cost 2.5 hundred million dollars for six nuclear-powered attack

²² *Ottawa Citizen*, 8 October 1970.

²³ John Gellner, "Bold Statements but Little Money," *Canadian Aviation* (October 1970): 18.

submarines, greatly increased air surveillance, the installation of a vast network of navigational aids, greater militarization of the Canadian Coast Guard, and a naval capability to escort merchant ships in the Arctic. In O'Brien's eyes such an effort would be required to monitor and control the military and commercial activities of the United States. "It's pretty obvious there's only one nation we need to worry about encroaching on our sovereignty," he said. "The only way to combat it is to be there and prove you care."²⁴

The sovereignty patrol aircraft, no matter how configured, could only detect surface targets on land or on ice covered seas. By 1970 Canadians had developed an intense curiosity about what was going on under the ice pack of territorial waters. While experiments were conducted with fixed arrow sonar in ice-filled waters, such a facility offered only a limited capability. Detection was only a third of the sovereignty equation—investigation and, if necessary, enforcement were the others. To meet this full requirement there was only the nuclear submarine.²⁵

It is quite apparent that the Navy would have very much liked to have had a modest fleet of these craft. Michael Forrestall, who advocated nuclear boats for Canada's Navy for a decade, expanded his argument to include the value of such vessels in the North. His arguments were hard to refute. "There are many reasons," he said, "why Canada should have this equipment, such as the commercial application, the scientific application and the presence within our Department of National Defence and other government circles of knowledge of what is happening in our North."²⁶ Earlier in the same speech

²⁴ Vice Admiral J. C. O'Brien, "Address to Canadian Naval Officers Association," reported in *Montreal Star*, 2 March 1970.

²⁵ Dr. Colin Gray has produced a cogent argument along the line of "If a tree falls in the forest, and there is nobody there to hear it, is there a noise?" Gray asks the question, can one state challenge the sovereignty of another if the challenger is unaware of the challenge? His reply is negative and with respect to foreign submarine activity in the Canadian Arctic, he maintains that unless Canada is prepared to purchase nuclear submarines to investigate incursions and to enforce Canadian political will, it would be preferable not to deploy detection equipment and find oneself in the embarrassing position of knowing that Canadian law may be being broken, yet being unable to do anything about it. See C.S. Gray, *Canadian Defence Priorities: A Question of Relevance* (Toronto: Clarke, Irwin and Company, 1972), 149-50.

²⁶ *Debates*, 22 October 1970, 472.

he had pointed out that “the nuclear-powered submarine remains the only piece of equipment that can operate 12 months a year in our northern latitudes.” Overriding all these arguments, however, was the matter of money. The Subcommittee on Maritime Defence of the Standing Committee on External Affairs and National Defence (SCEAND) was perfectly aware of all the many advantages inherent in nuclear submarines but had recommended that they not be acquired at that time (1970) “solely on the basis of cost.”

Forrestall argued the case for the nuclear submarines as a means of protecting sovereignty. Others simply had no idea of the issues involved. At the time SCEAND was discussing the advisability of acquiring three to five nuclear powered submarines, the *Winnipeg Tribune*, one of Canada’s major newspapers, produced a startling editorial entitled “Nuclear nuttiness” which read in part:

there would be other serious implications about Ottawa getting into the nuclear submarine business. Asserting sovereignty over the Arctic is one thing. Having nuclear submarines with missile capability prowling the northern seas is quite another. What would the Kremlin do if Canada were to initiate this kind of patrol activity within easy striking distance of Soviet territory.²⁷

Ill-informed comments of this sort lent confusion to the debate on northern defence policies and did nothing to contribute to public understanding of the issues. The editor, it would appear, was not aware of the difference between a submarine simply fitted with a nuclear power plant and a submarine armed with a nuclear weapons system. There has never been the slightest suggestion from any responsible source that Canada should acquire the latter capability.

Those who advocated the acquisition of Canadian naval ice-breakers, or Arctic Patrol Vessels seem to have forgotten about the ships of the Canadian Coast Guard that operate regularly in northern waters. Captain T.C. Pullen claimed that a government policy formulated along the lines outlined in the 1971 White Paper was “sheer hypocrisy when you consider that we don’t have the means of employing the ships to ensure an effective presence” in the

²⁷ *Winnipeg Tribune*, 23 June 1970.

Arctic waters. He advocated the construction of a fleet of polar class icebreakers in Canada for Maritime Command.²⁸

A naval icebreaker would be a rarity in today's maritime world. Most nations with polar interests operate icebreakers but as part of the coast guard or some other civil department of government. For Canada to acquire naval icebreakers in addition to its civil fleet would be a form of message to the rest of the northern world. Just what that message would be and how it would be interpreted is open to debate. A serving naval officer recently wrote that it was questionable if surface warships had a role in the Canadian Arctic. He felt that the Canadian Coast Guard icebreaker fleet was perfectly adequate to establish sovereignty.²⁹

The Progressive Conservative Party entered the debate in a modest form during the 1974 election campaign, accepting implicitly the Trudeau thesis that protection of sovereignty, particularly in the North, was the priority for Canadian Armed Forces. Although defence policy figured only marginally as an election issue, the Conservative platform on the subject called for a massive increase of military presence in the North. They viewed Canada's claim to the Arctic Archipelago as tenuous and sought to redress this situation by raising new air and ground forces dedicated exclusively to operational roles in the North. To support these units, the Conservatives advocated the reopening of some unspecified bases that were closed in the past and the establishment of new bases. Continuing in the theme of "something for everybody," the Conservatives advocated the acquisition of advanced technology naval icebreakers for Arctic patrol duties.³⁰

The frustration of non-government agencies and individuals with the Liberal administration's implementation of its northern defence policy was admirably summed up by John Gellner in the autumn of 1975. It is important to note that there was no quarrel at all with the priority given to protection of sovereignty, only the manner and degree to which active measures were taken. Gellner cited the severe inadequacies of the Argus maritime patrol, aircraft in the northern surveillance role, the lack of northern bases to support surveillance activities, and the lack of undersea

²⁸ Capt T. C. Pullen, "Canada and Future Shipping Operations in the Arctic," *Canadian Defence Quarterly* 2:2 (Autumn 1973): 13.

²⁹ LCdr R. H. Thomas, "Ships for the Eighties," *Canadian Defence Quarterly* 2:2 (Autumn 1972): 16.

³⁰ Progressive Conservative Policy Paper #10, "National Defence" 1974 (provided by A. Mackinnon, Opposition Defence Critic, 3 March 1976).

surveillance in Arctic waters. “Canadian governments have been making that claim for a long time, more stridently of late than ever before and rightly so because of the growing danger of our sovereignty being put to the test,” he observed. “What government has not done and continues to postpone doing is to invest the money and effort which are necessary to back up that claim.”³¹

Over a seven year period (1969-75) successive Liberal governments steadfastly refused to increase the level of Canadian Forces presence in the North in the face of considerable political and public pressure to do so. During the period there have apparently been no challenges to Canadian sovereignty in the North either by foreign states or foreign companies or individuals. The government could argue that the level of activity established at the beginning of the period of northern resurgence has been adequate to protect sovereignty and any possible challenges have been discouraged by the presence of Canadian military units throughout the North. The fact that protection of sovereignty is the top priority of defence department roles does not necessarily demand that the bulk of military resources, personnel, and funds be devoted to that priority. It could be argued that priorities are more a matter of intent and, should some concrete challenge develop in the future, the government could simply devote additional resources as required to meet that challenge and remain consistent within established defence policy.

National Development Tasks

Military effort in the North of the 1970s was not restricted to searching for, investigating, and, if necessary, dealing with challenges to Canadian sovereignty. The military was also assigned a modest range of national development tasks in the region that were in keeping with governmental policy of the North as a whole. In the sense that these projects contributed to the development of various facets of the northern transportation grid and hence helped link the North into the mainstream of southern Canada, they could be considered as being contributory to northern sovereignty.

The main project undertaken within this category of endeavour was the multi-departmental Northern Airfield Project.³² The Department of Indian Affairs and Northern Development had a long-standing program of

³¹ John Gellner, “How Canada showed it can’t control Arctic,” *Globe and Mail*, 17 September 1975.

³² See “Airstrips for the North,” *Sentinel* (November-December 1970).

providing remote Arctic settlements with year-round air services. When Canadian Forces construction engineer units were made available, the project timetable was able to be advanced considerably. Over a five-year period it was agreed that basic 2,600-foot gravel strips would be built at Chesterfield Inlet, Pond Inlet, Whale Cove, Igloolik, and Cape Dorset. A few of these communities already had primitive landing fields, but none were suitable for year-round use. The agreement was that DIAND would fund the project, DoT would define the design specifications and transport most of the construction materials to the sites by sea, and Canadian Forces troops would do the actual construction. The 2,600-foot airstrip could accept most of the twin-engined, short-take off-and-landing (STOL) aircraft being operated commercially in the Arctic at this time. At four of the sites DND provided the funds for lengthening the strips to 4,000 feet to accept the heavy Hercules C130s of Air Transport Command.³³

The Northern Airfield Project was a useful undertaking in that it satisfied several needs all at the same time. First and foremost, it contributed to the development of the northern infrastructure and lessened the isolation of the communities it touched. This was the basic stuff of sovereignty. The summer construction season is the time of maximum human activity in the North. The troops on the ground and the military transportation and resupply flights to the sites provided a military presence where one had rarely been seen before. By adopting a policy of incorporating local labour into the military work force, the engineer units provided an opportunity for wage employment at a time when the Inuit culture was unstable. The 4,000-foot strips increased military flexibility in the area by providing landing sites for the main troop lift and transport aircraft of the Canadian Forces. They also offered an expanded range of forward bases for air search and rescue operations. The project did not conflict with civilian construction contracts in the North, for it was not a question of a military contractor or a civilian contractor. With the limited amount of money available for the work it was a question of a military contractor or nothing. The federal government put the needs of the North ahead of southern commercial interests.

In a separate but similar program, the Canadian Forces undertook bridging projects on the Dempster Highway which was being built to link the Yukon with the lower Mackenzie Valley. Bridging the Ogilvie River

³³ "Northern Airstrips," *Canadian Aviation* (January 1973).

between Inuvik and Fort McPherson³⁴ began in 1970 and following its completion in 1971 the troops turned to the Eagle River in 1973. Like the airfields projects, funds were provided by DIAND while the Department of Public Works did the design work and the Canadian Forces provided the actual skilled work force.³⁵ While both the bridging and the airfield projects were initially planned for a specific number of sites, they both were open ended in the sense that when the first phase was completed the program could well be extended to other localities as part of a continuing development process.

These programs went a long way towards meeting the recommendations of the Military Engineers Association of Canada which argued that “the Canadian Military Engineers of all ranks be employed in Northern Development Work and pre-engineering studies of future projects of National importance.” By reopening this field to military engineers (they had lost it with the army withdrawal from the Alaska Highway) it was thought that a professional engineering challenge would develop which would help attract the “right calibre” of personnel to military engineering trades in peacetime. It was also seen as a means of exposing troops to exacting tasks under difficult conditions and providing the opportunity to develop skills that had a definite military application.³⁶ On the negative side of the program, the reduction in force size that accompanied the new defence orientation meant that the requirement to deploy field engineers into the North during the summer construction season degraded the level and scope of the Army’s traditional collective training during the same period.

Not all of the subsidiary northern projects related to national development in terms of engineering. One related to people, but in this instance the military’s new-found enthusiasm for the North led it into embarrassing difficulties. Prior to the resurgence of the 1970s very few native northerners showed any interest in regular military service, nor did DND make any effort to recruit in the North. The lack of northerners in the Canadian Forces at a time of high military involvement in the area was

³⁴ *DND Canadian Forces Press Release*, 15 April 1970. The Dempster was one of John Diefenbaker’s “roads to resources” started in 1955. It was finally opened to traffic in 1979.

³⁵ *DND Canadian Forces Press Release*, 30 May 1973.

³⁶ Lt Col J. G. Wasteneys, “The Place of the Military Engineer in Meeting the Challenge of the Canadian North,” *Canadian Defence Quarterly* 2:1 (Summer 1972): 18.

striking and in response to a question in the House, Leo Cadieux announced a major effort to “increase [Inuit] participation in the armed services.”³⁷

In May 1971, DND launched a program aimed at recruiting one hundred young northerners into military trades that were required at the Supplementary Radio System bases at Inuvik and Alert. Only a handful of candidates came forward and less than a dozen managed to complete basic training. The military’s problems did not end there. The successful candidates were posted to Inuvik where they all experienced extreme stress in coping with the often conflicting demands of military and traditional culture. Within a year, all those who remained in the Forces had to be transferred to southern bases.

In retrospect, the entire program was not well thought out and illustrated, once again, how much southerners still had to learn about the North and its peoples. Commenting on the military potential of Inuit, one senior officer said: “He has his own culture but is the sort of man who could become Western very easily, become one of us.”³⁸ The vast majority of Inuit wished to retain their own culture; that minority who wished to opt out and join the mainstream of Canadian life probably wished to do so in the more comfortable surroundings of southern Canada. In a press interview, one general officer said that “the ones we’re looking for are mobile and have a self-navigating capability and roam a lot.... They have an ability to find themselves and get to a predetermined destination. They can take a trip of 800 or 1,000 miles, and know exactly where they are with no gear, maps or charts.” Another added that “we want the boys to go back up there because they know their native area.”³⁹

Statements such as these ignored some very fundamental northern realities. First, one does not “know the area” of the entire North as one can know a town or county in southern Canada. In any case, the relevance of the admired skills is hard to fathom since the Inuit soldiers were slated to be stationed at permanent static bases. No Inuit lived, or had ever lived, within hundreds of kilometers of Alert at the northern tip of Ellesmere; Inuvik was the largest city in the Mackenzie Valley. A more fundamental flaw in the military’s logic lay in that, if the 18-23 years olds whom the Forces were attempting to recruit had the basic educational qualifications to join the Canadian Forces, the attaining of this education would of necessity have

³⁷ *Debates*, 17 April 1970, 5991.

³⁸ *Globe and Mail*, 23 September 1971.

³⁹ *Globe and Mail*, 23 September 1971.

removed them from the traditional nomadic life wherein these much-vaunted skills would have been learned. Conversely, the older Inuk who had followed the traditional life was most unlikely even to speak English, let alone have any formal education.

A more serious problem might have arisen had the Forces been able to find the sixty research communicators they sought, for the potential impact on northern communities of such a program would have been severe. The nature of the communications research trade is highly technical and requires a substantial formal education in tradesmen. When one considers that the total Canadian Inuit population was less than 25,000, one could honestly ask if Inuit communities could afford to lose their best educated young people to serve in the Forces. The matter would have been particularly acute when one considers the developing set of Inuit priorities of that period. There was a perception that Inuit should produce their own lawyers to argue their land claims, their own administrators and politicians to run their communities, their own businessmen to run their co-operatives, and their own teachers to instruct their children. Surely, in terms of the federal government's northern goal of meeting Indigenous peoples' aspirations these latter professions should have taken precedence over military service that would have taken Inuit soldiers out of the mainstream of Inuit life. In this sense it is fortunate for the North as a whole that few Inuit have come forward seeking a military career.

* * *

This study concludes in 1975. By that time Canadian Forces had re-established themselves in the North to an unprecedented degree. While there were fewer troops permanently stationed in the region than there were in the late 1950s, Canadian servicemen from all three services were continually being exposed to the northern environment. The establishment of a Northern Region in the Forces' organization underlined that, for the first time, DND was prepared to admit that the North had an intrinsic value to the country as a whole and that a military presence was required in the area. The Canadian Forces have recognized and accepted the uniqueness of the North, which is the first step in understanding the area. Within the limits imposed by available equipment and funding, they learned how to live and to a limited extent operate "North of 60," and found the challenge of doing so an interesting one.

The impact of the renewed military presence on the North has been slight. No sovereign challenges have taxed the Canadian Forces. No threat of military conflict looms on the northern horizon. No Inuit or northern First Nations serve Canada in the [Regular Force or Primary Reserve] military in the North. Northern construction projects undertaken by the military have significantly improved the northern transportation grid, but no great commercial or industrial development has accompanied this greater capacity for humanity to move in the vastness of the North. In 1968, the new Trudeau administration, and Canadians in general, felt that the oft-anticipated but never realized massive northern development surge was about to occur. In many ways the matrix of alternatives as perceived in 1975 was even more complex than it was seen to be in 1968, particularly with respect to cultural and ecological stability versus exploitation of non-renewable resources. As Canadians learn more and more about their last frontier, hitherto unknown relationships, conditions, and constraints come to light. Given all these uncertainties, the specific future role of the military in the North is understandably unclear.

Over a century ago, a British soldier, Captain W. F. Butler, travelling in what was then “The North” called it “The Great Lone Land.” That image is still valid.

11

CONCLUSION

The Land of Tomorrow

Canadian history, in the years since Confederation in 1867, may be seen in terms of successive or overlapping imperatives. Initially there was the western imperative to establish and develop the nation along the east-west axis. At the same time, but extending well into the twentieth century, there was the imperial imperative driving the nation to define and develop its position within the British Empire and Commonwealth. Following the end of the Second World War, what could be called the continental imperative developed wherein Canada attempted to define its place and protect its national identity in the pervasive cultural, economic, and defence relationship with the United States. At present, a national imperative drives Canadians to determine the way that the country will or will not develop politically with emphasis on the place of the French-speaking province of Quebec in the nation.

These imperatives captured and dominated the collective focus of virtually every segment of the nation. Political, economic, cultural, intellectual, military and popular interests for extended periods were on the issue of the imperative. Conflicts between various interest groups were rife and were encountered at virtually every stage of the resolution process. Ultimately, all of these imperatives except the last, which is ongoing, were resolved in a manner that was satisfactory to a majority of Canadians.

There has never been a northern imperative.

The Canadian North is the land of tomorrow. It was when the region was ceded to the country in the 1870s and 1880s, so it is in the present, so it will be for the foreseeable future. The romantic image of the North as the last frontier is popular in Canada. This is an attractive image. Few nations in the modern world are blessed with an internal frontier that offers a human

challenge to develop, to create, and to protect—if not this day, this year, or this generation, then tomorrow.

Canadians have historically seen the North as being too distant, too hostile, too isolated, or too barren to warrant the full focus of the national interest. Two results follow from this perception. The first is that, in the absence of detailed scrutiny and interest, the North is historically and contemporaneously seen in simplistic terms—not only in the popular mind, but in the various foci of power in the nation. The North was initially seen as a wasteland barrier, later as a strategic approach, and currently as an ecologically-sensitive potential source of raw materials. The northern reality is infinitely more complex.

The second implication of the lack of a northern imperative is that those few Canadians who have been involved with the North have never quite determined what to do with it. The land of tomorrow calls, but the call is not clearly understood. Should the North be exploited, developed, conserved, protected—or all of these? And if all, what is the resolution between exploitation and conservation or development and protection? And what of the people who make up the races who have lived in the North since prehistoric times?

In reality, the issues are so complex, and the data base upon which to make decisions so slender, that thoughtful northern decision makers have come to realize that it is best to proceed with extreme caution, if at all. At the level of national government, the historic preference is for symbolic acts or programs designed to keep options open as opposed to the initiation of major projects that carry with them extensive commitments of resources to a unique course of action.

The notion of symbolism is fundamental to an understanding of the development of the Canadian North and the role that the military has played in the drama. The list of symbolic acts is long—from Captain Bernier's flag raising expeditions at the turn of the century, to the establishment of RCMP posts in the Arctic after the First World War, to the presence of small Canadian military staffs on the DEW Line main sites, to the contemporary patrol activities of Canadian land, sea, and air forces in the North. All of these were designed to keep open national options by providing a modest statement of continuing interest and, through presence, theoretically reaffirming control of the area.

The analysis of this study has focussed upon three main areas—national development, protection of sovereignty, and defence. The analysis is

complicated by the fact that none of these areas is discrete—all overlap. For example, the creation of a military base in the North inevitably has implications in the realms of national development and protection of sovereignty. The analysis is further complicated in that the American perceived needs for the defence of the United States (even though these needs were also often in the interest of Canada) have been the moving force in the undertaking of virtually all of the major defence-related activities in the North. The manner in which these American-sponsored projects were agreed to, executed, and conducted has always been limited by Canadian perceived needs to protect sovereignty in the North. Although Canadians on the whole have done little to develop the North, they are historically extremely jealous of their northern property and northern prerogatives and tend to be adamantly opposed to any foreign activity that would limit future northern options. Again, the image of the land of tomorrow is paramount.

The raising, deployment, and work of the Yukon Field Force, like the gold rush that provoked it, must be dismissed as an historical aberration. There can be no question that the deployment of the Force was an exercise in the protection of sovereignty. In terms of the national political and economical perspectives of the day, the gold rush was not seen as a short-term phenomenon but the beginning of a major commercial development process. The presence of the Force in the Yukon was designed to have a deterrent effect on any potential social unrest and hence political instability in the area. That it was probably not necessary is not germane to the argument.

The military activity in the North during the inter-war years is exclusively related to national development. By global standards, or even Canadian standards, this process of development was exceedingly slow. There was nothing that happened over the twenty-year period that was not done in months or at most a few years during the American-inspired northern thrust during the Second World War. The military contributions to a northern infrastructure and transportation grid were significant in terms of the total development of the time, but relatively insignificant in terms of the totality of the entire North. There was minimal development north of the continental land mass and no military input at all.

The entry of the United States into the Second World War created the greatest sustained level of activity that the North has ever seen. While the original intent of all the American-sponsored projects was defence related, the ultimate use of the northern projects in most cases was offensive. No axis

power ever attempted or, as far as is known, ever considered attacking North American targets via the Canadian North. The United States used the Canadian North to carry the war to the enemy.

Military facilities flooded the Yukon and Mackenzie Valley but spilled over throughout the continental north and even reached into some of the southern islands of the Arctic Archipelago. At the time, it was anticipated that the defence projects, particularly the air routes, would have major postwar international commercial implications. Technological progress negated this development, but the air routes proved to be important to subsequent national development within the Canadian North.

The United States, its troops, its money, its construction firms, and its employees, dominated the North. All of what the United States did or caused to be done occurred beyond the sight of ordinary Canadians; much of what they did occurred beyond the sight of even the Canadian government, despite its attempts to regulate and monitor these activities. The American withdrawal at war's end, while called for in the various agreements that had initiated projects, was primarily pragmatic. Immediate or projected defence needs did not require maintenance of existing facilities. Had the immediate postwar situation offered the United States commercial opportunity or presented an identifiable military threat in the Canadian North, there is little doubt that the United States would have pressed for, and probably achieved, continuing or even extended rights to maintain their facilities on Canadian soil. That this situation did not arise is a positive benefit in terms of Canadian sovereignty; in terms of national development, progress in the North probably would be more extensive today had the United States continued to be involved and prepared to commit money and resources on a scale available to a major world power.

The Canadian military presence in the North during the war was small in an absolute sense and completely dwarfed by the Americans in a relative sense. A handful of aviators in the Northwest and the peripatetic soldiers on the army northern exercises accounted for the total Canadian military presence in the North. The government and the aviators themselves were conscious of the balancing effect of the RCAF presence in the Northwest Staging Route. One is tempted to draw the same analogy with respect to the army's northern exercises, particularly Musk Ox, but the documentation to support such a conclusion simply is not there. In its absence, the army's first attempts to deal with the North as a potential combat environment must be likened to an experiment in pure research.

The essential military notion of the Cold War period in the North is that western strategists and defence planners saw the region not as a valuable land that warranted protection, but as an approach to urban, industrial and military targets in North America. Rather than requiring defence, the North was seen to provide strategic depth to the continent's defences. All joint Canadian-American defence projects, plans, and training exercises had at least a symbolic and often real Canadian control component reflecting the lessons learned by Canadians in their dealing with the American military during the war.

These defence activities, particularly the construction and operation of the DEW Line, had a tremendous impact on the development of the North in the vital area of extension and improvement of the air and sea transportation grid. Pure national development military projects such as the maintenance of the Alaska Highway and the continued operation of the NWT & Yukon Radio System still reflected the limited degree to which Canadian governments were prepared to commit military resources to northern development. The virtual withdrawal of the military from the North during the 1960s reflected the spiralling intensification of defence technology, changed Canadian defence priorities and the development of the civil sector to the point where appropriate civil or commercial authorities were able to take over the bulk of national development roles in the North.

The resurgence of Canadian military interest, involvement and presence in the North that characterized the 1970s must be attributed solely to the Trudeau administration's concept of protection of sovereignty as the primary role of the nation's defence forces. There is a tendency to regard the complex political notion of protection of sovereignty as some form of diluted military capability. It seems clear, however, that the Prime Minister's intent was to extend the role and missions of the Canadian Forces. Trudeau said, "Our first priority in our defence policy is the protection of Canadian sovereignty, in all the dimensions that it means."⁴⁰ In the same speech, he emphasized that the first defence priority for Canada was not NATO.

⁴⁰ Speech, Prime Minister P.E. Trudeau to Alberta Liberal Association, Calgary, 12 April 1969. John Gellner maintains that Trudeau brought to office an indifference to defence matters and a "strong anti-NATO bias" and that increased Canadian commitment to NATO starting in 1975 should not be a modest Canadian response to growing Warsaw Pact capabilities, but as a means to pursuing the political goal of extended economic involvement with the European Economic Community.

Actually, no Canadian government had ever maintained that NATO was the first priority, but it was generally agreed that the greatest threat lay in Europe and the North Atlantic and hence the Forces were equipped and devoted the bulk of their training for operations in those theatres.

Simplistically, defence implies the protection of the nation by the use, or threat of use, of military forces against opposing military forces. Protection of sovereignty, on the other hand, considerably extends the responsibilities of the national military establishment for it requires, in addition to their classical role, that they establish a presence in any area where sovereignty may be challenged, conduct surveillance throughout the area, carry out detailed reconnaissance and investigations of suspected anomalies, and ultimately enforce the national will with the use of military force if necessary. The imposition of such a responsibility takes the military into such diverse areas as fisheries protection, shipping surveillance, ecological monitoring, airspace surveillance, and generalized "showing the flag" operations on the national frontiers. It is important to note that many if not all of these extended roles hold the potential to bring military forces into contact and possible conflict with foreign elements that are private or commercial in nature, rather than official or military.

The programs and projects undertaken by the military during the 1970s were traditionally symbolic but on a more intense level than heretofore attempted but still, in the final essence, symbolic. The creation of a military region to encompass the North symbolized military intent and commitment. What the northern headquarters could accomplish was severely limited by its location, small size, lack of dedicated forces, and the sheer magnitude of the North itself. The army ventured into the Arctic on major exercises prior to 1975 but these were more demonstrations of the capability to establish a presence rather than the capability to conduct extended operations at any distance from a suitable airhead. Smaller but more frequent exercises characterized the rest of the decade but again, while Canadian soldiers appeared all over the Arctic, they were, by equipment and training, closely restricted to the close environs of a northern community. In the same vein, deployments tended to be on the order of two or three weeks only, and hence troops could not hope to begin to come to grips with the full range of problems attendant upon extended northern operations. Rather than develop a small cadre of troops highly trained in northern operations, the Canadian military establishment opted to produce a large number of soldiers who had northern exposure and indoctrination. Symbolic presence was seen

as being adequate to meet the requirement to protect sovereignty in the North.

The same may be said of the case of the Argus anti-submarine warfare aircraft on long-range northern surveillance patrols. Given that the aircraft was not equipped with any significant number or quality of remote sensors and was restricted to a mere handful of paved airfields at which it could routinely land, the NORPATs also were primarily symbolic. What was important was not that the aircraft were conducting fully effective surveillance (which they were not), but that the government could claim to be conducting a rational program aimed at protecting Canadian northern interests. This symbolic program satisfied popular concern for the security of the North. That the various programs could not stand scrutiny and analysis was not particularly important to the government. The voices of a few critics were lost in the general indifference to the North.

The annual appearance of a naval fleet support ship in the eastern reaches of the Northwest Passage at the height of the annual shipping season similarly seemed to satisfy limited Canadian concern. In some inchoate way, presence is adequate for Canadian governments and the Canadian population at large. That presence does not imply a significant operational capability has either not dawned on the nation, or, again in the absence of a northern imperative, it does not seem to matter.

The Canadian Forces, equipped as they were during the 1970s, were only marginally capable of conducting combat operations in the high reaches of the Arctic—in those lands and waters bordering and north of the Northwest Passage. The navy had no icebreaking or even ice-capable ships. Nuclear submarines, probably the most versatile all-season vessel for Arctic operations, were never even seriously considered. The air force's radius of operations in the Arctic was similarly proscribed. Both current and projected fighters and patrol aircraft require long paved airfields but in the entire Arctic Archipelago only Frobisher Bay on the south end of Baffin Island offered such a facility—grace à la United States Air Force in the 1950s. The army alone had a very limited combat capability—provided they could be deployed into the objective area. Cross-country movement on the magnitude of several hundred miles was never attempted, although theoretically some of the general-purpose vehicles and equipment in the army inventory might have been able to permit such an operation in certain types of terrain and weather conditions.

It is fair to say that the military has had a much greater effect on the North than the North has had on the military. Much of the existing northern transportation grid, the most important segment of social infrastructure, was originally developed by the military. It is important to note that the major developments were by-products of defence-related activities, and that these activities were usually American sponsored. The roads, maps, charts, construction techniques, and airfields built or paid for by the United States during the Second World War and Cold War were the single most important factor in the opening of the Canadian North. Other projects, conducted by Canadian military forces for pure national development purposes—communication systems, road construction and maintenance, airfield construction, and native education programs—are simply not of the same order of magnitude as the massive defence projects of the Americans.

One will look in vain, however, for any evidence that the Canadian military presence in the North has been a significant factor in the continued retention of the North by Canada. The oft-feared challengers to sovereignty have simply not appeared. The uninhabited lands are such for the very good reason that nobody has ever discovered a human reason to live there. International law and geographical contiguity are the prime forces in preserving Canadian possession. The sovereignty-threatening aspects of American military forces in the North are offset not so much by a symbolic Canadian military component but by the treaty arrangements made in Ottawa and Washington.

The North has had extremely little effect on the Canadian military establishment. It has never been perceived necessary to deploy significant numbers of troops into the region or to acquire specialized equipment for operations there. This is true with respect to protecting Canada from attack across the pole, or to defending the North itself. A handful of Canadian military officers and defence scientists from all services have developed well-deserved national or even international reputations as northern experts, but overall these men and women have been apart from the main thrust of conventional military concern, interest, and wisdom.

It is no great exaggeration to say that much of the North, including most of the Arctic, has always been beyond the range of Canadian military power. That this power is minor on a global scale, or that it usually has the implicit back-up support of the United States, is not germane to the argument. Although this fact is generally perceived at government and defence planners' level, it is probably not as well perceived by the Canadian

population at large. The “fireproof house” mentality is almost a race characteristic of Canadians.

The future of the military in the North is by no means clear. Certain areas of potential involvement, however, may be eliminated from consideration with a fair degree of confidence. The Canadian North generally, and the Arctic in particular, will probably never be a theatre of large-scale military operation of any sort. The lack of indigenous support structure, the distance from established bases, and the predominantly hostile climate all combine to place absolute limitations on the size of forces that could feasibly be deployed into the North.

Military operations lower in the spectrum of conflict are possible and will undoubtedly continue to be so. The two most likely situations are attacks on resource extraction facilities or the establishment of one or more divisionary lodgements in conjunction with a crisis between NATO and Warsaw Pact forces in Northwest Europe. Given the manifest impossibility of establishing fixed defences throughout the North to protect all possible targets, the Canadian response would inevitably be limited to counter-attack forces designed to eliminate or at least neutralize hostile elements. The more mobile and capable such Canadian forces are the smaller they could be. While the protection of sovereignty is the priority for the Canadian Forces, it is generally agreed that the greatest military threat resides in Northwest Europe. It would be folly in the extreme for Canada to be obliged to commit the bulk of its forces to northern defence in a war situation to defend targets or areas of only marginal military importance. Unless the essential military characteristic of the Canadian North—*isolation*—is recognized and appropriately-equipped and trained forces are developed to take advantage of this fact, Canada could be obliged to respond to a military threat with conventional forces using conventional tactics.

The future of the national development role of the military in the North is somewhat more ambiguous. Major projects such as the operation of the NWT & Yukon Radio System or maintenance of the Northwest Highway System are probably things of the past since civil capability and the size and level of sophistication of other departments of government are significantly increased over interwar or immediate postwar standards. There is probably room for military engineers to engage in short-term construction projects such as bridge or airstrip building, although such participation is not by any means a precondition of northern development. Projects by military engineers offer troops the opportunity to participate in construction work of

a type and in an environment that is not generally available in routine training. On the other hand, the opportunity to participate in such activities takes troops away from normal all-arms training in conventional military operations. The pros and cons of both options probably balance.

The continued use of military forces to monitor sovereignty-threatening, non-military activities by other states is questionable. Certainly, if the program is to be continued the long-range patrol aircraft of the air force must bear the brunt of meaningful activity. While the forces may be able to conduct northern surveillance, it remains to be shown how they could develop into a force capable of carrying out detailed reconnaissance or investigation. The vague notion that the use of military force is a feasible or appropriate response to private or commercial denials of national sovereignty is just that—a vague notion.

The periodic presence of elements of all three of the armed services in the North will probably continue. These deployments are seen in the popular Canadian mind as protecting sovereignty. There is no evidence that these activities have in any way served to deter unauthorized foreign activity in the Canadian North. On the other hand, they serve the needs of Canadian peace of mind and provide a vehicle to give substantial numbers of troops at least an exposure to the northern environment. Within the limitations of general-purpose equipment available to the forces, these indoctrination exercises should be continued with emphasis on the Arctic, particularly the archipelagic regions. In the final analysis, the time has long passed when Canada in general and its military establishment can afford to ignore the North, regard it as a barrier, or rely upon the United States to secure it. The world grows more crowded; resources are increasingly scarce; global rivalries remain undiminished. The Canadian North contains both space and raw materials. If the area is to develop in the way Canadians wish it to, and not be driven helter-skelter by international pressures, the Canadian military must be able to respond to the full range of potential threats in the coming decades. Although no human or organization can ever fully master the North, Canada's soldiers, if they are truly to be "Keepers of the North," must make every effort to do so. It is a noble challenge.

AFTERWORD

The Canadian Armed Forces and the North since 1975: A Brief Survey

P. Whitney Lackenbauer

Ken Eyre ended his historical study of military activities in the Canadian North in 1975, six years before he defended his dissertation in 1981. His article on “Forty Years of Military Activity in the Canadian North, 1947-87,” which appeared in the Arctic Institute for North America’s journal *Arctic* in 1987, observed a third wave (which proved short-lived) in the oscillating cycle of waxing and waning military interest in the region before his research moved away from Northern Canadian issues to peacekeeping. Now, broadening international awareness and acceptance of the heightened impacts of climate change in the Arctic has generated sweeping debates about present and future security and safety challenges and threats in the region. Visions of increasingly accessible natural resources and navigable polar passages connecting Asian, European, and North American markets have resurrected age-old ideas about the region as a resource and maritime frontier—as well as concomitant insecurities about the geopolitical and geostrategic impacts of growing global attentiveness to the region’s possibilities.¹ Debates about whether the region’s future is likely to follow a

¹ On these debates, see Franklyn Griffiths, Rob Huebert, and P. Whitney Lackenbauer, *Canada and the Changing Arctic: Sovereignty, Security and Stewardship* (Waterloo: Wilfrid Laurier University Press, 2011); Rob Huebert, Heather Exner-Pirot, Adam Lajeunesse, and Jay Gullede, *Climate Change & International Security: The Arctic as a Bellwether* (Arlington: Center for Climate and Energy Solutions, 2012); Frédéric Lasserre, Jérôme Le Roy, and Richard Garon, “Is There an Arms Race in the Arctic?” *Journal of Military and Strategic Studies* 14:3-4 (2012): 2-56; and Elana Wilson Rowe, “A Dangerous Space? Unpacking State and Media Discourses in the Arctic,” *Polar Geography* 36:3 (2012): 232-44. For popular commentary on the geopolitical future of the Arctic, see S.G. Borgerson, “Arctic Meltdown: The economic and security implications

cooperative trend or spiral into military competition, and how the Canadian military should best invest its efforts to anticipate, deter, and defeat threats and address security challenges across the mission spectrum, have ongoing resonance with many of the insights gleaned from *Custos Borealis*.

This afterword does not intend to offer a full history of the “military North” since the mid-1970s. Instead, it is intended as a relatively short overview of a few key issues and themes, and is intended to be complemented by my forthcoming history of Canadian Forces Northern Area / Joint Task Force (North) over the last fifty years.

Late 1970s

In the early 1970s, defence planners failed to articulate a coherent, functional rationale for an expanded military role in the North.² They retreated to the amorphous concept of the protection of sovereignty, which played to general political agendas but was not grounded in careful legal considerations or functional requirements that situated military activities in a sustainable, “whole of government” (WoG) strategy. The absence of direct military threats to Canadian sovereignty—apart from the overarching risk of nuclear war—meant that an increase in defence activities was not warranted on military grounds. Furthermore, DND’s specific responsibilities were unclear vis-à-vis the amorphous “indirect threats” to Canadian sovereignty³

of global warming,” *Foreign Affairs* 63 (2008): 63-77; “Frozen Conflict,” *The Economist*, 17 December 2014, <https://www.economist.com/international/2014/12/17/frozen-conflict>; Neil Shea, “Scenes from the new Cold War unfolding at the top of the world,” *National Geographic*, 8 May 2019, <https://www.nationalgeographic.com/environment/2018/10/new-cold-war-breeds-as-arctic-ice-melts/>; Mark Fischetti, “Divide or Conquer: Five nations are asserting rights to vast, overlapping portions of the Arctic Ocean seafloor,” *Scientific American* (August 2019): 29-36; and Kathrin Stephen, “Is Confrontation Inevitable? Political tension is increasing, but cooperation could still prevail,” *Scientific American* (August 2019): 40-43.

² See P. Whitney Lackenbauer and Peter Kikkert, “Building on ‘Shifting Sands’: The Canadian Armed Forces, Sovereignty and the Arctic, 1968-1972,” in *Canadian Arctic Sovereignty and Security*, ed. P.W. Lackenbauer (Calgary: Centre for Military and Strategic Studies, 2010), 283-308.

³ BGen Ramsay Withers, “Northern Region Concept for Force Development,” 15 June 1971, in P. Whitney Lackenbauer and Peter Kikkert, eds. *The Canadian Forces and Arctic Sovereignty: Debating Roles, Interests, and Requirements, 1968-*

which analysts anticipated. Flying the flag, naval visits to northern towns, surveillance, and purporting to represent a persistent Canadian “presence” through itinerant army exercises became the military’s primary Arctic responsibilities. In failing to heed the advice of External Affairs, defence planners confused the issues of control, enforcement, and protection of Canada’s jurisdiction in Arctic waters with the legal basis for its claims. By extension, Canada’s continuous calls for more effective occupation and comprehensive surveillance seemed to suggest that it doubted the strength of its own sovereignty position. This irony – that harping on about the need for a stronger CF presence could actually undermine the country’s sovereignty position – warrants a reminder in the latest round of sovereignty crisis-reaction.

Much of the confusion stemmed from a lack of precision on what the various commentators meant by the term *sovereignty*. Erik Wang commented in a 1976 review of Edgar Dosman’s book *The Arctic in Question* that “the international lawyer sometimes reads the current literature on the Canadian Arctic with a sense of uneasiness.” Public discussions of the multilayered concept of sovereignty focus “on policy questions that flow *from* sovereignty, from Canada’s right to exercise jurisdiction, to the exclusion of any other state, over vast areas of arctic lands and waters.” Non-lawyers invest the idea of sovereignty with a range of national goals, from public opinion and a sense of emotive attachment, to pollution control, to safeguarding “strategic resources,” which blurs important legal distinctions. Citing Max Huber’s definition of sovereignty as “the right to exercise therein, to the exclusion of any other state, the functions of a state,” Wang concluded “that by this definition Canada’s *legal* position as sovereignty over the Arctic mainland, islands, and continental shelf is unchallenged and indeed unchallengeable.” These observations are worth remembering in the context of the current, often confused, debate over Arctic sovereignty. The legal status of the region is still tangled up with political, economic, and environmental issues that, in Wang’s understanding, should constitute “policy issues, not legal or sovereignty issues. The distinction is between *rights* and the *manner* in which those rights are *exercised*.”⁴ Furthermore,

1974 (Waterloo: Laurier Centre for Military Strategic and Disarmament Studies Press, 2010), 301-12.

⁴ Erik Wang, “Canadian Sovereignty in the Arctic: A Comment on *The Arctic in Question*,” *Canadian Yearbook of International Law* 1976 (Vancouver: UBC Press, 1976), 307-12.

legal advisors at External Affairs astutely observed that the military's fixation on presence and surveillance was inconsistent with the government's functional approach to sovereignty. In the case of defence, symbolism and sovereignty rhetoric trumped substance. This produced a short-term, short-lived flurry of heightened Canadian Forces activities designed to "show the flag" in the Arctic, but the absence of an appreciable sovereignty threat or clear military roles ensured that, over the long-term, there was insufficient justification for a sustained investment in northern capabilities.

In *Custos Borealis*, Eyre observed that "the programs and projects undertaken by the military during the 1970s were traditionally symbolic but on a more intense level than heretofore attempted but still, in the final essence—symbolic." This emphasis on symbolism over substance reflected the military's imprecise definition of the armed forces' roles, mission and functional tasks in the Arctic. Defence scholar Douglas Bland noted that:

Sovereignty missions and national development tasks, though they did not amount to much activity in reality, heaped more demands on the defence budget. [Vice Chief of the Defence Staff] Admiral [Robert] Falls recalled that following the minister's demands, "We conducted superficial acts. We flew aircraft in the north on monthly patrols... they never made contact ... we flew in complete darkness, figuratively and literally, most of the time. We sent ships into the north and damaged their hulls, they weren't made for that type of action. It was a complete waste of time, but it satisfied the politicians." The CDS reluctantly ordered the CF to undertake these domestic missions and tried to plan for Canada's alliance commitments, but no one had any idea how these old and new tasks were to be accomplished "in the teeth of a budget freeze."⁵

As Eyre observed in *Custos Borealis*, Army and Navy exercises had less to do with establishing a capability to operate in the North than with demonstrating "the capability to establish a presence," and it seemed less important for aircraft on long-range northern patrols to actually conduct effective surveillance than to allow the government to claim that it was

⁵ Douglas Bland, *Chiefs of Defence* (Toronto: Canadian Institute of Strategic Studies, 1995), 232-33.

conducting a rational program aimed at protecting Canadian northern interests.

Sustained political attention focused instead on crafting a new Northern strategy that reflected a new federal approach to administering the region. Alongside environmental considerations encouraging Canadians to reconceptualize the Arctic from a frontier space to a *place* in need of protection, the idea of the Arctic as a *homeland* gained greater political salience in the Canadian dialogue on development in the 1970s. Indigenous groups had re-emerged as a political force in Canada, and Northern leaders would no longer tolerate being left out of discussions related to resource development in their traditional territories. The Berger Inquiry, conducted to look into the socio-economic and environmental impact of a pipeline along the Mackenzie Valley through the Yukon and NWT, elicited unprecedented public engagement on a frontier development project before it began. Justice Thomas Berger's final report, *Northern Frontier, Northern Homeland*, highlighted competing visions of Canada's Northern history and the future. "We look upon the North as our last frontier," he noted of the southern Canadian view. "It is natural for us to think of developing it, of subduing the land and extracting its resources to fuel Canada's industry and heat our homes. But the native people say the North is their homeland. They have lived there for thousands of years. They claim it is their land, and they believe they have a right to say what its future ought to be." Berger recommended a ten-year moratorium on any pipeline development so that Aboriginal land claims could be settled and appropriate conservation areas established beforehand.⁶ Thus, internal sovereignty claims by Canadian Indigenous groups changed the political dialogue, and Canada embarked upon a process of settling comprehensive land claims with Northern Indigenous peoples whose land rights had not been dealt with by treaty or other legal means—a process that has dramatically transformed Canada's political landscape and remains ongoing today.

⁶ Thomas R. Berger, *Northern Frontier, Northern Homeland: The Report of the Mackenzie Valley Pipeline Inquiry* vol. 1 (Ottawa: Minister of Supply and Services Canada, 1977), 1. See also Canadian Broadcasting Corporation (CBC) archives, "The Berger Pipeline Inquiry," http://archives.cbc.ca/IDD-1-73-295/politics_economy/pipeline/, and Martin O'Malley, *The Past and Future Land: An Account of the Berger Inquiry into the Mackenzie Valley Pipeline* (Toronto: P. Martin Associates Ltd., 1976).

Deliberations about the future of the Canadian North in the 1970s raised core political questions relating to economic development, with little role or responsibility for the military. When the oil industry decided that the Northwest Passage had no commercial value at that time, the likelihood of a sovereignty challenge declined. The military's practical responsibilities in a region facing non-military threats had been unclear even when sovereignty concerns raged; now that the threat had receded, the rationale for anything more than a symbolic presence weakened. By the end of the 1970s, defence planners had little incentive to do anything because politicians and the public had few concerns about northern sovereignty and security. In March 1979, the minister of national defence noted that "neither the military threat nor the non-military threat to Canada's sovereignty in the North is considered to be significant" and that "Canada's presence in the North seems now to be well established."⁷ Budget freezes, squeezes, and cutbacks left National Defence with little room to manoeuvre.⁸ The North was out of sight—and out of mind.⁹ "Faced with reduced budgets, an aging inventory of equipment and a multiplicity of missions, Canada's military leaders cut where they could," Eyre observed. "One of the areas to suffer was the North. The North, the land of tomorrow, could wait."¹⁰

"The Land of Tomorrow": In the Wake of Polar Sea, 1985-89

It took less than a decade, however, for Arctic sovereignty to re-emerge as an issue of acute national interest. Soon after Brian Mulroney's Progressive Conservatives took office, Canadians cried out for a bolder presence in the North when the U.S. Coast Guard icebreaker *Polar Sea* transited the Northwest Passage in August 1985. The voyage was not intended to

⁷ Quoted in Brigadier-General Blake Baile, "Security and Sovereignty in Canada's North," *Proceedings of the National Northern Development Conference* (Edmonton: Northern Development Centre, 1982), 67.

⁸ Desmond Morton, *A Military History of Canada*, 4th ed. (Toronto: McClelland and Stewart, 1999), 261.

⁹ Although sovereignty concerns and overall support for most Canadian Forces activities had dissipated, the Ranger support staff in Yellowknife actually benefitted from a modest increase in personnel in the early 1980s. See Lackenbauer, *Canadian Rangers: A Living History*, 269-72.

¹⁰ Kenneth C. Eyre, "Forty Years of Military Activity in the Canadian North, 1947-87," *Arctic* 40:4 (December 1987): 298.

undermine Canadian sovereignty claims, but it generated such a flurry of media interest that the new government in Ottawa had to re-evaluate Canada's Arctic policies.¹¹ In September, it announced steps to assert Canada's legal position by formally announcing straight baselines around the entire Arctic Archipelago. To show the flag, the Canadian Forces would increase their northern patrol flights and naval activities, thus repackaging military activities that had been ongoing since the 1970s. The government's intention to build a Polar 8 class icebreaker to operate in Arctic waters year-round represented another material commitment to asserting Canadian sovereignty.¹²

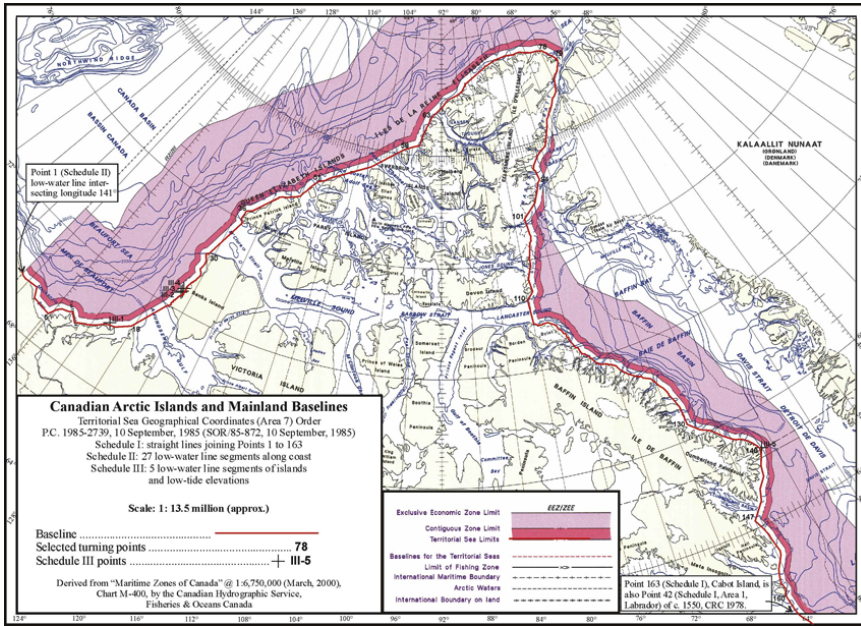
Joe Clark, the Minister of External Affairs, made an oft-quoted statement to the House of Commons on 10 September 1985 that directly linked Canadian sovereignty to Northern Indigenous peoples: "Canada is an Arctic nation ... Canada's sovereignty in the Arctic is indivisible. It embraces land, sea and ice ... From time immemorial Canada's Inuit people have used and occupied the ice as they have used and occupied the land ... Full sovereignty is vital to Canada's security. It is vital to the Inuit people. And it is vital to Canada's national identity."¹³ The federal government's mobilization of Indigenous use and historical occupancy to justify its position raised legal, moral, and practical reasons to encourage direct Northern participation in defence activities – a new departure in the high-level political discourse that triggered renewed interest in and commitments to increase the number of Canadian Rangers in Arctic communities.¹⁴

¹¹ On "the politics of ad hocery," see Rob Huebert, "A Northern Foreign Policy: The Politics of Ad Hocery," in *Diplomatic Departures: The Conservative Era in Canadian Foreign Policy, 1984-93*, ed. Nelson Michaud and Kim R. Nossal (Vancouver: UBC Press, 2001), 84. On the United States' decision to send the *Polar Sea*, see Huebert, "Polar Vision or Tunnel Vision? The Making of Canadian Arctic Waters Policy," *Marine Policy* 19:4 (1995): 343-64.

¹² See Huebert, "A Northern Foreign Policy," 86-91. For a fuller discussion, see Rob Huebert, "Steel, Ice and Decision-Making: The Voyage of the *Polar Sea* and Its Aftermath" (PhD diss., Dalhousie University, 1994). The navy had not entered Arctic waters since 1982.

¹³ House of Commons, *Debates*, 10 September 1985, 6462-64.

¹⁴ See, for example, Robert Fowler to House of Commons Standing Committee on National Defence, *Proceedings and Evidence*, 26 March 1987, 8:23-25. On this theme, see Lackenbauer, *The Canadian Rangers: A Living History* (Vancouver: UBC Press, 2015).



When the Cold War entered its final stages in the late 1980s, the Arctic returned to the forefront of Canadian defence planning for a short time – the third surge of military activity in Eyre’s reading of postwar trends.¹⁵ The Mulroney government’s 1987 white paper on defence exuded Cold War rhetoric. Although Mikhail Gorbachev, in his Murmansk Speech that same year, called on his circumpolar neighbours to make the Arctic a “zone of peace,” the Canadian government’s defence policy statement stressed the Soviet Union’s military buildup over the previous decade (especially the ballistic missile submarine fleet based at the Kola Peninsula) and its intent to weaken Western democracies. Growing concerns about Soviet naval capabilities in the Arctic, and the belief that the USSR was (in the words of the 1987 White Paper) an “ideological, political, and economic adversary whose explicit long-term aim is to mould the world in its own image,” justified a new Arctic defence imperative.¹⁶ The Canadian white paper identified a military “commitment-capability gap” that required extensive funds to modernize equipment and obtain new weapons, including long-range patrol aircraft, a fleet of ten to twelve nuclear-powered attack submarines (SSNs), and fixed sonar arrays to detect submarines. The

¹⁵ Eyre, “Forty Years of Military Activity,” 298.

¹⁶ Canada, Department of National Defence, *Challenge and Commitment* (Ottawa: Minister of Supply and Services Canada, 1987), 5.

government pledged to upgrade airfields at Canadian NORAD Region forward operating locations (FOLs) at Yellowknife, Inuvik, Rankin Inlet, Iqaluit, and Kuujuaq, and to contribute \$760 million to modernize the North American Aerospace Defence Command (NORAD) and to construct the North Warning System to replace the DEW Line. Other capital projects for northern defence included new equipment for the Canadian Rangers, a training center at Nanisivik, reconnaissance aircraft, a northern-terrain vehicle fleet, and a Polar Class 8 icebreaker.¹⁷

Eyre observed that “*Challenge and Commitment*, the 1987 White Paper on Defence, when viewed from a ‘northern’ perspective is a striking document: it contains not one but three polar projection maps to illustrate various defence-related realities and perceptions. Clearly, the Canadian North is about to receive another pulse.” In his assessment, defence and the protection of Canadian sovereignty remained predominant themes. Modernizing the DEW Line fit with “the Reagan administration’s concern with defence matters and the advent of aircraft- launched cruise missile technology,” while the building of forward-operating bases for CF-18 interceptor aircraft at five locations north of 60 supported the idea of a broader military “presence.” Eyre considered the decision to acquire a fleet of nuclear submarines the most controversial part, with the emphatic refrain that these would serve “on three oceans” leading “many casual observers to assume that the main reason for acquiring the nuclear fleet is to patrol the Arctic Ocean.” Although he thought it “unlikely that this will be the main operating area of the vessels,” the prospect of having nuclear submarines “provides Canada with a significant range of options not previously available.”¹⁸

As a former infantry officer, Eyre also noted that the 1987 defence white paper acknowledged “the requirement for land forces to be able to operate in the North.” Based upon his observations of the preceding decade, however, he remained skeptical:

The notion of the coupling of the Airborne Regiment to provide access and new air portable reserve brigades to provide response is partially developed. What remains to be seen is if the government has the resolution to acquire the technology and techniques to support tactical movement

¹⁷ DND, *Challenge and Commitment*, 10-13; 54.

¹⁸ Eyre, “Forty Years of Military Activity,” 298.

within the North as opposed to strategic movement into the North. The lodgement scenario still remains, now cloaked in the mantle of a diversion. Given the Canadian commitment to deploy the majority of its land forces to Europe in time of crisis, it is important that the country have the capability to handle hostile incursions within its own territory at the same time.

Eyre noted that policy pledges to strengthen the Canadian Rangers and build a northern training center simply reiterated previous commitments made back in 1971 and never fulfilled. “Old northern hands must be permitted to be skeptical and adopt an ‘I’ll believe it when I see it attitude,” he offered.¹⁹ The former did receive sustained resources, although never along the ambitious lines proposed in the 1970s – and interest again proved fleeting.²⁰ The northern training centre plans did not survive the end of the Cold War but, as was the case with several other Mulroney-era Arctic defence initiatives, would be resurrected under Stephen Harper’s Conservative government in the twenty-first century.

The “protection of sovereignty role” articulated in *Challenge and Commitment* had an unquestionable Northern focus. Eyre observed that:

Within the section on sovereignty, the concept of “the military role in sovereignty is that of the ultimate coercive force available....” The analysis then goes on to note that monitoring or surveillance in itself is inadequate and that “to exercise effective control, there must also be a capability to respond with force against incursions.” Here abstract concepts come up against hard political and economic realities. Sovereignty violations within the context of the white paper are only likely to be mounted by public (or private) elements of the United States. One must seriously question whether or not in these circumstances the threat of military force has any credibility whatsoever - in the air, on the land, on the seas or under the seas. Many would say it does not. Perhaps the ultimate symbol and tool of Canadian sovereignty in the North remains the same as it has throughout this century: a constable of the Royal Canadian

¹⁹ Eyre, “Forty Years of Military Activity,” 298.

²⁰ See Lackenbauer, *Canadian Rangers*, 252-332.

Mounted Police armed with nothing more than an arrest warrant.²¹

The concept of military “presence” bolstering sovereignty, which remained as amorphous as it had been in the 1970s, lingered on. Nevertheless, the Canadian Forces resumed their role as the modern flag-bearer for Canadian sovereignty in the latter half of the 1980s. The army again mounted company-level exercises in the Arctic each year, the air force increased its northern patrol flights (NORPATS), and the navy revived deployments designed to show the flag in northern waters (NORPLOY). Indeed, the Canadian Forces’ role was core to the government’s new northern maritime policy. Critics suggested that even the latter initiative reflected “the now traditional sovereignty-presence concept” more than actual defence needs, but the important symbolism it offered in terms of Canada being able to project its air power over the Arctic was unmistakable.²²

The Conservative approach to Arctic sovereignty assertion was nationalistic, even if the Mulroney government was arguably the most pro-American in Canadian history. Consistent with its overall foreign policy approach, however, its explicit Arctic strategy also stressed the intent to negotiate an agreement with the United States over the contentious issue of sovereignty over the waters in the Arctic Archipelago. The kaffuffle over the *Polar Sea* highlighted incompatible interests and claims, and past reluctance on the part of either to concede on any points might have indicated that forward movement would be impossible. President Ronald Reagan and Prime Minister Mulroney, however, developed such a positive working relationship that after the two leaders met in April 1987, the president told his negotiators to reach a working compromise with Canada on the Northwest Passage issue.²³ Captain Thomas Pullen, the retired RCN officer who had sailed on the *Manhattan*, published a sober reflection on the situation in September 1987:

²¹ Eyre, “Forty Years of Military Activity,” 298-99.

²² Huebert, “Polar Vision or Tunnel Vision,” 350-52; and Eyre, “Forty Years of Military Activity in the Canadian North,” 299.

²³ On negotiations and the Mulroney-Reagan relationship, see Christopher Kirkey, “Smoothing Troubled Waters: The 1988 Canada-United States Arctic Co-operation Agreement,” *International Journal* 50:2 (1995): 408-16, 422-26.

If push comes to shove, which is more important – Canadian Arctic sovereignty or U.S. security? When one shares a continent with a superpower, these are the facts of life; the issues of sovereignty and security are inseparable. To be squeezed between two superpowers is a costly and frustrating business. Canada should negotiate with its southern neighbour to find a mutually palatable solution to the issues of Arctic sovereignty and North American security. Surely it should be possible for the United States and Canada – friends, neighbors, and allies – to come to some agreement.²⁴

Political concerns surrounding sovereignty dissipated after the signing of the Canada-U.S. Arctic Cooperation Agreement on 11 January 1988, which put aside the intractable question of the actual legal status of the waters in the Arctic Archipelago and created an effective framework to manage the issue. The United States agreed to seek Canadian consent before its icebreakers navigated in what Canada considered its internal waters, based on the principle that these were scientific missions of mutual benefit to both countries. The agreement, however, was carefully crafted to avoid prejudicing either side's well-established legal position. "Nothing in this agreement of cooperative endeavour between Arctic neighbours and friends nor any practice thereunder affects the respective positions of the governments of the United States and of Canada on the Law of the Sea in this or other maritime areas," it noted. The U.S. only agreed to disagree with Canada on the legal status of the Passage, thus ensuring that American national interests in international straits more generally were not jeopardized. "While we and the United States have not changed our legal positions," Mulroney explained, "we have come to a practical agreement that is fully consistent with the requirements of Canadian sovereignty in the Arctic." President Reagan also stressed that the agreement was "a pragmatic solution based on our special bilateral relationship, our common interest in cooperating on Arctic matters, and the nature of the area. It is without

²⁴ T.C. Pullen, "What Price Canadian Sovereignty?" United States Naval Institute *Proceedings* 63 (September 1987): 66-72.

prejudice to our respective legal positions and sets no precedents for other areas.”²⁵

Thus, a non-prejudicial, practical arrangement again proved that diplomacy could trump the politics of embarrassment so often played out in the popular press.²⁶ “The 1988 agreement represents a pause rather than an end to the Northwest Passage dispute as military, economic, and environmental pressures increase in the entire region,” political scientist Philip Briggs observed.²⁷ Although this agreement related only to icebreakers, and did not solve the core legal disagreement over “internal waters” versus “international strait,” it did allow both sides to satisfy their basic objectives through negotiation. Canada could claim that U.S. icebreakers would not transit the passage without Canadian consent, and the U.S. retained access to the passage while avoiding recognizing it as Canadian. Developments soon confirmed that Canadian-American relations in the Arctic were cooperative and compatible, not competitive. In September 1988, two Canadian icebreakers were stuck in the ice off Point Barrow and the USCGS *Polar Star* came to their rescue. When the task was complete, the *Polar Star* could not cross the Beaufort Sea and, with winter fast approaching, took the safe route east through the Northwest Passage. In accordance with the 1988 agreement, the U.S. State Department sought and within hours received Canadian permission for the icebreaker to transit the passage and to conduct scientific research along the way. A Canadian Coast Guard icebreaker accompanied the *Polar Star* and a Canadian officer was onboard during its transit of the Passage.²⁸ This time, there was no political or popular backlash. The North American friends could, it seemed, agree to disagree about the legalities and work together. Once again, alleged American threats to Canada’s Arctic sovereignty had proven an unsustainable pretext to justify the investment of Canadian military resources to defend its far north.

²⁵ Quoted in David L. Larson, “United States Interests in the Arctic Region,” *Ocean Development & International Law* 21:2 (1990): 183. See also Kirkey, “Smoothing Troubled Waters.”

²⁶ Christopher Kirkey, “The Arctic Waters Pollution Prevention Initiatives: Canada’s Response to an American Challenge,” *International Journal of Canadian Studies* 13 (1996): 56.

²⁷ Philip J. Briggs, “The *Polar Sea* Voyage and the Northwest Passage Dispute,” *Armed Forces & Society* 16:3 (1990): 449.

²⁸ Larson, “United States Interests,” 183-84.

The opening and “fall” of the Berlin Wall beginning in late 1989, and the dissolution of the Eastern Bloc over the next two years, also prompted Ottawa and Washington to re-evaluate their Cold War assumptions, thrusting Arctic security even further out of the political spotlight. Voices within the United States, bolstered by the confidence of “winning” the Cold War, began to preach about an expected “peace dividend” in a new era of liberal peace. The Mulroney government had already announced on 27 April 1989 that it would not proceed with acquiring nuclear-powered submarines and, one by one, cut its other planned military acquisitions to serve the cause of Arctic sovereignty. Only the North American Air Defence Modernization program and the expansion of the Canadian Rangers avoided the government’s knife. More pressing national priorities—particularly a growing national debt—trumped Arctic issues, precipitating a now-typical period of military inactivity in the North in the 1990s. The sovereignty crisis had passed, and so too had the imperative to deliver on Arctic security promises.

The Circumpolar Arctic as a Zone of Peace and Cooperation, 1990-2000

Although Canadians and their government seemed to lose interest in traditional Arctic defence and security issues as the Cold War melted away, Northern concerns did not disappear from the national agenda. New issues – Indigenous land claims, self-government, and environmental concerns that transcended national boundaries in the circumpolar Arctic – called for a different conversation. In the late 1980s, political scientist Franklyn Griffiths had suggested that the Arctic states had to decide whether they wanted the region to be one of enhanced civil cooperation (civility) or of military competition. In his view, accepting “an integrated concept of security – one in which military requirements are combined with an awareness of the need to act for ecological, economic, cultural, and social security” – would allow northerners to play a more direct role in setting agendas and fostering cooperation and dialogue.²⁹ The Canadian Rangers certainly fit this logic. The 1987 white paper had highlighted the Rangers’ “significance as a surveillance force and as a visible expression of Canadian sovereignty in the

²⁹ Franklyn Griffiths, “Civility in the Arctic,” in *Arctic Alternatives: Civility or Militarism in the Circumpolar North*, ed. Franklyn Griffiths (Toronto: Science for Peace/Samuel Stevens, 1992), 279-309.

North requires its expansion and an improvement in the equipment, training and support it receives.”³⁰ In contrast with the image of military-Indigenous tension captured in photographs from the Oka Crisis of 1990, the Canadian Rangers offered a positive portrait of cooperation. Northern leaders from the Dene Nation and Inuit Tapirisat of Canada singled out the Rangers as a positive contribution to the defence of Canada and expressed a desire to see the force expanded. The government paid heed to their advice, with enhancing the Rangers and publicizing their activities as ways to further relationships with northern communities and Indigenous organizations.³¹

Human and environmental security considerations also came to dominate the circumpolar agenda. Partnership and cooperation required dialogue with Indigenous organizations, scientists, and sub-national governments, and the collapse of the Soviet Union allowed attention to shift from traditional to non-traditional security concerns, particularly the protection of the Arctic environment. Scientists demonstrated that transboundary pollutants, such as fertilizers and insecticides, concentrated in the Arctic region, and that the Soviet Union had done little to protect its arctic regions from pollution and radioactive wastes.³² The toxic legacies of the Cold War encouraged the Western allies to assist Russia with the “nuclear problems” associated with its northern fleet, such as radionuclide contamination from illegal dumping of nuclear wastes and decommissioned Russian nuclear-powered submarines corroding in the Arctic Ocean.³³ In the Canadian Arctic, abandoned Cold War military sites required remediation, with hundreds of millions of dollars poured into cleaning up

³⁰ Minister of National Defence, *Challenge and Commitment: A Defence Policy for Canada* (Ottawa: Department of National Defence, 1987).

³¹ Brig.-Gen. V. Pergat, “Northern Region Strategic Plan -- 1992-97,” 25 May 1992, DND, Canadian Rangers National Authority (CRNA) file “CFNA Rangers -- General.”

³² Rob Huebert, “Canadian Arctic Security Issues: Transformation in the Post-Cold War Era,” *International Journal* 54:2 (Spring 1999): 207.

³³ R.B. Huebert, “Security and the Environment in the Post Cold War Arctic,” *Environment & Security* 4 (2000), 107; Arctic Monitoring and Assessment Programme (AMAP), *Arctic Pollution Issues: A State of the Arctic Environment Report* (Oslo: AMAP, 1997), 113, 117-18, available online at <http://www.amap.no/documents/index.cfm?dirsub=/Arctic%20Pollution%20Issues%20-%20A%20State%20of%20the%20Arctic%20Environment%20Report>.

decommissioned DEW Line sites.³⁴ This investment in environmental safety, alongside a dramatic reduction in Canadian Forces surveillance patrols and training exercises, reflected the change in official priorities.

Protecting the northern ecosystem also required collective action on the international front, and the post-Cold War climate seemed hospitable to goodwill and cooperation. Accordingly, the eight Arctic countries signed the Arctic Environmental Protection Strategy (AEPS) in 1991, creating a forum to work on Arctic-wide environmental regulation and management.³⁵ The Canadian idea of a broader Arctic Council soon superseded the AEPS,³⁶ leading to the creation of a high-level forum for dialogue between Arctic states (with strong participation by Indigenous representative groups as “permanent participants”) that confirmed Russia’s place in a peaceful and constructive circumpolar order. A new emphasis on sustainable development broadened the concept of security and downplayed traditional military threats or solutions. “This new agenda for security cooperation is inextricably linked to the aims of environmentally sustainable human development,” a House of Commons Standing Committee on Foreign Affairs and International Trade report noted in 1997. “Meeting these challenges is essential to the long-term foundation for assuring circumpolar security, with priority being given to the well-being of Arctic peoples and to

³⁴ By the time the cleanup effort was completed in 2014, DEW Line remediation cost the government \$575 million and required the removal of toxic waste from 21 former radar stations across the Arctic. CBC News, “DND announces DEW Line clean-up completed,” 7 March 2014, <https://www.cbc.ca/news/canada/north/dnd-announces-dew-line-clean-up-completed-1.2564735>.

³⁵ Rob Huebert, “New Directions in Circumpolar Cooperation: Canada, the Arctic Environmental Protection Strategy, and the Arctic Council,” *Canadian Foreign Policy* 5:2 (1998): 37-58; Huebert, ““The Arctic Council and Northern Aboriginal Peoples,” in *Issues in the North* vol.3, eds. Jill Oakes and Rick Riewe (Edmonton: Canadian Circumpolar Institute, 1998), 144; Mark Nuttal, *Protecting the Arctic: Indigenous Peoples and Cultural Survival* (Amsterdam: Harwood, 1998), 40.

³⁶ John English, *Ice and Water: Politics, Peoples and the Arctic Council* (Toronto: Penguin Canada, 2013).

safeguarding northern habitants from intrusions which have impinged aggressively on them.”³⁷

In this context, Jean Chrétien’s Liberal government did not cast the Canadian Forces as a significant player in the Arctic theatre at the dawn of a new millennium. The all-party parliamentary committee urged Canada to push to make the Arctic a nuclear weapons-free zone, and even seek international agreement to demilitarize the region. The official Government of Canada response did not concur with this advice, highlighting that the Canadian military conducted essential operations, such as humanitarian assistance and search and rescue, that would be “difficult, and perhaps even impossible,” for any other organization to provide in the Arctic. “Additionally, the cultural inter-play of service people serving in our North has an intangible benefit in promoting a sense of national awareness among the military and those northern residents who come in contact with the military,” the official response noted. “A military presence in the North also provides Canada’s Aboriginal peoples with an opportunity to serve their country and community through participation in the Canadian Rangers.” In short, Canada’s existing activities to assert sovereignty (maritime surveillance overflights, coast guard icebreaker patrols, and the Canadian Rangers) were compatible with a constructive Arctic strategy. No external sovereignty or security crisis seemed to warrant an increased military presence, however, beyond a modest expansion in the number of Northerners serving with the Canadian Rangers.³⁸

In 2000, the Department of Foreign Affairs and International Trade issued *The Northern Dimension of Canada’s Foreign Policy*. Its opening paragraphs encapsulated how much the Liberal government’s view of the Arctic had changed from that of its predecessors. “The circumpolar world that includes the northern territories and peoples of Canada, Russia, the United States, the Nordic countries plus the vast (and mostly ice-covered) waters in between was long a front line in the Cold War,” it highlighted. “Now it has become a front line in a different way — facing the challenges and opportunities brought on by new trends and developments. The

³⁷Report of the House of Commons Standing Committee on Foreign Affairs and International Trade, *Canada and the Circumpolar World: Meeting the Challenges of Cooperation into the Twenty-First Century* (April 1997), ix, 100.

³⁸Government Response to Standing Committee on Foreign Affairs and International Trade Report “Canada and the Circumpolar World: Meeting the Challenges of Cooperation into the Twenty-First Century (1998).

challenges mostly take the shape of transboundary environmental threats ... that are having dangerously increasing impacts on the health and vitality of human beings, northern lands, waters and animal life.” Globalization and the political aspirations of “increasingly confident northern societies” pointed towards a perceived need to conceptualize “the circumpolar world as an area for inclusion and co-operation,” jettisoning “the politics of the Cold War [which had] dictated that the Arctic region be treated as part of a broader strategy of exclusion and confrontation.”³⁹

Framed by principles of Canadian leadership, partnership, and ongoing dialogue with Northerners, this foreign policy statement on the region was rooted in four overarching objectives. First was enhancing “the security and prosperity of Canadians, especially northerners and Aboriginal peoples.” After all, the birth of the new territory of Nunavut in 1999 signaled that the North was changing in fundamental ways. Self-government and devolution, rooted in partnership with Aboriginal peoples, had to be accompanied by new economic opportunities that promoted and protected northern interests.⁴⁰ While the government committed “to assert and ensure the preservation of Canada’s sovereignty in the North,” this would look different than it had before. The absence of traditional security and sovereignty threats from its description of the region undergirded its new vision. “In the past, much of Canada’s attention to northern foreign relations has focussed on threats to sovereignty. Time has changed the nature and implication of those threats — co-operation has largely overshadowed boundary disputes in the North.” The government still needed to enforce Canadian laws and regulations, but its international engagement would reflect “the growing maturity of the circumpolar region ... as a vibrant geopolitical entity integrated into a rules-based international system.” The message was partnership and shared interests. Canada’s new Northern foreign policy orientation would “promote the human security of northerners and the sustainable development of the Arctic” – both concepts that highlighted how non-traditional security interests, not the military interests of the state, would take priority.⁴¹

³⁹ Department of Foreign Affairs and International Trade (DFAIT), *The Northern Dimension of Canada’s Foreign Policy* (2000), available online at <http://library.arcticportal.org/1255/>.

⁴⁰ DFAIT, *Northern Dimension of Canada’s Foreign Policy*.

⁴¹ DFAIT, *Northern Dimension of Canada’s Foreign Policy*. The Canadian government defined “human security” as “freedom from pervasive threats to

These assumptions during an era of fiscal austerity in which Canada faced no apparent Arctic military threats dictated a precipitous decline in Canadian Armed Forces activity and presence in the Canadian North. The navy had halted its semi-annual northern deployments (NORPLOYs) in 1990, army training in the Arctic ceased on all but the smallest scale, and air force patrols scaled back. The 1994 Defence White Paper scarcely mentioned the Arctic.⁴² The army did not conduct any sovereignty operations in 1999/2000, and RCAF Aurora maritime patrol aircraft conducted only four sovereignty patrols in 2000, down from twenty in the mid-nineties. The headquarters in Yellowknife, with 77 personnel, lacked “the staff resources or situational awareness to coordinate more than a nominal level of activity.” The four Twin Otter transport aircraft represented a small air force presence in the North, and the Forward Operating Locations were seldom used for fighter aircraft operations. The largely unmanned NWS radar sites, maintained by civilian contractors, and the skeleton staff at Canadian Forces Station Alert/Eureka on Ellesmere Island continued their quiet vigil. The Canadian Rangers, part-time volunteers in 58 patrols across the Territorial North, provided the most extensive and visible military presence in the North. They did not, however, have the capacity to operate outside of their local areas nor the authorization to do more than report problems.⁴³ Much of the institutional knowledge surrounding Arctic operations had dissipated during the 1990s, and the Forces’ ability to move, operate, and survive in the North had atrophied as a result.⁴⁴

people’s rights, safety and lives.” For an overview, see Walter Dorn, “Human Security: An Overview” (Pearson Peacekeeping Centre, 2001), http://www.rmc.ca/academic/gradrech/dorn24_e.html#e2. On facets of “sustainable development” in the north, see DFAIT, *Toward a Northern Foreign Policy for Canada: A Consultation Paper* (September 1998), <http://www.dfait-maeci.gc.ca/circumpolar/final4-en.asp>.

⁴² Canada, Department of National Defence, *1994 White Paper on Defence* (Ottawa: DND, 1994).

⁴³ *Arctic Capabilities Study*, June 2000, 9-10, DND file 1948-3-CC4C (DGSP), acquired through Access to Information.

⁴⁴ See Adam Lajeunesse and P. Whitney Lackenbauer, eds., *Canadian Armed Forces Arctic Operations, 1941-2015: Lessons Learned, Lost, and Re-Learned* (Fredericton: Gregg Centre, University of New Brunswick, 2017).

The Fourth Surge: From “Use it or Lose it” to a Whole of Government Approach

The dawn of the new millennium brought new concerns that portended a “renaissance in Canadian Arctic security.”⁴⁵ Alarmed by the deterioration of military capabilities and a perceived lack of Canadian government action regarding Arctic security, a small circle of officials based in the Territorial North conceived the Arctic Security Interdepartmental Working Group (since renamed the Arctic Security Working Group) in May 1999 to examine and coordinate security policy for the region.⁴⁶ Colonel Pierre Leblanc, the Commander of Canadian Forces Northern Area (CFNA), insisted that the military’s diminishing Arctic presence was irresponsible. In response, the deputy minister’s office ordered a study of Canada’s vulnerabilities in the North. As part of this study, DND also took stock of its Arctic assets and capabilities and reviewed other government department (OGD) activities, and their plans for future engagement with the CAF in the North. Input was gathered from across CFNA (now Joint Task Force North) and the wider DND/CAF community, as well as from other government agencies and academic experts.

⁴⁵ Rob Huebert, “Renaissance in Canadian Arctic Security?,” *Canadian Military Journal* 6:4 (Winter 2005-06): 17-29.

⁴⁶ Officials from the Canadian Forces, the RCMP, Coast Guard, Revenue Canada, Citizenship and Immigration, the Canadian Security Intelligence Service (CSIS), and Foreign Affairs and International Trade attended the first meeting. When the third meeting was held in Iqaluit in October 2000, membership had expanded to include representatives from Natural Resource Canada, Environment Canada, Indian Affairs and Northern Development, Transport Canada, Health Canada, and the Yukon, Northwest Territories, and Nunavut governments. The list of participants grew over the next decade, both in numbers and in the government departments and agencies represented. “The Team North approach to addressing the security concerns of the Arctic is imperative because no single department, federal or territorial, works independently in the north; collectively, success will be achieved and the Government of Canada’s mandate will be fulfilled,” Brigadier-General Chris Whitecross, the Commander of Joint Task Force North (JTFN), noted in 2007, when 60 representatives of federal and territorial departments and agencies, as well as non-governmental organizations, attended the spring meeting in Whitehorse. JTFN News Release NR-07.005, “16th Meeting of the Arctic Security Working Group,” 16 May 2007.

The results of the work were presented in June 2000 as the *Arctic Capabilities Study*,⁴⁷ which acknowledged that the nature of security issues had evolved to include environmental, social and economic aspects, particularly in the North. Rather than diminishing the military's role, however, Leblanc insisted that the coming decades would make the North even more vulnerable to "asymmetric" security and sovereignty threats. "There is presently no immediate direct military threat to Canada," the study conceded, but "there remain many significant security/sovereignty challenges of a different nature emerging in the North" which could, over the long-term, "erode Canadian sovereignty." Improved capabilities to monitor and respond to emergencies were needed.⁴⁸ Given resource constraints, National Defence Headquarters decided that the equipment and programs proposed to address more than surveillance issues would be extremely expensive and continued with more pressing priorities.⁴⁹

In the years that followed, a growing chorus of academic commentators and journalists warned that the potential security drivers anticipated in the *Arctic Capabilities Study* were coming true and that Canada's sovereignty might be on "thinning ice."⁵⁰ Heightened public and political awareness about the impacts of global warming on the Arctic environment, scientifically grounded in the disconcerting findings of the Arctic Climate Impact Assessment in 2004, served as the main driver for concern about a rapidly changing region. Canadian commentators soon connected these dynamics to Arctic security (broadly defined) and highlighted how new environmental and human challenges could converge into acute sovereignty concerns for Canada. University of Calgary political scientist Rob Huebert,

⁴⁷ DND, *Arctic Capabilities Study*, 2.

⁴⁸ *Arctic Capabilities Study*, 2, 9-11.

⁴⁹ Rob Huebert, "Climate Change and Canadian Sovereignty in the Northwest Passage," *Isuma* 2:4 (2001): 92.

⁵⁰ For the quintessential statement of this thesis, see Huebert, "Climate Change and Canadian Sovereignty," 86-94. The main contours of this debate are encapsulated in Ken Coates, P. Whitney Lackenbauer, Bill Morrison, and Greg Poelzer, *Arctic Front: Defending Canada in the Far North* (Toronto: Thomas Allen, 2008); Franklyn Griffiths, Rob Huebert, and P. Whitney Lackenbauer, *Canada and the Changing Arctic: Sovereignty, Security and Stewardship* (Waterloo: Wilfrid Laurier University Press, 2011); and Michael Byers, *Who Owns the Arctic?* (Vancouver: Douglas & McIntyre, 2009).

the most vocal “purveyor of polar peril,”⁵¹ emphasized how increased air and maritime activity, coupled with outstanding boundary and jurisdictional disputes, placed Canadian sovereignty “on thinning ice.”⁵² This narrative resonated with journalists, who commonly adopted the theme of impending Arctic conflict and sovereignty challenges in their stories.⁵³

These concerns ignited a vigorous debate about what Canada needed to do to “defend” the Arctic and “assert” Canadian sovereignty. In this context, Prime Minister Paul Martin’s Liberal government released the *International Policy Statement* in 2005, which identified the Arctic as a priority area in light of “increased security threats, a changed distribution of global power, challenges to existing international institutions, and transformation of the global economy.” It anticipated that the next two decades would bring major challenges requiring creative diplomacy as well as investment in new security capabilities.⁵⁴ Developments in the Arctic “will not result in the type of military threat to the North that we saw during the Cold War,” the document stated, “but they could have long-term security implications.” The most likely threats were identified as shipping, crime, and environmental

⁵¹ Franklyn Griffiths, “Towards a Canadian Arctic Strategy,” in *New Chances and New Responsibilities in the Arctic Region*, George Witschel ed. (Berlin: Kohlhammer, 2009), 130.

⁵² See, for example, Rob Huebert, “The Shipping News Part II: How Canada’s Arctic Sovereignty is on Thinning Ice,” *International Journal* 58:3 (Summer 2003): 295-308; Michael Byers and Suzanne Lalonde, “Our Arctic Sovereignty is on Thinning Ice,” *Globe and Mail*, 1 August 2005; and Scott Borgerson, “Arctic Meltdown: the Economic and Security Implications of Global Warming,” *Foreign Affairs* (March/April 2008): 63-77.

⁵³ See for example Joe Friesen, “Arctic Melt May Open up Northwest Passage,” *Globe & Mail*, 9 November 2004; Usha Lee McFarling, “Melting Ice, Winds of Change,” *Los Angeles Times*, 19 January 2003; and “Guarding the Arctic,” *Toronto Star*, 5 April 2004.

⁵⁴ Canada, Foreign Affairs, *Canada’s International Policy Statement*, “Overview” (2005), excerpted in Ryan Dean, P. Whitney Lackenbauer, and Adam Lajeunesse, *Canadian Arctic Defence Policy: A Synthesis of Key Documents, 1970-2013*, Documents on Canadian Arctic Sovereignty and Security 1 (Calgary/Waterloo: Centre for Military and Strategic Studies and Centre on Foreign Policy and Federalism, 2014), 39-40.

incidents – all issues for which government departments other than DND had the lead.⁵⁵

In this context, the CAF began to “return” to the North. During the Operation *Narwhal* in 2002 and 2004, the navy exercised with land and air units and made tentative efforts to develop its relationship with the Coast Guard and the RCMP. During Operation *Hudson Sentinel* the following year, two Canadian maritime coastal defence vessels circumnavigated Hudson Bay (the first warships to do so since 1975) while the frigate HMCS *Fredericton* conducted a fishery patrol off the east coast of Baffin Island.⁵⁶ Operation *Lancaster* in 2006 represented the CAF’s largest exercise in nearly three decades, highlighting inter-departmental cooperation and “the synergistic relationship that must be established to react effectively to a vast majority of the contingency response situations that may arise.” In any scenario likely to emerge in the Arctic requiring CAF action, the operation order suggested, the military would play a supporting role to civilian departments.⁵⁷ The Martin government had elevated the Arctic back onto the military radar, but it fell before it could implement its Northern Strategy.

The Conservative government of Stephen Harper, which came to power in January 2006, amplified political attention on Arctic sovereignty and security to an unprecedented level. “The single most important duty of the federal government is to defend and protect our national sovereignty,” Harper asserted. “It’s time to act to defend Canadian sovereignty. A Conservative government will make the military investments needed to secure our borders. You don’t defend national sovereignty with flags, cheap election rhetoric, and advertising campaigns. You need forces on the ground, ships in the sea, and proper surveillance. And that will be the Conservative

⁵⁵ Canada, Foreign Affairs Canada *International Policy Statement* (2005), 17.

⁵⁶ Huebert, “Renaissance in Canadian Arctic Security,” 25.

⁵⁷ L.Col P. Keddy, “Operation Order 001 – OP Lancaster,” 21 July 2006, quoted in P. Whitney Lackenbauer and Adam Lajeunesse, “The Emerging Arctic Security Environment: Putting the Military in its (Whole of Government) Placem” in *Whole of Government through an Arctic Lens*, eds. P. Whitney Lackenbauer and Heather Nicol (Antigonish: Mulroney Institute on Government, 2017), 23. During the operation, HMCS *Montreal* worked with personnel from the Coast Guard, RCMP, Public Safety, Emergency Preparedness Canada (PSEPC), and Parks Canada. Paul Dempsey and Edna Keeble, “Dodging Icebergs and Talking Policy: HMCS *Montréal*’s 2006 Northern Deployment,” *Canadian Naval Review* 2:4 (Winter 2007): 22.

approach.”⁵⁸ Emphasizing that his new government would “stand up for Canada” in the Arctic, Harper placed a primary emphasis on developing new military capabilities to meet potential sovereignty challenges. On the campaign trail, the future prime minister had warned of “new and disturbing reports of American nuclear submarines passing though Canadian waters without obtaining the permission of – or even notifying – the Canadian government.” In response to this threat, Canadians were promised “a new Arctic national sensor system to monitor our northern waters for submarines and other vessels,” as well as armed icebreakers and other hard security measures.⁵⁹ This robust position was intentionally designed to contrast the supposed weakness of his Liberal opponents, who had “failed in their duty to rigorously enforce our sovereignty in the Arctic.”⁶⁰ The prime minister told a *Toronto Sun* reporter on 23 February 2007:

We believe that Canadians are excited about the government asserting Canada’s control and sovereignty in the Arctic. We believe that’s one of the big reasons why Canadians are excited and support our plan to rebuild the Canadian Forces. I think it’s practically and symbolically hugely important, much more important than the dollars spent. And I’m hoping that years from now, Canada’s Arctic sovereignty, military and otherwise, will be, frankly, a major legacy of this government.⁶¹

⁵⁸ Stephen Harper, “Harper Stands Up for Arctic Sovereignty,” address in Ottawa, 22 December 2005, reproduced in Lackenbauer and Dean, eds., *Canada’s Northern Strategy under the Harper Conservatives*, 1.

⁵⁹ “Speech: ‘Harper Stands Up for Arctic Sovereignty’,” Address by the Hon. Stephen Harper, P.C., M.P. Leader of the Conservative Party of Canada, 22 December 2005.

⁶⁰ “Securing Canadian Sovereignty in the Arctic,” Address by Prime Minister Stephen Harper (August 12, 2006), in P. Whitney Lackenbauer and Ryan Dean, eds., *Canada’s Northern Strategy under the Harper Conservatives: Key Speeches and Documents on Sovereignty, Security, and Governance, 2006-15*, Documents on Canadian Arctic Sovereignty and Security 6 (Calgary and Waterloo: Centre for Military, Strategic and Security Studies/Centre on Foreign Policy and Federalism/Arctic Institute of North America, 2016), 10.

⁶¹ Kathleen Harris, “Laying claim to Canada’s internal waters,” *Toronto Sun*, 23 February 2007. On media coverage during this era, see Mathieu Landriault and Paul Minard, “Does Standing Up for Sovereignty Pay Off Politically? Arctic

Harper's main military announcements, all announced as sovereignty initiatives, included expanding and enhancing the Canadian Rangers; ordering new Arctic and Offshore Patrol vessels (with the contract signed with Irving Shipbuilding in 2013); building a deep water Arctic docking and refuelling facility in Nanisivik (which will reach full operational capability in 2020); deploying RadarSat-2 to provide enhanced surveillance and data gathering capabilities (successfully launched in December 2007); conducting major military exercises; building a Canadian Forces Arctic Training Centre in Resolute (opened in 2013); establishing a new Army Reserve unit in Yellowknife (2009); and creating Arctic Response Company Groups that would entail training southern army units for northern operations. His July 2007 speech announcing the construction of new patrol ships, which he referred to as "our first moves to defend and strengthen Canada's Arctic sovereignty," revealed his proclivity to link the need for "emergency" politics with nation-building. "Just as the new Confederation [in 1867] looked to securing the Western shore, Canada must now look north to the next frontier – the vast expanse of the Arctic," he proclaimed. Towards this end, the federal government's "highest responsibility is the defence of our nation's sovereignty," and "nothing is as fundamental as protecting Canada's territorial integrity: Our borders; Our airspace; and Our waters." By emphasizing that "Canada's Arctic is central to our identity as a northern nation," he construed growing international interest and changes in the circumpolar world as existential threats validating the need to "provide the Canadian Forces with the tools they need to enforce our claim to sovereignty and our jurisdiction over the Arctic."⁶² This speech and subsequent ones suggesting that military investments would not only "defend" but "significantly strengthen Canada's sovereignty over the Arctic," produced messaging that conflated international legal definitions of "sovereignty," based on an internationally recognized *right* to control activities in a given

Military Announcements and Governing Party Support in Canada from 2006 to 2014," *International Journal* 71:1 (2016): 41-61; and Landriault, *Media, Security and Sovereignty in the Canadian Arctic: From the Manhattan to the Crystal Serenity* (New York: Routledge, 2019).

⁶² Speech: Prime Minister Stephen Harper Announces New Arctic Offshore Patrol Ships, 9 July 2007, in Lackenbauer and Dean, *Canada's Northern Strategy*, 27. For another prime example combining nation-building and security, see Harper's reply to the Speech from the Throne, 17 October 2007, in Lackenbauer and Dean, *Canada's Northern Strategy*, 36-38.

jurisdiction, with the notion that a military presence as a *tool* to control activities would confirm that right.⁶³

In the eyes of many academic and media pundits at the time, international developments appeared to justify the Conservatives' military-centric approach. In August 2007, an expedition led by Russian explorer-politician Artur Chilingarov planted a Russian flag on the Arctic seabed below the North Pole – a demonstration of capabilities that was depicted in the Western media as an aggressive move to assert Moscow's claim to the polar seabed. Later that month, Russian president Vladimir Putin announced that, for the first time since 1992, his country had resumed “on a permanent basis” long-range flights by strategic bombers capable of striking targets inside the United States – a change quickly linked in the media to Russia's claims to “a large chunk of the Arctic.”⁶⁴ That fall, scientists confirmed that the Arctic sea ice during the 2007 melt season had plummeted to its lowest levels on record. This recession in the cryosphere was so great that the Northwest Passage “completely opened for the first time in human memory,” with the U.S. National Snow & Ice Data Center reporting that “a standard ocean-going vessel could have sailed smoothly through ... the normally ice-choked route.”⁶⁵

Russian activities and environmental uncertainty fed into the Conservatives' preference for hard-security solutions. In 2008 the *Canada First Defence Strategy* laid out the ambiguous intent to “control” the North by “demonstrating a visible Canadian presence.” The CAF had little direct responsibility for the evolving political and legal questions surrounding seabed jurisdiction – an issue that all of the Arctic coastal states promised to address peacefully in their May 2008 Ilulissat declaration. Furthermore, defence analysts did not consider the Russian bomber flights to represent an

⁶³ On this theme, see Lackenbauer, *From Polar Race to Polar Saga*, and Lackenbauer and Peter Kikkert, eds., *The Canadian Forces and Arctic Sovereignty: Debating Roles, Interests, and Requirements, 1968-1974* (Waterloo: Laurier Centre for Military Strategic and Disarmament Studies, 2010). Legal advisors in the Department of Foreign Affairs stressed the importance of not conflating the two concepts in public presentations and testimonies before parliamentary committees.

⁶⁴ Luke Harding and Ewen MacAskill, “Putin Revives Long-Range Bomber Patrols,” *The Guardian* [London], 18 August 2007.

⁶⁵ See, for example, National Snow & Ice Data Center Newsroom, “Arctic Sea Ice Shatters All Previous Record Lows,” 1 October 2007.

acute threat to continental security. Rather than painting a clear picture of geopolitical challenge, the *Canada First Defence Strategy* offered a more nuanced understanding of an evolving and uncertain security environment, with clear references to unconventional security and the need for WoG integration.⁶⁶

This mix of political emphasis on an expanded military “presence” and the development of practical CAF capabilities to “lead from behind” in probable soft security and safety missions animated the annual Operation *Nanook*, an integrated WoG exercise held in August from 2007 onward to refine interdepartmental coordination (before being rebranded and restructured in 2018 as an umbrella operation housing sub-operations or exercises that take place throughout the year).⁶⁷ This joint “sovereignty operation” involving land, air, and sea components highlighted military interoperability, command and control, and cooperation with interdepartmental and intergovernmental partners in the North. Federal, territorial, and municipal partners rehearsed integrated responses to likely scenarios requiring CAF assistance, including counter drug operations, oil spill response, hostage taking, shipboard fire response, criminal activity, disease outbreak, crashed satellite recovery, and grounded vessels.⁶⁸ Operations *Nunalivut*, conducted in March and April each year in the High Arctic,⁶⁹ and *Nunakput*, an annual surveillance and presence operation in the Western Arctic conducted in cooperation with the Canadian Coast Guard, Royal Canadian Mounted Police, and Department of Fisheries and Oceans, also contributed to improving interoperability and enhancing situational awareness. More generally, these “N-series” operations

⁶⁶ Canada, DND, *Canada First Defence Strategy* (2008), 6-7.

⁶⁷ Dawnieca Palma, CJOC Public Affairs, “Operation NANOOK: Towards a new North,” 29 June 2018, <https://ml-fd.caf-fac.ca/en/2018/07/15249>.

⁶⁸ See Lackenbauer and Lajeunesse, “Emerging Arctic Security Environment,” 10-11.

⁶⁹ Originally designed to take advantage of the unique capabilities of the Canadian Rangers and 440 (Transport) Squadron to undertake and support snowmobile patrols in the most remote stretches of the High Arctic, the *Nunalivut* operation changed to focus on opportunities for specialized groups (such as RCAF SAR units, the RCN Combined Dive Team, and Arctic Response Company Groups) to gain experience in the region. See, for example, Capt. Bonnie Wilkin, “Operation Nunalivut: Shine on the Arctic Sun,” *Northern Frontline* [JTFN] (2014): 16-19.

represented a regular, highly visible example of government efforts to exercise sovereignty, integrate new capabilities, and prepare the CAF for a broad range of potential missions.⁷⁰

These activities reaffirmed Eyre's astute lessons learned from earlier eras that to conduct and sustain Arctic operations requires not only planning but preparedness to endure persistent challenges associated with harsh weather, difficult terrain, and isolation. "The North is a unique environment and operating conditions vary significantly from those in the South to which the CF is more accustomed," the Forces' 2011 Northern Employment Support Plan highlighted. "The variety of potential tasks, the remoteness of the region, the vast distances between operating bases, the lack of infrastructure, and difficulties in communications mean the North can be regarded as an expeditionary type theatre requiring forces to be uniquely equipped and trained, deployable, scalable, and as self-sufficient as possible."⁷¹ Through more frequent northern operations, the CAF sought to leverage its capabilities, improve its ability to effectively command contingency and deliberate operations, enhance its surveillance capabilities and all-domain situational awareness in the North, and increase its "capability and capacity to surge and sustain appropriate force packages into this region during contingency or crisis operations."⁷²

⁷⁰ CJOC, *CJOC Plan for the North*, 29. JTFN also conducts Operation *Qimmiq* as a continuous surveillance and presence operation involving Ranger patrols, CP-140 Aurora patrols, and RCN vessels in the summer.

⁷¹ DND, Northern Employment Support Plan, 3. Peter Kikkert and I have argued that "the Army's Arctic deployments are treated akin to expeditionary operations, designed to deliver 'high-readiness Arctic-enabled sub-units' that are self-contained, 'self-sufficient for an extended period of time, [and] appropriate to the unique circumstances of the different regions of the Arctic.' This concept reflects an ongoing appreciation of the remoteness, isolation, and 'hostile' climatic and topographical conditions in Canada's Northern regions that strongly influence how the Army can generate and employ forces." Lackenbauer and Kikkert, *Lessons in Arctic Operations*, vii. Quotes are from Canadian Army, *Northern Approaches: The Army Arctic Concept 2021* (Kingston: Canadian Army Land Warfare Centre, 2013), 24, 40.

⁷² National Defence Headquarters, CDS/DM Directive (April, 2011), 11.

The aggressive, even militaristic rhetoric⁷³ of the early Harper years was soon jettisoned in favour of more nuanced statements that attempted to balance messaging that promised to “defend” Canada’s Arctic sovereignty (intended primarily for domestic audiences) with a growing awareness that the most likely challenges facing Canada were “soft” security and safety related issues that required “whole of government” responses.⁷⁴ *Canada’s Northern Strategy*, released in 2009, downplayed the possibility of military confrontation in the region and gestured to a stable and well-governed circumpolar community. The strategy cast the United States as an “exceptionally valuable partner in the Arctic,” emphasized opportunities for cooperation with Russia, and stressed “common interests” with European Arctic states, as well as a shared commitment to international law.⁷⁵ The *Statement on Canada’s Arctic Foreign Policy*, issued the following year, outlined a vision for the Arctic as “a stable, rules-based region with clearly defined boundaries, dynamic economic growth and trade, vibrant Northern communities, and healthy and productive ecosystems.”⁷⁶ The first and

⁷³ Philippe Genest and Frederic Lasserre, “Souveraineté, sécurité, identité: éléments-clés du discours du gouvernement canadien sur l’Arctique,” *Canadian Foreign Policy Journal* 21:1 (2015): 74. For a contrasting interpretation of Harper and identity politics vis-à-vis the Arctic, see Dolata, “A ‘New’ Canada in the Arctic,” 149.

⁷⁴ See, for example, P. Whitney Lackenbauer, “Mirror Images? Canada, Russia, and the Circumpolar World,” *International Journal* 65:4 (Autumn 2010): 879-97; Lackenbauer, “‘Use It or Lose It,’ History, and the Fourth Surge,” in *Canada and Arctic Sovereignty and Security: Historical Perspectives*, ed. Lackenbauer (Calgary: Centre for Military and Strategic Studies, 2011), 423-36; Lackenbauer, “Afterword,” in Franklyn Griffiths, Rob Huebert, and P. Whitney Lackenbauer, *Canada and the Changing Arctic: Sovereignty, Security and Stewardship* (Waterloo: Wilfrid Laurier University Press, 2011), 227-32; and Lackenbauer, “From ‘Defending Sovereignty’ to Comprehensive Security in a Whole of Government Framework: Government Narratives of Arctic Sovereignty and Security in the Harper Era,” in *Understanding Sovereignty and Security in the Circumpolar Arctic*, eds. Wilfrid Greaves and P. Whitney Lackenbauer (Toronto: University of Toronto Press, forthcoming 2020).

⁷⁵ Canada, Department of Indian Affairs and Northern Development, *Canada’s Northern Strategy: Our North, Our Heritage, Our Future* (July 2009), 14-15.

⁷⁶ Canada, *Statement on Canada’s Arctic Foreign Policy* (Ottawa: Department of Foreign Affairs and International Trade, 2010), 2.

foremost pillar of Canada's foreign policy remained "the exercise of our sovereignty over the Far North," but the hard security message was supplanted by a new tone of cooperation.

The military's operational plans also downplayed conventional military threats and avoided narratives of unbridled competition for rights and Arctic "territory," embracing an unconventional security framework in which the Canadian Armed Forces would most likely play a supporting role to other governments and agencies.⁷⁷ Defence documents from 2010-15 consistently operated on the explicit assumption that Canada faced no direct, conventional military threat to its security in the near to mid-term.⁷⁸ While noting enduring responsibilities to defend Canada and North America and deter would-be aggressors, as well as the importance of monitoring military activities across the Arctic region (particularly by Russia) primarily through surveillance missions,⁷⁹ strategic assessments emphasized that the security risks and "threats" facing Canada's Arctic were unconventional, with the lead management responsibilities falling primarily to other government departments and agencies (OGDAs).⁸⁰ The most pressing threats and challenges to Northern security and safety required WoG responses: law enforcement challenges (such as upholding Canadian fishing regulations vis-à-vis foreign fishing fleets), environmental threats (such as earthquakes and floods), terrorism, organized crime, foreign (state or non-state) intelligence gathering and counterintelligence operations, attacks on critical infrastructure, and pandemics.⁸¹ Accordingly, rather than focusing on training for Arctic combat, the military embraced what the *Land Force Operating Concept* (2011) describes as a "comprehensive approach" to WoG integration, with the CAF providing assets and personnel to support other government departments and agencies dealing with issues such as disaster relief, pollution response, poaching, fisheries protection, and law

⁷⁷ See, for example, Chief of Force Development, *Arctic Integrating Concept* (2010); *Chief of the Defence Staff/Deputy Minister Directive for DND/CAF in the North* (April 2011); *Canadian Forces Northern Employment and Support Plan* (November 2012); and Canadian Joint Operations Command, *CJOC Plan for the North* (January 2014).

⁷⁸ See, for example, *Arctic Integrating Concept*, 4; *CDS/DM Directive*, 9; *NESP*, 7.

⁷⁹ *Arctic Integrating Concept*, 4, 25-26; *CDS/DM Directive*, 8, 11.

⁸⁰ *Arctic Integrating Concept*, 5, 6; *CDS/DM Directive*, 9.

⁸¹ *Arctic Integrating Concept*, 23-24; *CDS/DM Directive*, appendix A: 1-2.

enforcement.⁸² From a military perspective, this meant *supporting* the many stakeholders responsible for implementing federal, regional and local government policies in the North.⁸³

In order to fulfill the military's roles in leading or assisting in the response to security incidents, defence officials recognized the need to build strong, collaborative relationships with other government departments and agencies, local and regional governments, and other Northern partners (particularly Indigenous communities). Because of the military's training, material assets, discretionary spending powers, and the specialized skill set held by its personnel, defence documents affirmed that the CAF had an essential role to play in government operations in the North—albeit an explicitly supporting role.⁸⁴ Otherwise stated, while other departments and agencies were mandated to lead the responses to Northern security threats and emergencies, the military would “lead from behind” in the most probable, major security and safety scenarios.⁸⁵ The unilateralist “use it or lose it” logic that seemed to dominate speeches during the early years of the Harper government was conspicuously absent.

By the 2010s, Army, Air Force, and Navy personnel conducted routine and contingency operations in the North, undertook regular surveillance and security patrols, and continued to monitor and control northern airspace under the auspices of the North American Aerospace Defense Command (NORAD).⁸⁶ Military responsibility for the Canadian North (defined as the area north of 55°N) falls under Canadian Joint Operations Command (CJOC) and, on a northern territorial level, to Joint Task Force (North) based in Yellowknife with small detachments in Whitehorse and Iqaluit. JTFN's role is to exercise Canadian sovereignty and security by conducting

⁸² J.T. Sheahan and P.J. Gizewski, “Land Force Operating Concept 2021” (January 2011), 1. On the comprehensive approach, see also Bill Bentley and Grazia Scoppio, *Leading in Comprehensive Operations* (Kingston: Canadian Forces Leadership Institute Monograph 2012-02), 2-4.

⁸³ *Arctic Integrating Concept*, 10.

⁸⁴ See, for example, *Arctic Integrating Concept*, ix, 10, 23, 49.

⁸⁵ The exception is search and rescue, where DND has the lead for coordinating air and maritime SAR and providing aeronautical SAR.

⁸⁶ NORAD, which added a maritime warning mission in 2008, maintains the North Warning System (NWS) and Forward Operating Locations in Yellowknife, Rankin Inlet, Iqaluit, and Inuvik, which extend the reach of fighter aircraft by providing essential basing, refuelling and maintenance facilities.

routine and contingency operations in the North; contribute to the growth and development of the people in the North through the youth-oriented Junior Canadian Ranger and cadet programs; build the collective capability to respond rapidly and effectively to emergencies along with creating the positive and lasting partnerships to meet Canada's safety, security and defence objectives for the region; and actively contribute to environmental stewardship of the North. Approximately 250 Regular Force, Reserve Force, and civilian personnel work at JTFN to coordinate and support the wide array of military activities in the North, as well as performing a liaison function with the territorial governments and peoples of the three territories.⁸⁷

Strong, Secure, Engaged: Reaffirming the Canadian Approach

Despite a strong change in broad political atmospherics, the transition to a Liberal government under Prime Minister Justin Trudeau in 2015 brought little change in how the Government of Canada conceives of security in the North and of the CAF's role therein. The Liberals had promised in their election platform to maintain current National Defence spending levels, pledging "a renewed focus on surveillance and control of Canadian territory and approaches, particularly our Arctic regions," and an "increase [in] the size of the Canadian Rangers."⁸⁸ Indeed, rather than repudiating Harper's promised investments in enhanced Arctic defence capabilities, the Trudeau Government extended them.

Nonetheless, the Trudeau government's Arctic agenda indicated a return to the primacy of socio-cultural and environmental priorities over the more hard security and resource development emphasis attributed to the Harper government.⁸⁹ A new focus on reconciliation framed the Joint Statement on

⁸⁷ MGen Christopher Coates, presentation to Standing Senate Committee on National Security and Defence, 9 December 2013, <http://www.parl.gc.ca/content/sen/committee/412%5CSECD/51109-E.HTM>.

⁸⁸ Liberal Party of Canada, "Defence Platform [2015]," <https://www.liberal.ca/realchange/royal-canadian-navy/>, last accessed 21 October 2015.

⁸⁹ On this characterization of the Conservative government's agenda, see for example: Lisa Williams, "Canada, the Arctic, and Post-National Identity in the Circumpolar World," *Northern Review* 33 (2011): 113-31; Whitney Lackenbauer, "Harper's Arctic Evolution," *Globe and Mail*, 20 August 2013; Petra Dolata, "A New Canada in the Arctic? Arctic Policies under Harper," *Études canadiennes* 78

Environment, Climate Change, and Arctic Leadership that the prime minister and U.S. President Barack Obama released in March 2016, which articulated a shared vision for the Arctic that included close bilateral cooperation, working in partnership with Indigenous Peoples and Northerners, and science-based decision-making in conservation and economic development. The bilateral Joint Arctic Leaders' Statement issued that December prioritized "soft security" and safety issues, environmental protection and conservation, the incorporation of Indigenous science and traditional knowledge into decision-making, supporting strong communities, and building a sustainable Arctic economy. Defence was not referenced.⁹⁰

Canada's June 2017 defence policy, *Strong, Secure, Engaged (SSE)*, reinforced that the Arctic remained an area of particular interest and focus for strategists and defence planners. "To succeed in an unpredictable and complex security environment," it committed to "increase [the military's] presence in the Arctic over the long-term and work cooperatively with Arctic partners."⁹¹ Reiterating longstanding images of the Arctic as a region undergoing massive change, *SSE* described it as "an important international crossroads where issues of climate change, international trade, and global security meet." Rather than promoting a narrative of inherent competition or impending conflict, however, the document emphasized that "Arctic states have long cooperated on economic, environmental, and safety issues, particularly through the Arctic Council, the premier body for cooperation in the region. All Arctic states have an enduring interest in continuing this

(2015): 131-154; Wilfrid Greaves, "Thinking Critically About Security and the Arctic in the Anthropocene," The Arctic Institute (22 March 2016), <http://www.thearcticinstitute.org/thinking-critically-about-security-and-the-arctic-in-the-anthropocene/>; and Heather Nicol, "Ripple Effects: Devolution, Development and State Sovereignty in the Canadian North," in *Future Security of the Global Arctic: State Policy, Economic Security and Climate*, ed. Lassi Heininen (Basingstoke: Palgrave Macmillan, 2016), 99-120.

⁹⁰ P. Whitney Lackenbauer, "Canada's Emerging Arctic and Northern Policy Framework: Confirming a Longstanding Northern Strategy" in *Breaking the Ice Curtain? Russia, Canada, and Arctic Security in a Changing Circumpolar World*, eds. P. Whitney Lackenbauer and Suzanne Lalonde. Calgary: Canadian Global Affairs Institute, 2019), 13-42.

⁹¹ DND, *Strong, Secure, Engaged*, 14.

productive collaboration.”⁹² This last sentence suggested that Russia (described elsewhere in the policy document as a state “willing to test the international security environment” that had reintroduced “a degree of major power competition”) did not inherently threaten Arctic stability given its vested interests in the region.

Nevertheless, resurgent major power rivalry has raised questions about how Russia’s behaviour on the global stage might undermine core assumptions about a peaceful and cooperative circumpolar North. Since the Russian military intervention in Ukraine in 2014 and the resulting Western sanctions,⁹³ Russian bomber flights to the margins of Canada’s Arctic

⁹² DND, *Strong, Secure, Engaged*, 50. Most Canadian academic experts seem to have reached a consensus about the prospects of “resource” or “sovereignty wars” emanating from Arctic disputes. Previous proponents of the “sovereignty on thinning ice” school have largely abandoned their earlier arguments that Canadian sovereignty will be a casualty of climate change and foreign challenges. Instead, academic narratives anticipating potential conflict now emphasize how other international events (such as Russian aggression in the Ukraine) could “spill over” into the Arctic or how new non-Arctic state and non-state actors might challenge or undermine Canadian sovereignty and security. See, for example, Rob Huebert, “Why Canada, U.S. Must Resolve their Arctic Border Disputes,” *Globe and Mail*, 21 October 2014; Huebert, “How Russia’s Move into Crimea Upended Canada’s Arctic Strategy,” *Globe and Mail*, 2 April 2014; Derek Burney and Fen Osler Hampson, “Arctic Alert: Russia is Taking Aim at the North,” *Globe and Mail*, 9 March 2015; Michael Byers, “The Northwest Passage Dispute Invites Russian Mischief,” *National Post*, 28 April 2015; Scott Borgerson and Michael Byers, “The Arctic Front in the Battle to Contain Russia,” *Wall Street Journal*, 8 March 2016. For a less alarmist view of Russia, see Adam Lajeunesse and Whitney Lackenbauer, “Canadian Arctic Security: Russia’s Not Coming,” *Arctic Deeply*, 14 April 2016, <https://www.opencanada.org/features/canadian-arctic-security-russias-not-coming>.

⁹³ On the impacts of the Ukrainian crisis on Arctic relations, see Andreas Østhaugen, “Ukraine Crisis and the Arctic: Penalties or Reconciliation?” *The Arctic Institute*, 30 April 2014, <http://www.thearcticinstitute.org/2014/04/impact-of-ukraine-crisis-on-Arctic.html>; Roberts, “Why Russia will play by the rules in the Arctic”; Daria Gritsenko, “Vodka on ice? Unveiling Russian media perceptions of the Arctic,” *Energy Research & Social Science* 16 (2016): 8-12; Valery Konyshov, Alexander Sergunin, and Sergei Subbotin, “Russia’s Arctic strategies in the context of the Ukrainian crisis,” *Polar Journal* 7:1 (2017): 104-24; Danita Burke and Jon Rahbek-Clemmensen, “Debating the Arctic during the

airspace have grown increasingly complex and NORAD fighter aircraft routinely intercept Russian military aviation missions inside the Alaskan and northern Canadian Air Defence Identification Zones (CADIZ).⁹⁴ Furthermore, while physical geographical space remains constant, advanced technologies allow would-be adversaries to compress the time that it takes for offensive weapon systems to cross vast distances. “Russia has posed a nuclear threat to North America for over half a century, but has only recently developed and deployed capabilities to threaten the homeland below the nuclear threshold,” General Terrence O’Shaughnessy, the NORAD and USNORTHCOM Commander, told a U.S. Senate committee in April 2019. “Russia continues to hone and flex its offensive cyber capabilities, and its new generation of advanced air- and sea-launched cruise missiles feature significantly greater standoff ranges and accuracy than their predecessors, allowing them to strike North America from well outside NORAD radar coverage.”⁹⁵ As Eyre noted in his work, the great circle route over the pole

Ukraine Crisis: Comparing Arctic state identities and media discourses in Canada and Norway,” *Polar Journal* 7:2 (2017): 391-409; and Michael Byers, “Crises and international cooperation: an Arctic case study,” *International Relations* 31:4 (2017): 375-402.

⁹⁴ General Terrence J. O’Shaughnessy, NORAD and USNORTHCOM Commander, statement to Senate Armed Services Committee Strategic Forces Subcommittee hearing, 3 April 2019. At the same time as Russian-backed rebels downed a Malaysian airliner with a Buk surface-to-air missile over Eastern Ukraine in July 2014, for instance, Russian aircraft were also operating off Alaska and Yukon. Thomas Frer, Lukas Kulesa, and Ian Kearns, *Dangerous Brinkmanship: Close Encounters Between Russia and the West in 2014* (London: European Leadership Network, November 2014).

⁹⁵ General Terrence J. O’Shaughnessy, NORAD and USNORTHCOM Commander, statement to Senate Armed Services Committee Strategic Forces Subcommittee hearing, 3 April 2019. O’Shaughnessy observes that “since 2015, Russia has employed its new air- and sea-launched cruise missiles against anti-regime targets in Syria, providing real-world training for Russian crews and demonstrating its growing precision-strike capabilities to the West. In a parallel effort, Russia has implemented a modernization program for its heavy bombers that will ensure their ability to perform nuclear and non-nuclear deterrence and strike missions in the coming decades.” Furthermore, Russia’s Severodvinsk-class guided missile submarine, armed with advanced land-attack cruise missiles, “is much quieter and more lethal than previous generations of Russian attack submarines” and its “growing non-nuclear capabilities provide Moscow a range

makes the Arctic a likely conduit of attack by foreign aerospace threats, rendering Canada vulnerable to rapid precision strikes or out-right nuclear destruction using those delivery systems. The need for would-be adversaries to actually enter into the Canadian Arctic to launch these weapons, however, is unclear.⁹⁶

The geography of the Canadian Arctic continues to make it a unique environment where operating conditions vary significantly from those in southern Canada and other parts of the Circumpolar North.⁹⁷ “North does not mean winter - it means isolation,” Eyre highlights in his study. “The most significant military characteristic of the Canadian North is not the climate; it is isolation!”⁹⁸ A brief assessment of Arctic operational documents produced by the Department of National Defence / Canadian Armed Forces over the last decade affirms persistent physical environmental challenges to projecting and sustaining forces in the region.⁹⁹ While the reduction in sea ice and other environmental changes are likely to bring increased maritime traffic to the Canadian Arctic, the *unpredictability* associated with climate change makes it difficult to anticipate *when* this will occur. Furthermore, the hazards and geographical challenges that vessels actually face when operating in Arctic waters – such as remoteness, lack of hydrographic data, low temperatures and extended periods of darkness, complex ice characteristics and conditions, limited supporting infrastructure, and long distances from home ports in the South – remain serious constraints that will not abate, and may become more acute, owing to climate change.¹⁰⁰

of options to dissuade an adversary from escalating and to terminate a conflict on terms favorable to Moscow, increasing the potential for miscalculation or opportunistic actions.”

⁹⁶ See Eyre, *Custos Borealis*, and “Forty Years of Military Activity,” 294-6. For recent support of this observation, see Canadian Forces Employment and Support Concept for the North, 23 March 2011, 6-7.

⁹⁷ Canadian Forces Northern Employment and Support Plan, November 2012, 3.

⁹⁸ Eyre, *Custos Borealis*, and “Forty Years,” 293.

⁹⁹ Canadian Joint Operations Command (CJOC) Plan for North, January 2014, CJOC file 3350-1 (J5), 11.

¹⁰⁰ Arctic Council, Protection of the Arctic Marine Environment (PAME), *Arctic Marine Shipping Assessment*; International Maritime Organization (IMO), *International Code for Ships Operating in Polar Waters* (2016), <http://www.imo.org/en/MediaCentre/HotTopics/polar/Documents/>

Furthermore, as Eyre emphasized in *Custos Borealis*, land forces operating in the Canadian Arctic face vast distances, a lack of transportation infrastructure, acute terrain and weather challenges that intrinsically affect mobility and military appreciations of time and space.¹⁰¹ Furthermore, equipment, sustainment systems, concepts, and doctrine that work in one part of the Canadian Arctic are not necessarily appropriate across the breadth of this diverse region. Geographical realities still dictate that the Canadian Army treats Arctic deployments akin to expeditionary operations, designed to deliver “high-readiness Arctic-enabled sub-units” that are self-contained, “self-sufficient for an extended period of time, [and] appropriate to the unique circumstances of the different regions of the Arctic.”¹⁰² Of course, the challenges that Canada faces in projecting and sustaining forces in its own Arctic, even during non-combat training exercises, would be magnified exponentially for a foreign adversary trying to mount an attack.

Risks and threats to Canada’s North are not limited to state-based military ones. In chapter 10 of *Custos Borealis*, Eyre described “commonweal” and “sovereignty” anomalies that related to natural or human-made disasters and “actions by foreign companies or individuals who, without direct governmental sponsorship, acted contrary to Canadian law.” In the context of being “strong at home,” SSE highlighted security and safety challenges associated with rising commercial interest, research and tourism, such as search and rescue and natural or human-induced disasters, rather than conventional defence threats. This confirmed the line of reasoning that Eyre had offered—and that had become well entrenched in Canadian Arctic defence planning over the preceding decade. The new

POLAR%20CODE%20TEXT%20AS%20ADOPTED.pdf; Arctic Integrating Concept, 23 August 2010, 27.

¹⁰¹ CF Northern Employment Support Plan, 2012, 9. The Canadian Army’s Arctic concept notes that although “the first aspect of the environment that comes to mind may be the extreme winter temperatures, that is but one aspect of the many challenges Canadian troops encounter in the Arctic.” Other factors include the wide range of temperatures; unpredictable ice conditions; difficulties of ground transportation over tundra, muskeg, ice and water obstacles, mountains, beaches, and the transitions to and from fresh and salt water bodies; the lack of flora and the presence of carnivorous fauna (and insects); and limited critical infrastructure or sustainment capacities. Canadian Army, *Northern Approaches*, 20.

¹⁰² DND, *Northern Approaches: The Army Arctic Concept 2021*, 24.

policy justified the need to “maintain a robust capacity to respond to a range of domestic emergencies, including by providing military support to civilian organizations on national security and law enforcement matters when called upon, engaging in rapid disaster response, and contributing to effective search and rescue operations.” As a desired end state, SSE anticipated that, once implemented, Canada’s military would “have improved mobility and reach in Canada’s northernmost territories,” and established a “greater presence in the Arctic over the longer-term.” This was not presence for the sake of presence. Instead, “Canadians can be confident that the Canadian Armed Forces will remain ready to act in the service of Canadians – from coast to coast to coast – and sustain a continuous watch over Canada’s land mass and air and sea approaches, an area of more than 10 million square kilometres, ensuring timely and effective response to crises.”¹⁰³

Towards these ends, the 2017 defence policy placed an explicit emphasis on a “Whole of Government” approach to achieve its national security and public safety objectives. “While operating in Canada’s North, we often work in close partnership with other federal, territorial, and local partners,” the statement observed. “As such, we will leverage our new capabilities to help build the capacity of whole-of-government partners to help them deliver their mandates in Canada’s North, and support broader Government of Canada priorities in the Arctic region.”¹⁰⁴ This echoed messaging from previous DND/CAF Arctic strategic and operational documents over the last decade.¹⁰⁵ In resonance with the broader thrust of Canada’s Arctic policies, SSE also highlights that “Indigenous communities are at the heart of Canada’s North” and commits “to expand and deepen our extensive relationships with these communities, particularly through the Canadian Rangers and Junior Canadian Rangers.” This also entails “engaging local populations as part of routine operations and exercises”¹⁰⁶ — a practice that has been

¹⁰³ DND, *Strong, Secure, Engaged*, 51, 60.

¹⁰⁴ DND, *Strong, Secure, Engaged*, 80.

¹⁰⁵ See, for example, P. Whitney Lackenbauer and Adam Lajeunesse, “The Canadian Armed Forces in the Arctic: Building Appropriate Capabilities,” *Journal of Military and Strategic Studies* 16:4 (March 2016): 7-66; and Lackenbauer and Lajeunesse, “Emerging Arctic Security Environment,” 1-36.

¹⁰⁶ DND, *Strong, Secure, Engaged*, 80.

adopted over the last decade and connects to the emphasis on local empowerment espoused by Mary Simon and other Northern leaders.¹⁰⁷

Canada's defence policy also specified ongoing or new investments in Arctic capabilities across the three armed services that will be integrated "into a 'system-of-systems' approach to Arctic surveillance, comprising air, land, sea, and space assets connected through modern technology."¹⁰⁸ Identifying the Royal Canadian Navy's principal domestic challenge as "the need to operate in the Arctic, alongside the Canadian Coast Guard, and alongside allied partners," the government confirmed that it would acquire five or six Arctic and Offshore Patrol Ships (AOPS) to "provide armed, sea-borne surveillance of Canadian waters, including in the Arctic. They will enforce sovereignty, cooperating with partners, at home and abroad, and will provide the Government of Canada with awareness of activities in Canada's waters."¹⁰⁹ The Canadian Army will receive "a new family of Arctic-capable land vehicles" (all-terrain vehicles, snowmobiles and larger tracked semi-amphibious utility vehicles) to improve its operational capabilities in the North.¹¹⁰ To meet joint intelligence, surveillance, and reconnaissance requirements, the Royal Canadian Air Force will implement "sensor and communication solutions that are specifically tailored to the Arctic environment," as well as a new Canadian multi-mission aircraft to replace the CP-140 Aurora Long-Range Maritime Patrol Aircraft and new space-

¹⁰⁷ See, for example, Paul Kaludjak, "The Inuit Are Here, Use Us," *Ottawa Citizen*, 18 July 2007; Inuit Tapiriit Kanatami, *Nilliajut: Inuit Perspectives on Security, Patriotism and Sovereignty* (Ottawa: Inuit Qaujisarvingat, 2013); and Walter & Duncan Gordon Foundation, *National Roundtable on Arctic Emergency Preparedness: Report of Proceedings* (Toronto: Munk-Gordon Arctic Security Program, 2014).

¹⁰⁸ DND, *Strong, Secure, Engaged*, 80; see also 15, 39, 64.

¹⁰⁹ DND, *Strong, Secure, Engaged*, 35. Irving Shipbuilding was awarded the contract to build the AOPS in March 2013. The first of the Harry DeWolf-class patrol ships was launched to water in September 2018 and is undergoing builder trials, and steel has been cut for the next three ships as of late 2019. These ships will be able operate in the Arctic between June and October, "providing a greater, and longer, CAF presence in the north," and allowing the RCN "to have unescorted access to areas of the Arctic that were previously inaccessible." DND, "Arctic and offshore patrol ships," <https://www.canada.ca/en/department-national-defence/services/procurement/arctic-offshore-patrol-ships.html>.

¹¹⁰ DND, *Strong, Secure, Engaged*, 37, 102, 109.

based communications and surveillance systems.¹¹¹ Building on previous investments to bolster Arctic capabilities, these new platforms, vehicles, and systems should serve as critical enablers to deliver positive effects across a broad spectrum of defence, security, and safety missions.

Rather than adopting unilateralist messaging suggesting a need for Canada to defend its Arctic interests independently (owing to potential sovereignty threats), *SSE* affirms the compatibility between exercising sovereignty and collaboration with international partners. “Canada remains committed to exercising the full extent of its sovereignty in Canada’s North, and will continue to carefully monitor military activities in the region and conduct defence operations and exercises as required,” the policy explains. Concurrently, “Canada’s renewed focus on the surveillance and control of the Canadian Arctic will be complemented by close collaboration with select Arctic partners, including the United States, Norway and Denmark, to increase surveillance and monitoring of the broader Arctic region.” The policy also notes that while the eight Arctic states (Canada, the U.S., Denmark/Greenland, Iceland, Norway, Sweden, Finland, and Russia) “rightfully remain the primary actors in the Arctic, Canada recognizes the increasing interest of non-Arctic states and organizations and will work cooperatively with all willing partners to advance shared interests on safety and security.”¹¹²

While careful to acknowledge Russia’s rights and interests as an Arctic state, the defence policy also notes its role in the resurgence of major power competition globally and concomitant implications for peace and security. “NATO Allies and other like-minded states have been re-examining how to deter a wide spectrum of challenges to the international order by maintaining advanced conventional military capabilities that could be used in the event of a conflict with a ‘near-peer,’” the policy notes in the “state competition” section that immediately precedes the discussion about a changing Arctic. Highlighting that “NATO has also increased its attention to Russia’s ability to project force from its Arctic territory into the North Atlantic, and its potential to challenge NATO’s collective defence posture,” the policy makes clear that “Canada and its NATO Allies have been clear that the Alliance will be ready to deter and defend against any potential threats, including against sea lines of communication and maritime

¹¹¹ DND, *Strong, Secure, Engaged*, 39, 64, 65, 71, 71, 109-11.

¹¹² DND, *Strong, Secure, Engaged*, 90.

approaches to Allied territory in the North Atlantic.”¹¹³ Despite Canada’s reticence to have NATO adopt an explicit Arctic role over the past decade, the inclusion of this reference – as well as the commitment to “support the strengthening of situational awareness and information sharing in the Arctic, including with NATO” – indicates a significant shift in official position. The focus on the *approaches* to the *North Atlantic* suggests, however, that there is neither the intent nor a perceived need in Canada to involve NATO in the defence of the *Canadian Arctic*.

Instead, continental defence remains a binational and bilateral concern. Eyre demonstrates in this book that Canada and the United States have always had an interesting and complicated relationship regarding the Arctic. As the U.S. awakened to the transformations occurring in the region in the late 2000s and early 2010s, its policy framework shifted from a predominate focus on protecting American security interests from a unilateral and international perspective to an increasing emphasis on “collaborative security” in concert with regional allies and partners.¹¹⁴ The latest U.S. Arctic defence strategy, released in June 2019, offers a more wary appraisal of the Arctic security environment “in an era of strategic competition.” It conceptualizes Russia and China as actors eroding the U.S.’s “competitive edge” and thus necessitating a credible regional deterrent. “The network of U.S. allies and partners with shared national interests in this rules-based order is the United States’ greatest strategic advantage in the Arctic region, and thus the cornerstone of [Department of Defense’s (DoD’s)] Arctic strategy,” the document emphasizes. “DoD cooperation with Arctic allies and partners strengthens our shared approach to regional security and helps deter strategic competitors from seeking to unilaterally change the existing rules-based order.”

The U.S. DoD’s Arctic strategy identifies Canada as a key partner in enabling domain awareness and defending the northern approaches to North America. Strategic competitors’ capabilities, including Russia’s advanced cruise missile and hypersonic glide vehicle capabilities, require modernizing “sensor coverage of North America to deter, detect, track, and

¹¹³ DND, *Strong, Secure, Engaged*, 79-80.

¹¹⁴ The Department of Defense’s 2013 *Arctic Strategy* stressed the country’s “unique and enduring partnership” with Canada and the countries’ shared prioritization of homeland defense and homeland security. United States, Department of Defense, *Arctic Strategy* (November 2013), https://dod.defense.gov/Portals/1/Documents/pubs/2013_Arctic_Strategy.pdf.

enable defeat of both existing and emergent airborne threats”¹¹⁵ as well as other “advanced technologies ... capable of creating strategic effects with non-nuclear weapons, potentially affecting national decision making and limiting response options in both peacetime and crisis.”¹¹⁶ The close bilateral relationship between the two countries means that Canada falls under the U.S. deterrent, which serves as a strong disincentive for any foreign power to militarily breach or invade Canadian Arctic territory.

“Canada has in the past accommodated the strategic northern perceptions of the United States and has permitted access and development as well as providing a modicum of financial and/or physical support,” Eyre noted in 1987. “Only a major change in defence policy is likely to interrupt that pattern.”¹¹⁷ There has been no fundamental change in the last three decades, although “defence against help” is no longer core to Canadian decision making (given that the United States cannot be construed as posing an existential threat to Canada’s territorial sovereignty). Instead, Canada must contribute to bilateral defence not only to accept a responsible share of the burden as a self-respecting state but also to “stay in the game” and ensure “a piece of the action.”¹¹⁸ “The six decades of NORAD’s unmatched

¹¹⁵ Office of the Undersecretary of Defense for Policy, *Department of Defense Arctic Strategy* (June 2019), <https://media.defense.gov/2019/Jun/06/2002141657/-1/-1/1/2019-DOD-ARCTIC-STRATEGY.PDF>.

¹¹⁶ General Terrence J. O’Shaughnessy, NORAD and USNORTHCOM Commander, statement to Senate Armed Services Committee Strategic Forces Subcommittee hearing, 3 April 2019. These new technologies include “multiple weapon systems specifically designed to circumvent U.S. missile defenses and hold our homeland at risk. This includes the Intercontinental Ballistic Missile (ICBM)-delivered AVANGARD hypersonic glide vehicle, which was highlighted in a speech by Vladimir Putin in March 2018 and is expected to become operational in the next few years, complicating our missile warning mission.”

¹¹⁷ Eyre, “Forty Years of Military Activity,” 299.

¹¹⁸ P. Whitney Lackenbauer, “From ‘Defence Against Help’ to ‘A Piece of the Action’: The Canadian Sovereignty and Security Paradox Revisited,” *Centre for Military and Strategic Studies Occasional Paper 1* (May 2000). See also Donald Barry and Duane Bratt, “Defense Against Help: Explaining Canada-U.S. Security Relations,” *American Review of Canadian Studies* 38:1 (2008): 63-89; Philippe Lagassé, “Nils Ørvik’s “‘Defence against Help’: The Descriptive Appeal of a Prescriptive Strategy,” *International Journal* 65:2 (2010): 463-74; Jean-Christophe Boucher, “The Cost of Bandwagoning: Canada-U.S. Defence and

experience and shared history are proving more vital than ever as we face the most complex security environment in generations,” General Terrence O’Shaughnessy told Senate Strategic Forces Subcommittee in April 2019. “This unique and longstanding command serves as both a formidable deterrent to our adversaries and a clear symbol of the unbreakable bond between the United States and Canada.”¹¹⁹ Canadian commitments in SSE to “renew the North Warning System (NWS) and modernize elements of NORAD” make strategic sense to reinforce and extend longstanding continental defence arrangements with the U.S. to jointly monitor and control the air and maritime approaches to the continent.¹²⁰

Even with uncertainty surrounding the Trump administration’s commitments to collective defence and respect for longstanding bilateral

Security Relations after 9/11,” *International Journal* 67:4 (2012): 895-914; and Richard Goette, *Sovereignty and Command in Canada–U.S. Continental Air Defence, 1940–57* (Vancouver: UBC Press, 2018).

¹¹⁹ Statement of General Terrence J. O’Shaughnessy, United States Air Force Commander United States Northern Command and North American Aerospace Defense Command before the Senate Armed Services Committee Strategic Forces Subcommittee, 3 April 2019.

¹²⁰ DND, *Strong, Secure, Engaged*, 80. See also Charron and Ferguson, “Beyond Modernization”; Lackenbauer and Huebert, “Premier Partners”; and Andrea Charron and James Fergusson, “Out of Sight, Out of Mind: NORAD vis-à-vis CANUS Politics,” *Canadian Foreign Policy Journal* (September 2019): 1-15. In the face of renewed great power rivalry, the challenge is to balance encouragement of positive behavior in the Arctic while defending against aggressive actions elsewhere in the world and protecting one’s homeland. As political scientists Troy Bouffard, Andrea Charron, and Jim Fergusson argue in a recent book chapter, increased strategic competition and dual-track signaling from Russia does not mean that war is inevitable. Instead, it is incumbent on NORAD and NATO to take these new Russian capabilities and bellicose signals seriously and to plan accordingly. This includes pushing NORAD defences further out to counter the threat that emerging weapon systems pose to North America, and a rejuvenation of NATO maritime control capabilities (particularly anti-submarine warfare) in the North Atlantic to respond to Russia’s modernization of its Northern Fleet. Bouffard, Charron, and Fergusson, “A Tale of ‘Two’ Russias?,” in *Breaking the Ice Curtain? Russia, Canada, and Arctic Security in a Changing Circumpolar World*, eds. P. Whitney Lackenbauer and Suzanne Lalonde (Calgary: Canadian Global Affairs Institute, 2019), 61-73.

“agreements to disagree,”¹²¹ Canadian and American strategic frames and priorities for defence and security in the Arctic region remain remarkably well aligned. As *Custos Borealis* shows, the countries have a long history of cooperating to meet security threats in the Arctic and to North America more broadly. Working through existing defence relationships and institutions like NORAD, collaborating on threat assessments and in identifying gaps, and strengthening operational linkages allow both countries to make complementary, targeted investments and leverage resources and capabilities to address mutual security needs.¹²² Nevertheless, Eyre frequently mentioned “the complex intertwining of Canadian and American interests in the North” and was careful to “distinguish between the fundamental differences of perception of the two North American allies. The United States has traditionally, now, and in the foreseeable future thought of ‘north’ as a direction of strategic approach. Canada, on the other hand, has historically viewed the North as a place that, however remote and unknown, is still an inherent part of the nation.”¹²³ The United States remains a superpower whose geostrategic interests are global. Its perspectives on the Arctic are tempered by this reality. At the same time, Canadian officials recognize the necessity of cooperation but are bounded by a political and public sensitivity about Arctic sovereignty through a national lens.¹²⁴

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“While the military has had a considerable impact on the North, the northern fact has had surprisingly little impact upon the Canadian military,”

¹²¹ In a Canadian context, see for example Adam Lajeunesse and Rob Huebert, “Preparing for the next Arctic sovereignty crisis: The Northwest Passage in the age of Donald Trump,” *International Journal* 74:2 (2019): 225-39; and Huebert, “The New Arctic Strategic Triangle Environment (NASTE),” in *Breaking the Ice Curtain*, 85.

¹²² U.S. Navy Chief of Naval Operations, *The United States Navy Strategic Outlook for the Arctic* (January 2019), 7-8.

¹²³ Eyre, “Forty Years of Military Activity,” 299.

¹²⁴ Lackenbauer and Huebert, “Premier Partners.” On these themes, see also Ryan Dean and P. Whitney Lackenbauer, “Geostrategy and Canadian Defence: From C.P. Stacey to Twenty-First Century Arctic Threat Assessment,” *Journal of Military and Strategic Studies* 20:1 (2019): 1-64. Thanks to Ryan Dean for allowing me to draw upon ideas that we co-developed for that article.

Eyre suggested in 1987. “The Canadian Forces are just beginning to comprehend the unique aspects of the North and to develop policies and programs appropriate to contemporary northern realities and the assigned military responsibility to be *Custos Borealis* - Keeper of the North.”¹²⁵

This is no longer the case. To replace his Conservative predecessor’s Northern Strategy, Justin Trudeau’s Liberal government promised that a collaborative, co-development approach “with Northerners, Territorial and Provincial governments, and First Nations, Inuit, and Métis People” would ensure that the views and priorities of Arctic residents and governments would be at the “forefront of policy decisions affecting the future of the Canadian Arctic and Canada’s role in the circumpolar Arctic.” Through the policy co-development process, Ottawa promised that it would “reorganize and reprioritize federal activities in the Arctic” and “link existing federal government initiatives.” Regional roundtables, public submissions, and other face-to-face engagement initiatives solicited the input of Indigenous groups and other stakeholders. This new approach to policymaking stressed that “consultation was not enough” and strived to involve stakeholders “in the drafting of the document” to place “the future into the hands of the people who live there.”¹²⁶

Released in September 2019, the Arctic and Northern Policy Framework (ANPF) recognizes that when Ottawa has defined problems facing the North incorrectly or has set the wrong priorities, with little consultation from Northerners, policy responses have been short-sighted and ineffective.¹²⁷ The main chapter lays out the many issues, challenges, and opportunities facing Canada’s Arctic and northern regions and indicates the federal government’s primary goals and objectives. It details the impacts of climate change,

¹²⁵ Eyre, “Forty Years of Military Activity,” 292.

¹²⁶ Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC), “Canada’s Arctic and Northern Policy Framework” (September 2019), <https://www.rcaanc-cirnac.gc.ca/eng/1560523306861/1560523330587>.

¹²⁷ Peter Kikkert and P. Whitney Lackenbauer, “A Better Road Map Needed for Arctic and Northern Policy Framework,” *Policy Options* [online], Institute for Research on Public Policy, 17 September 2019, <https://policyoptions.irpp.org/magazines/september-2019/a-better-road-map-needed-for-arctic-and-northern-policy-framework/>. Inuit leader Mary Simon’s 2016 *Interim Report on the Shared Arctic Leadership Model* highlighted a “long history of visions, action plans, strategies and initiatives being devised ‘for the North’ and not ‘with the North.’” See <https://www.rcaanc-cirnac.gc.ca/eng/1481656672979/1537886690726>.

particularly as it affects social and cultural norms, ways of knowing, and on-the-land activities. It also highlights the broad spectrum of socio-economic challenges facing the North, ranging from lack of economic opportunity, to mental health challenges, to food insecurity, and gaps in infrastructure, health care, education, skills development, and income equality across the region. The framework notes the opportunities and challenges that stem from the North's youthful population, particularly in Nunavut where the median age is just over twenty-six years old.

The priorities in the standalone chapter on safety, security, and defence include Canada's continued demonstration of sovereignty, the enhancement of the military presence in the region, the defence of North America, improved domain awareness, strengthened whole-of-society emergency management, and continued engagement with local communities, Indigenous groups, and international partners.¹²⁸ While Canada will continue to partner with like-minded states for joint intelligence, surveillance and reconnaissance solutions that are specifically tailored to the Arctic environment (including space-based assets) where appropriate, national interests dictate that it will act unilaterally as required to ensure all-domain awareness. Improved knowledge of who is entering Canada's Arctic and what they are doing here is essential to ensure that foreign interests (economic, scientific, and political) do not negatively influence the ability of Northerners, and Canadians more broadly, to pursue a long-term Arctic strategy that is consistent with Canadian values and interests. The defence of Canada is the first foremost task of the CAF and constitutes a "no fail" mission.¹²⁹

Writing about the 1970s, Eyre noted that "[Pierre] Trudeau himself had a strong sense of national priorities and led a generally supportive country into new areas of concern and in new directions." He suggested that "nowhere was this more true than in the Canadian North," where the Liberals indicated a keen interest in northern development and proposed an

¹²⁸ CIRNAC, "Arctic and Northern Policy Framework: Safety, Security, and Defence Chapter" (September 2019), <https://www.rcaanc-cirnac.gc.ca/eng/1562939617400/1562939658000>.

¹²⁹ See Peter Kikkert and P. Whitney Lackenbauer, "Canada's Arctic and Northern Policy Framework: A Roadmap for the Future?" *Arctic Yearbook 2019*, eds. Lassi Heininen and Heather Exner-Pirot (November 2019): 332-39, https://arcticyearbook.com/images/yearbook/2019/Briefing-Notes/9_AY2019_BN_Kikkert_Lackenbauer.pdf.

integrated northern strategy built around four core goals: a higher standard of living for northern residents, maintaining and enhancing the northern environment, encouraging economic development, and maintaining Canadian sovereignty and security in the North. “No thoughtful Canadian was likely to argue with these goals as stated,” Eyre insisted. “They were generally well received, but Canadians as a whole reserved final judgement until the government revealed specific programs to meet these goals.”¹³⁰ This remains the truest test of government sincerity and resolve. In late 2019, Justin Trudeau’s Liberal government has promised that “the next phase of [Arctic and Northern policy] framework co-development will focus on implementation, investment strategies and governance, moving towards more integrated federal-territorial-provincial and Indigenous approaches to challenges and opportunities in Canada’s Arctic and North.”¹³¹ At a time of tremendous environmental and social change, resurgent strategic competition internationally, and growing awareness of the Canadian military’s important contributions across the defence-security-safety mission spectrum, Northern advocates hope that partnerships and investments will ensure that “Canada will continue to protect the safety and security of the people in the Arctic and the North” while placing “the future into the hands of the people who live there.”¹³²

¹³⁰ Eyre, “Forty Years of Military Activity,” 296.

¹³¹ CIRNAC, “Canada’s Arctic and Northern Policy Framework.”

¹³² CIRNAC, “Canada’s Arctic and Northern Policy Framework” and “Arctic and Northern Policy Framework: Safety, Security, and Defence” chapter.

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¹ Now the Directorate of History and Heritage (DHH). Eyre noted: "There are two main documentary collections held by DHH both of which were used extensively in the preparation of this thesis. The first group is called the KARDEX 1970 documents, which are identified only by year of acquisition and

- . Department of National Defence. *White Paper on Defence*. Ottawa: Queen's Printer, 1964.
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Custos Borealis

The Military in the Canadian North, 1900-1975

K.C. Eyre

Foreword by BGen Patrick Carpentier

Edited and Afterword by P. Whitney Lackenbauer

Strategic perceptions of the Canadian North changed several times during the twentieth century, influencing the intensity and degree of military presence. Initially, the region was simply ignored. By the mid-1930s, it was perceived as a strategic barrier more formidable than either the Atlantic or Pacific Oceans. During the Second World War and the Cold War, with the views of the United States in the dominance, the area was seen as an approach—initially to Europe and Asia, and later to the heartland of North America. In contemporary Canada, the North is seen as having intrinsic value, and as such deserves to be watched over, protected and, if necessary, defended. By analyzing the interplay between defence, protection of sovereignty, and national development, this book reveals the myriad roles of the Canadian Forces who were assigned military responsibility to be *Custos Borealis*—Keeper of the North.

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